Kumaraguru College of Technology

Department of Computer Science and Engineering
Coimbatore– 641006.

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HUMAN RESOURCE EXECUTIVE SKILL PROFILE

Project work done at

INDIAN TELEPHONE INDUSTRIES LIMITED

PROJECT REPORT P-1003

Submitted in partial fulfillment of the

Requirements for the award of the degree of

Master of Computer Applications

Bharathiar University, Coimbatore

Submitted by

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CERTIFICATE

This is to certify that the project work entitled

HUMAN RESOURCE EXECUTIVE SKILL PROFILE.

Submitted to the

Department of Computer Science and Engineering

Kumaraguru College of Technology

In partial fulfillment of the requirements for the award of the degree of Master of Computer Applications is a record of original work done by Nithyanandam.S, Reg.No.0038M1044 during his period of study in the Department of Computer Science and Engineering, Kumaraguru College of Technology, Coimbatore under my supervision and this project work has not formed the basis of award of any Degree/Diploma Associateship/Fellowship or similar title to any candidate of any university.

Professor and Head

Staff-in-charge (8/4/2003)

Submitted for University Examination held on 16-04-2003

Internal Examiner (16-4-03)

External Examiner 16/4/03

Certificate

This is to certify that the Project Work Titled

HUMAN RESOURCE EXECUTIVE SKILL PROFILE

has been carried out at

IT Department
ITI Limited, Bangalore-16

From: JANUARY 2003 To: MARCH 2003
by

NITHYANANDAM S

Student of Final year
Master Of Computer Applications
of
KUMARAGURU COLLEGE OF TECHNOLOGY
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Master Of Computer Applications

Certified further that to the best of our knowledge the work reported herein does not form part of any other thesis or work on the basis of which degree or award was conferred on an earlier occassion of this or any other candidate.

SILVI JAGANATH
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Manager Dept.

Personnel Manager ( )
ITI Limited.,

Place:Bangalore-16

DECLARATION

I here by declare that the project entitled **Human Resource Executive Skill Profile**, submitted to Bharathiar University as the project work of Master of Computer Application Degree, is a record of original work done by me under the supervision and guidance of **Mr.K.Gnani Venkateshwara Rao,Personal Manager – Projects, ITI Limited**, Bangalore and **Mr R.Dinesh M.S (Winconsin),** , Department of Computer Science, Kumaraguru College of Technology and this project work as not found the basis for the award of any Degree/Diploma/Associate-ship/Fellow-ship or similar title to any candidate of any University.

Place: COIMBATORE

Date: 16-04-2003

S. Nithya.

Signature of the Student

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ACKNOWLEDGEMENT

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At the outset, the first and foremost duty of us is to reveal and submit our heart felt sincere, humble gratitude to the **GOD ALMIGHTY**, who leads, guides all through the life and gives us now the courage and strength for the successful completion of our MCA project.

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Before I present this project, I wish to express my sincere gratitude to **Dr.K.K.Padmanabhan, Ph.D.,** Principal, Kumaraguru College of Technology, Coimbatore for his encouragement.

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Last but not least our heartiest thanks to our family members whose encouragement was more inspirations right from the beginning to the end of the project and also we would like to thank our friends who helped us in the success of the project.

SYNOPSIS

This project "**HUMAN RESOURCE EXECUTIVE SKILL PROFILE**" is designed and developed for the Man Power Department, **ITI Limited**, Bangalore. It is implemented through the local Intranet to assess the present, past and future skills and the levels of the executive officers.

The HRESP is to develop the database on the skill to maintain the individual records. This project initially carried out all its activities manually. The manual handling required huge amount of human efforts and also involved tedious task. Thus it was planned to computerize with the aim of reducing the time and efforts spend on this through man power. In this project the softwares **ASP,HTML** is used as Front end and **ORACLE** is used as Backend.

The skills and the levels of all the officers are stored and retrieved through different format such as to view individual record and their skills
and the collection of all the record with the combination of present,past and the future skills and their levels and also to display the records in the division wise ,qualification wise and grade wise .

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1.1 ORGANIZATION PROFILE

Indian Telecom Industry

The Indian Telecom Sector

The Indian Telecom history dates back to 1851 when the operations began. Private companies operated telephone services at that time. Subsequently, the Government took over these companies. Mainly the Indian Telegraph Act regulated the operations until 1985; the government deployed very little funds in this sector. With no access to any other sources of funding, telecom had a moderate growth rate of 2-3%. At the beginning of 1985, this sector was taken out of the purview of the Posts and Telegraph Department, and a separate Telecommunication Board, and a Department of Telecommunications (DoT) were formed within the Ministry of Communications. Also, special attention was given to the funding of this sector, and MTNL(for telecom operations) were formed in 1986 in Delhi and Mumbai. MTNL was authorized to raise funds from the market on behalf of DoT. These funds are deployed in addition to the central plan outlay.

The chronology of the liberalization of the telecom sector is as follows:

In 1984, the manufacture of customer premises Equipment was de-licensed.

In 1996, MTNL and VSNL were created as corporations.

In 1991, a new Industrial Policy was announced which permitted the private sector to manufacture all types of telecom equipment. Other salient features of this policy included.

No industrial license required.

Automatic approval of foreign equity investment up to 51% in case of manufacturing facility.

Automatic approval of foreign collaboration in case of projects of telecom sector with technology fees up to Rs. 10 million net of taxes and or royalty up to 5% for domestic sales and or 8% for exports.

Indian Telephone Industries

(ITI Ltd)

ITI limited was established in 1948 was the first public Sector enterprise and was converted into first public sector undertaking of the nation in January 1950. It celebrated golden jubilee of its inception in grand manner on 25th March 2000.

Initially the company manufactured and supplied telecommunication equipment to the then Indian post and telegraphs department and other priority sectors of the economy.

The telecommunication equipment of ITI includes, telephones, switching systems, transmission systems, Access products, VLSIS, fibre optic system, satellite communication system and switch mode power supply equipment etc., it mainly supplies equipments to Indian telecom network and defence sector.

Today ITI has grown from its first unit at Bangalore to include units at Srinagar, Naini, Rae Baraeli, Mankapur, Palkad, Electronic City, and Network System Unit.

ITI is a market-driven, customer-focused, technology-oriented, forward-looking and future-ready company with a business plan to touch Rs. 5,400 Cr. By 2001-2002.

Its intrinsic strength lies in its vast infrastructure and strong R&D capabilities. The company's technological competence and pro-active customer care further strengthen its ability to satisfy customers.

The company, being vertically integrated, has well defined objectives: to devise new cost-effective total Telecom and IT solutions with emerging technologies, a mission which **ITI** is committed to fulfill. A leader that ITI is its vision is to enter the millennium as a world-class company ready to meet the challenges of the convergence of technology.

Company Profile

CORPORATE OFFICE
45/1 Magrath Road,
Bangalore – 560 025

Manufacturing Plants :	Seven – Bangalore, Mankapur, Palakkad, RaeBareli, Naini, Srinagar, Electronic City Bangalore.	
CORE R&D	:	Bangalore
Installation & Maintenance	:	Network systems unit
Regional Offices	:	Six – New Delhi, Mumbai, Chennai, Lucknow, Calcutta and Bangalore
Area Offices	:	Forty-Two
Joint Ventures	:	Three
Peak Sales Turnover	:	US $500 million
ISO Accreditation	:	Ten Divisions
Corporate Headquarters	:	Bangalore – Silicon Valley of India
R&D Engineers	:	Over 3000

The ITI Limited Bangalore, known as Indian Telephone Industries, is the India's first Public Sector Enterprise, established in July 1948 as a departmental under taking under the ministry of Posts and Telegraphs, Government of India and was converted into the first public sector undertaking of the nation in January 1950. It is a pioneer in telecommunications Industry in India. Over the years, it has kept pace with technological changes and advancement, upgrading itself to offer the latest telecom equipment to India.

Today ITI manufactures state of the art telecommunication equipment – telephones, switching systems, transmission systems, access products, VLSIs, fibre optic system, satellite communication system and Switch Mode Power supply equipment etc, ITI is the main supplier of equipments to Indian Telecom Network and Defence Sector. In addition to manufacture of telecom equipments ITI is also in the business of value added services. The peak turnover of ITI is US $500 million. The R&D wing of ITI has played a pioneering role in Research and Development of Telecommunications. The company is headed by **Chairman and Managing Director.**

The growth of ITI has been rapid, both in the range of product and in the quantum of production. It has evolved from a single unit in to a giant multi unit under taking with seven manufacturing unit- at Bangalore, Electronic City(Bangalore), Naini, Mankapur, Rae-Bareli, Palkkad and Srinagar and sales and service units spread all over India. The company recently has earned the internationally prestigious ISO 9002 Certification for one of its units. The ITI also has to its credit a number of turnkey jobs executed abroad in countries such as Kenya, Uganda, Tanzania, Yemen, Srilanka, Nepal, Bhutan, UAE, Jordan and others. In view of furtherance of its technical skills available ti is diversifying into various fields. ITI is venturing into manufacturing of Electro – mechanical, electronic items for Automotive/ Electromechanical / Electronics industry on "Contract Manufacturing basis"

Infrastructure and Capabilities:

Physical Setup:

In-House R&D

Microelectronics and Computer Division with CAD Center

Network System Unit capable of undertaking turnkey job

Self contained component evaluation center

Fully automated assembly lines

In-circuit tester

PCB manufacturing facility

Chemical labs

Mechanical fabrication / Machine shops

Moulding and Die casting

Full fledged state of the art tool rooms.

SMT equipment

Thick film hybrid facility

Environmental testing

Component approval center approved by Department of Telecommunications.

Infrastructure and facilities:

In House R&D, Network System unit capable of undertaking turnkey jobs. The manufacturing plants are strategically distributed across the country as mentioned above.

ITI has regional offices and the sub-offices spread all over the country for distribution, sales and maintenance purpose. Totally there are six Regional offices and 42 sub-offices.

ISO Accreditation

PCM Division, Bangalore Plant	- ISO 9001
Control System group, Bangalore Plant	- ISO 9001
Electronic City Plant, Bangalore	- ISO 9002
Transmission Division, Naini Plant	- ISO 9001
Terminal Equipment Division, Naini Plant	- ISO 9001
Palooka Plant	- ISO 9002
Hybrid Division, Mankapur Plant	- ISO 9002
ESL I & II Division, Rae Bareli Plant	- ISO 9002
New Product Division, Bangalore Plant	- ISO 9002

Joint Ventures

ITI has started a joint venture with ITI Communication Private limited based in Singapore, with the primary objective of using ITIC as an export arm of ITI for its various products and services.

The other joint ventures are

ITI Communications Pvt. Ltd., Singapore a joint venture with M/S Valves Engineering Company, Singapore was formed to capture the South East Asian and African Telecom markets. It is an exclusive marketing agency for marketing products in South East Asia and African countries and is located in Singapore. A new partner M/S Comfort joining shortly.

Indian Baticom Ltd. India Satim Ltd. (For Management of VSAT) FIBCOM. Apart from two major collaboration agreements in 1948 for manufacturing of strowger exchanges and telephones and in 1964 for the manufacture of cross bar exchange equipment. ITI has also entered into agreements with the following.

India Satcom Ltd., Bangalore a joint venture with M/S Equitorial Satcom, USA was formed in order to be in the niche market area of manufacture of low cost Earth stations. Telegraphic money orders Antennas and undertakes turnkey dedicated VSAT Network projects. It is located at Bangalore. UTI of India has also joined as an equity partner.

M/S CIT Alcatel of France for manufacture of electronic switching systems and trunk and automatic exchanges of electronic type.

M/S FACE STD SPA of Italy for the manufacture of Telephone instruments.

M/S NEC of Japan for the manufacture of multi access radio system for rural communications.

California based Micom Communication Ltd., for the manufacture of Low Bit Rate Voce Technology system.

Siemens will provide the expertise for the manufacture of Digital Paid gains.

ITI is banking on the technology collaboration with these foreign companies. Other proposals include value-added digital communication network services through VSAT – based ITI Space – net and plans to setup technology parks as joint ventures.

Vision

Their vision is to become an Rs.2000 crores company, a leader in the domestic market and an important global player in voice, data and image communication. We are also striving to achieve Total Quality Management (TQM), and ensure that 30% of are projects emerge from our own R&D efforts. We have already formulated our plans to meet these goals.

In our opinion, a world-class company is one, which is able to provide high quality products at competitive prices, and ensure prompt delivery. It must be flexible enough to meet the changing needs of the customers. ITI is working to meet these goals.

Business Opportunities:

As a leading Indian telecom company, with a proven track record in manufacturing, product design and development, system integration/turnkey project executing ITI is keen to invite business arrangements with interested companies, anywhere in the world.

Projects undertaken

- Turn Key projects including Installation and commissioning of telecom equipment
- Software development
- Telecom product development
- Development ASICS
- PCB assembly, testing and repair
- Value Added services
- V-sat services
- MRTS
- Contract Manufacturing
- Environment test facilities
- Moulding, die casting and heat treatment
- Metal parts manufacturing

- Finishing facilities – electroplating, painting
- Product distribution
- Product development
- Country wide customer services

ITI Contribution to Indian Telecom:

Sector	Total	ITI	Unit	% Installed Capacity
Electronic Exchanges	04.00	03.22	Mn. Lines	80.5%
Large Electronic Exchanges	06.80	05.10	Mn. Lines	75%
Total Exchanges cap.	18.00	120..	Mn. Lines	66.6%
Long Distance Trunk lines	1.90	1.60	Mn. Ckts	84.2%
Telephone Instruments	19.00	16.00	Mn. No.	84.2%

ITI – After Liberalization:

As a protected monopoly it never failed to make profits in the first 44 years of its existence. Then the pinch of liberalization felt, as protection was lifted and began to nibble at what was essentially its own cake.

The Public Sector Indian Telephone Industries is going to end 1994 – 95 fiscal policies with a massive loss – its first ever. Due to liberalization the quantity of supplies increased disproportionately to the increase in demand by DoT. Total quantum or orders were distributed among six suppliers and ITI received fewer orders. The prices offered by private operators were uneconomical and below the material cost.

The first blow to ITI came in 1991 when the government allowed the private sector to manufacture telephone equipment for the large exchange. In the year 1994 – 95 the government relented and ruled that 30% of DoT purchases will be from the public sector. The public sector was also allowed to compete for the remaining 70%.

But the latest decision to keep ITI out of this has come as a rude shock to it. In the writ, petitioners have argued that the tender document is discriminatory and violative to the telecom policy announced in the year 1994. It also demands that ITI should be made eligible to participate in the tender.

Divisions in Bangalore Plant:

There are six divisions in Bangalore Plant. They are:

- **Telephone Division**: This division undertakes the production of Telephones in ITI. The Telephone Division assembles different modes of Telephones. This division manufactures around five lakhs telephones every year.

- **Transmission Division:** This division undertakes manufacturing of microwave Equipment, Satellite Communication Equipment. Optical Fibre Equipment and Defence Products & Control Equipment. Defence products.

- **Access Product Division**: This division undertakes the manufacturing of rural exchanges, CDOT Exchanges, etc.

- **New Products Division**: This division undertakes the manufacturing of exchanges called OCB 283. For this ITI is in collaboration with Alcatel-France.

- **Research & Development Division**: The R&D division is an important facet of ITI growth. Almost 40% of ITI's turnover consists of products developed in-house. R&D is enhanced by highly qualified engineers whose work is aided by advanced equipments.

Introduction To Various Dartments

Management Information System

Introduction

Information is the mortar that holds together the edifice of the modern multi – product, multi division, and multi-location organization. Management information system is one of the oldest social activities. The moment the society created business activity there arose the need for searching information for any business activity an organization is created which in turn organizes the resources and activities.

Functions

- MIS is making available timely and relevant information to management at different levels as a basis for planning, control and decision-making.

- Meeting the internal management needs, the information system has to report to the ministry of communication, finance, etc., who are concerned with appraising the performance of company and monitoring the progress of the different projects.

Accounting and financial information about the company which is required for various annual reports and documents published by the ministry of communication and other organization of the Government of India.

Personnel and Administration Department

Introduction

The personnel and administration department functions in ITI is similar to anywhere else. It is a service function. It essentially plays the role of guiding, assisting, helping and servicing the line departments. It has expertise in the various aspects of men, management and human resource development, the satisfaction provided to them by the company can be sensitive to the group and inter personal imbalance that occur within and between the various echelon of the organization and suggest or initiate such actions as are necessary to ensure that such imbalance are erased before they assume such proportions as to pose a threat to the stability and health of the organization. Thus, the personnel department is expected to play a more innovative and analytical role in addition to carrying out the traditional functions assigned to it effectively.

Functions

- Manpower planning and recruitment.
- Industrial Relation
- Labour welfare
- Personnel and Administration

STRENGTHS	WEAKNESS
♦ 50 years of experience in	♦ Surplus manpower

Telecommunication ♦ Large work force with technical expertise ♦ Market share of 70% ♦ Quick adoption to new and latest technology ♦ One of the best infrastructure and R&D	♦ Resistance to change by some group of employees ♦ Training the aged and less qualified to latest technology is not viable ♦ Their products are priced very less due to cutthroat competition.
OPPORTUNITIES ♦ Introduction of better and improved technology ♦ Quality of the products ♦ Training and development strategies	THREATS ♦ Economic policies of the government ♦ Huge executive turnover ♦ Stiff competition from MNCs ♦ Promotional opportunities are bleak

Performance Of Bangalore Plant

The Bangalore Plant of ITI celebrated golden jubilee of its inception on a grand scale on 25th march 2000. Bangalore Plant has been able to achieve a performance of Rs.357 crores yielding a moderate profit of 4.01 crores against a target of Rs.416 crores for the year 1999 – 2000. it is satisfying to know that inspite of price reduction, the company offering latest technologies in what ever areas they venture. The company's entering into IT area as a large strategy for market penetration.

The coming years will see induction of better and improved technologies, less expensive product and strong competition.

Research and Development

Introduction

The R&D wing of ITI employs over 300 talented and experienced scientists and engineers in the country and has advance facilities such as Hybrid Micro Circuit Lab, Large Scale Integrated Circuit, Computer Aided Design Center, etc. Thus it has transformed itself form India's first Telephone Company to a total communications company which can design, install, maintain and tailor make total telecom solution for its clients. Further, in order to achieve effective customer orientation, the company has reconstructed its operation into business groups, switching, transmission, network systems, terminal equipment, control system and microelectronics. ITI is thus geared to fulfill its mission to be leader in the domestic market and an important global player in voice, data and data communications.

The company has had a well-manned and powerful R&D, a lot of resources was spent on R&D. R&D activities were devoted to all the fields like telephone, transmission, exchanges, defence system, etc.

The company has recently entered into a number of joint ventures / obtained technologies from abroad which shows that R&D has both been able to provide adequate technical solutions for production needs of the company. Joining a Olivetti for software solutions for banks, Mainette, UK for fibre optics accessories, VCON, Isreal for Video Conferencing technologies are some examples.

The following units are located in Bangalore Plant

- Bangalore Complex
- R&D Complex
- VLSI

OBJECTIVE OF THE PROJECT

2.1 PROBLEM DEFINITION AND DESCRIPTION

PROBLEM DEFINITION :

Human Resource Executive Skill Profile is developed for the Indian Telephone Industries Limited, Bangalore with an insight to meet all the requirements specified by the Manpower Department. The Skill management is a submodule of HRESP.

In the ITI Limited the skill are broadly categorized in to 13 types.

- Producation
- Engineering
- Instrumentation/Testing Labs
- Supporting
- Material/Production Support
- Services
- Personnel & Administration
- Medical
- Finance
- Information Technology
- Public Realtions
- Research and Development
- Others

In each of the above departments there exist many subdivisions are there. And also for those each subdivisions they are maintaining 3 different levels.they are as follows

- Level-1 Direct on the job experience
- Level-2 Supervision
- Level-3 Overall Incharge

The Man Power Department has to identify the skills of each employees in all departments for the following reasons

- to develop the database on the skills ie maintaining skill inventory
- for succession plan
- for mobility
- for giving training and to develop a particular skills

The main scope of this skill maintenance is to assess the skills and the levels of the skill profile. And also they have to maintain the records for all the officers the present,past ,and the future skills. So they need a generalized solutions for the skill maintenance, and also to generate automate all these manual works and to generate essential reports .

PROBLEM DESCRIPTION:

The Project has been subdivided into 3 modules Employee Details maintenance, Skill Entry Maintenance, and Admin Module.

Employee Details Maintenance

This module is to maintenance of the new employees details. There also exist the modification of the existing employees and the deletion of the existing records. The modification is done through entering the staffno. And the deletion is done by providing

the security facilities by entering the usernameand password, and if they are an authorized user then they are able to delete the record by specifying the staffno.

Skill Entry Maintenance

This module is to maintain the skill details of all the employees. For each employee first we have to enter the skill codes and the descriptions and to select the levels.The levels may be 1(or)2(or)3 or its combinations. These are the details which are necessary todisplay the reports and also to view the records who have given the skill reports and the one who haven't given the skill reports.

Administration Module

This module is to provide the authorized user to access the skill entry by entering the Username and password. And also we can change the password by entering the old password and the new password. This is the one which also used in the deletion of the employee records.

From the above entered skill details we are able to generate the reports with different combinations such as with the present and past or present and future or past and present etc.,Division wise skill reports and qualification wise skill reports etc., .

3.1 HARDWARE SPECIFICATION

The selection of hardware is very important in the existence and proper working of any software. When selecting hardware, the size and capacity requirements are also important.

PC - Configuration

Processor	:	**Intel Pentium III**
Clock Speed	:	700 MHz
Memory	:	64 MB RAM
HDD	:	20 GB
External Cache Memory	:	256 KB
Ethernet Controller	:	32 Bit
Virtual Memory	:	32 Bit

Server Configuration

System	:	Intel Pentium III
OS	:	Windows NT
Memory	:	128 MB
Storage Capacity	:	40 GB
Network		
Protocol	:	TCP/IP
Hardware	:	Complex ReadyLink Express 10/100 PCI Fast Ethernet Adapter

3.2 SOFTWARE SPECIFICATION

One of the most difficult tasks is selecting software, once the system requirement is find out then we have to determine whether a particular software package fits for those system requirements. This section summarizes the application requirement .

Front End	:	HTML , Asp
Back End	:	Oracle 7.0
Operating System	:	Windows 98
Scripting Languages	:	VB Script , Java Script
Web server	:	PWS
Supporting Softwares	:	Visual Inter Dev6.0 , IE 5.0

3.3 SOFTWARE OVERVIEW

ASP:

Active Server Pages (ASP) is Microsoft's most recent web server application development technology. Many other largest, most technologically demanding and successful commercial websites were built using ASP. ASP is used to generate dynamic web pages. ASP is simply a technology for interacting with the user by intercepting incoming requests and processing outgoing responses. An ASP can display different content to different users or display different content at different times of the day, create database – driver web pages, track user session, create searchable web pages, detect capabilities of the browser. ASP can also used to send and retrieve E-Mail. ASP is designed to make it easier to develop interactive web application. ASP is built into IIS and Windows 2000 and is automatically installed when the Operating System and Web Server are installed. An ASP is a Scripting environment. VB Script is the default language ASP uses, but both VB Script and Java Script scripting engines are included with Windows 2000.

ASP Objects

ASP is not a programming language. Technically ASP is made up of objects which are called from VB Script or Java Script to perform certain highly useful functions such as capturing data submitted by users, responding to user inputs, managing applications and sessions, and manipulating the server.

ASP Objects are

1. Request Object
2. Response Object
3. Application Object
4. Session Object

5. Server Object
6. The Object Context Object

ASP Component

An ActiveX component is similar to an Active Server page built in object. However,when used with Active Server Pages, there is one important difference between a component and an object. An instanve of a component must be explicitly created before it can be used.

ASP Components are

1) The Ad Rotator component
2) The Browser Capabilities component
3) The Content linking component
4) The Counters component
5) The Content Rotator component
6) The Page Counter component
7) The Permission Checker component
8) The ActiveX Data Object
9) The Collaboration Data Object

Features of ASP

- Contain server-side scripts can create dynamic Web pages.
- Provides a number of built-in Objects.
- Can be extended with server-side ActiveX components.
- Can interact with Microsoft SQL Server 7.0

Advantages of ASP

- ASP is a most powerful tool.
- ASP development is easy to learn.

- ASP environment is extensible.
- ASP development is compile-free.
- Generate dynamic Web Pages.
- Detect the capabilities of different browsers.
- Integrate custom components into the web site.

HTML:

HTML stands for HyperText Markup Language. HTML is a formatting language not a programming language. The HTML provides for very detailed formatting of static textual content. This content can contains images, tables and formatted text and hyperlink. HTML uses ordinary ASCII text files to represent web pages. The file consists of the text to be displayed and the tags that specify how the text is to be displayed. Hypertext enables you to read and navigate text and visual information in a nonlinear way based on what you want to know next.

Each web page is a file written in a language called HTML that includes the text of the page, its structure, and links to other documents, images or other media. It controls the way a document looks. HTML instructions tell a Web Browser, how it should go about displaying the page on screen. A Web Browser is the program to view pages on and navigates the world wide web. All by it has practically no facilities for making a web page do things.

Hypertext:

Hypertext is a method of preparing and publishing text in which users can choose their own paths through the material. The text is broken into small units such as single pages called nodes. Then hyperlinks are embedded into the text. Typically the user has a GUI on which he clicks a button to navigate through the different pages.

Hyperlink:

A hyperlink is an underlined or emphasized word that when clicked with a mouse displays another document. These documents can come from other sites on the internet. Clicking on these links activates necessary protocols and pulls up the chosen sites.

Advantages:

- HTML document is small and hence easy to over the net.
- HTML documents are cross-platform compatible and device independent.
- HTML is user friendly and case sensitive.
- HTML is portable especially over networks.
- HTML is simple and easy to learn.

Scripting Language:

VB Script and Java Script are scripting languages. A scripting language is a simple script based programming language designed to enable programmers to write useful programs quickly. A script is similar to a macro, which tells a program how to perform a specific procedure. They act as both as client-side and server-side programming language. A client-side programming language is a language that can be interpreted and executed by a browser. A server-side programming language is a language that execute on the server that serves a websites files rather than on browsers that receive those files.

Java Script:

Java Script is a scripting language used to enhance the functionality of the Browser. Java Script is integrated with HTML and Navigator 2.02. Java Script facilitates the developer with properties related to document windows, frames, loaded documents and links. This scripting language also traps user events so programs can be developed for such events. This is an interpreter-based language and source code files are directly executed at runtime. Java Script includes built-in objects related to the current

windows and documents as well as objects such as Math, String and Date that contain mathematical functions, string functions and date functions respectively. Since Java Script is an Object based language, it supports instances, methods and properties. It supports both Internet Explorer and Netscape Navigator.

Advantages:

1) Restricted Disk Access
2) Runtime Check of Object Reference
3) Scripts are limited to Web Browser functionality
4) It can pass a larger amount of computation to the client side browser.

VB Script:

A scripting language that enhances the functionality of web pages. Belongs to the family Visual Basic programming language, helps to make the web page interactive and dynamic, helps to place ActiveX controls on a web page. An ActiveX control helps to make a web page interactive and dynamic. VBScript is interpreted. VBScript is not an Object based language. It supports only Internet Explorer.

Advantages:

- Ensures data validation.
- Reduces network traffic.
- Easy to learn.
- Customizes user friendly messages to display help information.

Visual InterDev-Development Tool

* Visual Inter Dev is a tool specifically designed for developers who want to build sophisticated dynamic web applications as opposed to end users or designers who are mostly concerned with publishing shared, static documents.
* Visual Inter Dev provides scalable Internet and Intranet applications access to any database supporting ODBC like RDBMS like MS-SQL Server, Oracle, Sybase, etc., Or to databases like Access, Fox Pro, etc.,
* Visual Inter Dev can use ADO Objects to provide database connectivity. It also includes integrated client side scripting tools like VB Script and Java Script and applets. These can be added to web pages and integrated using the scripting tools.
* Visual Inter Dev is a powerful editing environment that examines raw-code level editing and What-You-See-Is-What-You-Get editing.
* Visual Inter Dev is a Microsoft tool that works on Windows 95/98 and Windows NT.

Web Browser

Information available in the web server can be viewed with the use of a browser. This software, which is stored on users computer, provides a frame to view web pages. The browser tool bar provides a range of detailed functions and commands for managing the browser. The address bar below the toolbar displays the URL of the current page.

Some popular browsers

- Internet Explorer
- Netscape Navigator

Web Server

Web Server is a specialized software that can interpret client requests and respond to the client by sharing information. A web server can have any number of web sites. Web server transmits information by using hypertext transfer protocol.

Some web servers

- Internet Information Server
- Personal Web Server

Internet Information Server (IIS)

- IIS is the host for the web services used by Visual InterDev
- IIS ships with Windows NT 4.0 Server. It contains three products: FTP services, Gopher Services and an HTTP services. IIS integrates all three services into an shared management interface that allows the administrator to control them. However Visual Inter Dev works with the web services and does not require Gopher or FTP.
- IIS supports database servers that can be accessed using ODBC over the LAN or WAN.
- IIS uses NT's built-in security and so it makes a good choice for an intranet site. IIS requires a username and password to log onto the server. It also make it possible to allow the public to gain access to certain information and leave other services private.

Windows 98:

Windows 98 makes your computer innovative and easy to use , with new and enhanced features.

- Web Integration

Windows 98 delivers the most rewarding Web experience by combining the power of the computer with the interactive content of the Internet:

1. AutoComplete, which automatically completes previously, visited Web addresses as you type them.

2. Improved listing of favorite Web sites.

3. Improved history and tracking of Web sites visited.

4. Support for all major Internet standards, including ActiveX, Java, and more.

5. Improved performance with Dynamic HTML, which makes Web pages richer and more interesting.

- Multiple Display Support

Multiple display support makes it possible for you to use several monitors simultaneously to increase the size of your desktop, run different programs on separate monitors, and run programs or play games with multiple views.

- Power Management

Power Management makes your computer more responsive by improving startup time. Using power management techniques, you can start your computer in just a few seconds and restore all your programs where you left them. In addition, it allows your computer to continue working even though it appears to be turned off.

Using power management, you can reduce the power consumption of any number of your computer devices or of your entire system. You. Power Management works on computers that have Advanced Power Management (APM), and it works even better on newer computers that use the Advanced Configuration and Power Interface (ACPI)..

- Universal Serial Bus

The Universal Serial Bus (USB) makes your computer easier to use with advanced plug-and-play capabilities. Using a new, universally standard connector, you can add devices to your computer easily without having to restart. USB defines a class of hardware that makes it easy to add serial devices to your computer.

- Accessibility wizard

The Accessibility wizard makes it easier for people with disabilities to operate a computer without installing special software. Accessibility options—such as StickyKeys, ShowSounds, and MouseKeys—are designed to help users with specific disabilities make full use of the computer.

- Help

Windows 98 includes a new Help system that makes your computer easier to use. With Help, you can find answers to your questions quickly and easily. You can also get up-to-date technical support from the World Wide Web.

ORACLE:

ORACLE is the short name for any or all the products that comprise the ORACLE Relational Database Management Systems.

ORACLE is a Relational Database Management System. This collection of tools, utilities and applications let you manipulate an ORACLE database. Many

of these products are fourth generation language tools; they let you use interactive screens to create application programs.

The ORACLE database was designed using the relational model and gives users many advantages, including the following:

- A database structure that is easy to visualize and understand.
- The ability to create any number of temporary relations between tables. Freedom from concerns about how to query the database, through the use of SQL.
- Tables those are easy to visualize.

In a relational database, query capabilities can be supplied by any of several query language to communicate with its database kernel. SQL is the query language used with IBM's SQL/DS & DB2 database systems on large computers. SQL is so powerful that all the application development tools ORACLE provides are SQL – based.

Because ORACLE uses SQL as it's query language and makes available numerous tools to support its systems. ORACLE provides the following advantages over other relational databases.

Direct SQL interfaces to the database through SQL*PLUS lets developers and users interact with the database and manipulate it directly.

The interactive forms developer SQL forms to any platform running ORACLE gives you the flexibility to develop and application on a PC running ORACLE and transfer the finished product to mainframe, minicomputer and a minicomputer platforms.

The transferability of data files from many file and flat file formats into the table structures of an ORACLE database, using the utility SQL* loader, reduces problems in data conversion to ORACLE tables.

ORACLE, capable of interfacing with the variety of languages such as C, C++, JAVA, PL/1, ASP, lets you create ORACLE application based on any of these languages. Additionally, applications written with these languages can be converted to access an ORACLE without users noticing changes to their screens.

SQL*PLUS:

SQL is a set of statements that all programmers and end users must use to access data within the oracle database. Application programs and oracle tools often allow users to access the database without directly using SQL, but these applications in turn must use SQL when executing the user's request.
The SQL commands are broadly divided into the following:

- **DATA DEFINITION LANGUAGE (DDL):** CREATE, ALTER and DROP tables.
- **DATA MANIPULATION LANGUAGES (DML):** INSERT, UPDATE and DELETE tables.
- **TRANSACTION LANGUAGE (TCL) OR DATA CONTROL LANGUAGE.**

The 12 rules for an RDBMS (Codd's Rule)

- Information representation
- Guaranteed Access
- Systematic Treatment of NULL values

- Database Description Rule
- Comprehensive Data Sub-Language
- View updating
- High-Level Update, Insert, Delete
- Physical Data Independence
- The Distribution Rule
- Non-Subversion
- Integrity Rule

➢ An RDBMS product has to satisfy at least six of the 12 rules of Codd to be accepted as a full-fledged RDBMS design.

Data Modeling :

- Describes relationships between data objects.
- First level – Entity –Relationship Diagrams.
- Second level – Normalization.

The relationship between the collections of data in a system may be graphically represented using data modeling. It helps determine the data objects in the system, the composition of each, and the relationships that exist between them.

Data modeling can be achieved in two levels:

- The first level builds the conceptual model of the data, using E-R modeling.
- The second level organizes this model better, by removing the redundancies, through a process called NORMALIZARION. The normalized model is then converted into the Physical database.

Entity-Relationship Diagram:

Entity – Relationship Modeling is a technique for analysis and logical modeling of a system's data requirements. It uses three basic concepts, entities, their attributes and the relationships that exist between the entities. It uses graphical notations for representing these.

Entity:

An Entity is any object, pace, person, and concept, activity about which an enterprise records data. It is an object, which can have instances or occurrences.

Attributes:

Attributes are data elements that describe an entity. If the attribute of an entity has more attributes that describe it, then it is not an attribute of that entity, but another entity. Attributes can either be listed next to the entities, or placed in circles and attached to the entities.

Relationship:

This is an association between entities. It is represented by a diamond in the E-R diagram. Relationships can have properties or attributes associated with it. The attributes may be listed next to the relation.

Normalization:

Normalization is the process of refining the data model built by the Entity-Relational diagram. The normalization technique, logically groups the data over a number of tables, which are independent and contain no duplicate data. The entities or tables resulting from normalization contain simple data items, with relationships being represented by replication of key data item(s). The goal of a relational database design is to generate a set of relation schemes that allow us to

store information without redundant data and allow us to retrieve information easily and efficiently.

Need For Normalization :

- ❖ Improves database design.
- ❖ Ensures minimum redundancy of data.
- ❖ Reduces need to reorganize data when design is modified and enhanced.
- ❖ Removes anomalies for database activities.

Steps In Normalization :

FIRST NORMAL FORM (1NF) :

- ❖ Identify repeating groups of fields.
- ❖ Remove repeating groups to a separate table.
- ❖ Identify the keys for the tables.
- ❖ Key of parent table is brought as part of the concatenated key of the second table.

SECOND NORMAL FORM (2 NF) :

- ❖ Check if all fields are dependant on the whole key.
- ❖ Remove fields that depend on part of the key.
- ❖ Group partially-dependant fields as a separate table.
- ❖ Name the tables.
- ❖ Identify key(s) to the table(s).

THIRD NORMAL FORM (3NF) :

- Remove fields that
  - Depend on other non-key fields.
  - Can be calculated or derived from logic.
- Group interdependent fields as separate tables identify

4.1 EXISTING SYSTEM

The Human Resource Executive Skill Profile so far maintained in the manually writtened Records. The following details describe the system and its functioning.

The manual system maintains a ledger like record which keeps record of various skills list, of all the officers of various departments in the ITI.There is no validation is carried out while registering the data. So it leads to miss some more skills or the levels.

To find out the errors , the data is processed and various validations and error listing are taken and the corrections are done based on it. This leads to wastage of time and resource.

Limitations of Existing System

- Manual operation involves lot of paper work and cumbersome procedures. Also repeated entries of data in various books of accounting, which leads to data redundancy and data inconsistency.
- The papers may get damaged and there is a chance to theft.
- Well-experienced persons only can work with it properly.
- Time consumption is very large to identify the particular skills of the officers.
- It is difficult to find out the officers for appointing new designations,bcoz of large amount of data.
- It helps the management for decision making in various stages.

To make the skill inventory process to be easy and effective, it is necessary to develop a system that will be efficient and produce effective solution for decision making, by providing a user friendly environment.

4.2 PROPOSED SYSTEM

Proposed System

An organization 's successful growth mainly depends on exhibiting its scope, ability, area of interest and infrastructure facilities. This enables the end users with similar interest to interact and obtain the information needed. Exchange of information can be made by several means, but it should be fast, reliable and cost effective.

Keeping this in view, the Human Resource Executive Skill Profile has been developed in ITI Limited to make the skill entry and retrival process faster and easier data reception to specified users through restricted access.

The newly designed system has been developed with added benefits as listed below:

- Able to access through the Local Intranet
- It provides the user friendly interface
- Time saving
- Reduce errors and gives correct results.
- Provides security
- Effective management is possible
- Reports for various skill combinations are generated

Human Resource Executive Skill Profile comprises with different processes and presenting various information.

Employee Detail Maintenance → Add, Modify,Delete

Skill Detail Maintenance → Adding new skill entries,Modifying those entries

Admin Module Maintenance→ Changing the Existing Password. , Providing Security

This system also includes the help information which describes in detail each and every event that is programmed. It is very useful for the user to clarify any doubts and is very friendly to user.

- The system is about HRESP-maintaining the skill profile of the employees in ITI.
- The system is developed to introduce in intranet
- By this system we can easily able to identify the officers past,present and future skills very quickly.
- It reduces the manpower for the selection criteria of the particular job.
- The requirement is very advance in the sense of web enabled application.
- Interactive screen are developed to view the skills of the past,present and the future details from the database.

4.3 FEASIBILITY STUDY

The objective of the feasibility study is not only to solve the problem but to acquire a sense of its scope. During the study, the problem definition is crystallized and aspects of the problem to be included in the system are determined. Consequently, costs and benefits are estimated with greater accuracy at this stage. Three key considerations are involved in the feasibility analysis.

- Financial & Economical feasibility
- Technical Feasibility
- Operational Feasibility

FINANCIAL & ECONOMICAL FEASIBILITY

Economical feasibility deals about the economical impact faced by the organization to implement a new system. Not only cost of hardware, software etc are considered but also the benefits in the form of reduced costs .The project **"HUMAN RESOURCE EXECUTIVE SKILL PROFILE"** is installed will certainly be beneficiary since there will be a reduction in manual work, and increase in the speed of work .

TECHNICAL FEASIBILITY

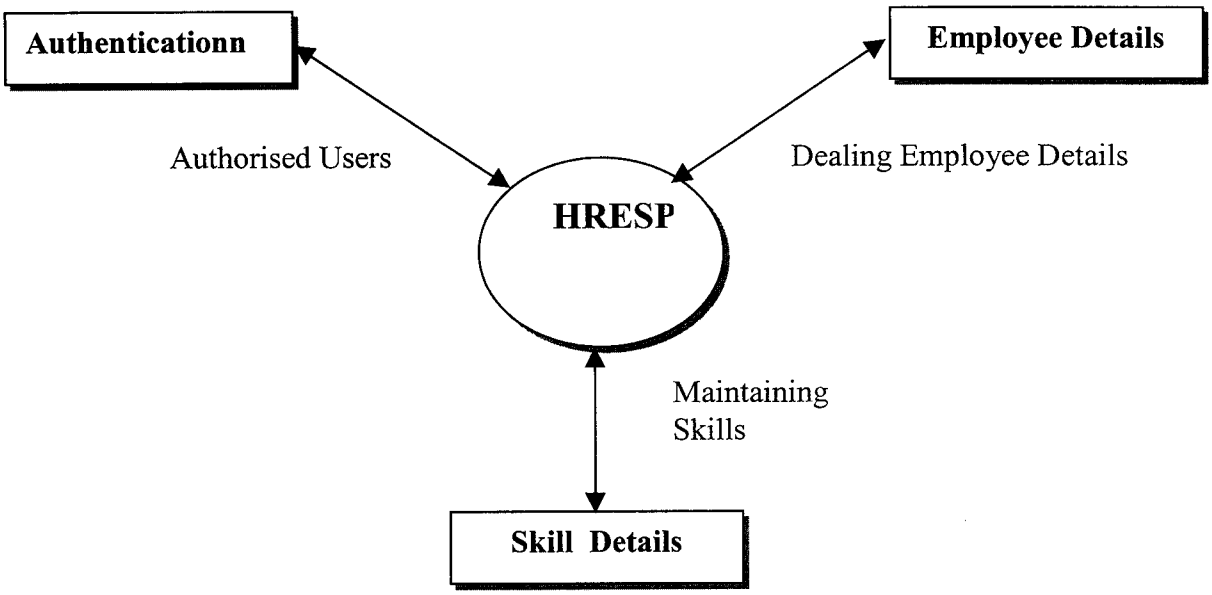
Technical consideration evaluates the hardware requirements, software etc.This system uses the ASP as front end and ORACLE as back end and also provides sufficient memory to hold and process the data. As per the requirements both these software and hardware were already exists this project is technically feasible .

OPERATIONAL FEASIBILITY

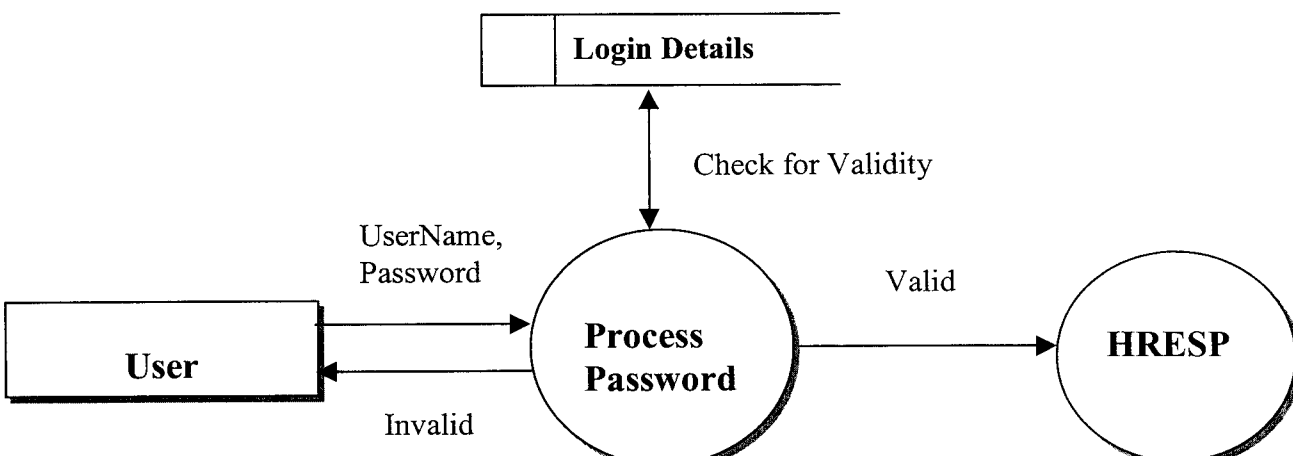
Proposed system is beneficial only if they can turned into information systems, that will meet the organization's operating requirements. User should be involved in the planning and development of the project. This system will certainly be supported since it produces good result and reduces manual work. Authorized user can access thedata in the network, and hacking of data by unauthorized users are also avoided by providing username and password.

5.1 DATA FLOW DIAGRAM

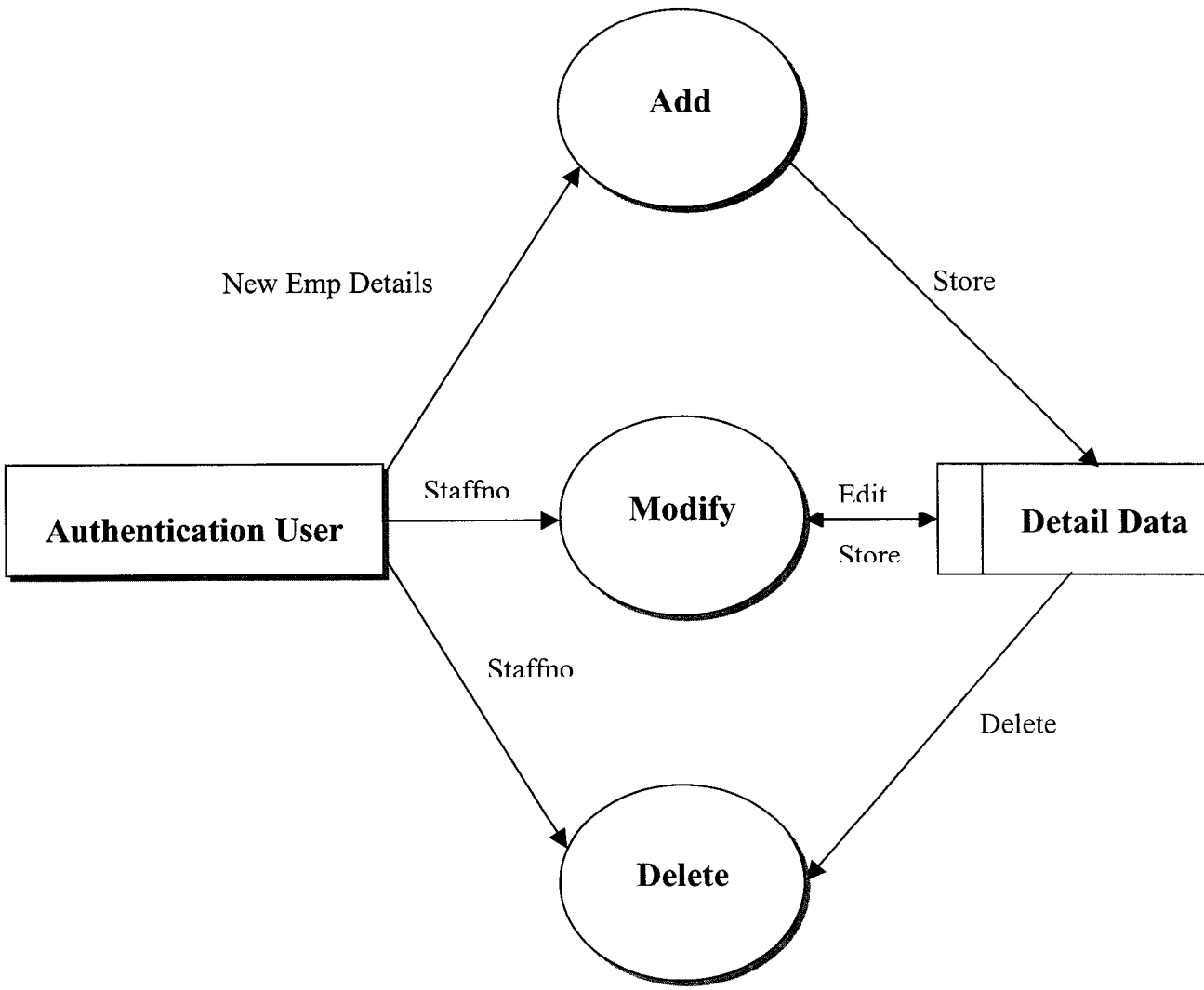
LEVEL 0



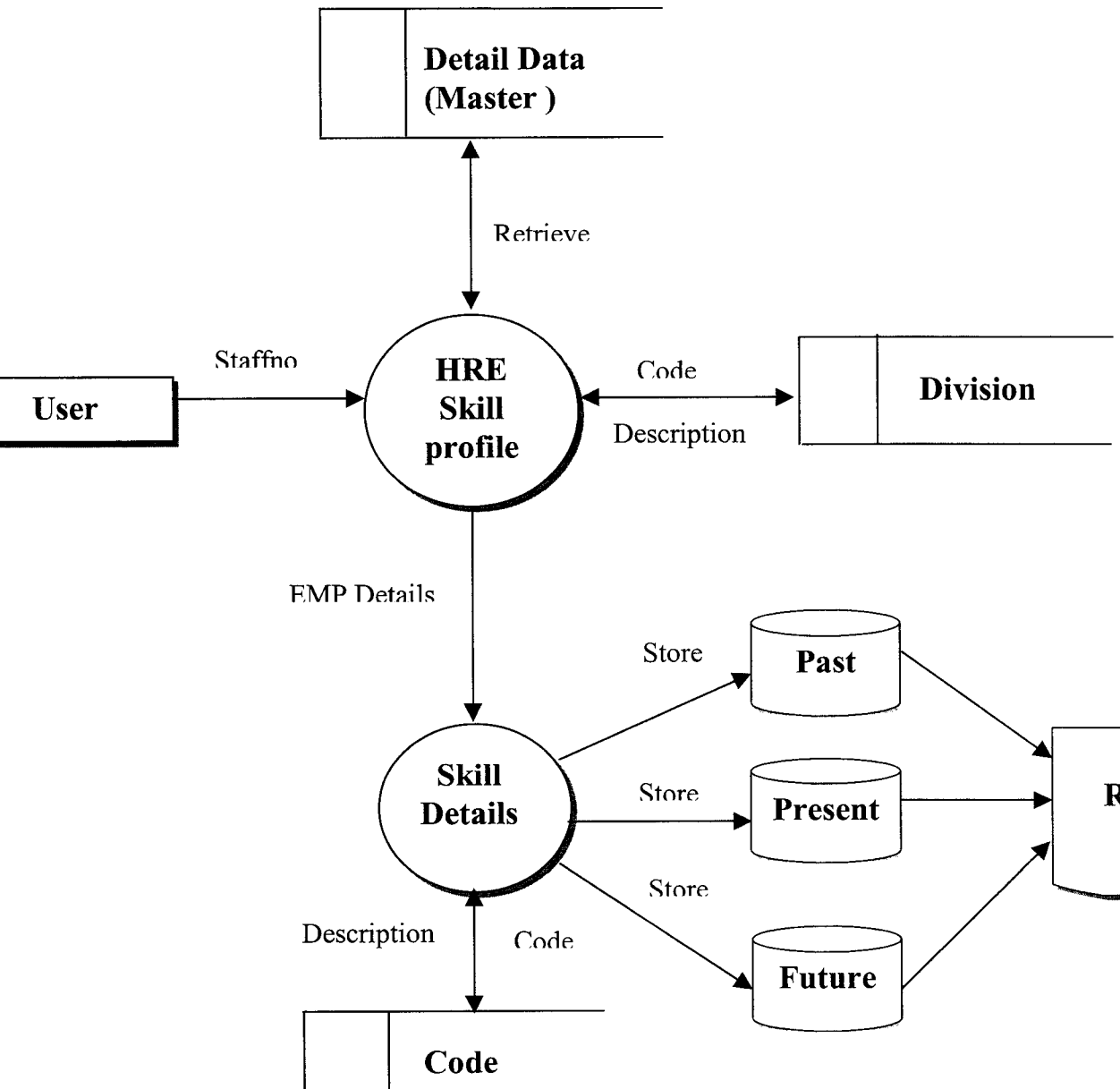
LEVEL 1 AUTHENTICATION PROCESS



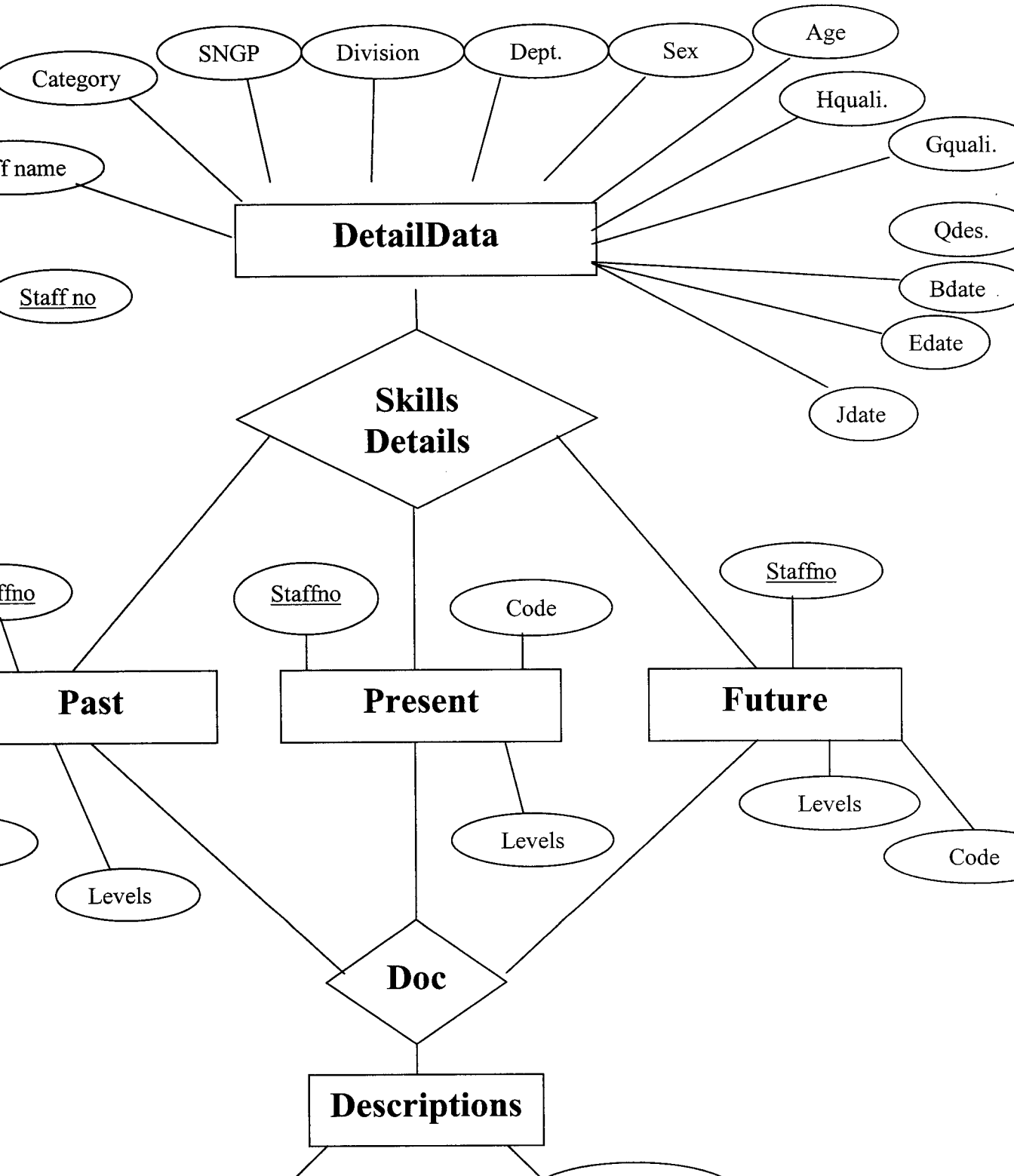
LEVEL 2 EMP DETAILS PROCESS



LEVEL 3 SKILL DETAILS PROCESS



5.2 E-R DIAGRAM



5.3 INPUT DESIGN

The various input details used in this project are as follows.

- Login
- Employee Details
  - # New Employee Entry
  - # Modification of the Existing Employee details
  - # Deletion of the Employee
- Skill Entry
  - # Present Skills Entry
  - # Past Skills Entry
  - # Future Skills Entry

In the HRESP System input forms are validated successfully. It includes data preparation,data capture and data entry. It checks for the validation of each forms by which not to be an empty of any fields . And also it displays the necessary information through message boxes when the corresponding record is not found. Input is given in a very flexible way to enhance the smooth functioning of the project.

The HRESP System is user friendly and each link item is self explanatory.To enhance the user interface ,the highly important data like the skill codes , the skill description and the levels are coded in a very easy manner. While entering the datas there may be mistakes which is sometimes may be minor but in other case may be severe. This system is so developed that it will offer means of detecting and handling the errors.

5.4 DATABASE DESIGN

Data base design takes a pivotal role in the development of any application software. A database is a collection of tables which is used to store the related information with minimum redundancy to serve many users quickly and efficiently.

The tables used in the project are:

- Login
- Detail Data (Master)
- Past
- Present
- Future
- Description
- Division

TABLE NAME : Login

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	User Name	Varchar2 20)	Login Name
2	Paswd	Varchar2 (10)	Password

TABLE NAME : Detail Data

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Staff No	Varchar2(6)	Staff Number
2	Staff Name	Varchar2(30)	Staff Name
3	Category	Varchar2(2)	Grade
4	Sngp	Varchar2(2)	Seniority Group

5	Div	Varchar2(1)	Division
6	Dept	Varchar2(5)	Department
7	Sex	Varchar2(1)	Sex
8	Age	Number(2)	Age
9	Hquali	Number(2)	Highest Qualification
10	Gquali	Number(2)	General Qualification
11	Qdes	Varchar2(50)	Qualification Description
12	Bdate	Date	Date of Birth
13	Jdate	Date	Date of Joining
14	Edate	Date	Date of Retirement

TABLE NAME : Past

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Staff No	Varchar2(6)	Staff Number
2	Skill1	Number (3)	Skill Code No 1
3	Desc1	Varchar2(50)	Description of the Skill Code
4	L1	Number(1)	Levels of the Skills
5	Skill2	Number (3)	Skill Code No 2
6	Desc2	Varchar2(50)	Description of the Skill Code
7	L2	Number(1)	Levels of the Skills
8	Skill3	Number (3)	Skill Code No 3
9	Desc3	Varchar2(50)	Description of the Skill Code
10	L3	Number(1)	Levels of the Skills
11	Skill4	Number (3)	Skill Code No 4
12	Desc4	Varchar2(50)	Description of the Skill Code
13	L4	Number(1)	Levels of the Skills

14	Skill5	Number (3)	Skill Code No 5
15	Desc5	Varchar2(50)	Description of the Skill Code
16	L5	Number(1)	Levels of the Skills
17	Skill6	Number (3)	Skill Code No 6
18	Desc6	Varchar2(50)	Description of the Skill Code
19	L6	Number(1)	Levels of the Skills
20	Skill7	Number (3)	Skill Code No 7
21	Desc7	Varchar2(50)	Description of the Skill Code
22	L7	Number(1)	Levels of the Skills
23	Skill8	Number (3)	Skill Code No 8
24	Desc8	Varchar2(50)	Description of the Skill Code
25	L8	Number(1)	Levels of the Skills
26	Skill9	Number (3)	Skill Code No 9
27	Desc9	Varchar2(50)	Description of the Skill Code
28	L9	Number(1)	Levels of the Skills
29	Skill10	Number (3)	Skill Code No 10
30	Desc10	Varchar2(50)	Description of the Skill Code
31	L10	Number(1)	Levels of the Skills
32	Skill11	Number (3)	Skill Code No 11
33	Desc11	Varchar2(50)	Description of the Skill Code
34	L11	Number(1)	Levels of the Skills
35	Skill12	Number (3)	Skill Code No 12
36	Desc12	Varchar2(50)	Description of the Skill Code
37	L12	Number(1)	Levels of the Skills

TABLE NAME : Present

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Staff No	Varchar2(6)	Staff Number
2	Skill1	Number (3)	Skill Code No 1
3	Desc1	Varchar2(50)	Description of the Skill Code
4	L1	Number(1)	Levels of the Skills
5	Skill2	Number (3)	Skill Code No 2
6	Desc2	Varchar2(50)	Description of the Skill Code
7	L2	Number(1)	Levels of the Skills
8	Skill3	Number (3)	Skill Code No 3
9	Desc3	Varchar2(50)	Description of the Skill Code
10	L3	Number(1)	Levels of the Skills
11	Skill4	Number (3)	Skill Code No 4
12	Desc4	Varchar2(50)	Description of the Skill Code
13	L4	Number(1)	Levels of the Skills
14	Skill5	Number (3)	Skill Code No 5
15	Desc5	Varchar2(50)	Description of the Skill Code
16	L5	Number(1)	Levels of the Skills

TABLE NAME : Future

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Staff No	Varchar2(6)	Staff Number
2	Skill1	Number (3)	Skill Code No 1
3	Desc1	Varchar2(2)	Description of the Skill Code

4	L1	Number(1)	Levels of the Skills
5	Skill2	Number (3)	Skill Code No 2
6	Desc2	Varchar2(50)	Description of the Skill Code
7	L2	Number(1)	Levels of the Skills
8	Skill3	Number (3)	Skill Code No 3
9	Desc3	Varchar2(50)	Description of the Skill Code
10	L3	Number(1)	Levels of the Skills
11	Skill4	Number (3)	Skill Code No 4
12	Desc4	Varchar2(50)	Description of the Skill Code
13	L4	Number(1)	Levels of the Skills
14	Skill5	Number (3)	Skill Code No 5
15	Desc5	Varchar2(50)	Description of the Skill Code
16	L5	Number(1)	Levels of the Skills

TABLE NAME : Description

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Code	Number(3)	Skills Code
2	Desc	Varchar2 (50)	Description of the Skill Code

TABLE NAME : Division

SNO	FIELD NAME	DATA TYPE & SIZE	DESCRIPTION
1	Div	Varchar2(1)	Division Code
2	Desc	Varchar2 (50)	Description of the Division Code

5.5 OUTPUT DESIGN

The output is generated as a report. The following reports are generated

- Past Skills Report
- Present Skills Report
- Future Skills Report
- Past and Present Skills Report
- Present and Future Skills Report
- Past and Future Skills Report
- Past ,Present and Future Skills Report
- Category Wise Report
- Division Wise Report
- Qualification Wise Report

The objective of the Output Design is to produce accurate and relevant information in an User understandable manner. The outputs formats are done as per the companys expectations.The factors like contents ,formats and layout of the output reports were taken care in the output design.

From the first seven reports it is able to know the individual skill of a person and the corresponding skill of all the person. And from the last three report it is able to know the present and past skills by the grade wise, by the division wise and by the qualification wise.

IMPLEMENTATION AND TESTING

Implementation

The implementation process is done after completing the entire designing task. Implementation is the process of having the system personal checkout and put new application, and constructs any files of data needed to use it.

The implementation of any software requires perfect satisfaction by the user. Unless the user is satisfied , the system or software cannot be implemented.The software is implemented in the system and checked for its performance and accuracy.

There are several techniques that can be used. The different techniques are as follows.

- Direct
- Parallel
- Pilot
- Phase

Direct: In this methof the old system is abandoned and the new system is inducted simultaneously.

Parallel: In this method the old system and the new system are run together for some time.

Pilot: In this method the new system is installed in one section or department,which run as pilot project. The other departments continue to Maintain the old system.

Phase: The new system is implemented for any one activity of all the departments viz., data entry, data validation etc., . Each phase of the new system is reviewed seperately and changes made, if needed.

In this project the method adopted was the Direct run method. The newly developed system is used instead of existing manual system.

System Testing

The aim of any software development is to create bug-free,reliable and secure systems that provide a solution to the users requirement. The implementation of a newly designed package is important in adopting a successful new system. The implementation of the package involves testing, user training acceptance and charge over.

Testing is an important and critical design in software development.
It accounts for the largest percentage of technical effort in software development process. It plays a critical role in determining the quality and reliability of an application. Testing phase in development lifecycle validates the code against the functional specification. The feedback from the test stage will be incorporated, which thereby ensures high reliability.

The main objective of testing is to discover errors. To fulfil this objective, a series of test steps viz., **Unit,Integration,Validation** and **System Testing** were planned and executed.

The testing steps are:

UNIT TESTING:

- Focuses its attention on a part of software design called a module.
- Ensures to validate the software within a particular module.
- Verifies detailed design description as a guide, important control paths and helps to recover errors within the boundary of the module.
- Checks the first module to assure that the data flows properly into and out of the unit under test.
- Examines the data structure to ensure that the data stored temporarily maintains its integrity during algorithm execution.
- Ensures proper operation of a module.

INTEGRATION TESTING:

- Focuses on the design and construction of the software architecture.
- Constructs the program structures with the unit tested modules and test the programs to uncover errors associated with interfacing.
- Ensures behaviour of functions with live data, interface testing and performance testing using integrated test plans during design phase and system development.

VALIDATION TESTING:

At the culmination of integration testing,software is completely assembled as a package; interfacing errors have been uncovered and corrected, and a final series of software tests – validation testing – may begin.

- Provides final assurance that software meets all functional,behavioral and performance requirements.
- Succeeds when software functions in a manner that can be reasonable expected by the customer.

After validation test has been conducted one of two possible conditions exist:

- The funcion or performance characteristics conform to specification and are accepted.
- A deviation from specification is recovered and a deficiency list is created. Deviation or errors discovered at this project is recovered by creating. Thus the proposed system under consideration has been tested by validation and found to be working satisfactorily.

SYSTEM TESTING:

System testing is actually a series of different tests whose primary purpose is to exercise the computer based system to verify that all system elements have been properly integrated and perform allocated functions.

- **Recovery Testing:** System test that forces the software to fail in avariety of ways and verifies that recovery is properly performed.
- **Security Testing:** Attempts to verify that protection mechanismsbuilt into a system will protect from improper protection.
  For example Login form .If you type wrong passward user deos not exist into the form.Please type mismatch passward message will be display.
- **Stress Testing:** Executed a system in a manner that demands resources in abnormal quantity,frequency or volume.

FUTURE SCOPE OF THE PROJECT

In all the systems, there is always a room for further modification and upgradation. This is a fact the HUMAN RESOURCE EXECUTIVE SKILL PROFILE is not an exception.

This can be carried out in the following ways

- Working on this system we are able to add new skills that may be added in the future and this has been done by giving codes of skills with the provision to enter.
- We are able to append the present skill to the past one and the future skill to the present one and by that we are able to enter the newly attained skills.

The enhancements can be encorporated without any difficulty. The system is compatible with further versions of the software used. The system can be further extended to include more end user interactivity by providing an interface to enter the newly attained skills with which the end user wish to attend.

CONCLUSION

The "Human Resource Executive Skill Profile" System razes all the problems faced by the manual system and achieve its goal.

One of the objectives of this system is that it should be more user friendly and it has been achieved by use of the Web Desigining Tools like HTML ,VBScript, JavaScript .The database is designed in such a way that the retrieval is ease,quick and accurate.The flow of data is perfect and it has been checked by entering original datas.

This system is more flexible and future enhancements is possible without any complication.The following points concluded the discussions done so far and from the working experience with the software.

- Provides more information about the past,present and future skills of the officers.
- Reduce errors and provides correct results.
- It enforces to access the real time data anywhere and at anytime.

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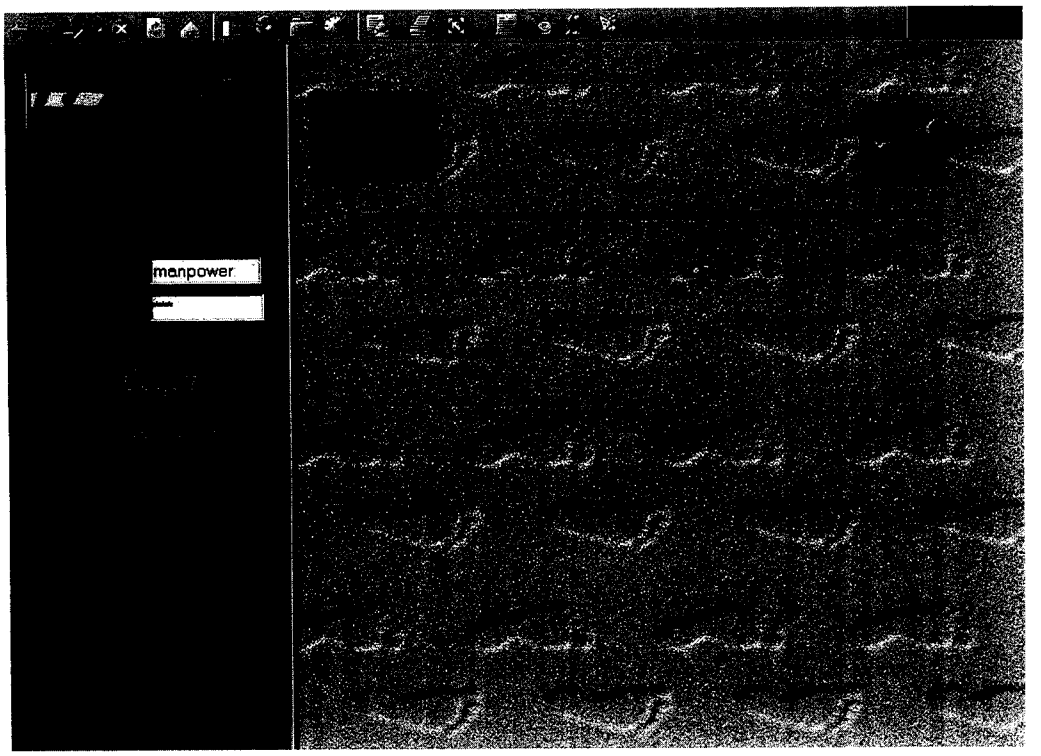
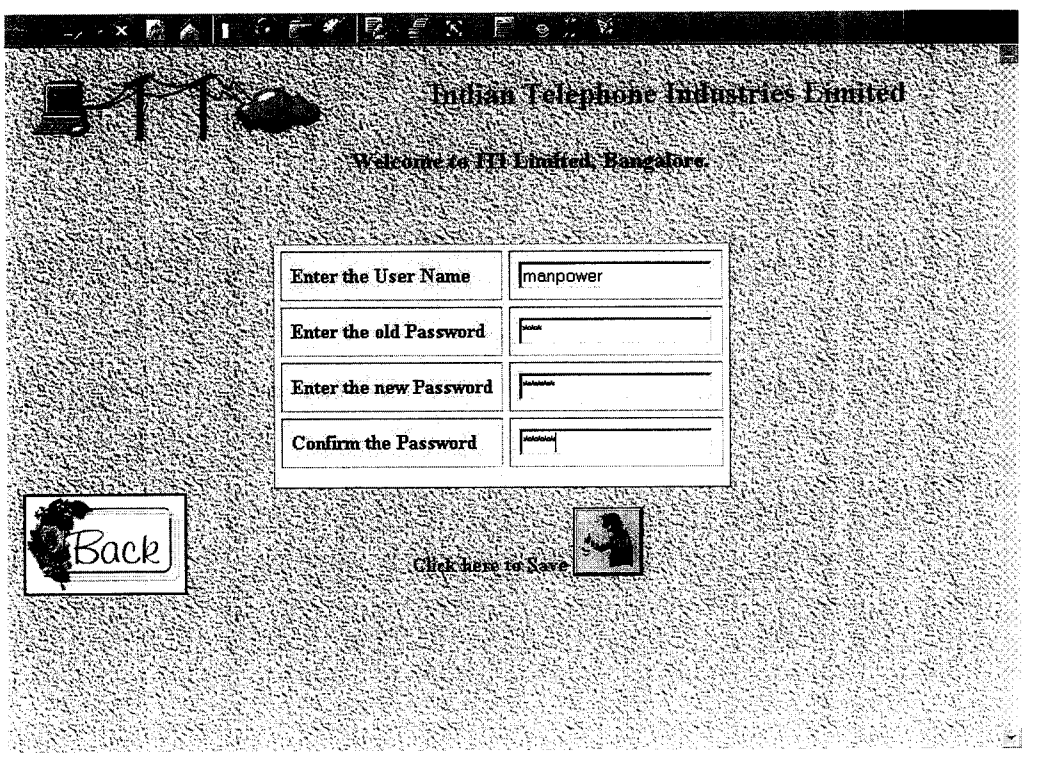
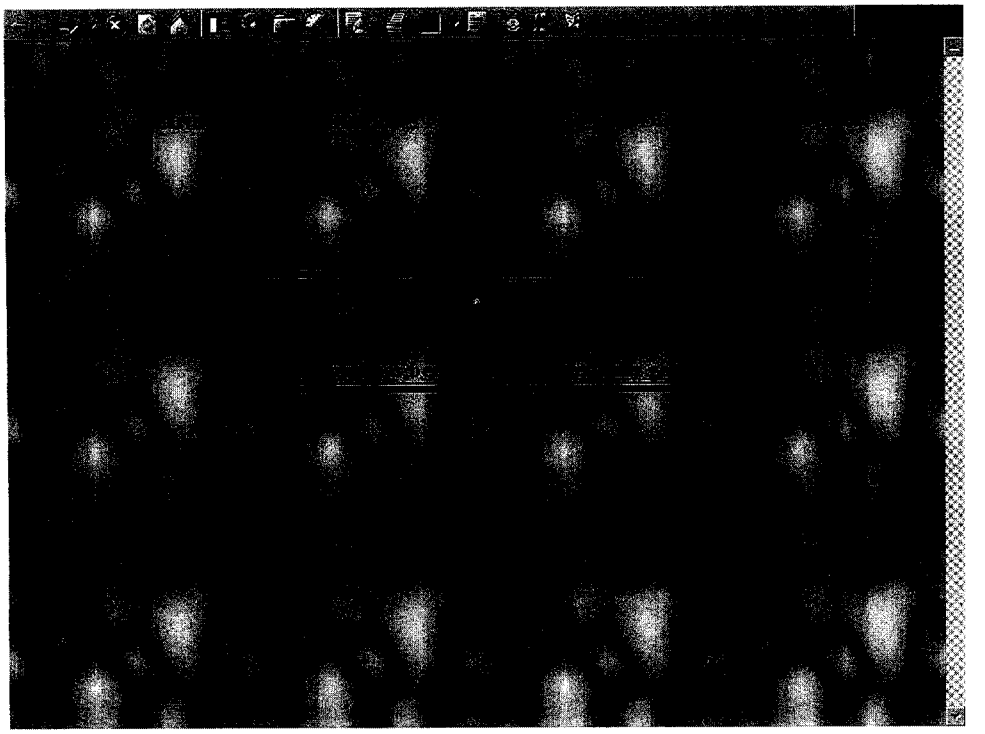
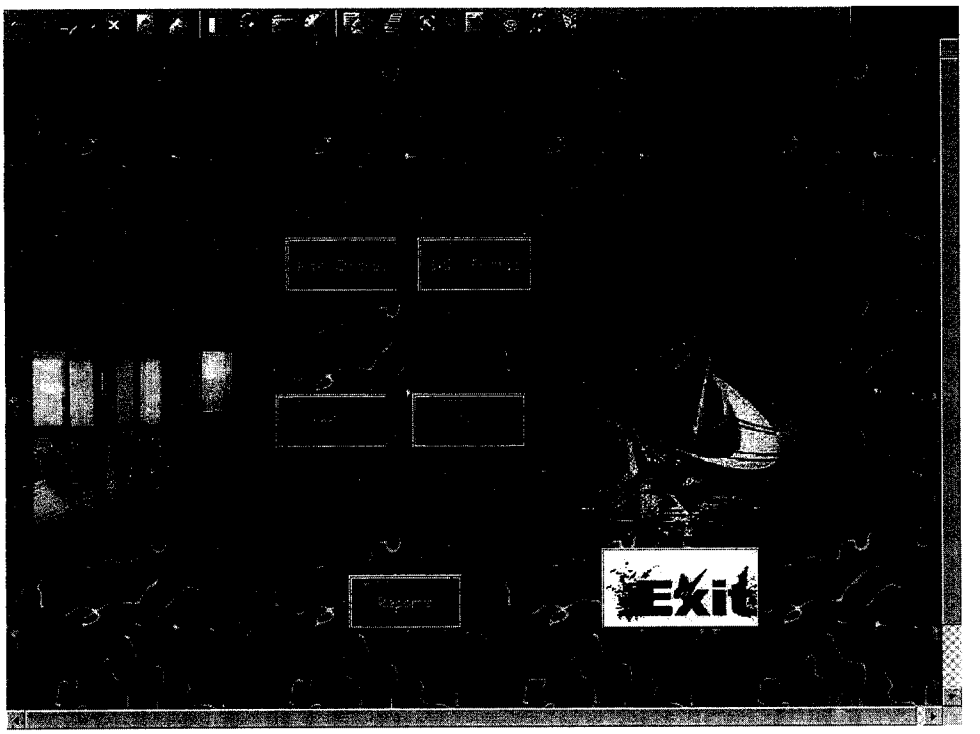
AUTHOR : ROGER S. PRESSMAN
PUBLISHER : TATA McGRAW – HILLS .


manpower


Indian Telephone Industries Limited
Welcome to ITI Limited, Bangalore.
Enter the User Name
manpower
Enter the old Password
Enter the new Password
Confirm the Password
Back
Click here to Save

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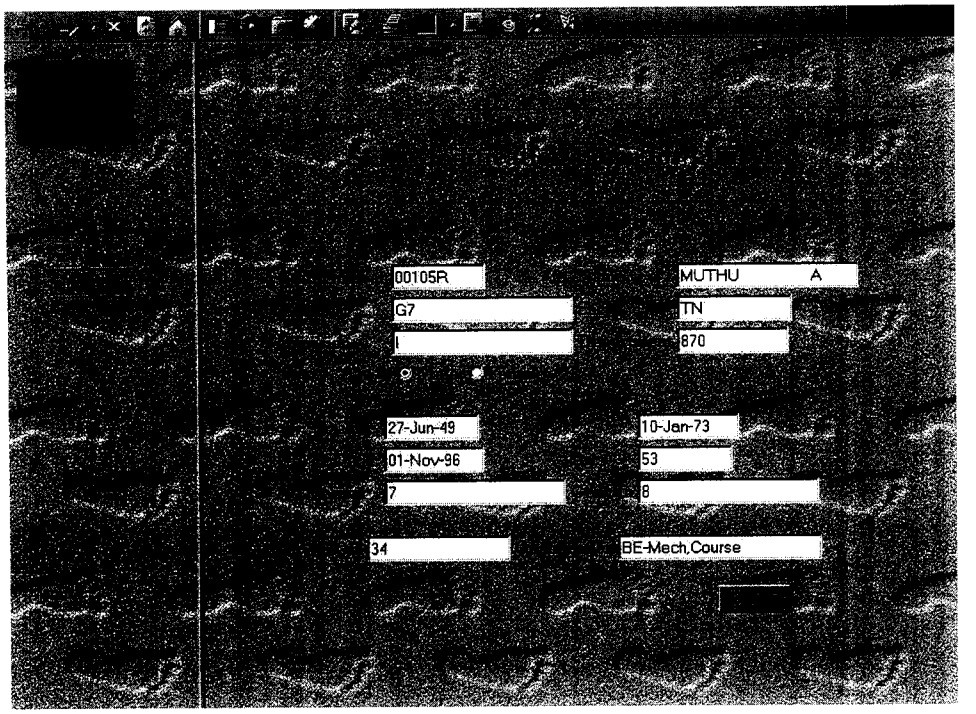
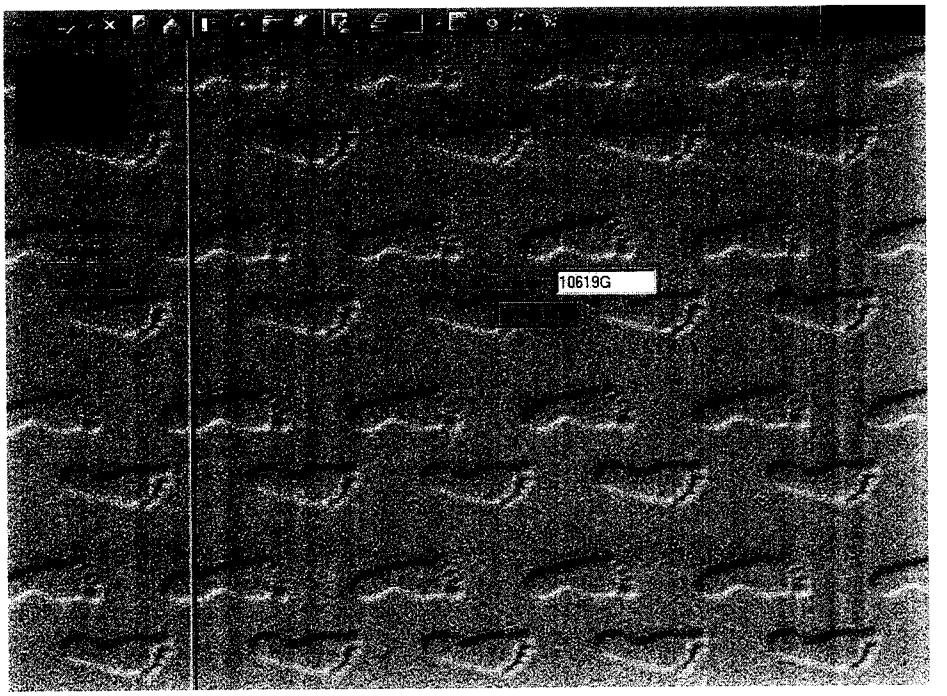
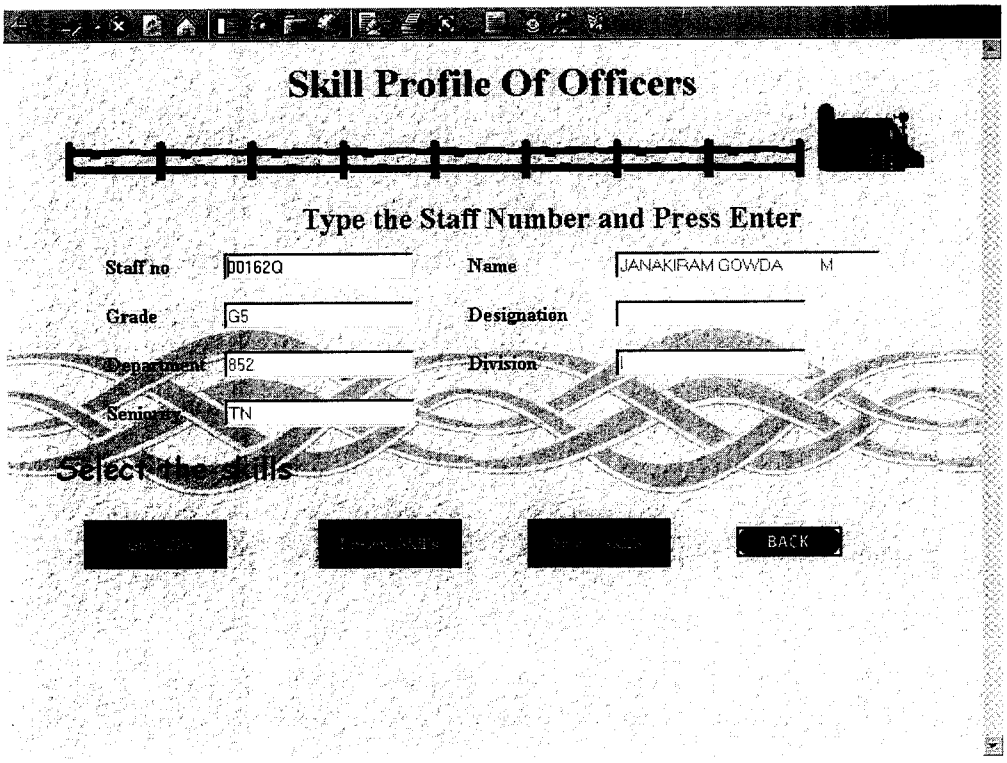
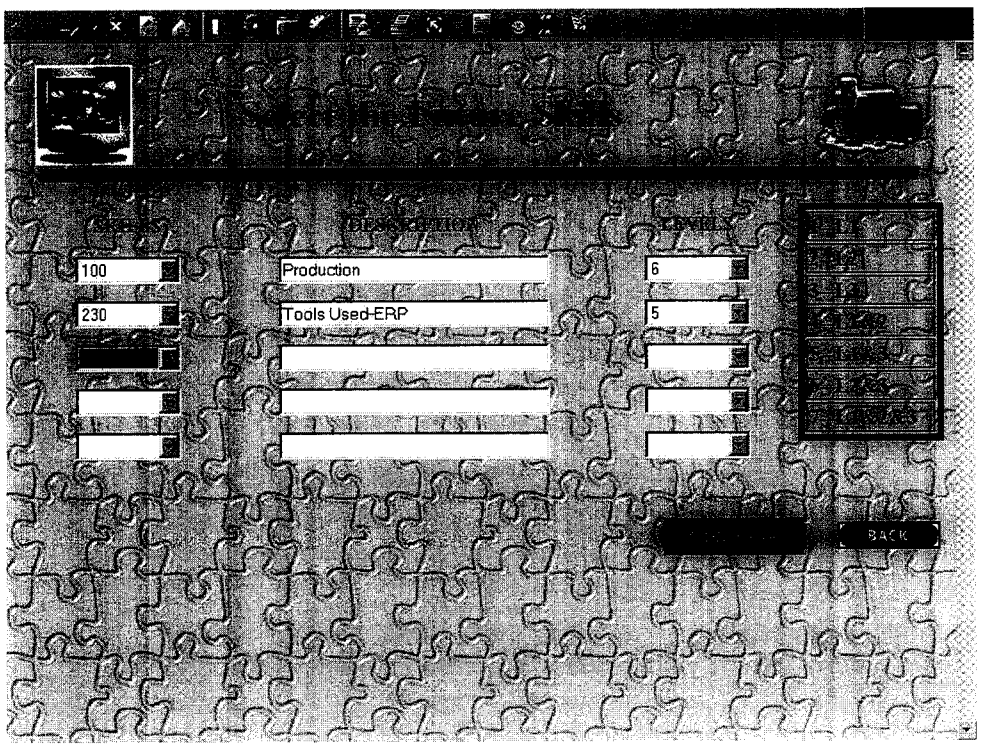
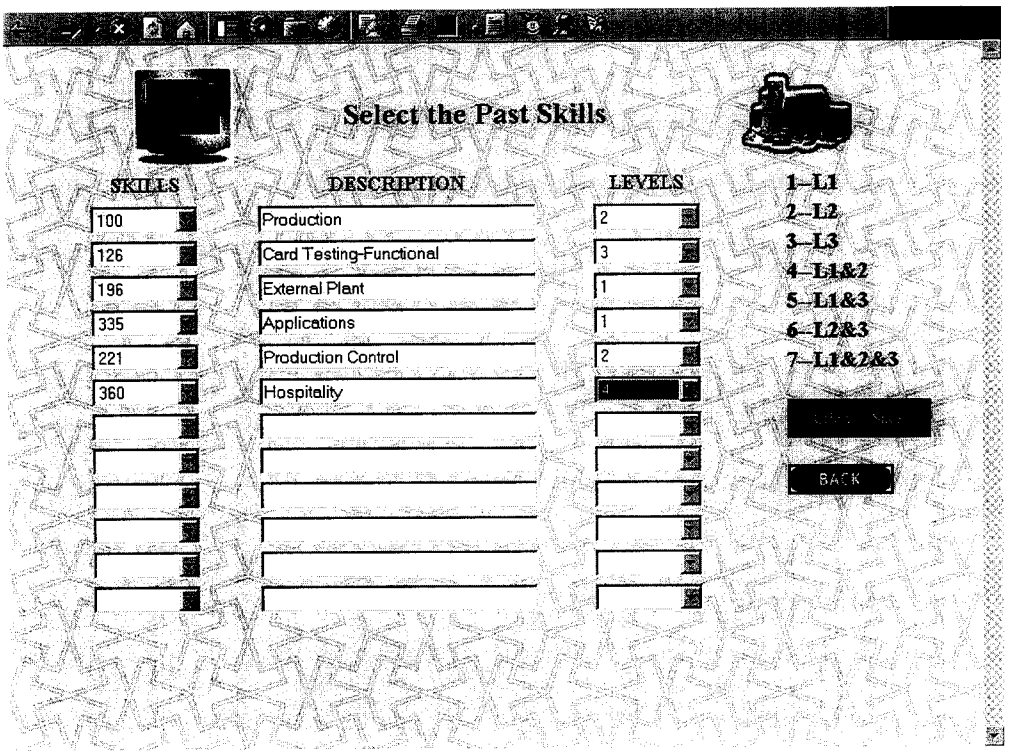
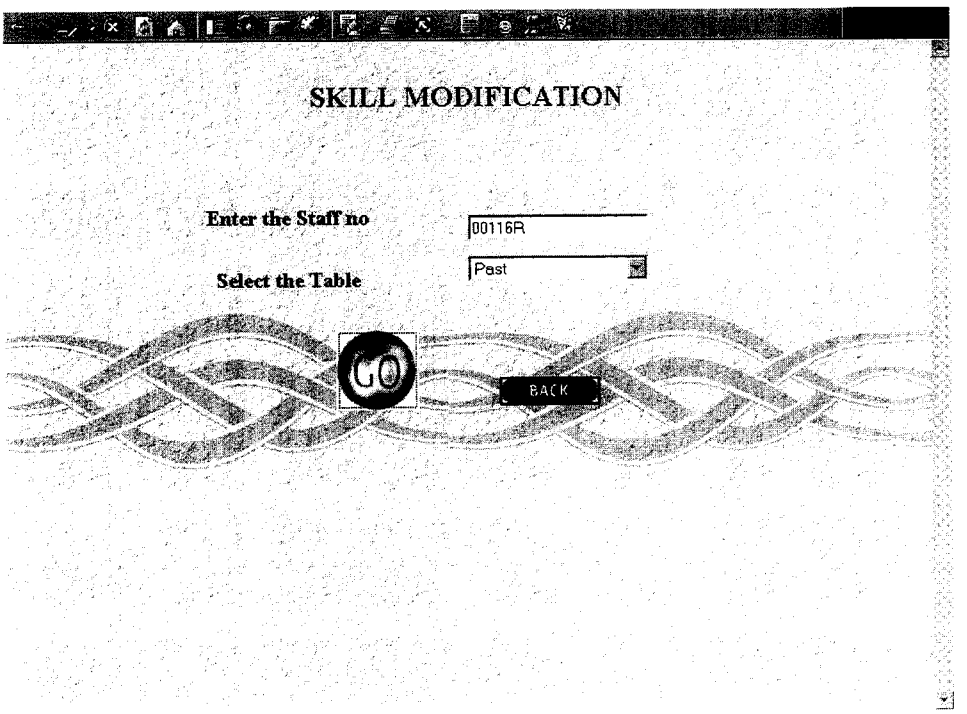

00105R
MUTHU A
G7
TN
I
870
27-Jun-49
10-Jan-73
01-Nov-96
53
7
8
34
BE-Mech,Course

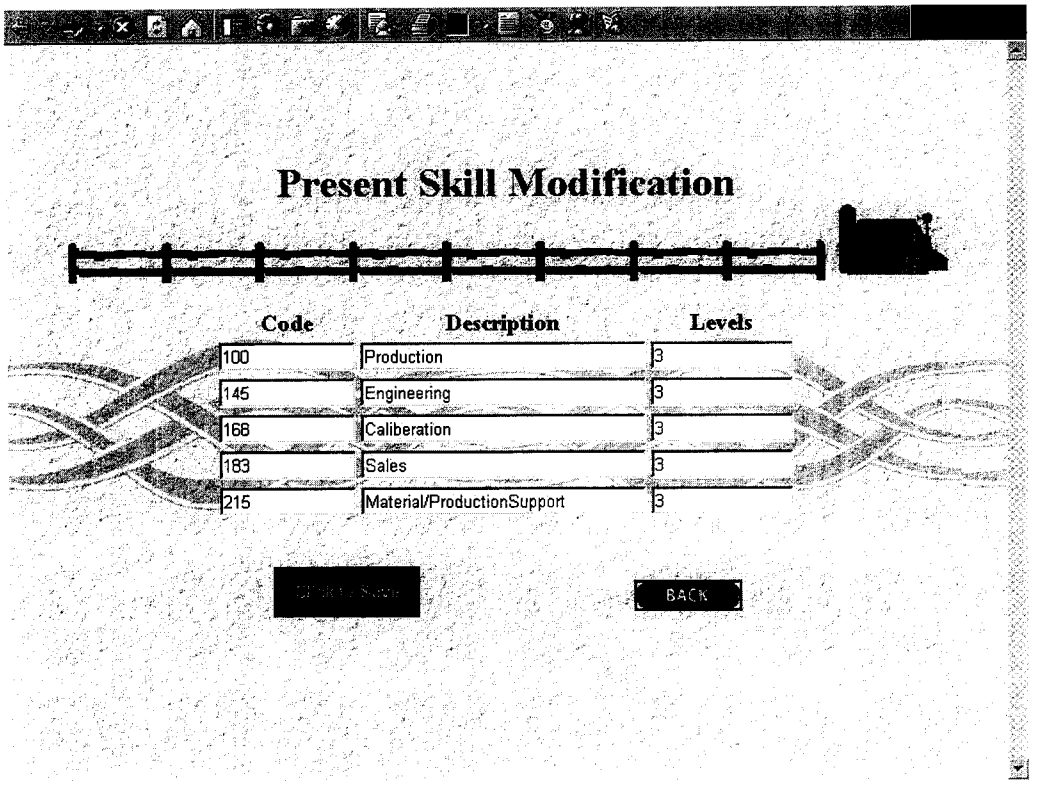

10619G

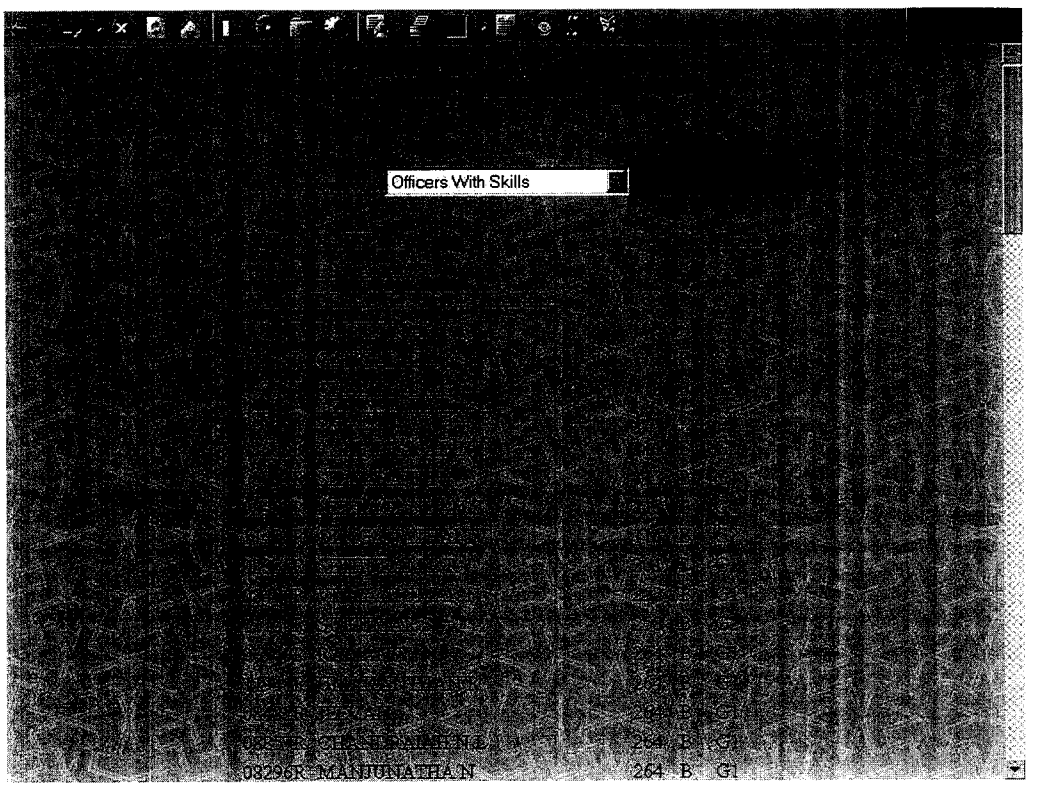

Skill Profile Of Officers
Type the Staff Number and Press Enter
Staff no
00162Q
Name
JANAKIRAM GOWDA M
Grade
G5
Designation
Department
852
Division
TN
Select the skills
BACK

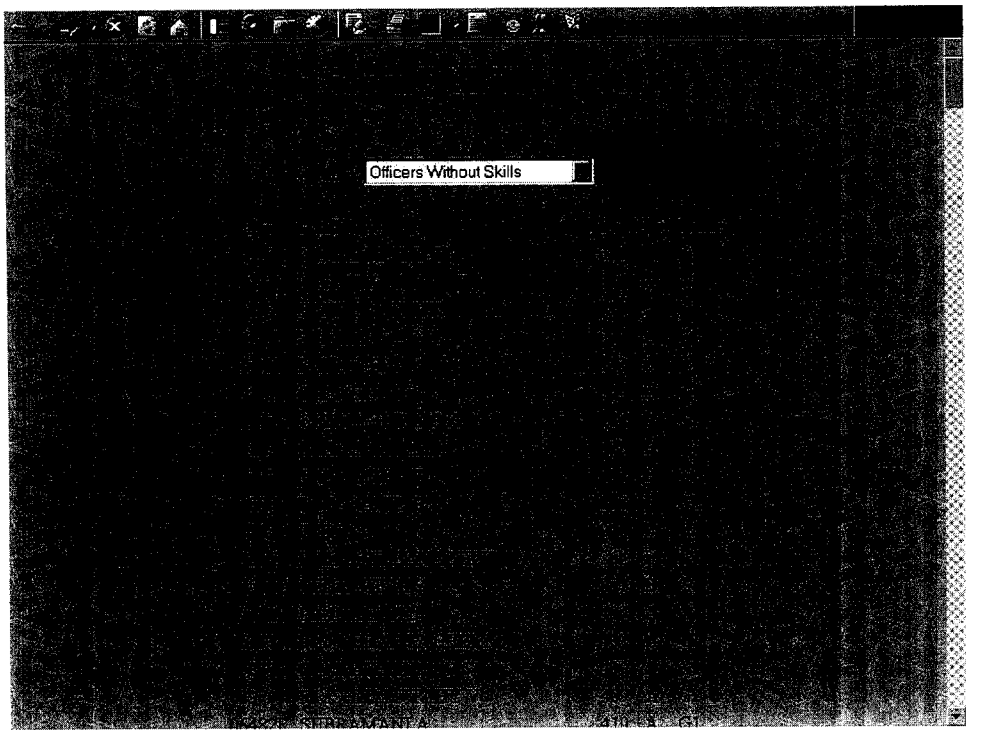

Skills
Description
Level
100
Production
6
230
Tools Used-ERP
5
BACK

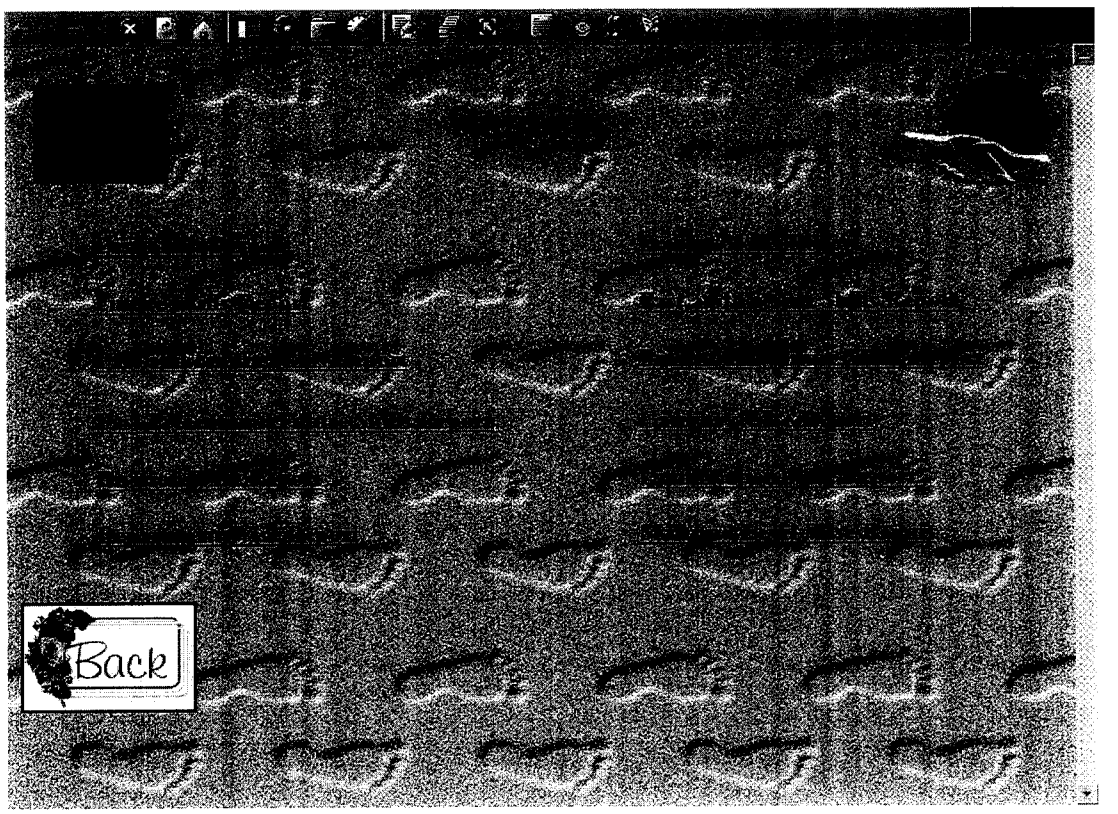

Select the Past Skills
SKILLS
DESCRIPTION
LEVELS
100
Production
2
126
Card Testing-Functional
3
196
External Plant
1
335
Applications
1
221
Production Control
2
360
Hospitality
1-L1
2-L2
3-L3
4-L1&2
5-L1&3
6-L2&3
7-L1&2&3
BACK


SKILL MODIFICATION
Enter the Staff no
00116R
Select the Table
Past
GO
BACK


Present Skill Modification
Code
Description
Levels
100
Production
3
145
Engineering
3
168
Caliberation
3
183
Sales
3
215
Material/ProductionSupport
3
BACK


Officers With Skills
08296K MANJUNATHA N 264 B G1


Officers Without Skills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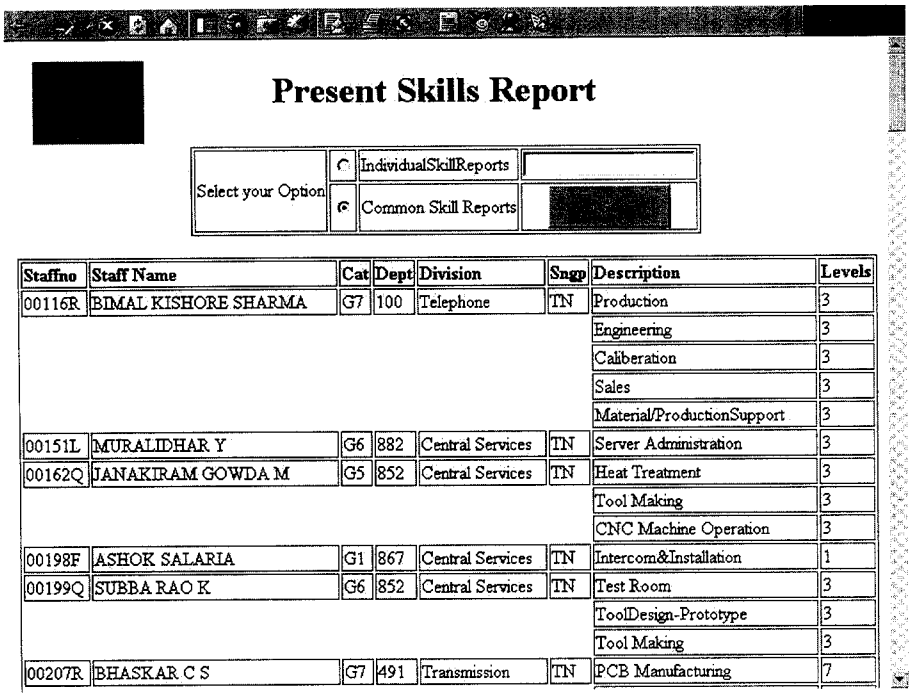
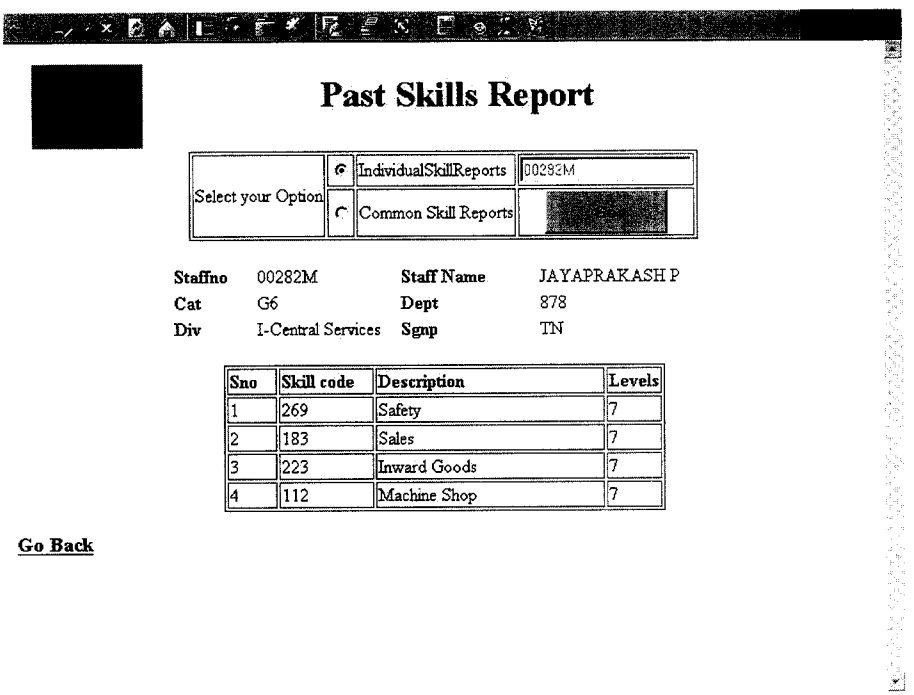


Present Skills Report

Select your Option		
	IndividualSkillReports	
	Common Skill Reports	[redacted]

Staffno	Staff Name	Cat	Dept	Division	Sngp	Description	Levels
00116R	BIMAL KISHORE SHARMA	G7	100	Telephone	TN	Production	3
						Engineering	3
						Caliberation	3
						Sales	3
						Material/ProductionSupport	3
00151L	MURALIDHAR Y	G6	882	Central Services	TN	Server Administration	3
00162Q	JANAKIRAM GOWDA M	G5	852	Central Services	TN	Heat Treatment	3
						Tool Making	3
						CNC Machine Operation	3
00198F	ASHOK SALARIA	G1	867	Central Services	TN	Intercom&Installation	1
00199Q	SUBBA RAO K	G6	852	Central Services	TN	Test Room	3
						ToolDesign-Prototype	3
						Tool Making	3
00207R	BHASKAR C S	G7	491	Transmission	TN	PCB Manufacturing	7



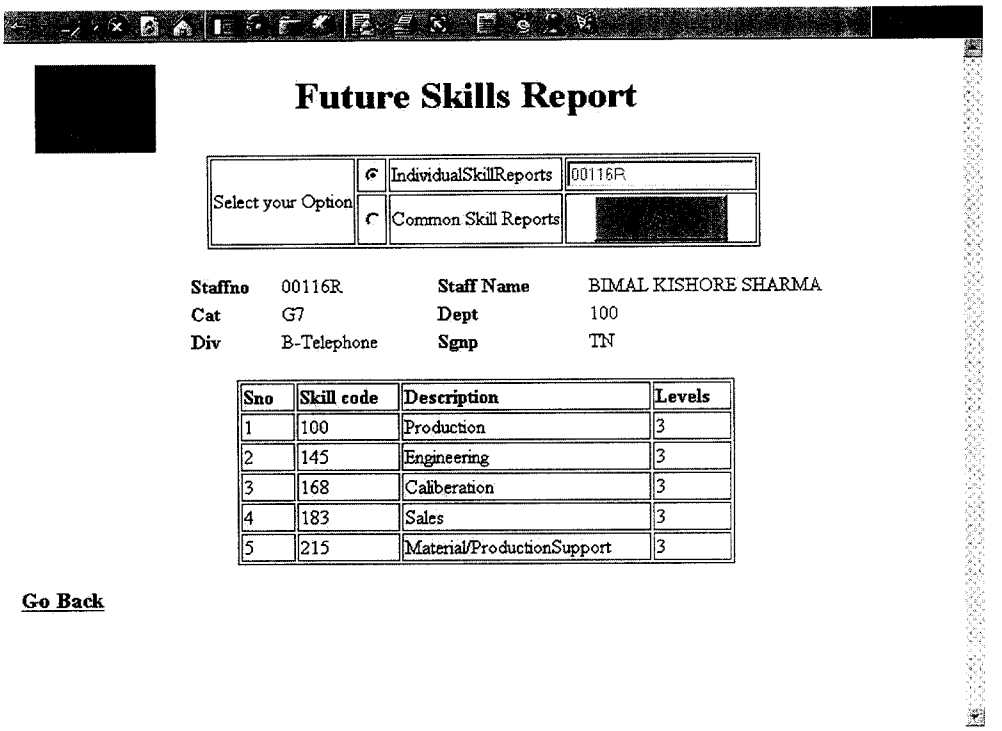
Past Skills Report

Select your Option		
	IndividualSkillReports	00282M
	Common Skill Reports	[redacted]

Staffno 00282M **Staff Name** JAYAPRAKASH P
Cat G6 **Dept** 878
Div I-Central Services **Sgnp** TN

Sno	Skill code	Description	Levels
1	269	Safety	7
2	183	Sales	7
3	223	Inward Goods	7
4	112	Machine Shop	7

Go Back



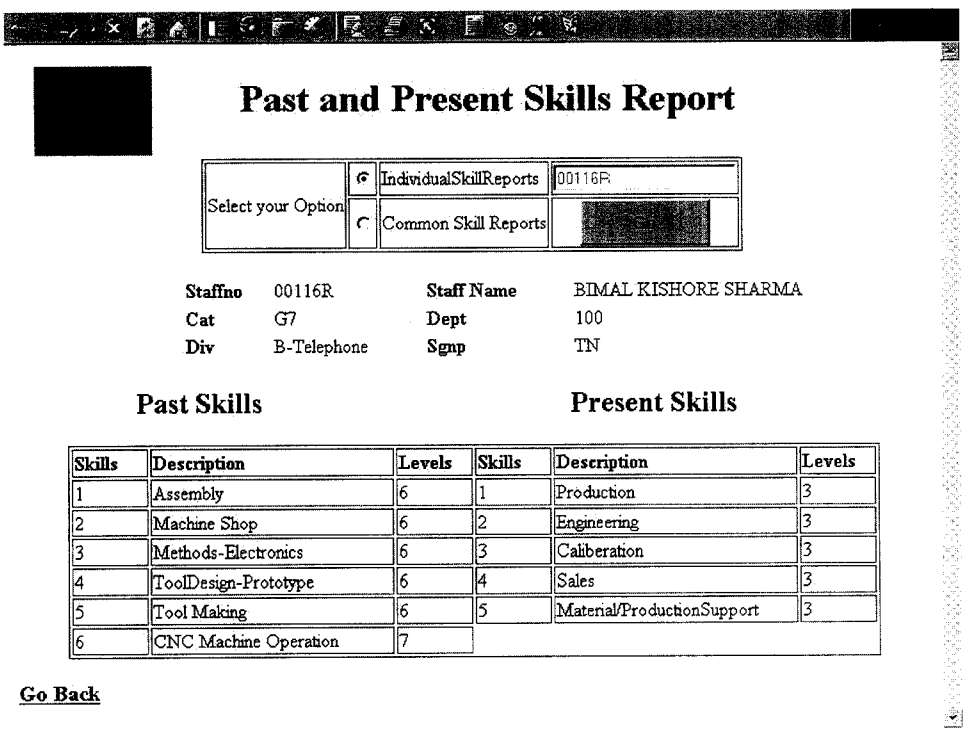
Future Skills Report

Select your Option			
	◉	IndividualSkillReports	00116R
	○	Common Skill Reports	

Staffno 00116R **Staff Name** BIMAL KISHORE SHARMA
Cat G7 **Dept** 100
Div B-Telephone **Sgnp** TN

Sno	Skill code	Description	Levels
1	100	Production	3
2	145	Engineering	3
3	168	Caliberation	3
4	183	Sales	3
5	215	Material/ProductionSupport	3

Go Back



Past and Present Skills Report

Select your Option			
	◉	IndividualSkillReports	00116R
	○	Common Skill Reports	

Staffno 00116R **Staff Name** BIMAL KISHORE SHARMA
Cat G7 **Dept** 100
Div B-Telephone **Sgnp** TN

Past Skills

Present Skills

Skills	Description	Levels	Skills	Description	Levels
1	Assembly	6	1	Production	3
2	Machine Shop	6	2	Engineering	3
3	Methods-Electronics	6	3	Caliberation	3
4	ToolDesign-Prototype	6	4	Sales	3
5	Tool Making	6	5	Material/ProductionSupport	3
6	CNC Machine Operation	7			

Go Back

Past and Future Skills Report

Select your Option	◉	IndividualSkillReports	00116R
	○	Common Skill Reports	[redacted]

Staffno 00116R **Staff Name** BIMAL KISHORE SHARMA
Cat G7 **Dept** 100
Div B-Telephone **Sgnp** TN

Past Skills

Future Skills

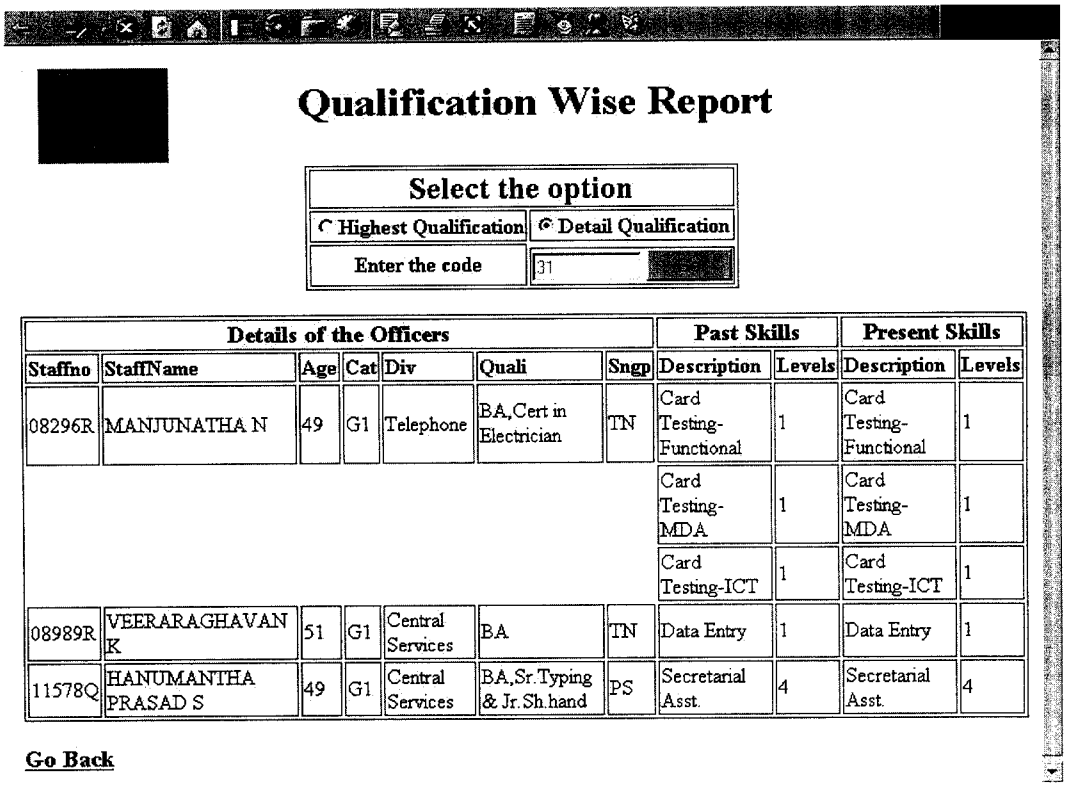
Skills	Description	Levels	Skills	Description	Levels
1	Assembly	6	1	Production	3
2	Machine Shop	6	2	Engineering	3
3	Methods-Electronics	6	3	Caliberation	3
4	ToolDesign-Prototype	6	4	Sales	3
5	Tool Making	6	5	Material/ProductionSupport	3
6	CNC Machine Operation	7			

Go Back

Qualification Wise Report

Select the option	
◉ Highest Qualification	○ Detail Qualification
Enter the code	31 [redacted]

Details of the Officers							Past Skills		Present Skills	
Staffno	StaffName	Age	Cat	Div	Quali	Sngp	Description	Levels	Description	Levels
06470R	SUBRAMANYASWAMY S N	52	G2	Transmission	BSc-PCM	TN	Chemical Lab	1	Finishing	7
08716R	SHAIK MOHAMMAD ABDULLA M	54	G1	Central Services	BSc-PCM	FN	Accounting-Inland Purchase	1	InternalAudit-System Audit	1
							CTO	1	InternalAudit-Cost Audit	1
08828R	MUNIYAPPA B K	51	G1	Transmission	BSc-PCM	TN	PCB Manufacturing	2	PCB Manufacturing	2
11099R	CHALUVA RAJU B L	50	G1	Central Services	BSc-CBZ	TN	General Administration	1	General Administration	1
11156R	SUKUMAR S	51	G2	Telephone	BSc-PCM	TN	Projects	1	Metallurgical Lab	2
11454R	NAGARAJU A	51	G1	Central	BSc-	TN	Guage Control	1	Guage Control	1

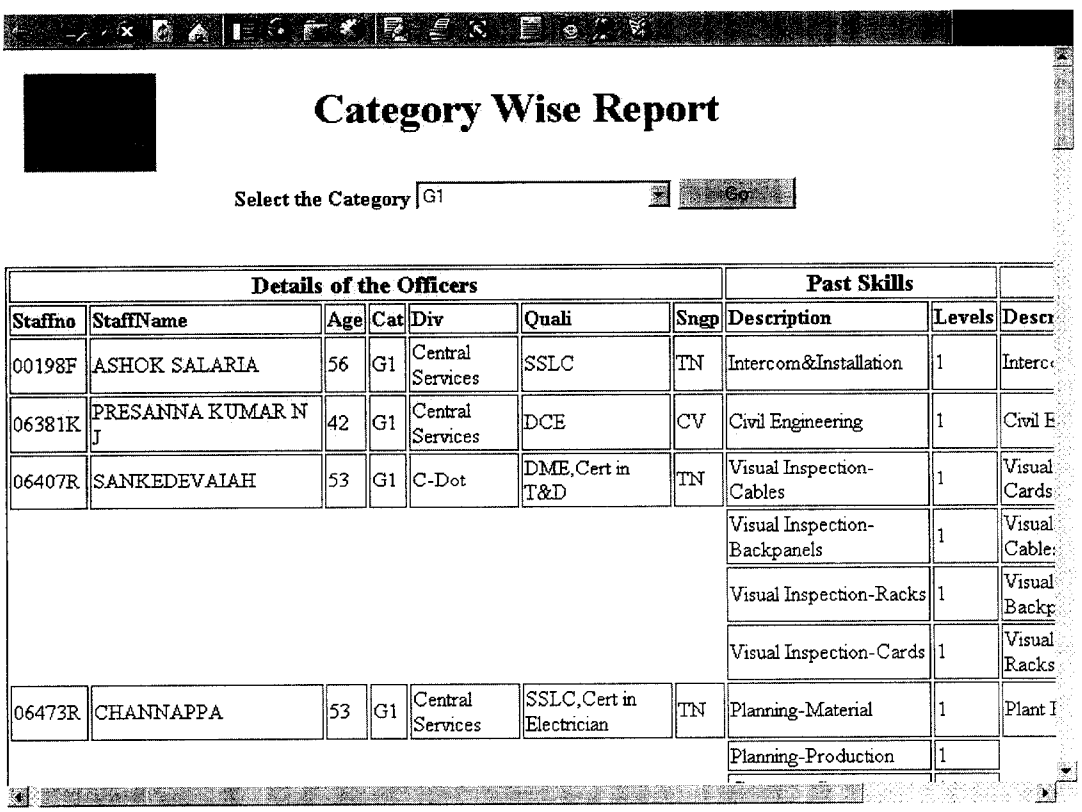


Qualification Wise Report

Select the option	
C Highest Qualification	C Detail Qualification
Enter the code	31

Details of the Officers							Past Skills		Present Skills	
Staffno	StaffName	Age	Cat	Div	Quali	Sngp	Description	Levels	Description	Levels
08296R	MANJUNATHA N	49	G1	Telephone	BA,Cert in Electrician	TN	Card Testing-Functional	1	Card Testing-Functional	1
							Card Testing-MDA	1	Card Testing-MDA	1
							Card Testing-ICT	1	Card Testing-ICT	1
08989R	VEERARAGHAVAN K	51	G1	Central Services	BA	TN	Data Entry	1	Data Entry	1
11578Q	HANUMANTHA PRASAD S	49	G1	Central Services	BA,Sr.Typing & Jr.Sh.hand	PS	Secretarial Asst.	4	Secretarial Asst.	4

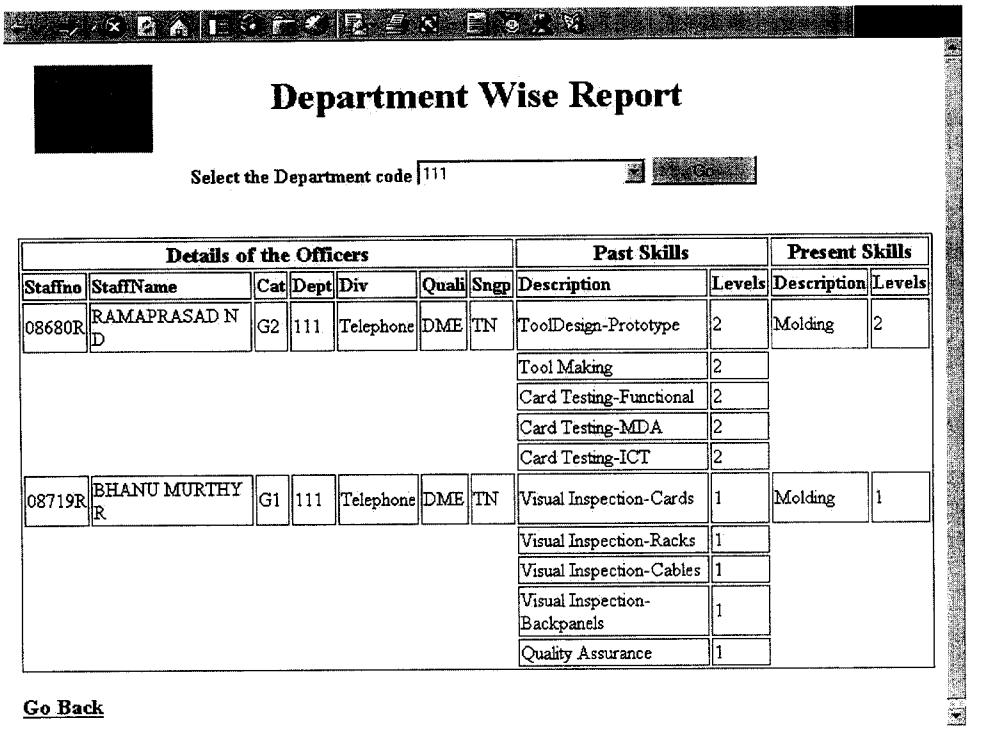
Go Back



Category Wise Report

Select the Category G1 Go

Details of the Officers							Past Skills		
Staffno	StaffName	Age	Cat	Div	Quali	Sngp	Description	Levels	Descr
00198F	ASHOK SALARIA	56	G1	Central Services	SSLC	TN	Intercom&Installation	1	Interc
06381K	PRESANNA KUMAR N J	42	G1	Central Services	DCE	CV	Civil Engineering	1	Civil E
06407R	SANKEDEVAIAH	53	G1	C-Dot	DME,Cert in T&D	TN	Visual Inspection-Cables	1	Visual Cards
							Visual Inspection-Backpanels	1	Visual Cable:
							Visual Inspection-Racks	1	Visual Backp
							Visual Inspection-Cards	1	Visual Racks
06473R	CHANNAPPA	53	G1	Central Services	SSLC,Cert in Electrician	TN	Planning-Material	1	Plant I
							Planning-Production	1	

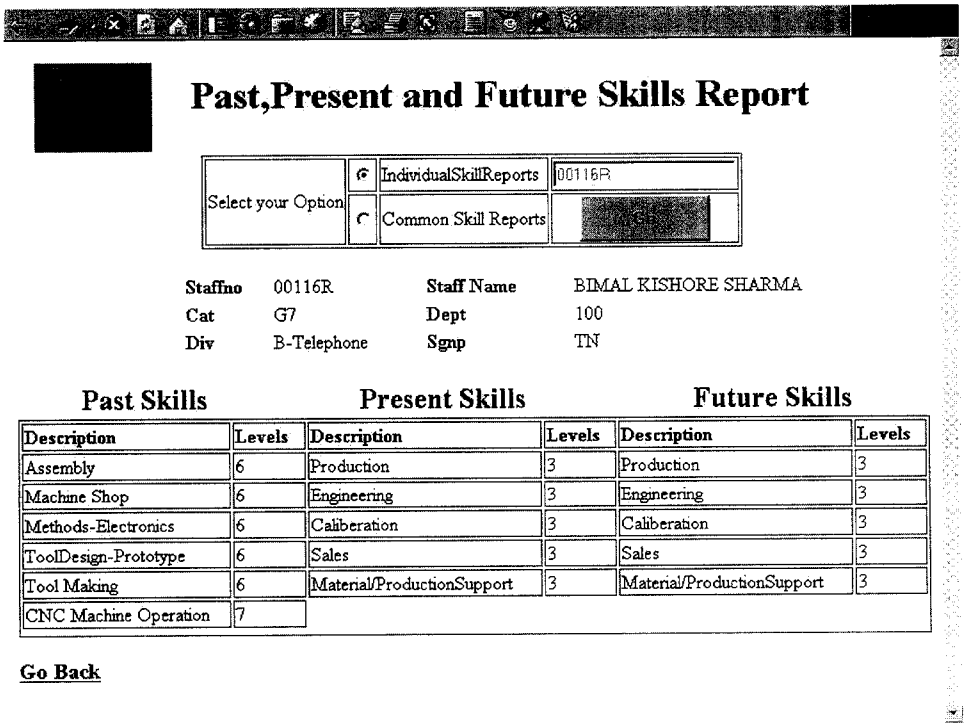


Department Wise Report

Select the Department code 111 Go

Details of the Officers							Past Skills		Present Skills	
Staffno	StaffName	Cat	Dept	Div	Quali	Sngp	Description	Levels	Description	Levels
08680R	RAMAPRASAD N D	G2	111	Telephone	DME	TN	ToolDesign-Prototype	2	Molding	2
							Tool Making	2		
							Card Testing-Functional	2		
							Card Testing-MDA	2		
							Card Testing-ICT	2		
08719R	BHANU MURTHY R	G1	111	Telephone	DME	TN	Visual Inspection-Cards	1	Molding	1
							Visual Inspection-Racks	1		
							Visual Inspection-Cables	1		
							Visual Inspection-Backpanels	1		
							Quality Assurance	1		

Go Back



Past,Present and Future Skills Report

Select your Option	◉	IndividualSkillReports	00116R
	○	Common Skill Reports	Go

Staffno 00116R **Staff Name** BIMAL KISHORE SHARMA
Cat G7 **Dept** 100
Div B-Telephone **Sgnp** TN

Past Skills		Present Skills		Future Skills	
Description	Levels	Description	Levels	Description	Levels
Assembly	6	Production	3	Production	3
Machine Shop	6	Engineering	3	Engineering	3
Methods-Electronics	6	Caliberation	3	Caliberation	3
ToolDesign-Prototype	6	Sales	3	Sales	3
Tool Making	6	Material/ProductionSupport	3	Material/ProductionSupport	3
CNC Machine Operation	7				

Go Back

Skill and Level Wise Report

Select the Table PastPreser Select the Code 126 Select the Level 1

GO BACK

Staffno	Staff Name	Cat	Dept	Division	Sngp	Code	Description	Levels	Code	Description	Levels
06948R	RAMAN Y	G1	264	Telephone	TN	126	Card Testing-Functional	1			
08296R	MANJUNATHA N	G1	264	Telephone	TN	126	Card Testing-Functional	1	126	Card Testing-Functional	1
08482R	JEEVAN	G1	264	Telephone	TN	126	Card Testing-Functional	1	126	Card Testing-Functional	1
08635R	PRASANNAKUMARIAH S C	G1	264	Telephone	TN	126	Card Testing-Functional	1	126	Card Testing-Functional	1
08857R	CHANDRAIAH N L	G1	264	Telephone	TN	126	Card Testing-	1			

Skill and Level Wise Report

Select the Table Past Select the Code 102 Select the Level 1

GO BACK

Staffno	Staff Name	Cat	Dept	Division	Sngp	Code	Description	Levels
08635R	PRASANNAKUMARIAH S C	G1	264	Telephone	TN	102	Card Assembly	1
08796R	KUMAR M	G1	532	C-Dot	TN	102	Card Assembly	1