STUDENTS INFORMATION SYSTEM USING PEOPLESOFT

By

PRADEEPKUMAR.C
Reg No. 71206631039

Of

Department of Management Studies
Kumaraguru College of Technology
Coimbatore

A PROJECT REPORT
Submitted to the

FACULTY OF MANAGEMENT SCIENCES

In partial fulfilment of the requirements
for the award of the degree

of

MASTER OF BUSINESS ADMINISTRATION

August, 2007

DECLARATION

I, **C.Pradeepkumar(71206631039)** hereby declare that this project report entitled as **" Students Information System using peoplesoft "**has been undertaken for academic purpose submitted to Anna University in partial fulfilment of the requirements for the summer internship project of M.B.A. The project report is the record of the original work done by me under the guidance of **Prof. K. Chitra** during the academic year 2007 – 2008.

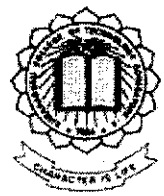
I, also declare hereby, that the information given in this report is correct to best of my knowledge and belief.

Date : 11-10-2007

Place : Coimbatore

C.Pradeepkumar

CERTIFICATES



DEPARTMENT OF MANAGEMENT STUDIES

KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE

BONAFIDE CERTIFICATE

Certified that this project report titled " **Students Information System using Peoplesoft** " is the bonafide work of **Mr.C. Pradeepkumar** who has carried out research under my supervision. Certified further, that to the best of my knowledge, the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Project guide

Director

Evaluated and Viva Voce conducted on 29-10-2007

Internal Examiner

External Examiner

K – Square Infotech Pvt. Ltd.

A Member of K – Square Group

Place : Bangalore
Date : August 01, 2007

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. C.Pradeepkumar(71206631039)**, a student of KCT Business School, Kumaraguru College of Technology had undergone a project between June 29, 2007 to July 31, 2007. Entitled project – Student Information System using Peoplesoft

During the tenure is performance was very good .

Yours sincerely,

for K – Square Infotech Pvt . Ltd.

Ashwath Patil
GENERAL MANAGER – HRD

TABLE OF CONTENTS

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Enterprise Resource Planning systems integrates all data and processes of an organization into a unified system. A typical ERP system will use multiple components of computer software and hardware to achieve the integration. A key ingredient of most ERP systems is the use of a unified database to store data for the various system modules. Hence the student information system is developed in ERP.

The objective of the study is to develop an information system to integrate various level functions of the institution. It is designed and developed according to the user requirements. It uses SQL to select the database and Tables with Query. Forms and Reports created in the system will have major impact on the information system. The database can store a huge amount of information. A detailed system study was carried out and various objectives were then formulated.

An introduction has been given about the study in the first chapter. Moreover, a detailed Macro-Micro Analysis has been done covering the various scenarios of ERP. The comparisons between the various ERP packages are also given. The history of the organisation along with its management and structure has also been provided. Finally system analysis and design are done. The design of a system is perhaps the most critical factor affecting the quality of the system; it has a major impact on the later phases, particularly testing and maintenance. The output of this phase is the design document. This document is similar to a blue print or plan for the solution and is used later during implementation, testing and maintenance.

CHAPTER 1

CHAPTER -1

INTRODUCTION

Enterprise Resource Planning systems (ERPs) integrate (or attempt to integrate) all data and processes of an organization into a unified system. A typical ERP system will use multiple components of computer software and hardware to achieve the integration. A key ingredient of most ERP systems is the use of a unified database to store data for the various system modules.

Manufacturing management systems have evolved in stages over the past 30 years from a simple means of calculating materials requirements to the automation of an entire enterprise. Around 1980, over-frequent changes in sales forecasts, entailing continual readjustments in production, as well as the unsuitability of the parameters fixed by the system, led MRP (Material Requirement Planning) to evolve into a new concept : Manufacturing Resource Planning (or MRP2) and finally the generic concept Enterprise Resource Planning (ERP)

The term ERP originally implied systems designed to plan the use of enterprise-wide resources. Although the initialism ERP originated in the manufacturing environment, today's use of the term ERP systems has much broader scope. ERP systems typically attempt to cover all basic functions of an organization, regardless of the organization's business or charter. Businesses, non-profit organizations, nongovernmental organizations, governments, and other large entities utilize ERP systems.

Additionally, to be considered an ERP system, a software package generally would only need to provide functionality in a single package that would normally be covered by two or more systems. Technically, a software package that provides both payroll and accounting functions would be considered an ERP software package. However, the term is typically reserved for larger, more broadly based applications. The introduction of an ERP system to replace two or more independent applications eliminates the need for external interfaces previously required between systems, and

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

take this opportunity in acknowledging some noble hearts for lending their helping ands in successful completion of the project.

extend my heartfelt thanks to our respected chairman, **Dr.N.Mahalingam,** umaraguru College of Technology, who helped us to undergo this master's degree nd acquire a lot of knowledge .

also thank our respected principal, **Dr.Joseph V.Thanikal**, for providing the acilities to do the project.

express my deep sense of gratitude to our Director **Prof. S. V. Devanathan**, KCT Business School, for his kind patronage and for his consent to carryout this project.

take privilege and immense pleasure in expressing my sincere gratitude to my uiding spirit, **Prof. K.Chitra**, for her in-depth guidance, motivation and ncouragement in executing this project right from the beginning and making it a uccess.

am highly obliged to extend my sincere thanks to **Mr. F. Leo Marshall**, Peoplesoft onsultant, K Square Infotech Pvt Ltd, for his effective guidance and valuable upport to carryout this project in their premises.

My special acknowledgements and thanks to Department of Management Studies, aculty Members, and my friends for their help and motivation throughout .

inally I thank my family members for their moral support which was a great help or me in my project completion.

(one system instead of two or more) to easier and/or greater reporting capabilities (as all data is typically kept in one database).

Examples of modules in an ERP which formerly would have been stand-alone applications include: Manufacturing, Supply Chain, Financials, Customer Relationship Management (CRM), Human Resources, Warehouse Management and Decision Support System.

Overview

Some organizations - typically those with sufficient in-house IT skills to integrate multiple software products - choose to implement only portions of an ERP system and develop an external interface to other ERP or stand-alone systems for their other application needs. For instance, the PeopleSoft HRMS and financials systems may be perceived to be better than SAP's HRMS solution. And likewise, some may perceive SAP's manufacturing and CRM systems as better than PeopleSoft's equivalents. In this case these organizations may justify the purchase of an ERP system, but choose to purchase the PeopleSoft HRMS and financials modules from Oracle, and their remaining applications from SAP.

This is very common in the retail sector [citation needed], where even a mid-sized retailer will have a discrete Point-of-Sale (POS) product and financials application, then a series of specialised applications to handle business requirements such as warehouse management, staff rostering, merchandising and logistics.

Ideally, ERP delivers a single database that contains all data for the software modules, which would include:

Manufacturing :

Engineering, Bills of Material, Scheduling, Capacity, Workflow Management, Quality Control, Cost Management, Manufacturing Process, Manufacturing Flow .

Supply Chain Management :

Inventory, Order Entry, Purchasing, Product Configurator, Supply Chain Planning, Supplier Scheduling, Inspection of goods, Claim Processing, Commission Calculation.

Human Resources :

Human Resources, Payroll, Training, Time & Attendance, Benefits .

ERP calls for constant modifications and up gradations. ERP developers are facing tremendous pressure both from vendors and companies. In this context it becomes important to analyze the erp's trends and modalities.

Some of the relevant issues are as follows:

Organizations had to implement ERP throught their systems irrespective of the fact whether they help in all the functions or in one particular function. This was proving to be a big hurdle to the firms. In addition this remained as the main disadvantage.

The latest ERP software programs have overcome this menace. They offer need based applications. The firms need not be worried even if these Software Programs were not available. They were given the liberty to purchase and install Software Programs pertaining to that particular function. This advantage has helped to increase the scope of ERP not only among large firms but also small and medium business as well.

ERP was a very costly affair. Thanks to the intrusion of internet and open source applications. This has helped S.M.E.'S to enter the market of prospective buyers.This has not only widened the horizon of S.M.E.'s but also increased the usage among firms. These firms were not able to invest huge money in spite of adequate funds. Now that the spending on ERP gets reduced there are no hesitations to show the green signal for fear of heavy monetary outlay. It is encouraging to notice the improving IT ERP trends.

Reduction in implementation time

ERP was discouraged by companies because they took such a long time to get installed and set the whole process into action. Since this resource was spent excessively there were chances for reduction in potential business and losing man-hours.

The current day ERP applications are less complex to install and train. This has reduced the amount of time spent on ERP.Companies are thereby assured of spending lesser time for ERP.

Open Source, Web enabled and wireless technologies

These are three important elements that have rejuvenated the functioning of ERP.Open Source ERP has done away with the hassles of paying license fees not only

Web enabled ERP helps in making the enterprise operations go online. Any stakeholder or third party can access the required information very easily and that too by sitting anywhere in the world. This proves to be of great help especially during emergencies when the details are to be sourced with immediate effect.

Wireless ERP has helped organizations to make use of the communication channels effectively and efficiently. It has made it possible for many elements to operate in ERP which were otherwise not possible. Wireless ERP is nothing but sharing enterprise information through devices like internet and other devices making it possible for outsiders to access the same.

ERP trends reflect positive signals for the ERP vendors and companies availing their service. It is important to remember the fact that both the vendor and the company will be able to make use of any advantage (including the modern facilities) only through proper coordination, teamwork and nurturing a cordial atmosphere. Mere IT ERP trends will not help in this aspect.

REVIEW OF LITERATURE

P.A. Millet, V. Botta-Genoulaz , B. Grabot (2005) [1] have conducted a study on Enterprise Resource Planning (ERP) and reviewed that the ERP systems have exponentially grown in recent years. In a domain, where new concepts and techniques are constantly introduced, it is therefore, of interest to analyze the recent trends of this literature, which is only partially included in the research papers published. Therefore, the author have chosen to primarily analyze the literature of the last two years (2003 and 2004), on the basis of a classification according to six categories: implementation of ERP; optimisation of ERP; management through ERP; the ERP software; ERP for supply chain management; case studies.

This survey confirms that the research on ERP systems is still a growing field, but has reached some maturity.Different research communities address this area from various points of view. Among the research axes that are now active, we can, especially, notice a growing interest on the post-implementation phase of the projects, on the customization of ERP systems, on the sociological aspects of the implementation, on the interoperability of the ERP with other systems and on the return on investment of the implementations.

Young B. Moon (2006)[2] has reviewed various journals on the topics of Enterprise Resource Planning (ERP) between January 2000 and May 2006. A total of 313 articles from 79 journals are reviewed. The article states three goals. First, it will be useful to researchers who are interested in understanding what kinds of questions have been addressed in the area of ERP. Second, the article will be a useful resource for searching for research topics. Third, it will serve as a comprehensive bibliography of the articles published during the period. The literature is analyzed under six major themes and nine sub-themes.

Farzad Shafiei , David Sundaram, December (2006)[3], University of Auckland. Enterprise Resource Planning (ERP) and Decision Support Systems (DSS) have independently evolved and prospered in the marketplace as well as in academia. More recently, ERP and related systems such as Customer Relationship Management (CRM) and Supply Chain Management (SCM) are incorporating decision support tools and technologies. These include Business Intelligence, Customer Intelligence, Supply Chain Intelligence, and Business Analytics. At the same time, DSS are taking advantage of the data resident in ERP systems. This emerging convergence has motivated us to look at the integration of ERP and DSS. The integration of ERP and DSS provides firms with a number of advantages. First, they are able to maximise their Intelligence Density. Second, they are able to improve the quality and visibility of their information. Finally, they can form a solid foundation from which they can achieve multi-enterprise collaboration. Over the years, researchers and practitioners have proposed frameworks and architectures for ERP and DSS exclusively. However, there is little in the way of academic literature, frameworks, architectures, and implementations that integrate ERP and DSS in a coherent fashion. We address this area of research by first conducting a review of the independent and combined literature in the fields of ERP and DSS. This literature review paves the way for the proposal of a Multi-Enterprise Collaborative conceptual ERP-DSS framework that

vendors in the marketplace. We then combine our own insight with respect to multiple-enterprise collaboration via the integration of ERP and DSS to propose a set of high-level and medium-level system frameworks. These system frameworks depict the mechanisms behind the integration of ERP and DSS both within the firm, and in a Multi-Enterprise Collaborative context

---

[1] P.A. Millet, V. Botta-Genoulaz , B. Grabot . The issues, and Emerging trends in Enterprise Resource Planning (ERP) , September 2005, http.portal.acm.org/results.cfm,.

[2] Young B. Moon . The issues, and Emerging trends in Enterprise Resource Planning (ERP) , August (2006), http://www.inderscience.com.

[3] Farzad Shafiei , David Sundaram, University of Auckland . Enterprise Resource Planning (ERP): a review of the literature December 2006, http://www.inderscience.com.

STATEMENT OF THE PROBLEM

The existing information system has been developed on the basis of individual application using several high level languages and various database consisting of different departments. They also have drawbacks like Inconsistency of data, paperwork, high response time. Keeping track of transactions are very difficult in the existing systems, It is impossible to integrate and cannot be used in real-time. Inefficiency and Formatted results are very difficult to be generated manually.

OBJECTIVES OF THE STUDY

The main objectives the system is to automate detail of students (i.e.,) to maintain the details such as curriculum , personal, department , course , guide ,instructor, transportation and finally it generates the reports.

The main objectives of study are:

- To maintain all the details of the student's database in computerized format.
- To maintain admin details, company details, department details, route details in the system.
- To make alterations of record easier and easy reference of records
- To reduce maintenance of paper records

SCOPE OF THE STUDY

This study was conducted for a period of 6 weeks in K Square InfoTech pvt Ltd. This study was conducted to computerize the students database of the firm using ERP concepts and also to find out various other details of the students database .this study tries to analyze all the factors involving in the Students Database Management System.

METHODOLOGY

DESIGN

Input Design

Input design is the method by which valid data are accepted from the user. This valid data in turn is stored as operational data in the database.

Features of Input design

- Input design mainly includes option keys, push buttons which helps in the user to choose the option.
- It helps to add some more data's, which helps it to isolate it from other forms.

Output Design

The output design defines the output required and the format in which it is to be produced care must be taken to present the right information so that right decisions are made. The output generated can be classified into 3 categories.

- Screen output
- Output to be stored as files in storage media
- Hardcopy of the output

The screen output essentially displays the generated output on the screen. The results of most the queries are usually displayed on the screen. The provision of generated output to be stored in the file is for future reference and to take hard copies of the same is to provide information to the management and whatever situation demands The most imported and effective way of presenting information is reports.

TOOLS USED

Operating System	:	Windows 2000 Professional
Front-end	:	PEOPLESOFT
Back-end	:	SQL.
Database	:	ORACLE

SQL.

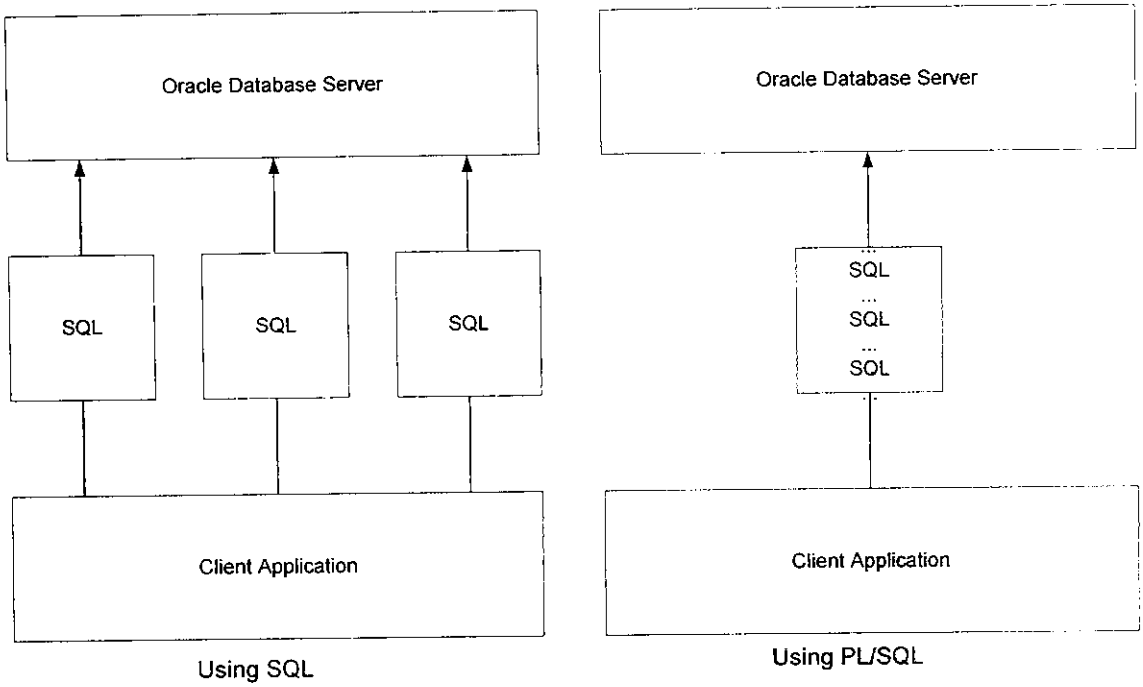
It generates various queries to retrieve data from the oracle database. SQL supports all the program modules and utilities co-ordinate all Communication between the user and the data in the database. In this sense the back end constitutes the real database management system. Access allows conditional retrieval and manipulation of data, creation, modification and detection of tables. Create a wide variety of both stand-alone tables and databases that link many tables together. Search for and display information in an almost endless variety of ways, then print out the results. Generate printed reports and mailing labels in a variety of sizes and formats.

- ✓ Supports OLE.
- ✓ Helps in creating tables with primary keys.
- ✓ Helps in designing forms.
- ✓ It acts as a backend for number of GUIs.

An extension of SQL by adding constructs found in procedural languages (3GL), such as

- ✓ Variables and types (predefined and user-defined)
- ✓ Control structures such as IF-THEN-ELSE statements and loops
- ✓ Procedures and functions
- ✓ Object types and methods (PL/SQL version 8 and higher)
- ✓ It combines the power and flexibility of SQL (4GL) with procedural constructs of a 3GL

Using PL/SQL In Client-Server Environment



PL/SQL Block Structure

DECLARE --Optional

/* Declarative section – PL/SQL variables, types, cursors, and local subprograms go here*/

BEGIN --Mandatory

/* Executable section – procedural and SQL statements go there. This is the main section of the block and the only that is REQUIRED */

EXCEPTION --Optional

/* Exception handling section – error handling statements go here. */

END;

PL/SQL Types

SCALAR TYPES

- Numeric Family

- Date Family

COMPOSITE TYPES

- RECORDS
- TABLES
- VARRAY

REFERENCE TYPES

- REF CURSOR
- REF object type

Naming Conventions

- Use a naming convention to avoid ambiguity in the WHERE clause.
- Database columns and identifiers should have distinct names.
- Syntax errors can arise because PL/SQL checks the database first for a column in the table.

COMMIT and ROLLBACK Statements

- Initiate a transaction with the first DML command to follow a COMMIT or ROLLBACK.
- Use COMMIT and ROLLBACK SQL statements to terminate a transaction explicitly.

SQL Cursor

- A cursor is a private SQL work area.
- There are two types of cursors:
  - Implicit cursors
  - Explicit cursors
- The Oracle Server uses implicit cursors to parse and execute your SQL statements.
- Explicit cursors are explicitly declared by the programmer.

Windows 2000 Professional

Windows as an operating system has been developed from a basic GUI like window 2000 and window NT. Both provide a common goal i.e. ease to use and manageability by the user. While window is focused on making computer easy for anyone, using a wide range personal and business application on the desktop and portable computers windows 2000 professional has emerged as a powerful desktop operating system for catering complex business needs. Application programmers for developing scientific and financial application also use it. Windows 2000 professional provides a high level of reliability, protection and security.

It can be used as a powerful computational tool for faster operation and real time application. The configuration including a CPU, Floppy Disk Drive, Hard Disk Drive, an operator control and input devices.

TOOLS FOR ANALYSIS

Data Flow Diagram are used in system analysis.

LIMITATIONS

- Operations are time consuming, whenever a need of search arises the process evolves search through the paper.
- Readability of records is constrained. All the records may be handled or written by the same person. So the format will be different resulting in loss.
- Paper records are easily damaged with time. The life time of paper records are very less that it easily get damaged. It faces the risk of loss of data.

CHAPTER SCHEME

Introduction

It includes some sub headings like Background, Review of literature, Statement of the problem, Objectives of the study, Scope of the study, Methodology, Limitations and Chapter scheme.

Organization Profile

It includes some sub headings like History of the organization, Management, Organization structure, Products profile and market potential, Competitive strength of the company, Future plans if any, Description of various functional areas.

Macro-Micro Analysis

The prevailing scenario with respect to the industry and the company selected for the study to be briefly discussed in National & International level.

Example Company: K Square InfoTech pvt Limited.

System Analysis

System analysis is done in order to understand the problem the software system is to solve. The problem could be automating an existing manual process, developing a new automated system, or a combination of the two.

Testing and Implementation

Testing like System Testing and White Box Testing and Implementation have Planning, Training, Maintenance.

CHAPTER 2

CHAPTER-2

ORGANISATION PROFILE

HISTORY OF THE ORGANISATION

K Square Infotech pvt Ltd is a consulting and IT services company, offering a wide array of solutions customized for a range of key verticals and horizontals. From strategy consulting right through to implementing IT solutions for customers, K Square Infotech pvt Ltd straddles the entire IT space. It has excellent domain competencies in verticals such as Automotive, Banking & Financial Service, Insurance & Healthcare, Manufacturing, Telecom-Infrastructure-Media-Entertainment-Semiconductors (TIMES). As a diverse end-to-end IT solutions provider, K Square Infotech pvt Ltd offers a range of expertise aimed at helping customers re-engineer and re-invent their businesses to compete successfully in an ever-changing marketplace.

K Square Infotech pvt Ltd need-driven deployment of domain and technology expertise brings to customers a range of solutions and products that enhance performance and competitiveness. Our consulting and IT solutions have resulted in technology-intensive transformations that have met the most stringent of international quality standards. We have developed a unique quality hallmark, called eSCMSM (eSourcing Capability Model), for IT Enabled Services (ITES).

We follow a specially developed Business Continuity Model (BCM), which allows us to continue mission critical operations of our customers, even in the most challenging of times.

Corporate profile :

K Square Infotech pvt Ltd highly skilled, dedicated IT professionals, its subsidiaries and Joint Ventures provide customized IT solutions for several industries using our range of technical expertise and experience.

K Square Infotech pvt Ltd 's range of expertise

Software Development Services

- Engineering Services
- Systems Integration
- ERP Solutions
- Customer Relationship Management
- Supply Chain Management
- Product Development
- Electronic Commerce
- Consulting
- IT Outsourcing

Industry Verticals

- Automotive
- Banking & Finance Services
- Energy & Utility
- Government
- Healthcare
- Insurance
- Manufacturing
- Non-Profits
- Process Industry
- Real Estate & Construction
- Retail
- Telecom
- Travel & Transportation

K Square Infotech pvt Ltd's range of consulting and IT skills have helped businesses re-engineer and re-invent their products, services and processes to compete successfully in an ever-changing marketplace.

MANAGEMENT

K Square Infotech Pvt Ltd, a professionally managed Consultancy company established in Chennai in the year 2000, promoted to provide varied consultancy services to Engineering, Manufacturing, Software and Service Industries. This company has been formed with a motto of "REDEFINING SERVICE".

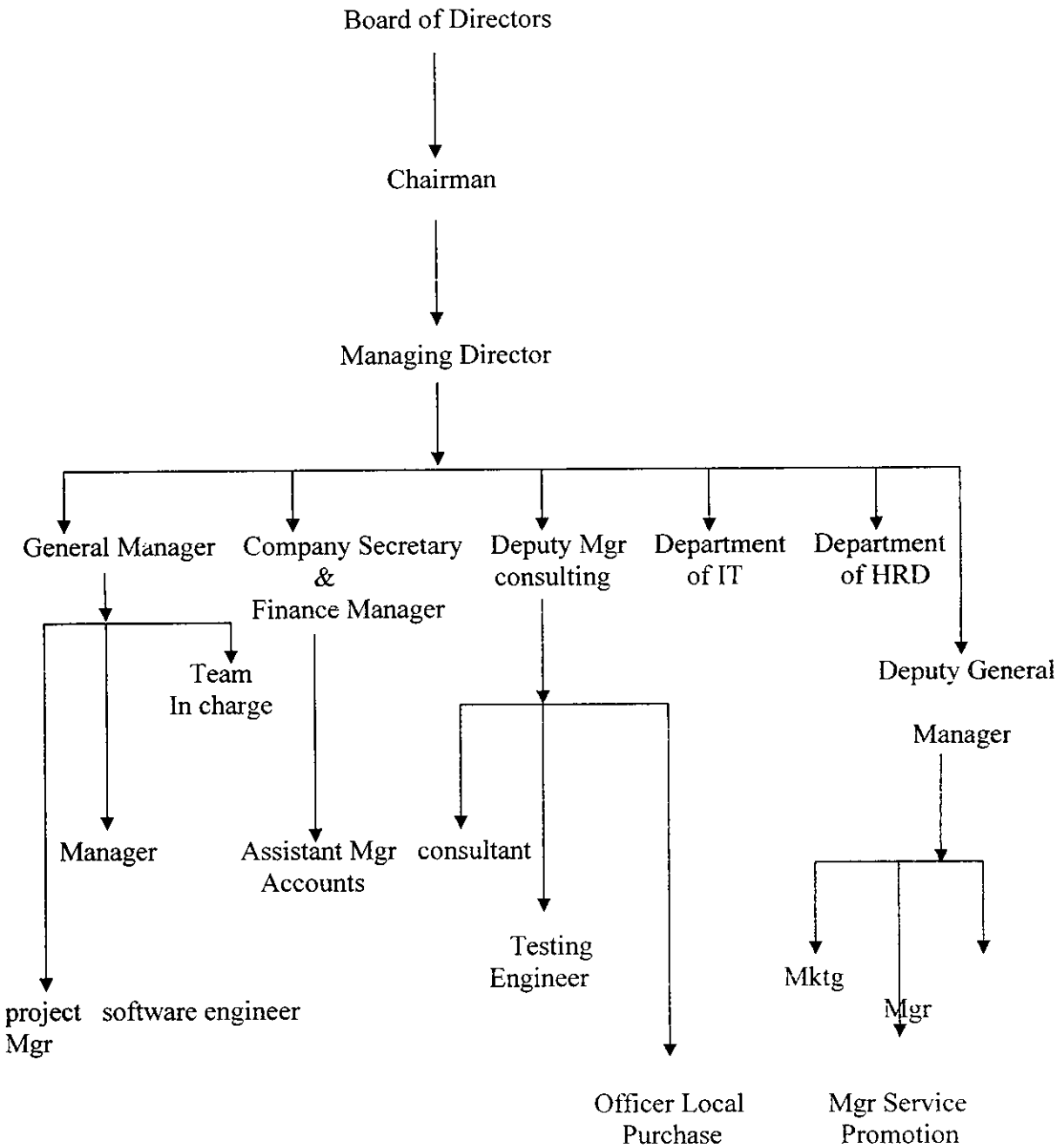
The company comprises of young, energetic and dynamic team of professionals having experience in various platforms and technologies. It provides IT and NON-IT solutions to ever changing industry requirements with cutting edge technology in the spectrum of Education, Recruitment, Management and Technical consultancy services.

The organization emphasizes on acquiring an in-depth knowledge of the customer's context and needs, and designs solutions fine-tuned to these needs. K Square Infotech Pvt Ltd 's ideas and products have resulted in technology-intensive transformations that have met the most stringent international quality standards.

Simultaneously, K Square Infotech Pvt Ltd teams proactively work on turning new ideas into products that answer global market needs. One such product is Vision Compass, a web-enabled collaborative enterprise management software.

The values like Belief in people , Pursuit of excellence , Entrepreneurship , Customer orientation have led to the creation of a unique organizational structure, with every functional unit designated as an independent business enterprise, each responsible for its own resource management and its profits and losses.

ORGANIZATION STRUCTURE



K Square Infotech Pvt Ltd 's organizational structure is inspired by a unique concept –the Network of Circles. Each Circle offers a specific set of business offerings based on its competency profile.

The result is an internal culture where new ideas are nurtured and acted upon and new competencies developed. This way K Square Infotech Pvt Ltd continuously provides services right across the IT value chain.

At the center of the Network of Circles is the customer, whose business requirements are the driving force. Accordingly, the Circles are categorized as:

- Verticals Business Units (Based on the customer's line of business)
- Horizontal Competency Units (Based on competency requirements)
- Regional Business Units (Based on the regions the unit operates)

PRODUCTS PROFILE AND MARKET POTENTIAL

Product

- Siebel
- PeopleSoft
- Microsoft Dynamics
- mySAP
- Vantive

Solutions

- Payroll Solutions
- HR Portals & HR-Analytics
- Enterprise Learning Systems

HR Product Based Services

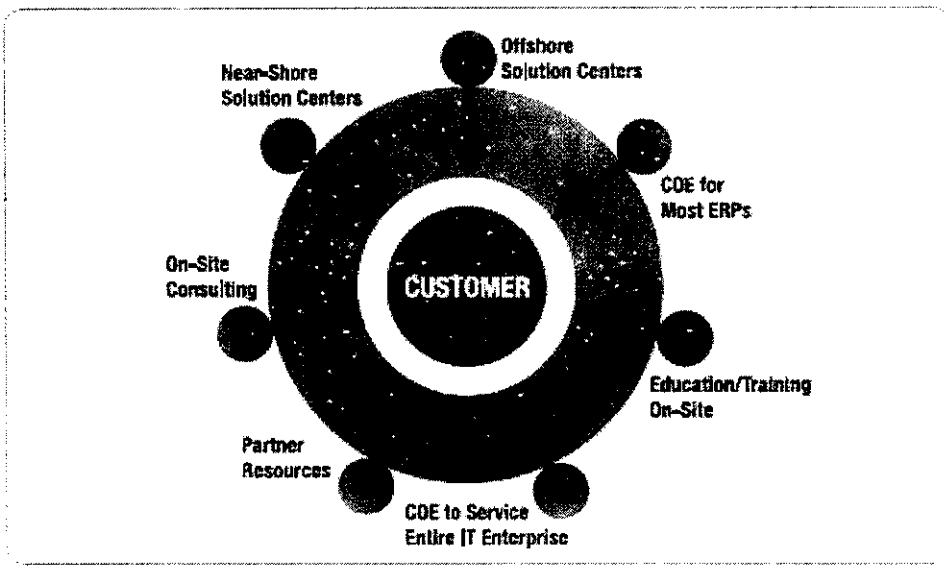
- HR-IT Architecture and Design
- HR Product Evaluation/Selection
- HR Business Process Re-engineering (BPR)

HR BPO Services

- Payroll Processing
- Recruitment Process Outsourcing
- Learning Process Outsourcing
- Benefits Administration

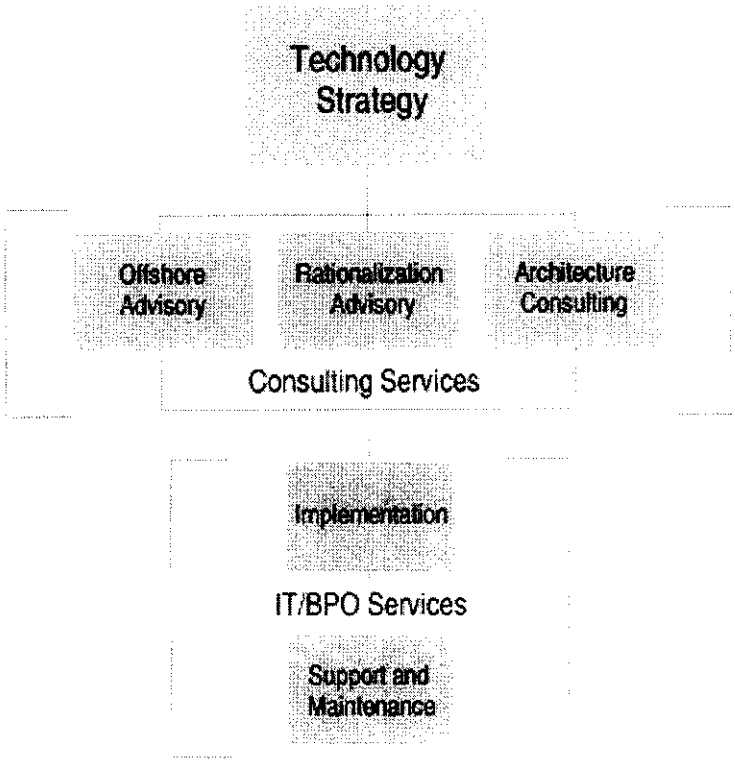
Services

K Square InfoTech pvt Ltd has demonstrated expertise in managing complex PeopleSoft environments. In providing diverse services, we have ensured a high level of customer satisfaction and gained several clients who can vouch for our ability to deliver.

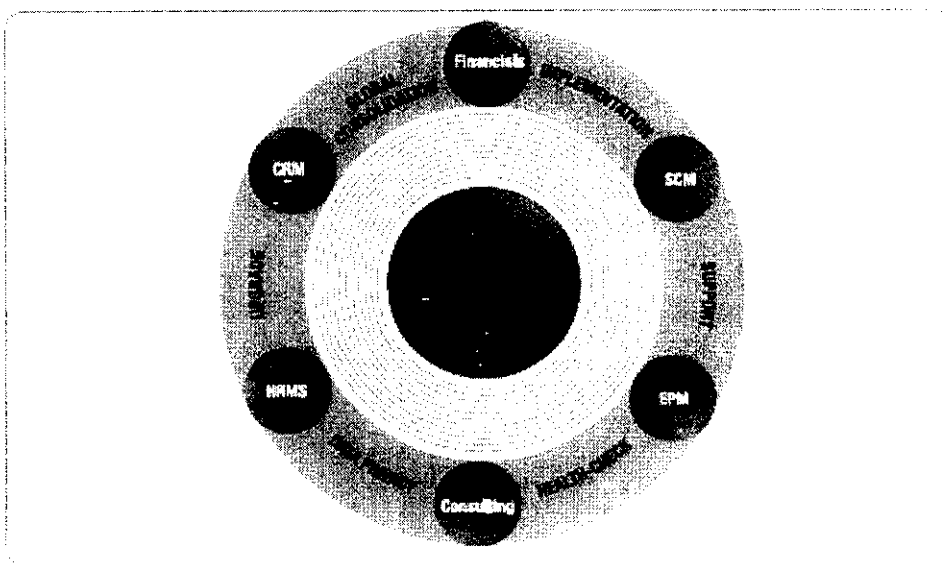


Technology Consulting

The K Square InfoTech pvt Ltd Strategy Consulting Group assesses different technology strategies for clients. These strategies are then structured - through strategic, architectural, operational and implementation roadmaps - to complement business goals and objectives. They are then intelligently integrated with our technological expertise and domain knowledge to drive business growth for the client. K Square InfoTech pvt Ltd has demonstrated capabilities in delivering business transformations through multiple legacy modernization and BPO .

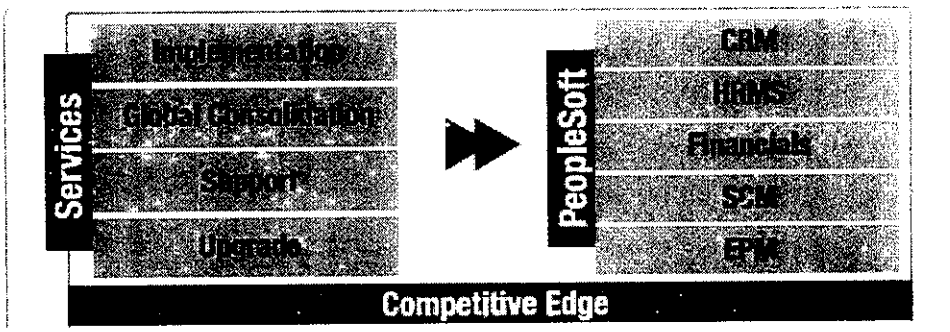


Peoplesoft services



Benefits

- ✓ Implement or upgrade up to 35% faster than an all on-site engagement
- ✓ Reduce costs by up to 50%
- ✓ Fixed scope, fixed fee, condensed timeline
- ✓ End-to-end services
- ✓ High-value, fixed low-cost solutions with rapid, predictable results
- ✓ Customer project team able to focus on more strategic or customer-specific tasks



❖ **Market Potential**

Our services are offered to clients with needs ranging from development of offshore strategies, improving efficiencies of technology investment, cost control as well as achieving Business Transformations. We help our clients define and execute plans for investments that optimize the Total Cost of Ownership. Some of the benefits to clients include:

- ✓ Enabling the move to Service-Oriented Architecture (SOA) platform
- ✓ Leveraging BPO effectively through our global service delivery models and integrated IT-BPO offerings
- ✓ Increasing the ability to use technology in more places, more innovatively
- ✓ Making the enterprise more agile so it can respond to changes or new opportunities in the market faster

Value proportion

The Banking and Financial services segment at Hexaware offers end-to-end IT-BPO services for leading global banks by bringing together its rich experience in the Banking and Financial areas and its expertise in Analytics. Our experience includes:

- ✓ Equips you by understanding the risks and critical success factors before off shoring
- ✓ Helps analyze and consolidate your technology portfolio
- ✓ Eliminates heterogeneity and redundancy
- ✓ Measures business impact and aligns technology with business by leveraging domain and technology centers of excellence

FUTURE PLANS

K square infotech has planned to become a national player as a service provider for various industries with single window concept.

VARIOUS FUNCTIONAL AREAS

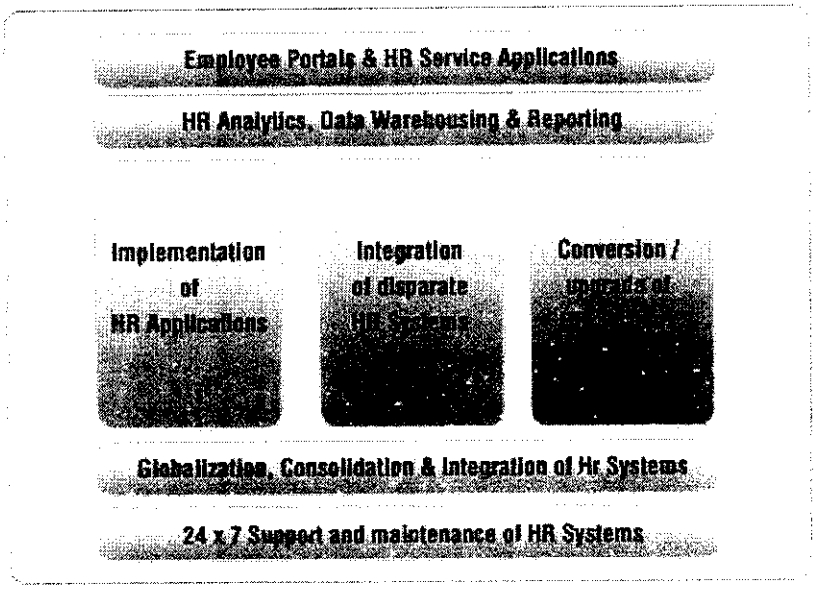
Human Resource-Information Technology

Global sourcing of labor and material resources has brought about the need to connect employees in multiple locations across the globe, bridge business processes, cultures and languages in order to deliver organizational excellence. This has enabled management of workforce across multiple locations, while allowing for implementation of a uniform, global, corporate strategy.

HR-IT is the technology enablement of this HR strategy. It covers all the systems and processes that support employee management from "Recruit to Retire" functions within the organization. Increased adoption of HR-IT has enabled companies to set up global shared services centers and outsourcing of HR processes.

Recently, HR-IT has gained significance since most organizations have been using technology to transform HR, to increase HR productivity, to improve employee

employees by aligning their skills, activities, and benefits with business objectives and strategies.



❖ **Personal Culture**

The Management has been encouraging and promoting a very informal culture "Personal Touch" sense of belonging, enabling employees to become involved and contribute to the success of the company. The top management also conscientiously inculcates values in the people.

❖ **Work Environment**

Special and conscious efforts are directed towards house keeping of the highest older. Renovation and modernization of office premises and office support systems are carried out in an on going basis.

❖ **Total Quality Management**

Customer focus is not merely a busy word but it has become an important factor of everyday work and has got internationalized into the work environment. There is an equal emphasis on internal focus leading to greater team efforts and better cross functional relationship.

Personnel Activities

To see that discipline of coordinal industries relationship are maintained, incase of any disputed it is the duty of HR manager to see yeast the matter in settled amicably.

An HRD manager plays the role of liaison officers between the management of the workers.

- Recruitment
- Induction training of placement
- Attendance and leave regulation
- Performance Appraisal

Methodology

- Aptitude
- Reasoning test
- Group Discussion
- Personal Interview
- Technical Interview
- Final Interview

Quality Department

Quality Control – The vision statement of K Square InfoTech Pvt Ltd is "Becoming a national player as a service provider for various industries with single window concept.".

Mission :

To play an ambitious role by providing services to industries with customer satisfaction as the ultimate goal.

Quality Policy

The strength of the company lies in its promoter's years of experience in national as well as multinational companies. Our past experience in Education,

CRM.

K Square InfoTech Pvt Ltd CRM practice is driven by the philosophy that we work for our customers' customers. K Square InfoTech Pvt Ltd believe that Customer Relationship Management is a strategy to help attract, retain and grow a profitable customer base. And the CRM packages are merely a means to help execute the CRM strategy.

CRM Services:

1. Consulting
   - Feasibility Analysis
   - Technology Evaluation & Selection
   - Project Scoping
   - Metrics Reporting & ROI
   - Proof-of-Concept development
   - Application Audit & Health Check

2. Implementation
   - Implementation Strategy
   - Functionality Mapping & Gap Analysis
   - Data Migration,
   - Conference Room Pilot & Training
   - Full Cycle Implementations & Deployment
   - Global Rollouts
   - Release Management

3. Support and Maintenance
   - Application Support
   - Customization Support
   - Database Administration
   - Application Administration

CHAPTER 3

CHAPTER-3

MACRO - MICRO ANALYSIS

Enterprise Resource Planning systems integrate all data and processes of an organization into a unified system. A typical ERP system will use multiple components of computer software and hardware to achieve the integration. A key ingredient of most ERP systems is the use of a unified database to store data for the various system modules.

ERP vendors by revenue

The largest vendors worldwide in 2005 according to Gartner Dataquest:

Market share 2005 according to Gartner Dataquest

#	Vendor	Revenue (million $)	Market share (%)
1	SAP	4726	28.7
2	Oracle Applications	1674	10.2
3	The Sage Group	1221	7.4
4	Microsoft Dynamics	616	3.7
5	SSA Global Technologies[2]	464	2.8

Vendors of popular ERP software include (sorted roughly according to worldwide ERP related revenue):

Vendor	Revenue (Native currency)	Revenue (million $)	Year
SAP	9.4 billion EUR	12401.4	2006
Oracle Applications	14.38 billion USD	14380.0	2006
Infor Global Solutions	2.1 billion USD	2100.0	2006
The Sage Group	935.6 million GBP	1832.0	2006
Microsoft Dynamics (Formerly Microsoft Business Solutions)	44.2 billion USD	44200.0	2006
Unit 4 Agresso	352.6 million EUR	465.2	2005

Feature sets in the maintenance, support and upgrade category.

1.Diagnostic and technical support

Microsoft, SAP, Oracle, and Siebel support is delivered the "traditional" way: a knowledge base on the web and phone calls with technical support. PeopleSoft is the only vendor to provide a built-in diagnostic framework through embedded diagnostics scripts that let customers send secure, realtime production system snapshots to PeopleSoft's support center. This unique capability ensures faster issue diagnosis and resolution. With SAP, Oracle, and Siebel, diagnostics and resolution information is exchanged between the customer and the vendor through tailored emails that depend on the availability, the responsiveness, and the knowledge of the vendor's support staff. In some cases, support requires extensive communication and exchange of files such as log files that contain the exact configuration of the customer implementation.

2. Remote and online support

All vendors provide some form of a remote support and online capabilities to help customers' self-diagnose issues. Both PeopleSoft's and Oracle's online support databases are rich in content but can be time consuming to navigate. Siebel provides some support content over the web but, once a problem has been logged online, always promotes interaction with the customers over web self service support. SAP has recently introduced multiple web sites to provide better post implementation information to its customers, but the efforts remain fragmented across various interaction points with customers.

3. Performance diagnostics and tuning

Oracle, PeopleSoft, and SAP provide a built-in, instrumented performance monitoring tool that tracks the application performance in real time as well as by component. The tool provides comparisons to average performance levels to proactively identify and troubleshoot non-performing components. Siebel supports industry-standard application response-time management that implifies performance tuning across all tiers of the Siebel Smart Web Architecture and supports proactive performance monitoring by a third-party ARM-compliant monitoring application. Because it requires third-party software, Siebel is not rated as highly.

4. Patch management

Applying patches to enterprise applications can be a very time consuming and disruptive activity. SAP, Oracle, and Siebel make their list of patches fully available on the web but provide limited guidance and automated tools to select which patches are relevant to a specific configuration. PeopleSoft has streamlined this task by offering a Change Assistant toolset that supports the automatic checking of pre and post- requisites and by automatically selecting which patch should be applied for the customer to be current. Microsoft releases new versions of patches for its applications very infrequently (less than once a year), so the features with respect to patch management are well suited.

5. Automated upgrade process and toolsets

SAP offers tools to identify pre-requisites and guide technical staff through the various steps of an upgrade. The SAP upgrade process is only partially automated, with many complex tasks to be performed manually. PeopleSoft provides Upgrade Assistant, an automated upgrade tool with well tested and complete upgrade scripts. Starting with Enterprise Human Capital Management 8.9 customers, PeopleSoft has re-engineered the upgrade process from eight steps to five with Accelerated Upgrades. Now customers can use a visual compare tool to identify customizations and an ETL-based data migration tool to ensure downtime is less than a day. Oracle offers upgrade scripts and tools but with a lesser degree of automation. Microsoft provides basic upgrade automation tools that are adequate for Microsoft's low frequency of releases.

6. User-centric performance testing

PeopleSoft allows customers to submit test cases, which are used as part of the application testing and release process. PeopleSoft is the only vendor to test functionality and performance using real customer data on volume database systems. Oracle relies mostly on its database performance test to validate the performance of its application. SAP offers test services reported to be so expensive that very few customers opt to use them. Siebel has been focused on usability since it released its first CRM application, and user-centric testing is an integral part of its product development cycle. Microsoft delivers good usability but the functionality delivered is less sophisticated.

7. Data archiving

Oracle only provides purge capabilities and does not allow customers to archive or restore/reinstate archived data into production. Both SAP and PeopleSoft provide archive, purge, and restore capabilities natively. In addition, PeopleSoft provides rules-based archiving templates enabling administrators to set up different archiving rules for different regions for better global compliance support. Siebel and Microsoft do not directly offer archive, purge or restore capabilities. Vendor Approaches to Ownership Experience

Microsoft

Microsoft has no formal ownership experience program defined. Microsoft has developed its cost management strategy based on a very low software price point and close to 100% out-of-the-box deployments with little ability to customize the software. As a result, Microsoft offers basic functionality that does not require extensive training, but it also does not necessarily deliver the full value expected by the customer in view of the ownership experience.

Oracle

Addressing cost of ownership is at the heart of Oracle's philosophy for Enterprise Applications. Based on the Oracle eBusiness Suite, an integrated suite of applications, Oracle claims that it can lower implementation costs by avoiding unnecessary costs, such as those associated with costly custom integration between applications. Although Oracle's approach has some merit - some measurable benefits have been highlighted through ROI case studies, serious concerns are still being raised regarding what Oracle has delivered to date.

PeopleSoft

Structured in a formal program, PeopleSoft dedicated over 1,000 developers and $800 million to improve the Total Ownership Experience for customers. Rather than focusing simply on best practices that improve the ownership experience, PeopleSoft

SAP

Many users of SAP applications have, over the years, noted the complexity of SAP applications, the resulting high implementation costs, and consequent budget overruns. In response to these issues, SAP today highlights SAP NetWeaver as the centerpiece to SAP's product strategy for decreasing the complexity and cost of ownership for SAP applications. Currently, the impact of SAP NetWeaver on the overall SAP cost of ownership remains to be proven. SAP has not yet provided proof points validating that its customers benefit from improved ownership experience through the implementation of SAP's latest technology.

Siebel

Siebel's customer experience initiative was first focused on customer satisfaction and high-level ROI measurements. It is only recently (12+months) that Siebel has focused more specifically on cost-of-ownership issues (mainly in response to customers' complaints). Siebel's improvements to its software development process are guided by the experience and insight gained from close examination of 200 Siebel 7.x deployments.

Methodology

For this study, the research was organized along key ownership experience criteria that allowed the research to capture quantitative and qualitative information across the major components of enterprise applications. The list of criteria was thoroughly defined to take into account the experience of not only the technical staff, but also end users who must accomplish specific business tasks with the application. The software versions that were compared included:

Microsoft Great Plains version 7.5 and previews of Microsoft Great Plains version 8.0

Oracle E-Business Suite 11.5.9

PeopleSoft Enterprise 8.8 and 8.9 and EnterpriseOne 8.11

SAP: mySAP Business Suite R/3 4.6 and SAP R/3 Enterprise 4.7

Siebel 7.5 and Siebel 7.7

The research also included functional areas such as Financial and Human Capital Management Systems (FMS & HCM), Supply Chain Management (SCM), Customer Relationship Management (CRM); and application lifecycle phases such as installation, implementation, configuration, usage, maintenance, support, and upgrades.

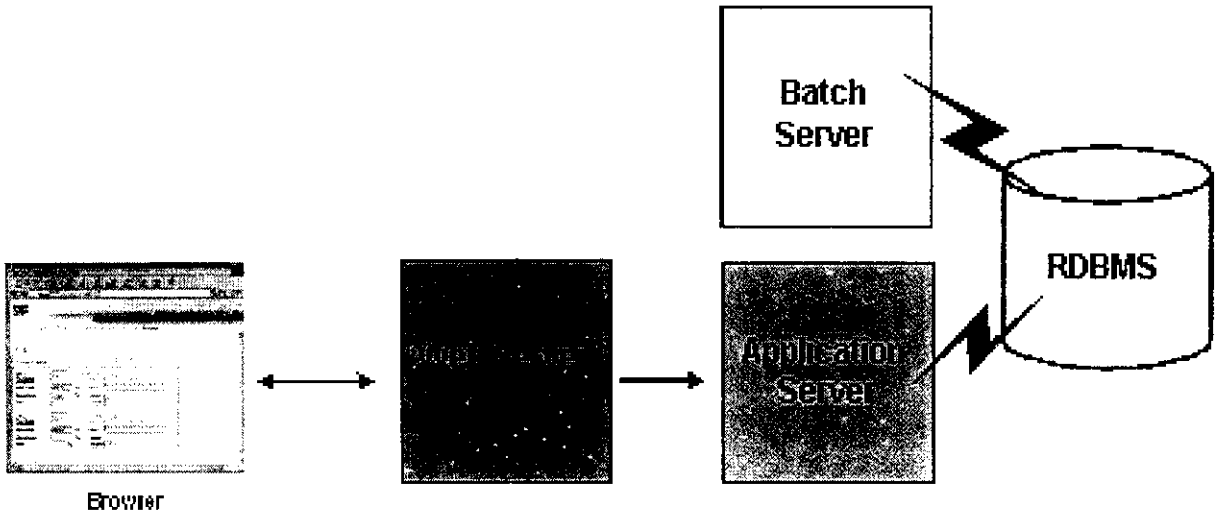
The team broke the entire process down into five steps:

1. Reviewed vendors' web sites and their positioning documents, as well as their online and hard copy documentation.
2. Utilized analyst reports, press articles, and technical reviews that are available to the general public.
3. Validated, using the defined criteria, the information collected in steps 1 and 2 through in-depth interviews with the consulting panel of experts. For the interview process, preference was given to respondents with multi-year experience and experience with the latest version of the application to ensure that the entire application lifecycle was properly covered.
4. Compared and analyzed findings from this primary and secondary research to generate a rating for each vendor on specific criteria. In this comparison and analysis, the respondent's experience with multiple vendors was leveraged as well.
5. Aggregated comparisons and ratings along three major phases of the enterprise application ownership lifecycle.

Why Peoplesoft :

- Proven track record/ success stories
- Overall fit
- End-to-end solution
- Flexible architecture
- Large client base in diverse industries
- Wealth of resources

Peoplesoft architecture:.



Web browser:

The Web browser is the primary means by which end users and even administrators access PeopleSoft applications and administrative tools. The system sends pure HTML to a supported browser interface. Most processing occurs on the server level. PeopleSoft still supports the PeopleTools Development Environment in Windows, which is intended for applications developers and system administrators who need access to PeopleTools.

Web server

Java-enabled Web server is required to support browser transaction requests and the application messaging technology. You install on the Web server a collection of PeopleSoft Java servlets designed to handle a wide range of PeopleSoft transactions.

Application server :

The application server is the core of the PeopleSoft Internet Architecture: It executes business logic and issues SQL to the database server. The application Server consists of numerous PeopleSoft services and server processes that handle transaction requests. The application server is responsible for maintaining the SQL connection to the database for the browser requests and the PeopleTools Development

Database server:

The database server houses your database engine and your PeopleSoft database, which includes all of your object definitions, system tables, application tables, and data. The database server must be running one of the supported RDBMS/operating system combinations.

The relationship between a database server and an application server is a one-to-many model. That is, a single database server can have multiple application servers connecting to it. The database server simultaneously handles the application server connections, Development Environment connections, and batch programs running against it.

Batch server :

The batch server, or batch environment, is where you have PeopleSoft Process Scheduler installed and configured, and it is the location where many of your batch programs run, such as Application Engine programs. In most situations this is also where you have your COBOL and SQR executables installed.

Tuxedo

BEA Tuxedo manages multiple connections to the database server.

BEA Jolt is a java based communication protocol.

CHAPTER 4

CHAPTER-4

SYSTEM ANALYSIS

Analysis is a detailed study of various operations performed by a system and their relationships within and outside the system. One aspects of analysis is defining the boundaries of the system and determining whether a candidate system should consider other related systems. During analysis data is collected on the available files, decision points and transactions handled by the present system.

Existing System Study

The system study gives the structure and functioning of existing system gives the idea for the design of the new systems. This will correct the pit falls of the existing systems. It is helpful to understand and study the entire existing systems and its performance.

System design :

For larger systems that have many features, and that need to perform many different tasks, understanding the requirements of the system is the major task. The emphasis in requirement analysis is on identifying what is needed from the system, not how the system will achieve its goal. This task is complicated by the fact that there are often at least two parties involved in software development-a client and a develop. The developer has to develop the system to satisfy the client needs. The developer usually does not understand the clients problem domain, and the client often does not understand the issues involved in software systems. This causes a communication gap, which has to be adequately bridged during system analysis.

In most software the requirement phase ends with a document describing all the requirements. The goal of the system specification phase is to produce the software requirement specification document also called as requirement document. The person responsible for the requirements analysis is often called as analyst.

There are two major activities in this phase:

Problem understanding or analysis and requirement specification. In problem analysis, the analyst has to understand the problem and its context. Such analysis typically requires a thorough understanding of the existing system, parts of which have to be automated. A clear understanding is needed of the important data entities in the system, major sentence where action is taken, the purpose of the different of the different actions that are performed, and the inputs and outputs. This requires interacting with clients and end users, as well as studying the existing manuals and procedures. With the analysis of the current system, the analyst can understand the reason for automation and what effects the automated system might have.

Understanding the existing system is usually just the starting activity in problem analysis, and it is relatively simple. The goal of this activity is to understand the requirements of the new system that is to be developed. Understanding the properties of the system that does not exist is more difficult and requires creative thinking. The problem is more complex because an automated system offers possibilities thus helping both client and analyst determine the requirements for the new system.

Once the problem is analysed and the essentials understood, the requirements must be specified in the requirement specification document. For requirement specification in the form of a document some specification language has to be selected. The requirement document must specify all functional and performance requirements; the formats of inputs and outputs; and all design constrains that exist due to political, economical, environmental and security reasons.

Design And Development :

The purpose of the design phase is to plan a solution of the problem specified by the requirements document. This phase is the first step in moving from the problem domain. In other words, starting with what is needed, design takes us toward how to satisfy the needs. The design of a system is perhaps the most critical factor affecting the quality of the system; it has a major impact on the later phases, particularly testing and maintenance. The output of this phase is the design document.

The design activity is often divided into two separate phases- system design and detailed design. System design, which is sometimes called as top level design, aims to identify the modules in the system. The specification of these modules, and how they interact with each other to produce the desired results. At the end of the system design the major data structures, file formats, output formats and the major modules in the system and their specifications are decided.

During detailed design, the internal logic of each of the modules specified I system design is decided. During this phase further details of the data structures and algorithm design of each of the module is specified. The logic of the module is usually specified in a high-level design description language, which is independent of the target language in which the software will eventually be implemented.

In system design the focus is on identifying the modules, whereas during detailed design, the focus is on designing the logic for each of the modules. In other words, in system design the attention is on what components are needed, while in detail design how the components can be implemented in system is the issue. A design methodology is a systematic approach to creating a design by application of a set of techniques and guidelines. Most methodologies focus on system design.

Drawbacks of Existing Systems

- Less information.
- Inconsistency of data.
- High response time.
- Possibilities of error.
- Inefficiency

Problem Specification

The existing system has problems like high response time , Operations are not integrated, inability of search, not robust, not applicable for real time, less scope, difficult to update, less security, risk of data loss.

Need for New System

Although data processing system that involved computer, performs same

Computer oriented data processing systems are often called Electronic Data Processing. The importance of computerized data processing is realized when the following factors are considered.

- Speed
- Accuracy
- Ease of Communication

The system is capable of processing and analyzing a large volume of data with a short time but the computerized system has the capability of retrieving any data in the shortest possible time which can be either visualized with the help of visual display unit or be printed out by incorporating a printer to the system.

Proposed System

The proposed system is carefully designed to provide more flexibility with regard to existing system. The proposed system has more advantages and it avoids more disadvantages of the current system. The proposed system has many benefits such as stability, user friendliness, flexibility and simplicity.

It is designed and developed according to the user requirements. It uses SQL to select the database and Tables with Query. Forms and Reports created in the system will have major impact on the information system . The database can store a huge amount of information. A detailed system study was carried out and various objectives were then formulated.

Advantages of Proposed System

The proposed system has many advantages. It has mainly avoided all the drawbacks existing system. Various advantages of proposed system are as follows:

- Instantaneous retrieval of any type of information.
- Generation of query based reports.
- To provide facility for maintenance of all master files.
- Provision to select values from a list of values, so as to minimize errors.
- User friendly for using this application

System Configuration

Hardware Specification

Processor	: Intel Pentium 3 & above
RAM	: 120 MB & above
Operating System	: Windows 9x, 2000 server,professional.

Software Specification

Operating System	: Windows 9X,XP
Package	: PEOPLESOFT
DBMS	: ORACLE

CHAPTER 5

CHAPTER-5

DESIGN AND DEVELOPMENT

Input Design

Input design is the method by which validation data are accepted from the user. This valid data in turn is stored as operational data in the database.

Inaccurate input data are the most common cause of errors in the data processing. The input design is carried out in such away that the input data entry is very easy and error free. Input screen takes care to filter the invalid data from becoming an operational data at data entry phase. This is achieved by providing checks and validation procedures and certain features to the user wherever possible.

Features of Input Design

- Module design.
- Form design.
- Menu and page definition.
- Table design.
- Data design.

Output Design

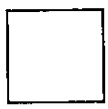
The output design defines the output required and the format in which it is to be produced care must be taken to present the right information The output generated can be classified into 3 categories.

- Screen output
- Output to be stored in the Tables
- Hardcopy of the output

The screen output essentially displays the generated output on the screen. The provision of generated output to be stored in the file is for future reference and to take hard copies of the same is to provide information to the Human Resource Management and wherever situation demands. The most important and effective way of presenting information is reports.

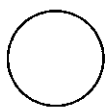
Data Flow Diagram

A Data Flow Diagram is graphical representation of the "Flow" of data through functions or processor. More generally, a data flow diagram is used for the visualization of data processing. It illustrates the processor, data stores, and external entities, data flows in a system and the relationship between these things.



A square is a represented as source or destination of system data.

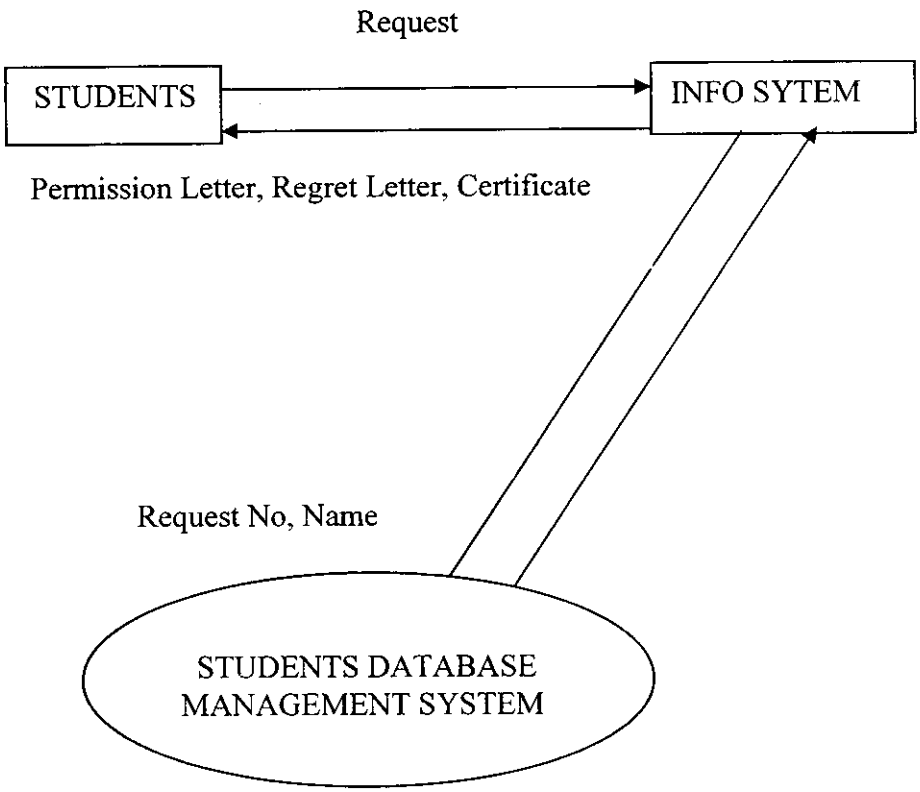
An open rectangle is data store –data at rest, are temporary repository of data.

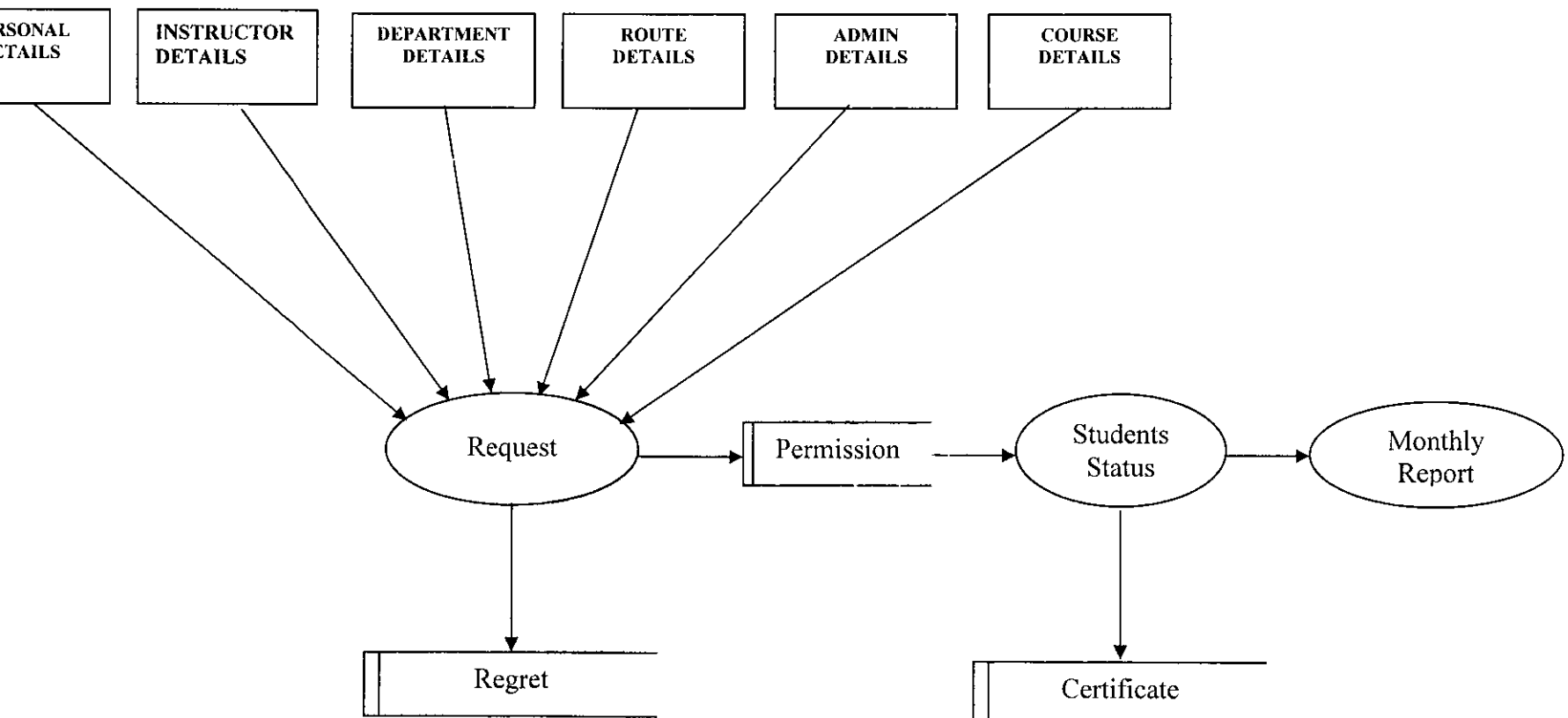


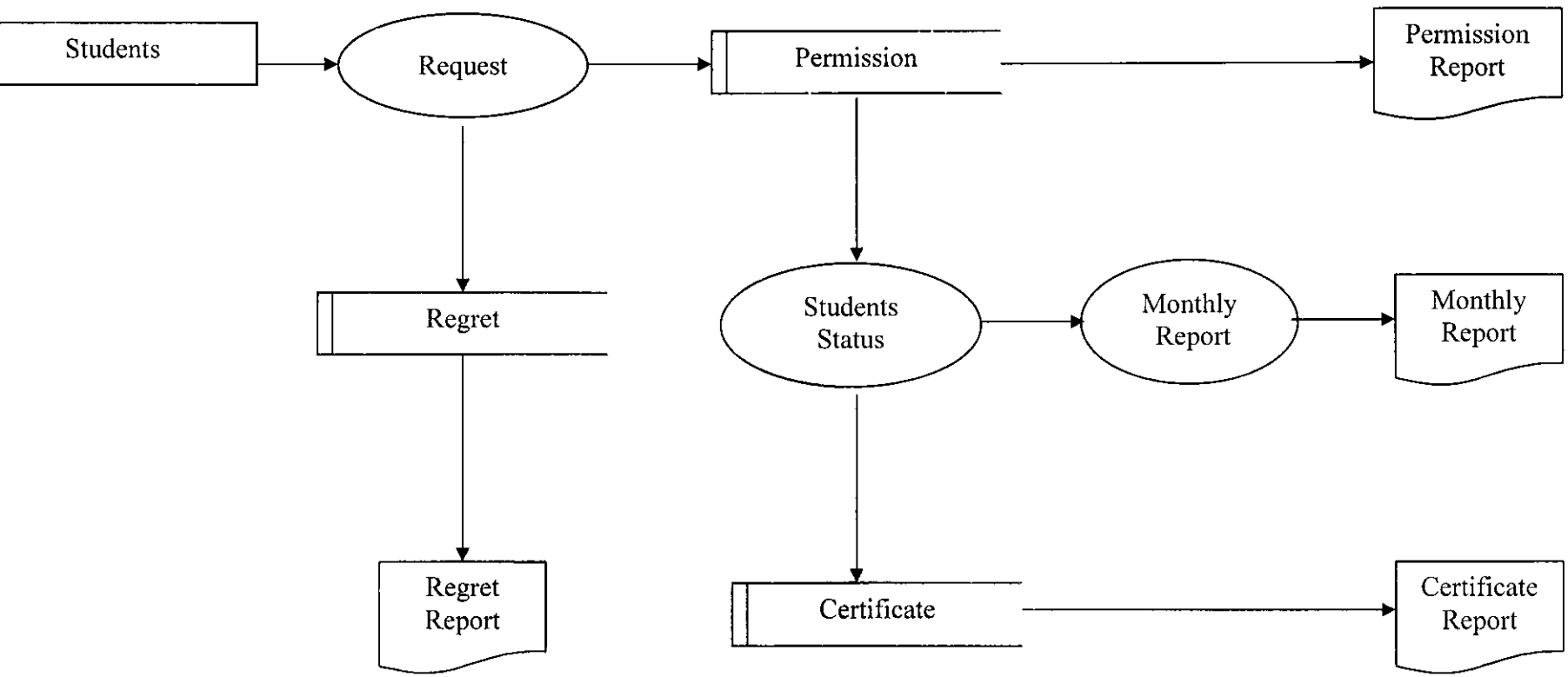
A circle or bubble represents the process that transforms incoming data flow into outgoing data flows.

An arrow identifies the data flow-data in motion. It is a pipeline through which information flows.

Level 0

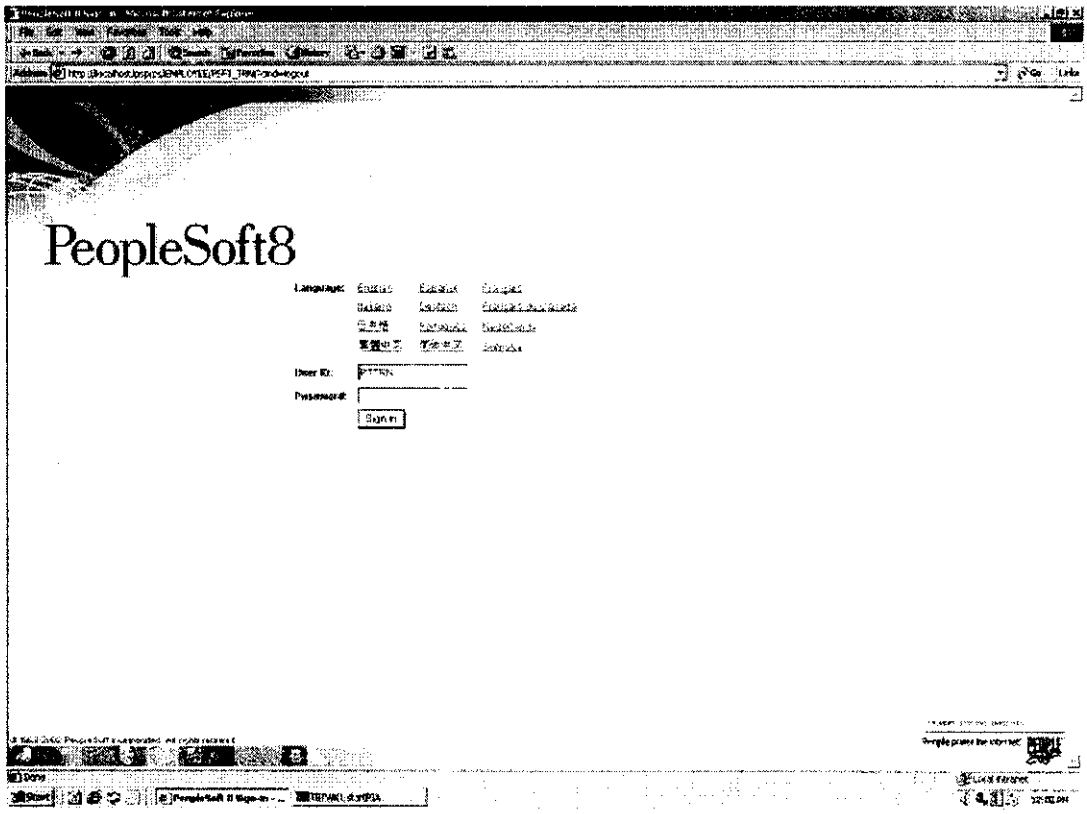

Request
STUDENTS
INFO SYTEM
Permission Letter, Regret Letter, Certificate
Request No, Name
STUDENTS DATABASE
MANAGEMENT SYSTEM


RSONAL
TAILS
INSTRUCTOR DETAILS
DEPARTMENT DETAILS
ROUTE DETAILS
ADMIN DETAILS
COURSE DETAILS
Request
Permission
Students Status
Monthly Report
Regret
Certificate

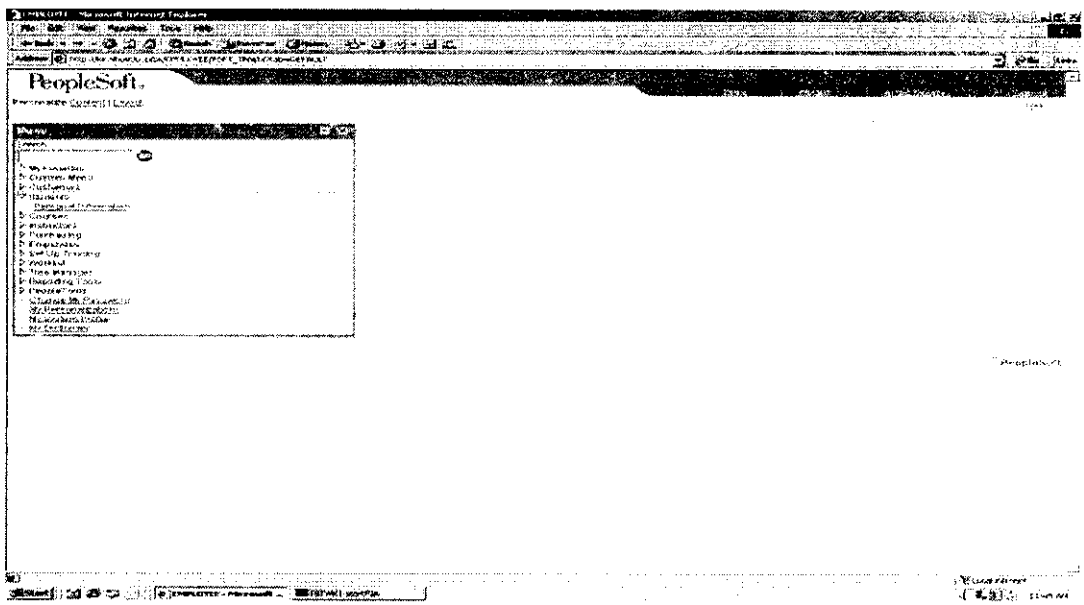

Students
Request
Permission
Permission Report
Regret
Students Status
Monthly Report
Monthly Report
Regret Report
Certificate
Certificate Report

Sample forms:

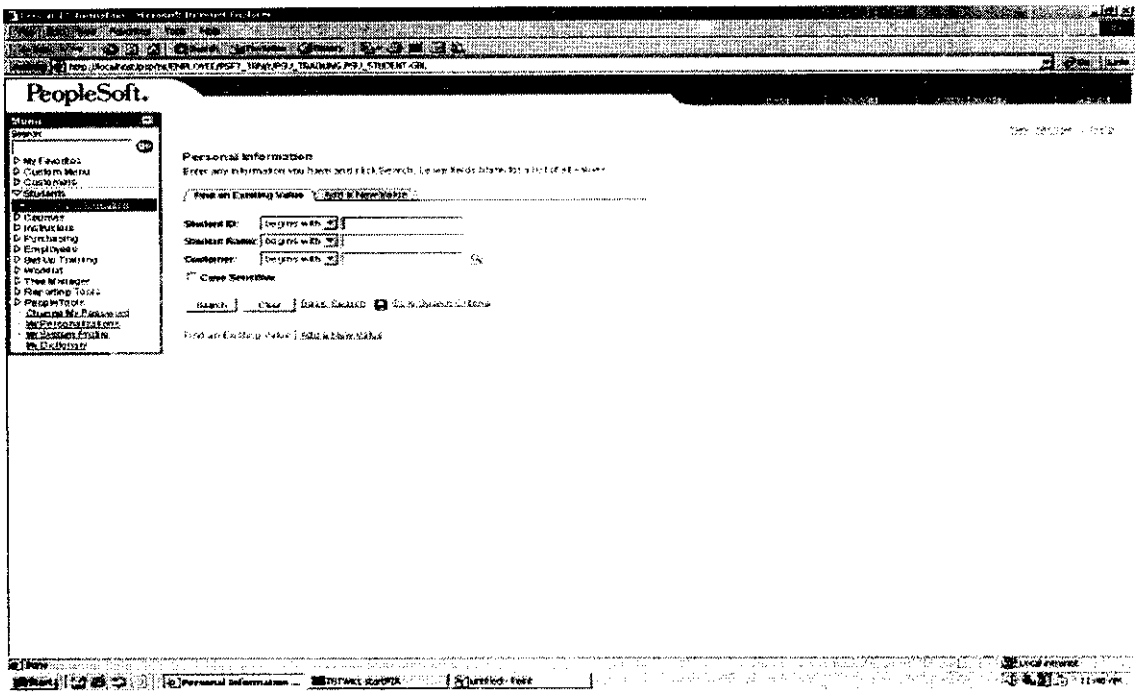
1.login form



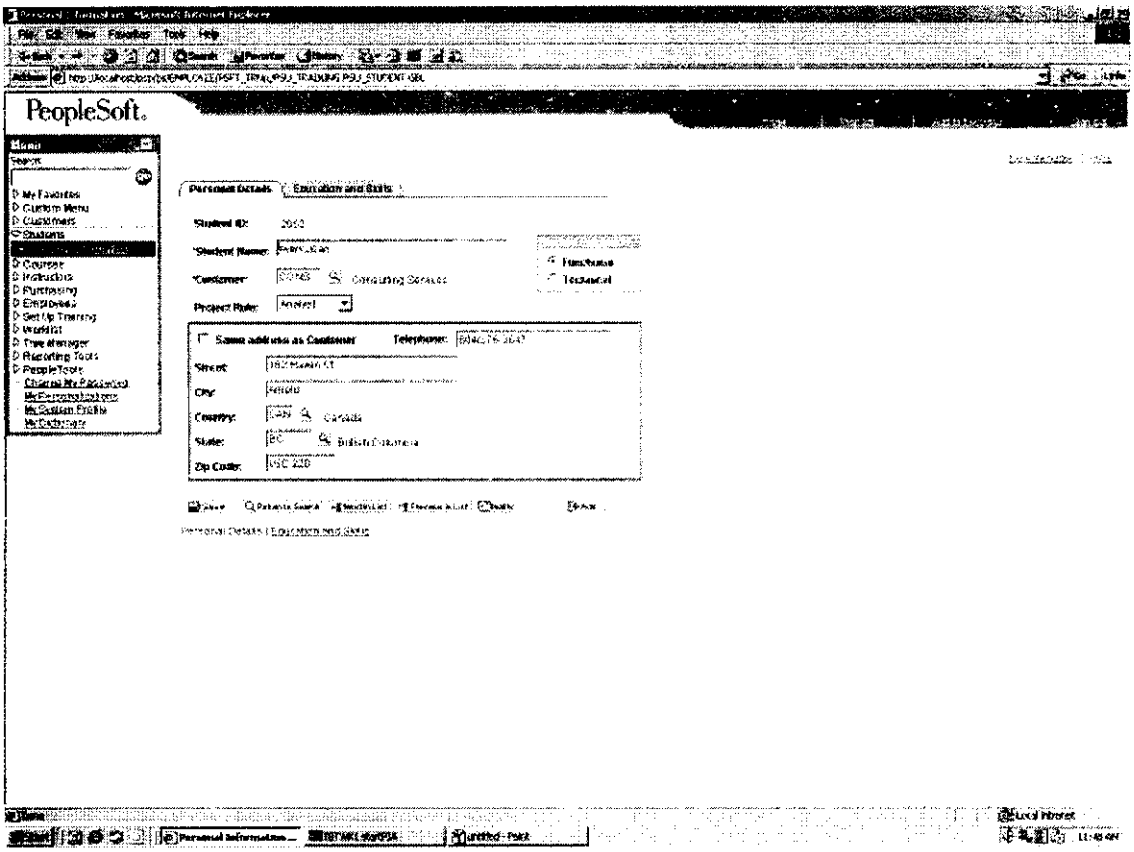
2. Home page



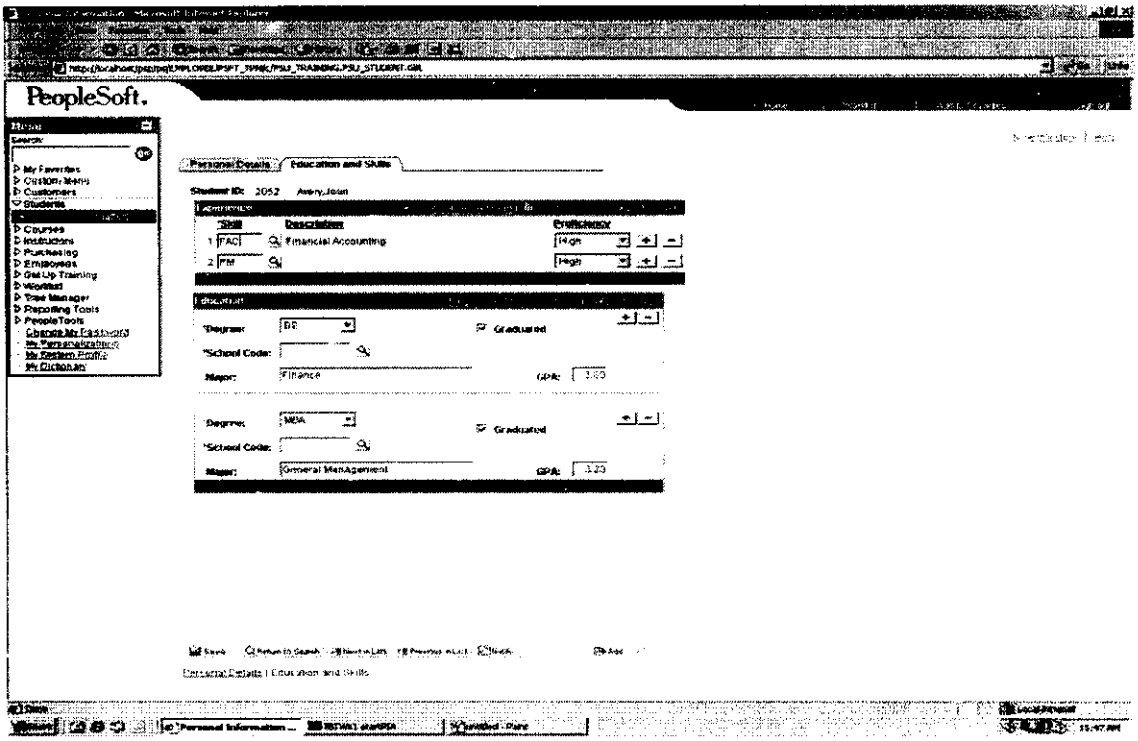
3. Search form.



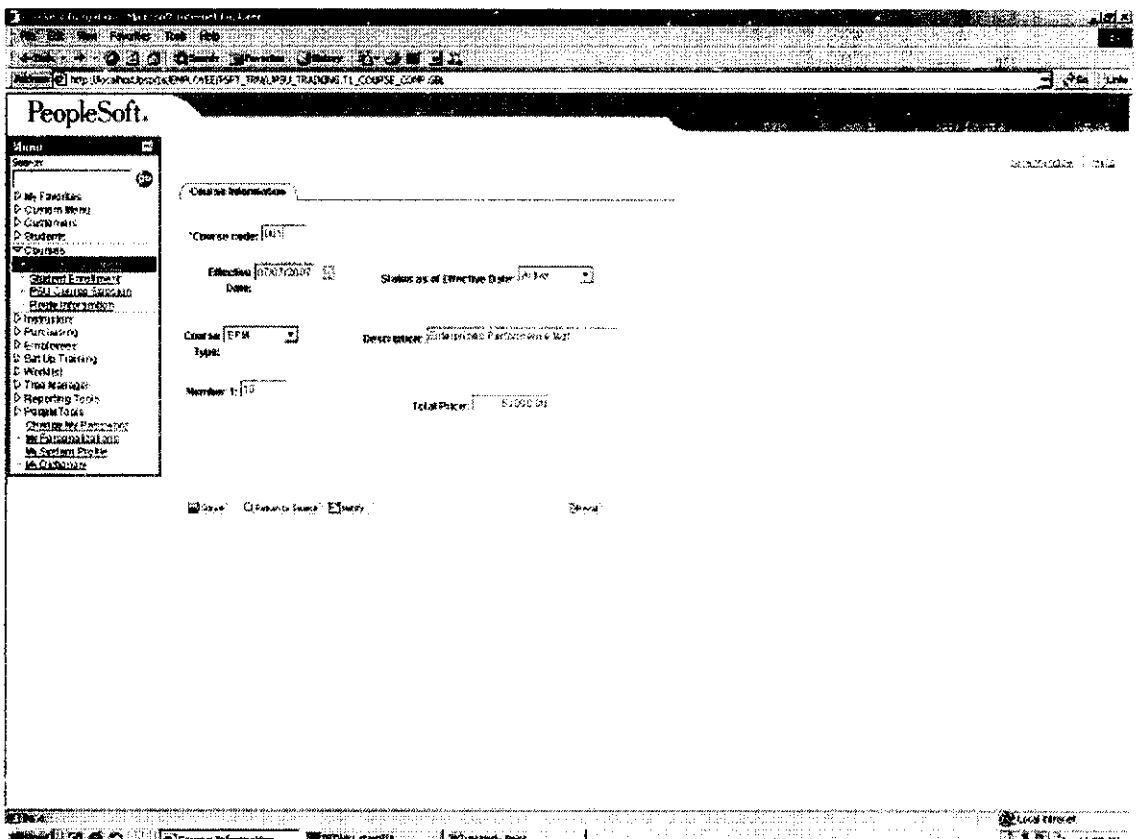
4 .Personal details form.



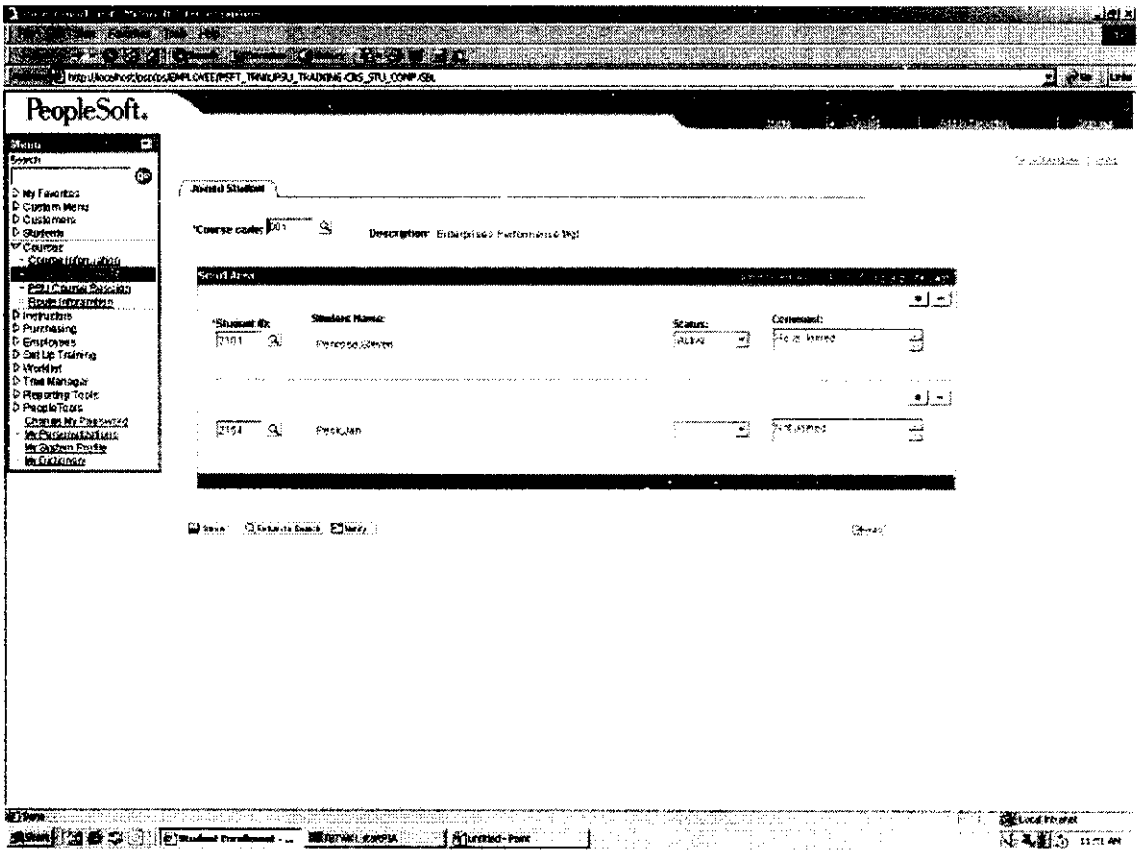
5. Education and skills form.



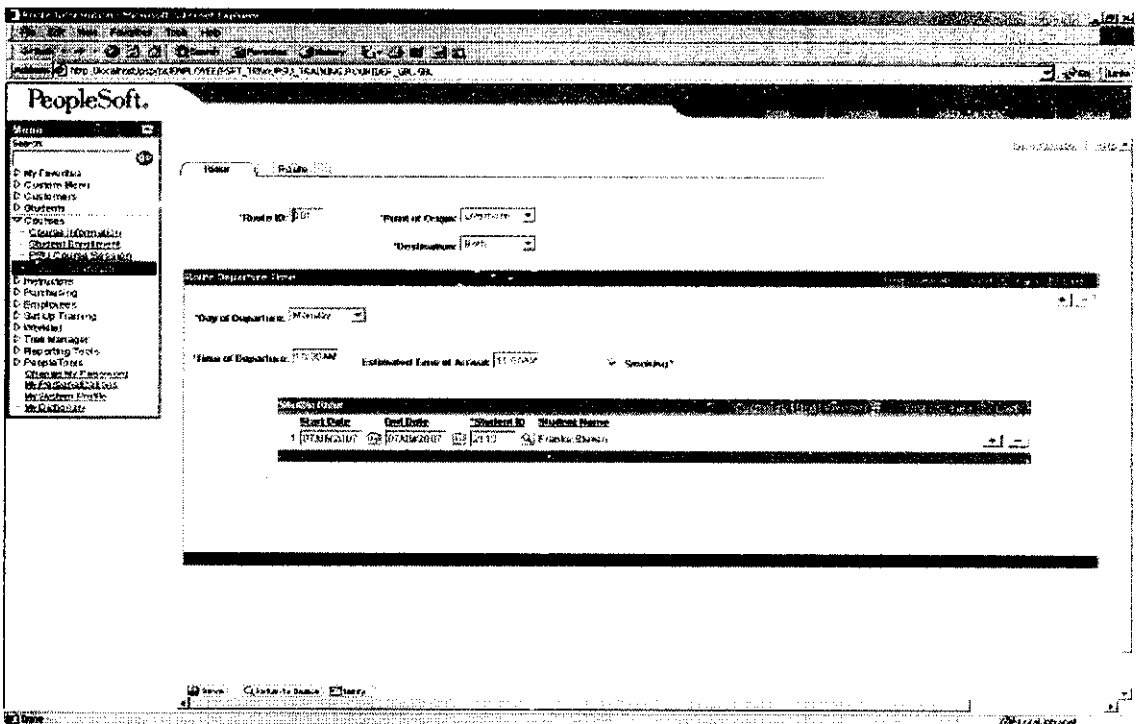
6.Course information



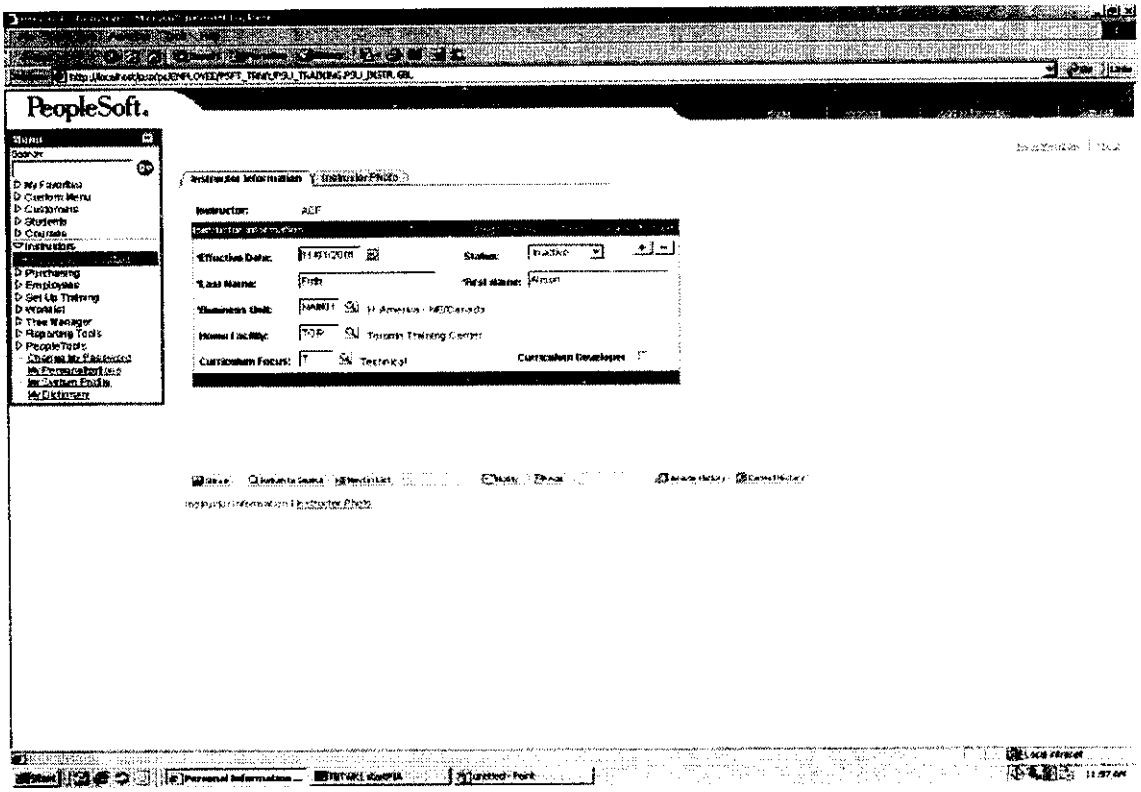
7. Students enrollment form.



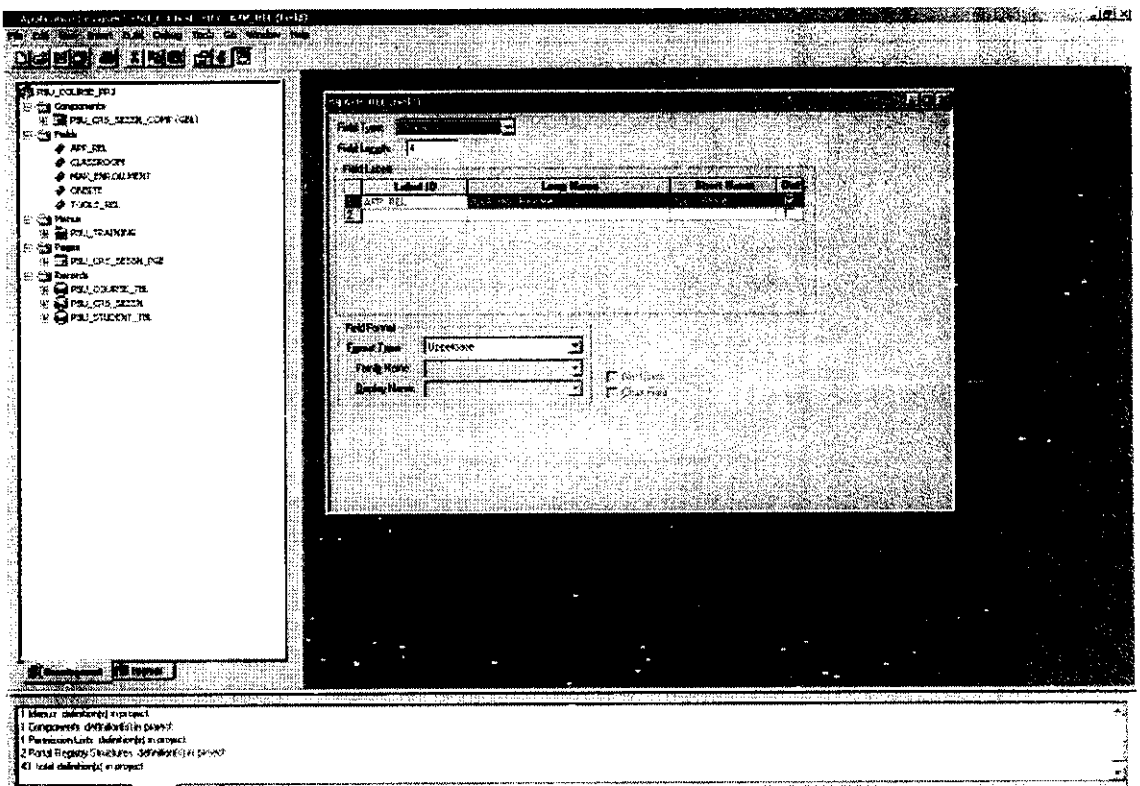
8.Route information.



9. Instructor information



10. field definition form.



CHAPTER 6

CHAPTER-6

TESTING AND IMPLEMENTATION

Testing

Most ERP software products like SAP, PeopleSoft, Oracle, Baan, etc., are really old file based architectures mapped to RDBMS tables with integrity and domain checks based in software application layer and not in the RDBMS. This causes many programming errors and that causes software patches. Most ERP software was designed a generation ago and does not use logical constructs like a relational design and most RDBMS constraints, instead, ERP companies rely on programmers to never make a mistake. Hundreds of thousands of hours went into these systems, to not lose this investment the same old design is carried forward perpetuating a difficult system.

This is a modest proposal to test integrity and domain using RDBMS constraints and a plea that the ERP companies could actually supply these tests to the customer. This does not fix the problem of ERP software integrity but could be a useful tool. The root of the problem is still the poor mapping of the file based architecture to the RDBMS systems and relying on programmers to write checks constraints, domain constraints and relations in the application software layer.

The ERP Testing Problem Is Difficult To Solve.

The ERP systems such as SAP, PeopleSoft, Oracle, Baan, etc., have horrible track records as "patch ware", or software that has many patches that are applied each week. The patches repeatedly break other things in domains and integrity and the administration of these products is a continuous round of patching, testing, patching, testing, patching, ..., and maybe some deployment.

The customer administration of this mess is very difficult and usually many patch levels are in testing environments waiting to be installed in the production environment. The software does not usually come with any tests to help the customer deploy this patch ware on the data set the customer uses. Instead the customer usually develops a suite of tests by trial and mostly error on the dataset created when the customer has deployed the system with all its customizations.

How Would Constraint Testing Work?

Domain constraints to check value domains and referential constraints to check the data in one table that is related to other tables would be a valuable tool for the customer. The ERP company could supply the customer with a set of database constraints that would act as test assertions. The customer could then patch the weak, cruddy ERP application code in a test environment with a copy of production data and apply the database constraints to help verify the patch works. For example, a referential constraint to check that order numbers in the "order shipped" table exist in the "order entered" table is an easy to write constraint that might help ERP customers. A domain constraint could use date range check constraints to check that calendar quarter data is in the quarter date range. Other domain constraints can check subsets of values across other domains and many types of data verification can be quickly and easily done.

The constraint testing may have to occur at stable states during a transaction as many ERP modules will violate referential constraints during a transaction. Even with this problem the testing would be useful and many domain constraints would not have a problem.

RDBMS constraints cannot test all problems, of course. And because the mapping of the file based architecture to the RDBMS is poor, it may not be able to test some data and a lot of patch testing would not be covered. But constraint testing is at least a start and an easily implemented one that needs no special software or training but uses the existing RDBMS and SQL tools that any customer installation already owns and has the expertise to run.

Implementation

After successful implementation, the user should be trained to get used to the new system. Some guidance and help messages are provided at proper requirements. It is the nature to get some critical errors though carefully examined with data. Provided all validations are operating procedures should be followed. Since this application is user friendly, data processed with formatted screens, reports can be generated as per requirement.

The implementation is the important stage of the project when the theoretical design is turned into a working system. If the implementation stage is not planned and controlled, it can be chaos. Thus it can be considered to be a most curial stage in achieving a successful new system. The following are the main stages in the implementation.

- Planning
- Training
- Maintenance

Planning

Planning plays an important role in the implementation. The planning should face any practical problems of controlling various activities of the people out their own data processing department. This can be achieved easily with the co-operation of the members of the concern.

Training

Successful implementation needs trained computer staff. So, some staff can teach them the compute implementation, which only then becomes a well designed system.

Maintenance

Maintenance involves recovery on crash such as the backups and the end. User should be given only executable format of the system.

CONCLUSION

This project entitled "**STUDENTS INFORMATION SYSTEM USING ERP**" being implemented found to replace the manual system effectively, it has been possible to eliminate human errors likely to occur in these works because of bulk of data entry and data processing. This project designed for the particular need of the company was found to work effectively.

This system reduces the lab and clerical work and has also resulted in quick data entry and information retrieval. This system works with higher degree of accuracy and user friendliness, which are very vital for the progress of the organization.

Handling large volume of data manually demand a lot of hand work, greater processing time. Manual handling of data will lead to fatigue and boredom therefore there are great chance of errors to occur.

The computerized system known as periodic calibration and maintenance of instrument is based on graphical user interface concept. The system has been tested with valid test data and is found to meet its objective.

To conclude the system is highly floatable and user friendly. It is less dependent on user resources.

BIBLIOGRAPHY

Books:

"ERP Demystified by Alexis Leon"

"Sql for developers" by Yeshwanth kanithkar Tata McGraw Hill Edition, BPB Publications.

"Introduction to Object Oriented Analysis and Design" by Leee.

Websites:

http://www.softwarefinder.com

http://www. whitepaper.informationweek.com

http://cmit.edi.gatech.edu/cmit/erpmrp.htm

http://www.intermec.com/erp/erp_part.htm

http://www.techweb.com

http://www.softwarejobs.com/erpnews.html

http://www.praxisint.com/erp.html

http://whatis.com/today.htm

http://www.erptech.com/overview.html

http://www.computerworld.com/

http://www.manufacturingsystems.com/