HUMAN RESOURCE MANAGEMENT SYSTEM

PROJECT WORK DONE AT
ORCHID SOFT SYSTEMS PVT. LTD.,
CHENNAI - 600 014.

PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF
M.Sc [APPLIED SCIENCE] SOFTWARE ENGINEERING
OF BHARATHIAR UNIVERSITY, COIMBATORE.

SUBMITTED BY

KAMALESH.S
REG NO. **9937S0077**

UNDER THE GUIDENECE OF

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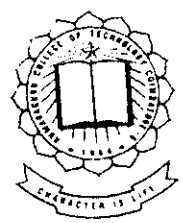
Dept. Of CSE.
Coimbatore - 6



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE - 641 006
MAY 2002 - AUG 2002

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

KUMARAGURU COLLEGE OF TECHNOLOGY

(Affiliated to Bharathiar University)

COIMBATORE - 641 002

SEPTEMBER - 2002

CERTIFICATE

This is to certify that the project entitled

HUMAN RESOURCE MANAGEMENT SYSTEM

DONE BY

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REG NO. **9937S0077**

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF
M.Sc [Applied science] SOFTWARE ENGINEERING
OF BHARATHIYAR UNIVERSITY

Professor and HOD 26/9/'02

Internal Guide 26/09/02

Submitted to University Examination held on 26/9

Internal Examiner

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CERTIFICATE

This is to certify that the project work entitled Human Resource Management System being submitted by Mr. S. Kamalesh (9937S0077) in partial fulfillment of the requirement for the award of the degree of M.Sc. (Software Engineering) is a bonofied record of network carried out at Orchid Soft systems, Chennai from 12th June to 13th September under my supervision and guidance.

Yours Truly

Branch Manager

Acknowledgment

To add meaning to the perception, it is my indebtedness to honor a few who had helped me in this endeavor, by placing them on record.

With profound gratitude, I am extremely thankful to Dr.K.K.Padmanaban B.Sc. (Eng.), M.tech, Ph.D., Principal, Kumaraguru College of Technology, coimbatore for providing me an opportunity to undergo the MSc [APPLIED SCIENCE SOFTWARE ENGINEERING] course and thereby this project work also.

I extend my heartfelt thanks to my CSE department head Prof.Dr.S.Thangasamy B.E (Hons), Ph.D., for his kind advice and encouragement to complete this project successfully.

It's my privilege to express my deep sense of gratitude and profound thanks to Mr. Sharma (Director), Orchid soft systems, Chennai for having allowed me to do my project work in his esteemed team and for helping me in all means in successful completion of this project work.

Gratitude will find least meaning without thanking my guide Mr. Sivan arul selvan and course coordinator Mrs. Devaki M.S. for the valuable guidance and support throughout my project.

Words are boundless for me to express my deep sense of gratitude and profound thanks to Miss.Priya, (Project Guide) and all my

associates at Orchid Soft Systems, for all their kind guidance and encouragement towards my project work.

My gratitude is due to all staff members of CSE department, my parents and all my friends for their moral support and encouragement for successful completion of my project.

SYNOPSIS

SYNOPSIS

Information is the backbone of any organization. Therefore, it has to be made available at all times to ensure proper decision-making and towards this end, information has to be accurate, current, timely, relevant and unusable.

The project presented here is Human resource management system. This has been undertaken for ORCHID SOFT SYSTEMS, chennai. This project was developed in visual basic as Front-End and Oracle 8.0 as Back-End.

The "HUMAN RESOURCE MANAGEMENT SYSTEM" has been developed for employment office for automating the various job vacancies. The Human resource management system aims to reduce the use of the manual work and the report seeking. The system takes in to consideration the requirements of Human resource management system in terms of the applicant details and the vacancy details, which are related to the system. The main objective of the system is to computerize the activities carried out in systems.

The application of IT is now-a-days vital for the Human resource management system which is useful for attaining the job vacancies. The amount of data generated there is immense, and the improvement is efficiency that can be realized from a properly functioning data processing system can be measured. In fact, the installation of computer technology in Human resource management system is the single most important cost cutting tool available to the hrms today. Equally important, computerizing those activities will significantly improve applicants needs by reducing errors. speeding up the activities and the flow.

The Human resource management system provides the overview of the resources and the systems. This system is developed as part of predetermined integrated plans, using a distributed or modular approach towards developing a Hrms. This system cut across departmental boundaries as well as combining and integrating activities and other data.

is is integrated with the following modules

1.APPLICATION MODULE
2.VACANCY MODULE
3.PLACEMENT MODULE
4.COMPANY MODULE
5.REPORTING MODULE

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INTRODUCTION

1.INTRODUCTION

1.1 PROJECT OVERVIEW

The use of computers in the employment office has become an absolute necessity in the present day environment and they are very useful in all the activities for the administration of the people's integration. The administrators are faced with the challenge of utilizing the limited resources and provide quality service to the customers.The use of computers in HRMS for information processing and decision-making helps the management and the authorized users like systems.

Human Resource Management System is a client-server based software tool aims at automating the complex tasks of HR department. Its key usage is to find out the applicants who excel in qualification, experience, and endurance and so on. Human Resource Management System is an asset for placement consultancies where they have to handle two different clients-Employer and the Job seekers.

Human Resource Management System aims at automating the complex HR tasks such as storing and retrieving applicant's information, storing and retrieving vacancies specification and matching qualified applicants.HRMS provides static and dynamic reports to be created on-the-fly even by a novice user of a system. HRMS being a Graphical User Interface provides flexible environment for the User.

Human resource management system can be used at the Development Sites as well as at the Production Sites. The only requirement of this software is that the VB and oracle has to enable human resources management system using Oracle before using this tool.

Human resource management system is the monitoring and recordings of selected user's job allocation. HRMS is normally used to

- Investigate suspicious activity. For example, if an employee needs a job from a company, the vacancies module might decide to check for all the companies that are available and gives the correct information for the user and the employee it may also gives all successful and unsuccessful verification from the other modules.
- Monitor and gather information about specific database activities. For example, the application match module can gather statistics about which vacancies are being updated, how many unemployed are getting job through this HRMS are also performed, or how many concurrent users connect at peak times.

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SYSTEM STUDY AND ANALYSIS

2.SYSTEM STUDY AND ANALYSIS

2.1 PURPOSE AND SCOPE

Human resource management system provides a Visual interface for Database use. Using this software the Oracle Database Administrator can

1. Create job vacancies
2. Alter job opportunities
3. Drop applicants
4. Specify job Options
5. Discard Options
6. Grant Privileges to the user
7. Track User's information
8. Track User's Database Action
9. Create existing Reports
10. Manage job vacancies

2.2 EXISTING SYSTEM

While so many Relational Database Management Systems Software are available in the market today to manage a company's database, they did not provide any user interface to monitor database user's action.

Oracle being the supreme RDBMS in the market provides some command for HRMS which are difficult to remind.

In order to manage user's action the software first have to enable HRMS by modifying the parameter file of oracle instance.

Oracle allows HRMS to be focused or broad. We can

- Allocate successful statement executions,unsuccessful statement executions or both
- HRMS statement executions once per user session or once every time the statement is used
- HRMS activities of all user or of a specific user

PROPOSED SYSTEMS

HRMS reports include information such as the operation that was associated, the user performing the operation, and the date and time of the operation. All HRMS reports contain the following information

- The applicant name
- The applicant id
- The company name
- The name of the companies Objectives
- The Operation Performed
- The vacancies id
- The status of the Operation
- The job
- The salary location
- The experience
- The list of vacancies

PROGRAM ENVIRONMENT

3.PROGRAMMING ENVIRONMENT

3.1 Hardware Requirements

Processor	:	Pentium processor
Hard Disk	:	20 GB
RAM	:	128 MB
Printer	:	Laser

3.2 Software Requirements

Operating System	: Windows NT/2000 server
Front-end	: Visual Basic 6
Back-End	: Multi-user Oracle
Database Provider	: ActiveX Data Access Objects

SOFTWARE OVERVIEW

The following are the important as well as main factors n choosing the specific technologies and environments for developing the software.

Visual Basic :

Visual Basic has been chosen as it provides a GUI based environment for creating user-friendly forms. Visual Basic is an ideal programming language for developing sophisticated applications in Window platform. The ' Visual ' part refers to the graphical user interface (GUI). Rather than writing numerous lines of code to describe the appearance and location of interface elements, you simply add prebuilt objects into place on screen. The ' Basic ' part refers to the basic language. Visual Basic
Has evolved from the original BASIC language and now contains several hundred statements, functions and keywords, many of which relate directly to the windows GUI.

Beginners can create useful applications by learning a few keywords yet the power of the language allows professionals to accomplish anything that can accomplished using any other windows programming language. It makes use of Graphical User Interface (GUI)
for creating robust and powerful applications. The GUI enables the users to interact with an application. This feature makes it easier to comprehend things in a quicker and easier way.

In a GUI environment coding is similar to linear programming methods and it is highly interactive and user-friendly. One of the interesting features of Visual Basic is the Integrated Development Environment [IDE]. Another important feature of Visual Basic is that it has easy methods to allow users to control and access databases. Due to this property databases like MS Access, Oracle, etc. The front end can also be connected to the databases via ODBC, JDBC, etc.

Special Features of Visual Basic 6.0 :

Visual Basic provides the quickest and easiest way to create application for Microsoft windows families like windows 3.11, Windows 95, Windows NT and for INTERNET through ACTIVEX controls. This programming language allows creating attractive and useful application that fully exploits the Graphical User Interface. This is a Front End Generator or Front Tool with the quickly create a database Front End Application for a wide variety of Desktop and CLIENT SERVER RDBMS.

COMPONENTS OF VISUAL ENVIORNMENT :

The components of VB environment are

1. VB Window
2. Project Window
3. Menu Bar
4. Toolbox
5. Properties Window
6. Form Window
7. Data Report Designer
8. Data Environment Designer

Features of Visual Basic :

- Compile a VB project to native for faster execution.
- Open multiple projects in the same instance of VB.
- ActiveX document boost the Visual Basic application to the intranet and intranet browser windows.
- Ability to do single, multiple, or Microsoft explorer style document interface application.
- The new model allows us to programmatically extend the development environment and control project, events, visual elements.

- Most control now support drag and from components specifically for employment of the web.
- The implements features allow your classes to support multiple interfaces.
- Command lines switches provide a way to control how VB executes.
- The recourses file allows you to collect all of the versions specify text and bitmaps for an application is one place.
- VB provides built-in templates for creating an about dialog box, option dialog box, or splash screen.

Oralce :

ORACLE Corporation was the first company to offer a true relational DBMS commercially, and has continually led innovation in the field of RDBMS. The ORACLE Corporation strategy of offering an RDBMS that is portable, compatible and connectable results in a very powerful tool for users. You learn the basic concepts across various hardware and software

The collection of tools, utilities and application that constitute the ORACLERDBMS let you manipulate an ORACLE database. Many of these product are fourth generation language tools ; they let you interactive screens to create application programs.

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

- A database structure that is easy to visualize and understand.
- The ability to create any number of temporary relationship between the tables.
- Freedom from concern about to query the database through the use of SQL.
- Tables are easy to visualize.
- Relational joins that provides temporary set of data from multiple tables in the model.

The ORACLE system uses the non-procedural structured query language (SQL) to communicate with its database kernal. In 1986, the American National Standard Institute (ANSI) made SQL the standard for all DBMS. SQL is a query language used with IBM's SQL / DS and DB2 database systems on mainframes. SQL is a powerful query language – so powerful, that all the application development tools that ORACLE provides are SQL based.

ORACLE provides the following advantages over the relational database.

- Direct SQL interface to the database through SQL*PLUS lets developers and user interact with the database and manipulate direct.
- The interactive forms developers SQL*PLUS lets our procedures prototype applications quickly. These prototypes can be used as the base units for the real application. Additionally, changes to these applications during development and maintenance can be accomplished in very little time.
- The transferability of data from the files and formatted into the table structure of ORACLE database, using the utility SQL*Loader, reduces problems in the data conversion to ORACLE databases.

ORACLE UTILITIES :

Some of the most important ORACLE products and utilities available for PCs are as described below.

SQL*PLUS *** This programming tool and query platform allows users to directly manipulate database information using SQL.

SQL*FORMS *** This collection of programming is used for creating compiling and running interactive full-screen forms.

SQL***MENU *** This collection of programs is used for creating and running a standardized ORACLE menu system.

SQL***REPORTWRITER *** ORACLE's new report generator is a full-screen interactive report generation system for creating, compiling and running reports.

SYSTEM DESIGN AND DEVELOPMENT

Input design or form design consists of designing the screens for accepting the input. The user inputs are collected as screen entries. The screen has been designed in a way to provide GUI features to the user. The input screens are designed in a way as to control the amount of input required, avoid delay and keep processing simple.

The form layout is designed to be user friendly. Layout labels are made self-explanatory. Common sets of entries are grouped into a frame for easy identification. Drop down lists are provided in the case of item selection. The user can choose from the valid data from the list provided thus avoiding erroneous data. activities that take place through the form Command such as additions, deletions etc.

Outputs from computer system are required primarily to communicate the result of processing to users. The outcome of data processing will be a set of information in a neat layout, which is used for analysis and decision-making. Output design involves the designing of the format of processed data. The report should be in a simple format and should be able to convey the details clearly. Reports provide a hard copy of information, which has to be circulated throughout the organization.

The main reports designed for this system are,

APPLICANT REPORT:

This report generates the applicant details ,the detail of the jobseekers and their biodata.

Vacancy Report :

This report generates the full details of the vacancy that are available in the selected companies for the job seekers to achieve their target.

Company Report :

This report generates the full details of the company which are placed in the company.

4.3 DETAILED DESIGN

Detailed design of a system includes developing prototypes, user interfaces and Backend databases. For this phase, Data Flow diagram (DFD), Entity Relationship diagrams (ERD) and System Flow Chart (SFC) is used.

Date Flow Diagrams depict how data interact with a system. DFDs are extremely useful in modeling many aspects of business function because they systematically subdivide a task in to its basic parts, helping the Analyst understand the system, which they are trying to model.

A DFD models a system by using external entities from which data flows to a process which transforms the data and creates output data which goes to other processes on external of files. Data in files may also flow to processes as inputs.

The main merit of data flow diagram is that it can provide an overview of what data a system would process, what information of data are done, what files are used and where the results flow. The graphical representation of the system makes it a good communication tool between the user

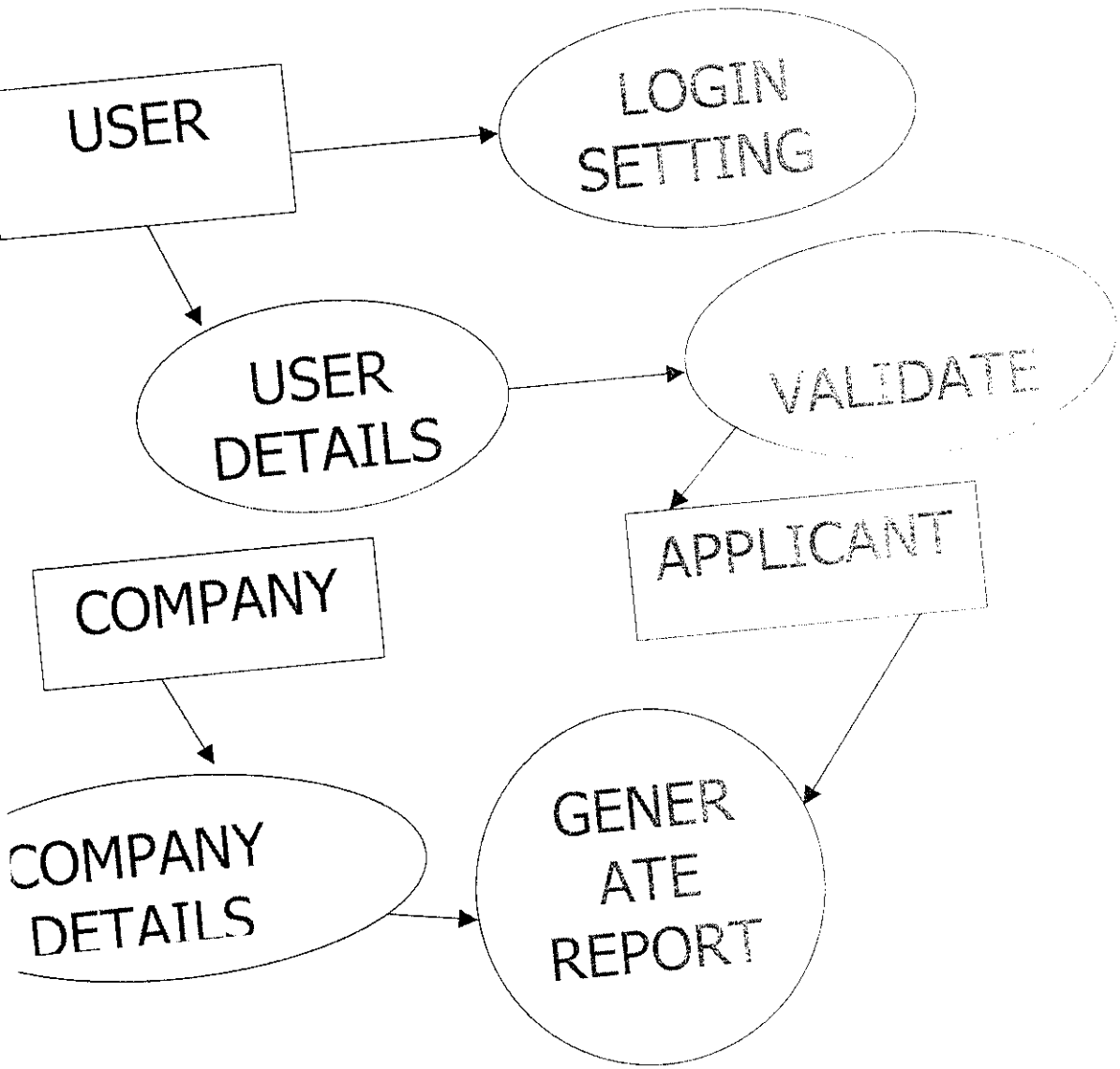
DFD Components

DFDs are constructed using four major components: (a) External entities (b) Data store (c) Processes and (d) Data flows.

External entities represent the sources of data that enter the system or the recipients of Data that leaves the system. Data store represent stores of data within the system. It may be a databases or individual files. Processes represent activities in which data is manipulated by being stored or retrieved or transformed in some way. Data flows represent the movement of data between other components, for example a report produced by a process and sent to an external entity.

A circle is used to depict a process. Both input and output are data flows. An arrow represents the data flows. External entities are represented by rectangles. Entities supplying data are known as sources and those that consume data are called as sinks.

DATA FLOW DIAGRAM



TESTING

5.1 Testing Concepts

Software is only one element of a large computer based system. Ultimately Software is incorporated with other system elements (ex New hardware) and a series of system integration and validation tests are conducted. System testing is actually a series of different tests whose primary purpose is to fully exercise the computers based system.

Testing presents an interesting anomaly for the software development. The testing phase creates a series of test cases that are intended to 'Demolish' the software that has been built. A good test case is one that has a high probability of finding an as yet undiscovered error. A successful test is one that uncovers an as yet undiscovered error.

Testing process brakes application down in to two main parts:

Unit Testing

In Unit Testing the modules of the system are tested as individual unit. Each unit has definite input and output parameters and often a definite single function.

System Testing

In System testing the system is tested as a whole; that's inter communication among the individual units and functions of the complete system is tested.

Testing for this system was done in 3 steps.

- Testing the function performance of each modular component.
- Testing the interface of software and its function with live data.
- Testing for user acceptance and to see if all user requirements have been met.

SYSTEM IMPLEMENTATION

5.1 System Implementation

Before implementing the system, it's forced in to many server-testing phases. After the system clears all the tests, it's released for implementation. After the data has been initially set, the system is ready for use. The implementation type or the change over technique from the existing system is a step by process.

First a module in the part of the system is implemented and checked for suitability and the efficiency. If the end user related to the particular module is satisfied, the next step of implementation is processed with. That's modules related to the previous module are implemented.

The following processes were conducted in the implementation stage.

- Testing of developed modules with sample data.
- Correction of errors.
- Testing the system to meet user requirements.
- New files with actual data had been created.
- Changes were made according to user's suggestions.

Training is given to all the particular users from the client side. The training varies from user to user depending upon the information needed pertaining to the user. For example the application users need help only on ad-hoc queries and how to take suggestions based upon the reports, whereas data entry operators need only information's on how to key in suitable data.

TABLE:

Field Name	Field Type	Field Name	Field Type
Vacc_id	Text	Desc2	Text
Comp_id	Text	Desc3	Text
Appl_id	Text	Desc4	Text
Appl_name	Text	Desc5	Text
Comp_name	Text	Desc6	Text
Salary	Text	Logo1	Number
Exp	Text	Logo2	Number
Address	Text	Logo3	Text
Phone1	Text	Logo4	Number
Phone2	Text	Logo5	Number
E-mail	Text	Logo6	Text
Website	Text	Logo7	Text
Location	Text		

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CONCLUSION

Conclusion

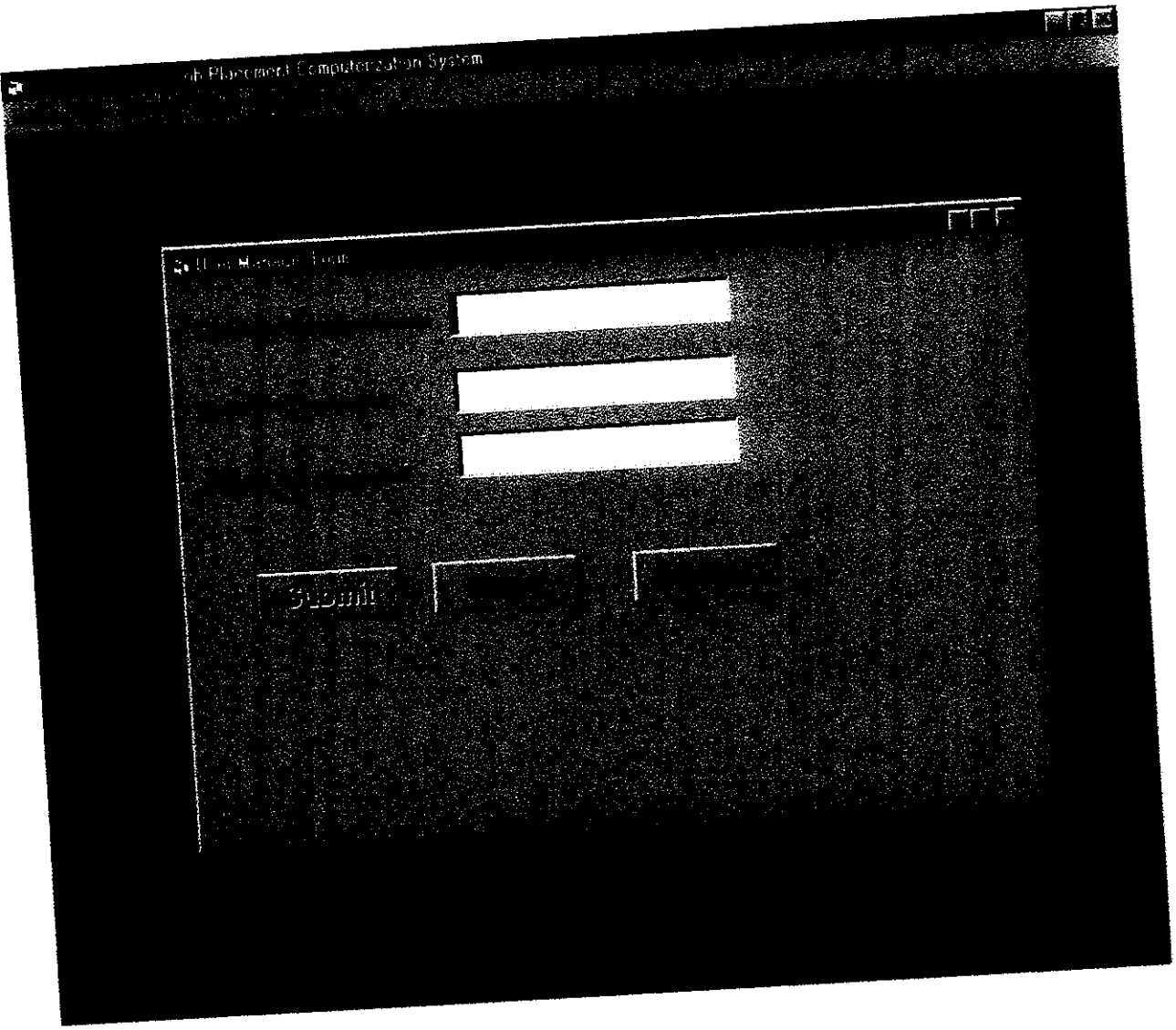
Developing software which is easy to use is hard to achieve, As such so many complex HRMS activities in Oracle has been automated by using this software. With the launching of this tool the job allocation is not a tedious task and it is useful for the upcoming graduates for their future.

APPENDICES

Job Placement Computerization System

Job Placement Computerization System

Job Placement Computerization System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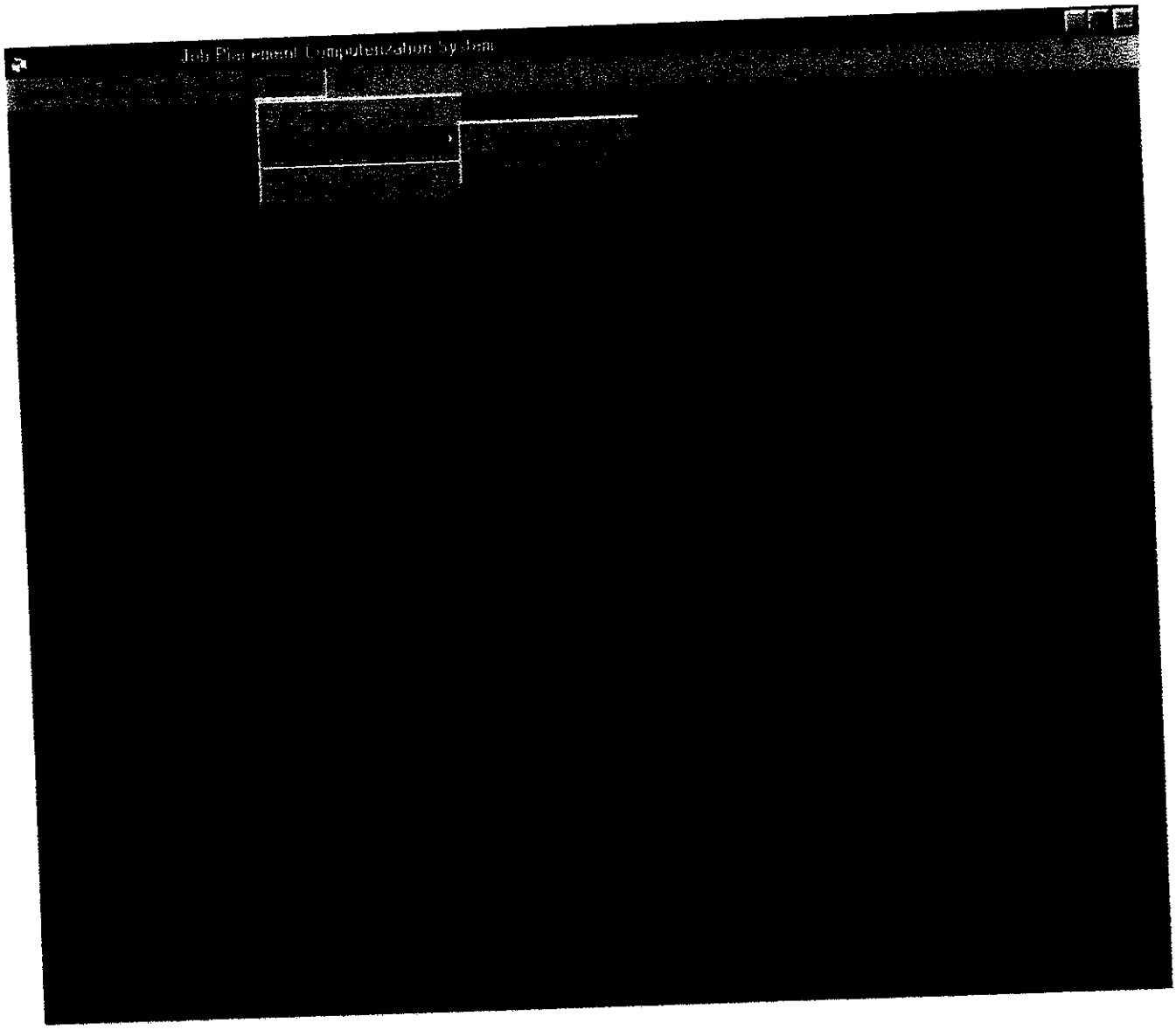

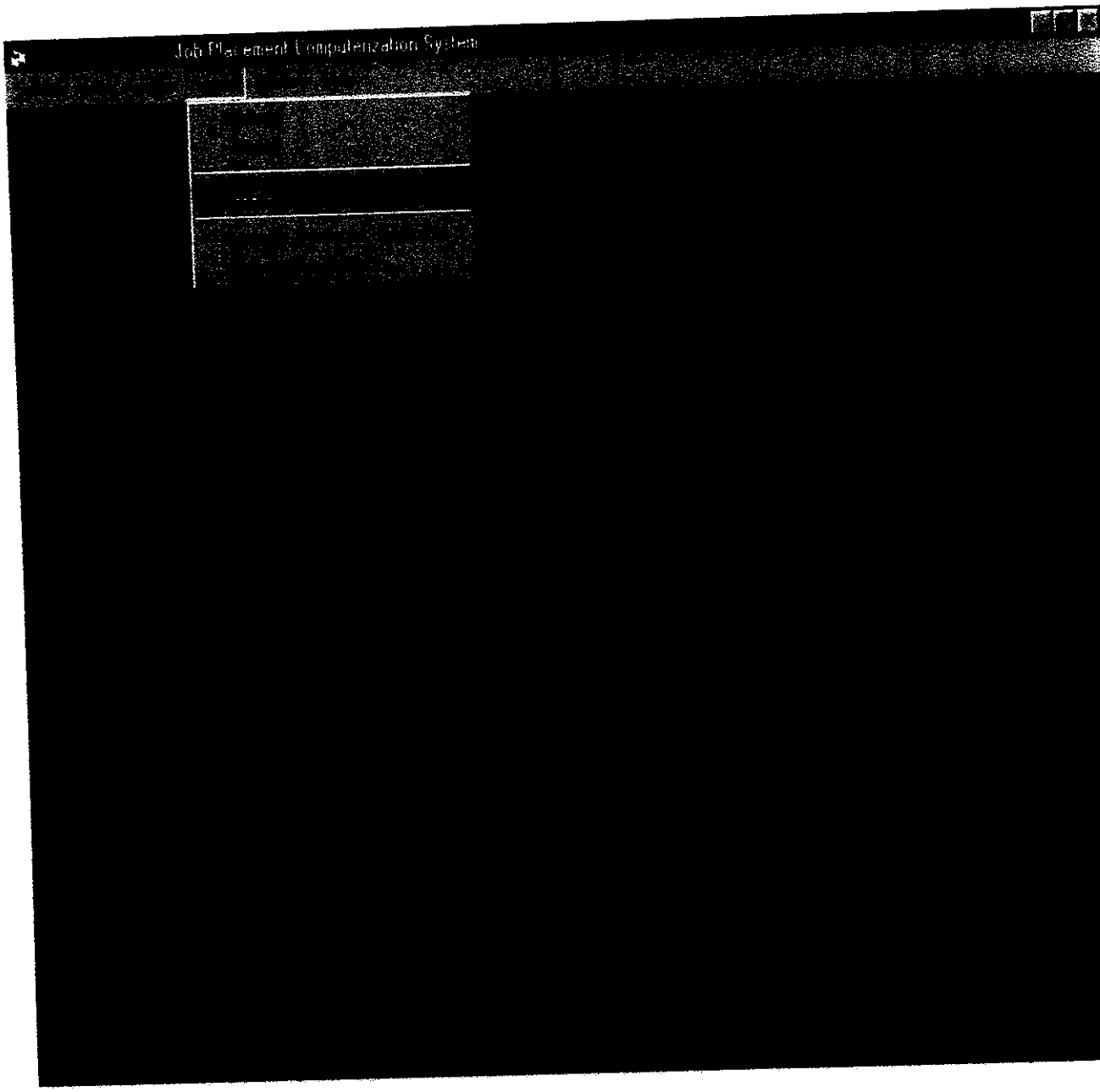
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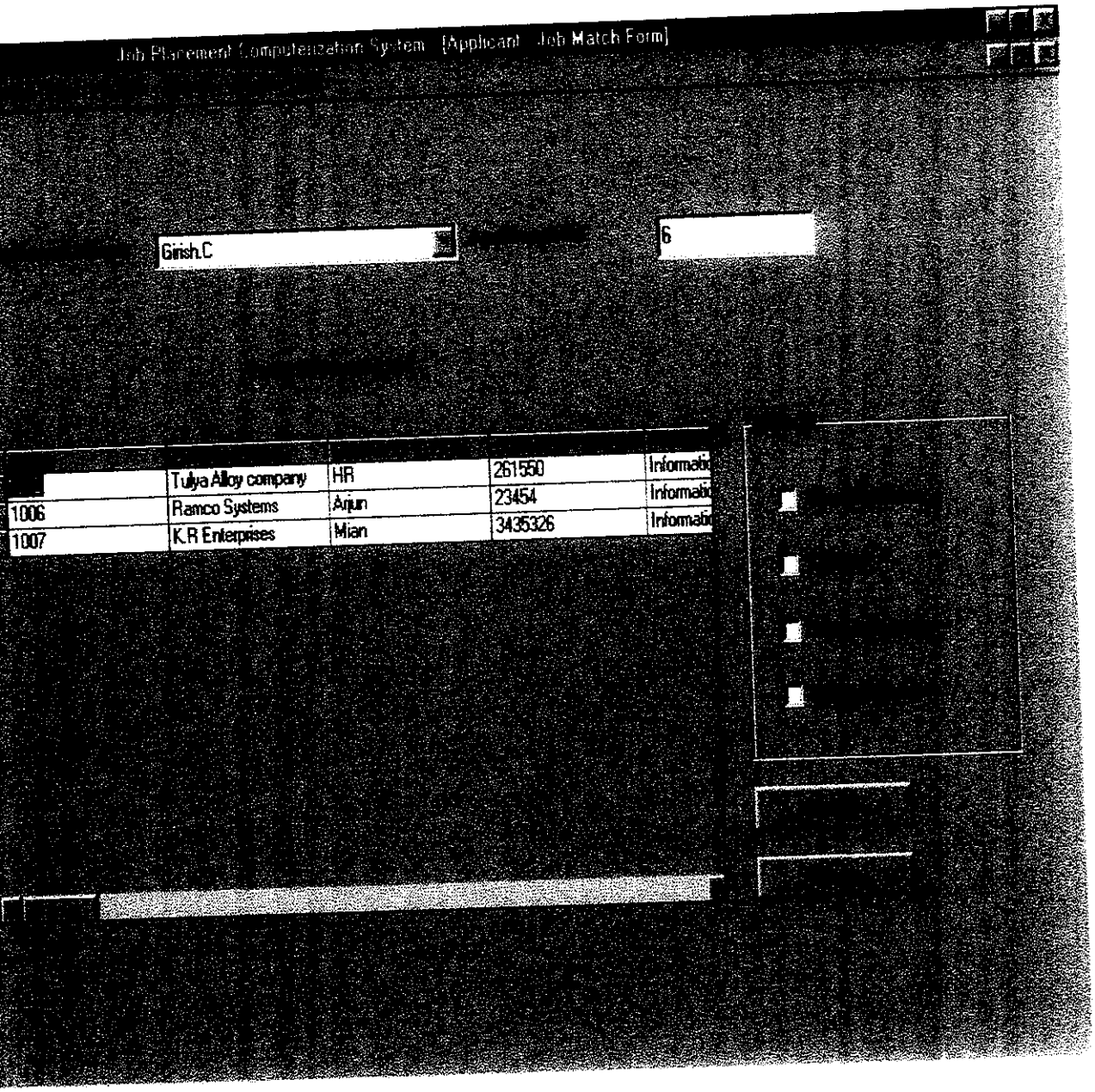
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Mian
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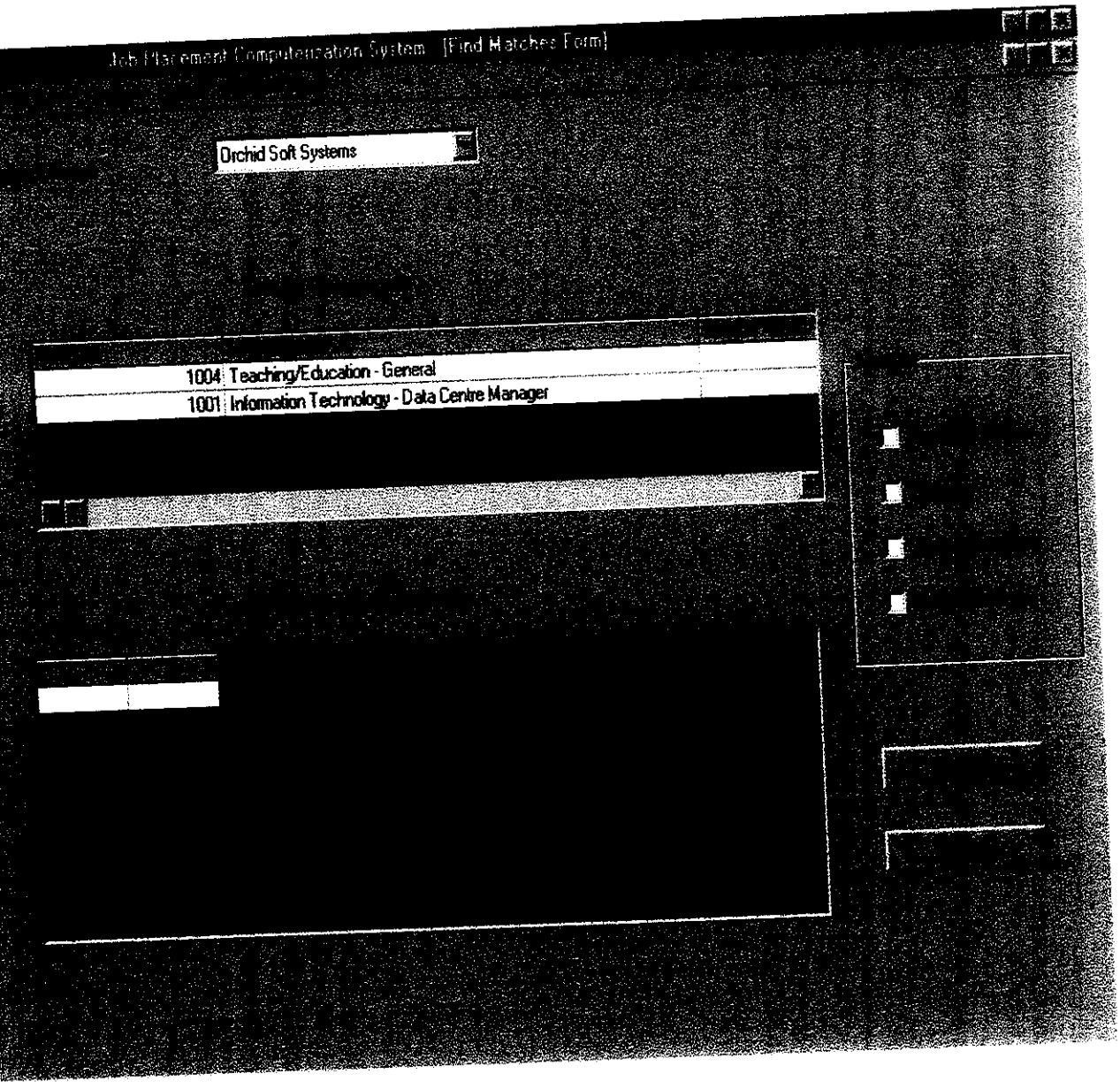
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Orchid Soft Systems
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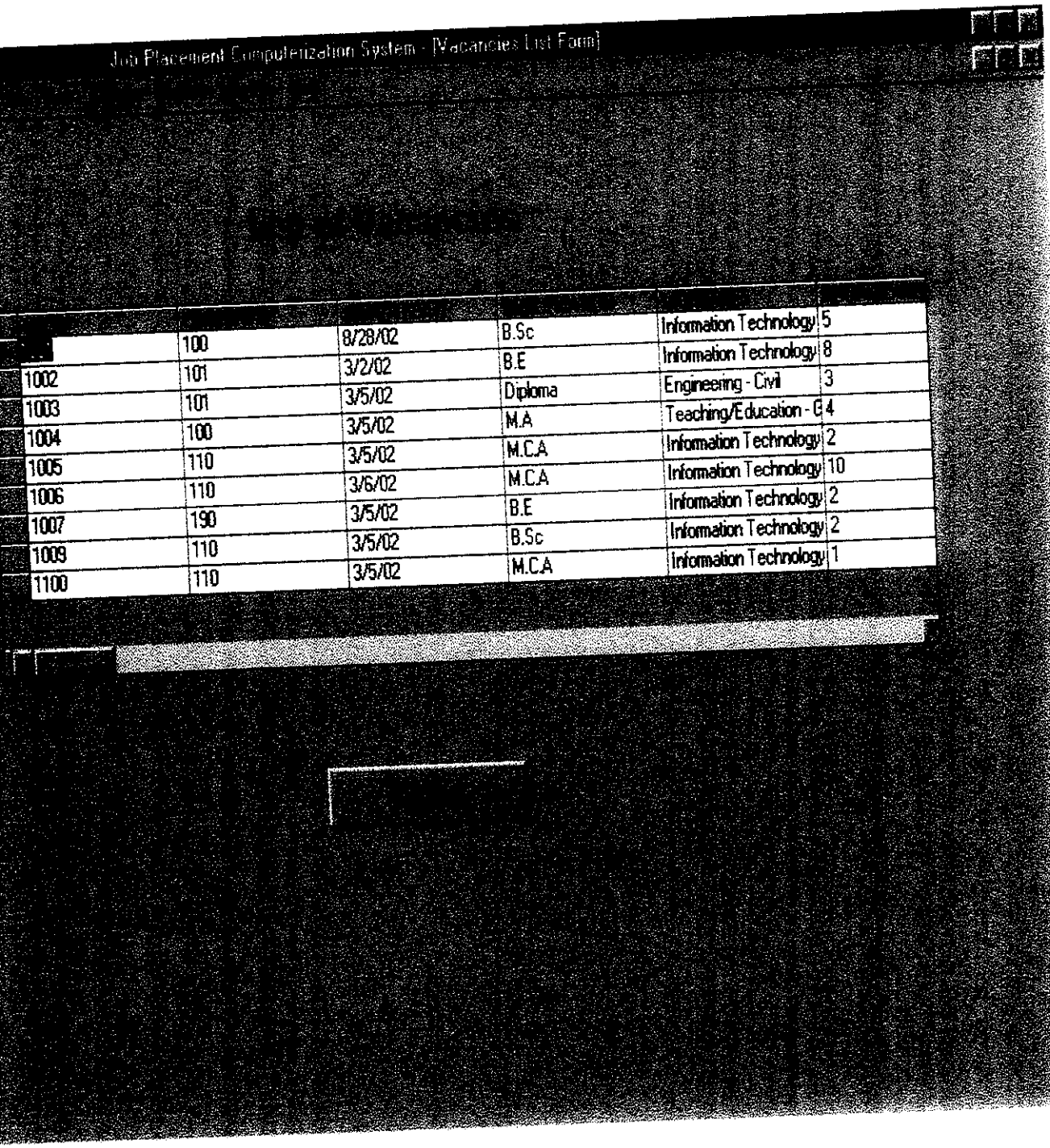
1001: Information Technology - Data Centre Manager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1002 101 3/2/02 B.E Information Technology 8
1003 101 3/5/02 Diploma Engineering - Civil 3
1004 100 3/5/02 M.A Teaching/Education - G 4
1005 110 3/5/02 M.C.A Information Technology 2
1006 110 3/6/02 M.C.A Information Technology 10
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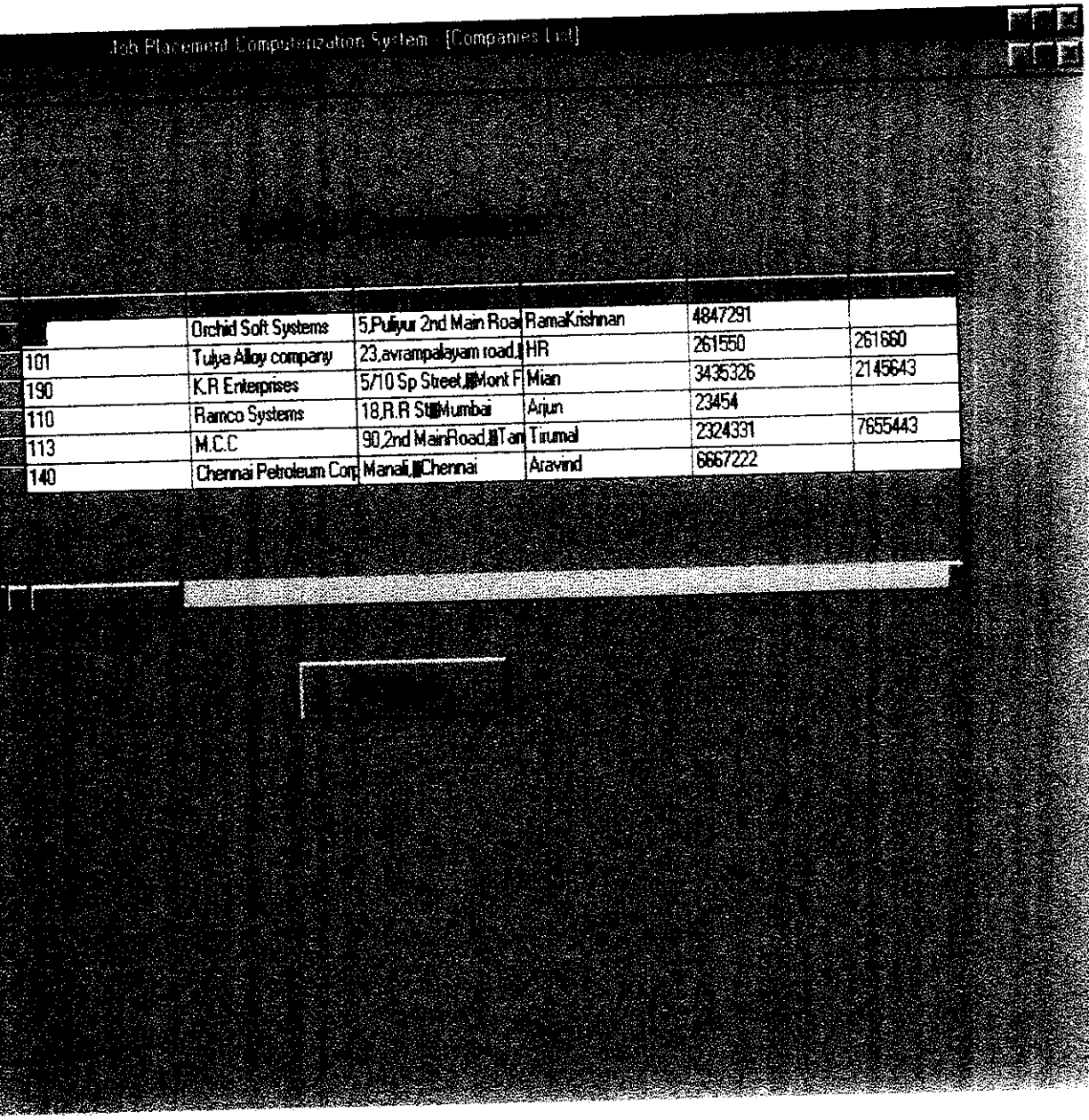
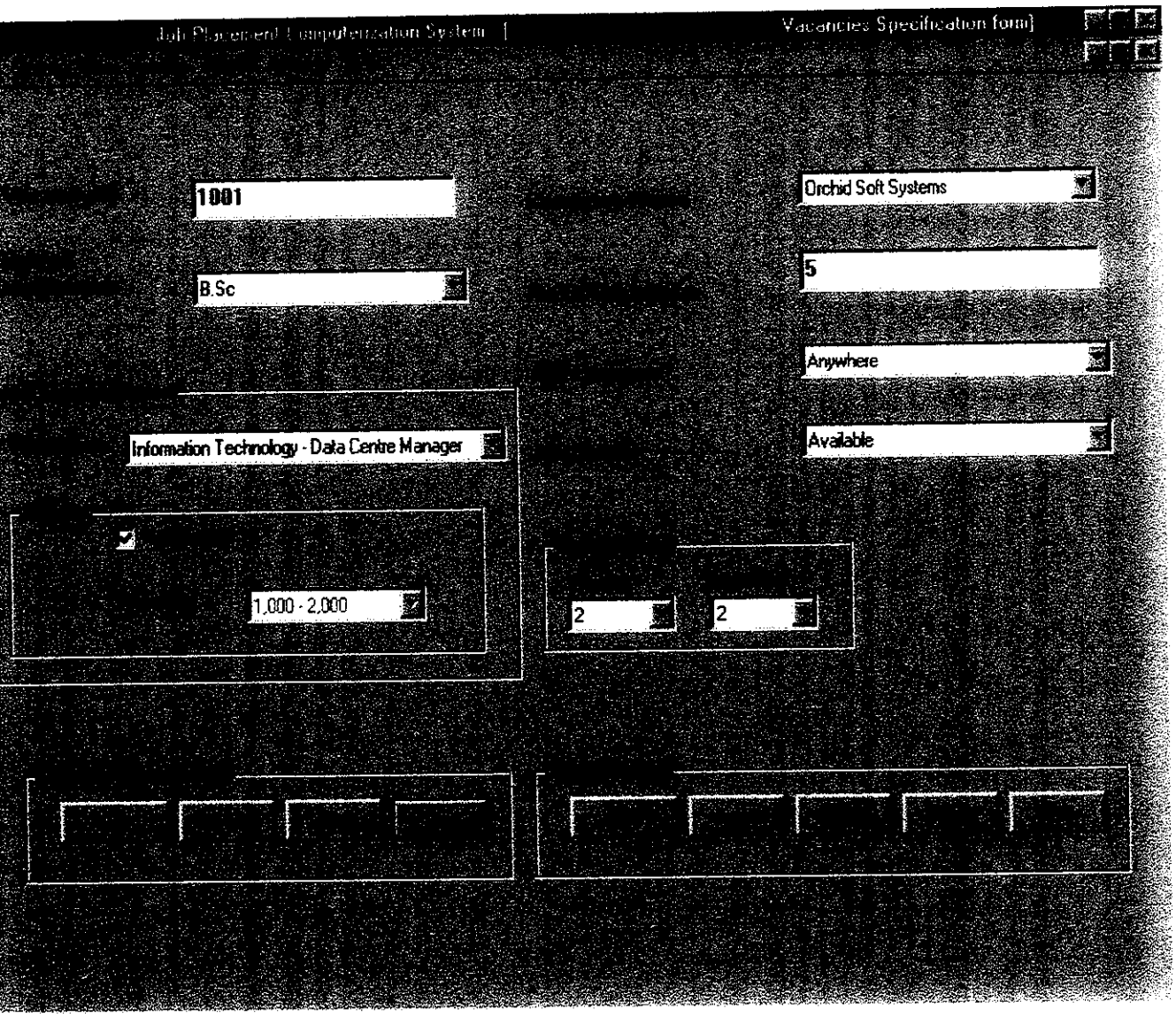

Job Placement Computerization System - [Companies List]
Orchid Soft Systems 5,Puliyur 2nd Main Roa RamaKrishnan 4847291
101 Tulya Alloy company 23,avrampalayam road, HR 261550 261680
190 K.R Enterprises 5/10 Sp Street, Mont F Mian 3435326 2145643
110 Ramco Systems 18,R.R St Mumbai Arjun 23454
113 M.C.C 90,2nd MainRoad, Tan Tirumal 2324331 7655443
140 Chennai Petroleum Cor Manali, Chennai Aravind 6667222

Job Placement Computerization System [Applications List Form]

	vijay	8/28/02	22	M	tenith street,salem	675765	M.Tech
8	SivaRam	3/5/02	23	M	1/7 Nirupa Flats,[]33rd S	4740533	M.C.A
4	Rajesh	3/4/02	24	M	assdsds	54644	B.Com
5	Rani	3/5/02	24	F	5/8 Super St,[]Chennai	1996782	B.E
6	Girish.C	3/5/02	26	M	255,Chandra Nagar[]Pa	4847291	M.C.A
10	Priya	3/5/02	21	F	Kodambakkam[]Chenna	4847291	M.C.A
25	Suganya	3/5/02	22	F	5,Main Rd,[]Chennai	356535	M.S.I.T
11	Mr.Ramakrishnan	8/26/02	26	M	Kodambakkam,[]Chenn	4847291	M.C.A
12	Mr.RajaSekar	3/8/02	32	M	Kodambakkam,[]Orchid	4847291	M.Tech


Job Placement Computerization System
Vacancies Specification form
1001
Orchid Soft Systems
B.Sc
5
Anywhere
Information Technology - Data Centre Manager
Available
1,000 - 2,000
2
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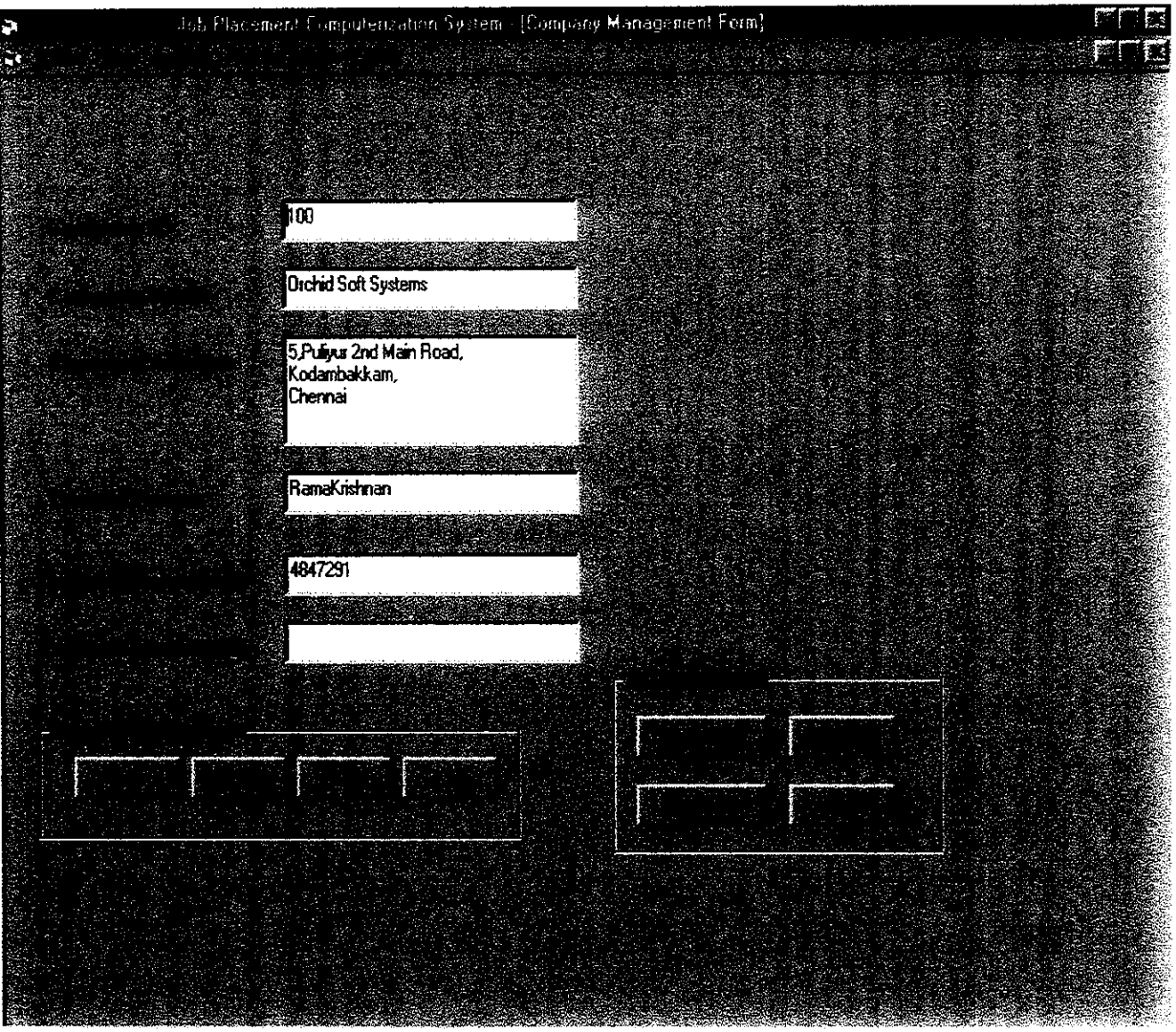
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Orchid Soft Systems
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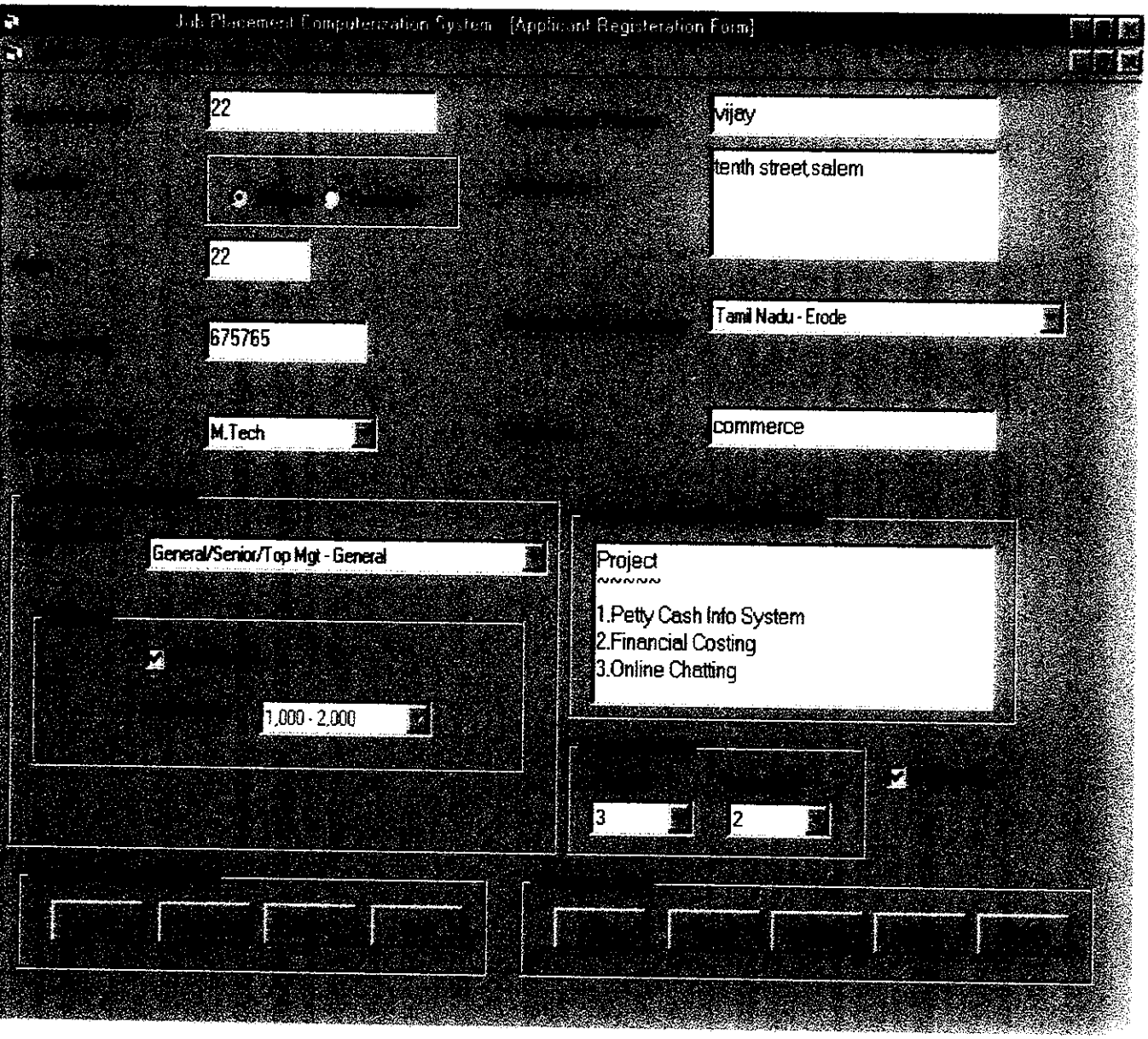

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