RESULT ANALYSIS & PLACEMENT SYSTEM

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Of

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BONAFIDE CERTIFICATE

Certified that this project report titled **Result Analysis & Placement System (RAPS)** is the bonafide work of **Mr. Aravind.S (Reg No. 71205621004)** who carried out the 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.

21/6/08

Project Guide

Head of the Department

Submitted to Project and Viva Examination held on 1-7-2008

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PROJECT COMPLETION CERTIFICATE

This is to certify that **Mr.ARAVIND.S, REG NO. 71205621004**, Final year M.C.A, Kumaraguru College of Technology, Coimbatore, has completed his project in our college. He did the project entitled **"RESULT ANALYSIS & PLACEMENT SYSTEM"** in .Net from December 2007 to June 2008 at our college in partial fulfillment of the requirements for the award of M.C.A, Anna University. His work was timely from the Institution's perception and useful to the institution.

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ABSTRACT

The Result Analysis & Placement system enables the management to have online views of results pertaining to an academic semester that enable them to take corrective action related to the quality and kind of education being provided to students. The system transforms results provided by the university into useful information that aids management in the decision making process.

Result analysis retains the manual methodology followed by the college in analyzing results. The manual system consumes much time and resources and are prone to errors in the calculation and aggregation process. Hence, the reliability of the information being submitted to management could be much distorted if not properly scrutinized by the concerned staff. Erroneous data could lead to erroneous decision making whose aftermath could only be known in the long run.

The Result Analysis & Placement system takes care of such potential threats and provides reliable services to the management and staff concerned, on demand. The system also helps staff in the calculation of internal marks on the basis of a few schemes related to internal marks calculation preconfigured into the system.

Placement Details is also maintained for the Final Year Students. Report is generated. All the Datas are retrieved from the Placement cell. This subsystem also enables the staffs to feed the placement details. The Result Analysis & Placement system thus provides a comprehensive coverage of the functional requirements with regard to results desirable to the staff and management of KCT.

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CHAPTER 1

Introduction

1.1 SYSTEM OVERVIEW

The project titled "**Result Analysis & Placement System [RAPS]**" offers total solution to the various result related requirements of the college staff and management.

The need for the Result Analysis & Placement system was felt due to the nature of the work required, which involved a lot of calculation of internal and external marks on a monthly and semester wise basis for all students along with Placement details for the final year Students. Moreover the process involved was quite a repetitive one and was prone to numerous errors which could result in inappropriate data being presented to the management.

Automation is the key to increased efficiency, performance and reliability in any system and is being rapidly followed in all walks of life. The problem with the traditional approach of Result Analysis is that due to the manual nature of the work involved, there is always the possibility of error in calculation. Moreover the error goes unnoticed if the reports are not viewed by the student concerned. Automation helps eradicate the root cause of the error by completely automizing the system of internal, external marks entry & calculation and Placement Details (Only for the Final Year Students).

The RAPS integrates all the subsystems involved with result analysis such as **Administration, General Information System [GIS], Internal Mark [Autonomous & University Calculation], Attendance, External Mark Calculation** and Placement System. **Report Generation** is also one of the Subsystems of RAPS.

The General Information System [GIS] serves as the foundation for RAPS. It takes care of maintenance of all the basic necessities of RAPS which aids in its smooth functioning. It allows configuring various details such as Departments, Courses, Class, Syllabus, Subjects, Staff, Students, Electives and Staff Allocation which acts as the foundation upon which the RAPS functions.

The external result and the Internal marks subsystem performs the main functionality of the RAPS by recording marks scored by students in both internal as well as external examinations. Only the respective staff have the permission to enter internal marks of the class for the subject he handles. This subsystem also enables the class advisors to feed external marks which in turn are clubbed with the internal marks system to obtain the overall performance of a student for a particular semester. Also, it aids in bringing out various other reports critical to the management.

The Administrative subsystem drives the Security tier of the RAPS. It separates the various categories of users by assigning them to respective Roles. Each role is granted certain permissions over the menu and submenu items accordingly, thus depriving users of unauthorized access over restricted information. Each user has his user id, password and Service Name and is associated with a Role.

Placement Details is also maintained for the Final Year Students. Report is generated for this subsystem. All the datas regarding the student placement are retrieved from the Placement cell. This subsystem also enables the staff to feed the placement details

1.2 COMPANY PROFILE

Kumaraguru College of Technology is a premier educational institution enjoying a high reputation since its foundation. It was established in the year 1984 under Ramananda Adigalar Foundation. Since 1984, as a co-educational engineering college, it has grown from strength to strength and today has emerged as one of the top ranking engineering institutions of the south. The institution offers 10 under graduate courses, 12 post graduate courses and 3 PhD programmes.

The Software Technology Parks of India -(STPI) has entered into agreement with the college for setting up Software Technology Parks in the college campus. As a result two Information Technology giants have set up their branches in the campus – Cognizant Technology Solutions India Private Limited and Spheris India Private Limited.

KCT is making rapid strides in the educational field. The placement record of KCT has reached 90% with around 75 reputed companies recruiting the future engineers. In addition the college has signed MoUs for mutual benefit with CODISSIA; CII; National Instruments; STPI; National Institute of Agronomic Research, France; Technical University, Liberec, Czech Republic.

Along with the state-of-the-art infra-structural facilities , KCT boasts of well qualified human resources with over 195 faculty including 31 PhDs and 49 engaged in various stages of PhD studies, 200 technical and other supporting staff and 2670 No. of students on rolls.

CHAPTER 2

System Study and Analysis

2.1 PROBLEM STATEMENT

The college staff has to manually enter results into work sheets and perform various operations related to summarizing results and finally submit a copy of the reports generated to the management. The tasks involved in the generation of these reports are repetitive. Often, due to the repetitive nature of the work and the tedious process involved, errors creep into these reports which lead to inconsistent information being submitted to the management. Inconsistent reports lead to less full proof decisions being made to improve the quality of education being provided to students.

Internal marks calculation is also a repetitive task and is error prone. Students could be allocated more marks than desired or could receive less than the deserved scores. This could affect the overall scores obtained by the student. Staff bio-data is currently filed in paper documents and there are chances that these pieces of paper are lost or misplaced. This could affect the staff concerned during the appraisal periods.

Also, placement information needs to be obtained from the placement cell and be filed again in paper documents. The information is quite difficult to obtain in case these files are misplaced. The college requires a system which could help ease out the problems faced in each of the scenarios mentioned above.

2.2 EXISTING SYSTEM

Results declared by the university are downloaded from the university website and recorded into logs manually. The results are then consolidated to frame various reports which are sent to the top management for review. It provides a general idea on the students and staff performance for a particular semester to the management which enables them to make changes to various procedures followed in order to improve performance.

Internal marks for various subjects in a semester are also calculated manually. The inputs to internal mark calculation are taken from the marks scored by students in the monthly tests. They are then aggregated with inputs from other systems like the attendance system to calculate the total internal marks for a subject. This information is made available to the students at the end of the semester. Staff details and Student details are maintained manually.

Placement details related to the departments are recorded by the placement cell alone. The data is requested from the placement cell by the department which requires this information. This list is not available to the students of the college unless when displayed on the notice board. It can be obtained by the students and staff from the placement cell.

2.2.1 Drawbacks of the Existing System

The drawbacks of the existing systems can be summarized as below:

- Time Consuming.
- Data Redundancy.
- Data Inconsistency.
- Lot of paperwork.
- Historical data retrieval takes a long time.
- Access and retrieval of relevant information requires considerable overhead.
- Generation of reports is difficult, since various records are to be verified.

2.3 PROPOSED SYSTEM

The proposed system would automate all of the manual processes described which would help reduce the overhead incurred by the college staff and make the whole process simple and efficient. The proposed system will have computerized data entry screens and processes can be carried out based on inputs from those screens. A set of reports would be provided to ease out the end users task of having to consolidate data to be sent across to the management.

2.3.1 Advantages of the Proposed System

The expected benefits of the Proposed System are as follows:

- Easy to use and simple.
- New modules can be added with ease without many modifications to the existing system.
- Flexible and Scalable.
- Secure.
- Data available on demand.
- Retrieval of historical records will be much simpler.
- Automatic conversion of data from Anna University database reducing data entry.
- Graphical reports are also generated for some modules like Comparison of Pass percentage between I MCA, II MCA and III MCA etc.
- Automatic Generation of attendance marks from Attendance module for internal mark calculation in Internal Mark Subsystem.

2.4 FEASIBILITY ANALYSIS

Feasibility analysis is the measure of how beneficial or practical the development of Information System will be to the Organization. Once the problem is explained, information is gathered about the system to test whether the system is viable Technically, Financially and Operationally. Thus, feasibility study is carried out in three phases as follows:

2.4.1 Technical Feasibility

Technical Feasibility is the measure of practicality of a specific technical solution and the availability of technical resources and expertise. It centers on the existing computer system (hardware, software, etc.) and to what extent it can support the new addition.

The proposed system is to be developed using Microsoft Visual Studio .Net and Microsoft Access 7.0 which are some of the known technologies in the market. These resources are easily available and the college does not need to acquire any development licenses. Microsoft Visual Studio.Net is already available with the college along with Microsoft Access. These technologies work on all architectures i.e. on all available platforms. Hence if the college decides to shift on to Linux platform later, the system can be ported across to it. These features of the selected technologies are quite beneficial to the proper functioning of the system in different environments.

2.4.2 Operational Feasibility

Operational Feasibility asks if the system will work when it is developed and installed. It checks for the support of the management, the current business methods, user's involvement and their attitude towards the proposed system, etc.

The proposed system has found encouraging support from the college staff and management as it will be of great use to them. The employees of the organization are also committed to have the system operational as it will save time and reduce their workload. Also since the College staff can have easy access to student information, calculate and summarize internal and external marks they are very much in favor of implementing the system. The current processes followed in the college would be depicted in the system as it is.

2.4.3 Economic Feasibility

Economic Feasibility is the measure of the cost-effectiveness of the proposed system. The investment to be made in the proposed system must prove a good investment to the organization by returning benefits equal to or exceeding the costs incurred in developing the system.

The proposed benefits of the system will outweigh the costs to be incurred during system developed since the system does not require procurement of additional hardware facilities it is economically feasible. In addition capability of the system to incorporate future enhancement will improve the performance to suit the future need of the college.

2.5 USERS OF THE SYSTEM

The users of the proposed System have been categorized as below and each of the user categories will have a set of rights which manage their use of the proposed system.

- Administrators
- Staff
  - **Teaching Staff**
  - **Non Teaching Staff**
- Students

Administrator is authorized to make changes to all data available in the system, add users, remove users and assign permissions to each user through roles. **Administrator can be anybody with a proper knowledge of the working of the system**. The administrator can change the overall appearance of the system. The administrator has to see to it that only valid data is being entered into the system. He/She is accountable for the consistency and integrity of the data in the system.

Teaching Staff can enter internal marks for the subjects he handles and comes under the category of staff. He can choose from the schemes available for internal marks processing which range from the most flexible scheme wherein marks can be allocated leniently to the most restrictive wherein the students marks are totally dependent upon the marks scored by him/her in the internal and model exams.

Class Advisors have the right to feed in Internal Marks and external marks pertaining to students under him. He comes under the category of teaching staff. He can insert, update and delete details of students and process external and internal results to obtain various reports required by the management.

Non-teaching staff doesn't have any default rights but can be assigned temporary rights by associating with a role. These staff can be made to do data entry work under the discretion of the administrator.

Students fall into the category of users who have the least privileges on the system. A student is only entitled to view certain reports that restrict him / her to his / her class and personal details. He has got view level rights only.

CHAPTER 3

Development Environment

3.1 HARDWARE REQUIREMENTS

The hardware support required for deploying the application:-

Configuration

Processor	:	Pentium 3 Processor or above/Athlon Processor
RAM	:	Minimum 512 MB
Hard Disk	:	20GB or more

3.2 SOFTWARE REQUIREMENTS

The software support required for deployment is:-

Operating System	:	Windows XP
Database	:	Microsoft Access 7.0
Software for Development	:	Microsoft Visual Studio .Net

3.3 PROGRAMMING ENVIRONMENT

3.3.1 Microsoft Access 7.0

MS-ACCESS is a Data Base Management System (DBMS). Access stores and retrieves data, presents information and automates repetitive tasks. Access runs on Windows platform and so all the advantages of Windows are available in Access. Using OLE objects in Windows, we can extend access into being true Database operating environment through integration with these products.

Access has a creator, a form designer, a query manager and a report writer. Access provides a new relational database management. It can be used as a stand-alone database management system, in a file server configuration or it can be used as a backend for VB or VC++ or VB.Net etc.,

3.3.2 Microsoft Visual Studio .NET

Visual Basic .NET is the next generation of the Visual Basic language from Microsoft based on .NET Platform. With Visual Basic you can build .NET applications, including Web services and ASP.NET Web applications, quickly and easily and provides the easiest point of entry to the Microsoft .NET platform.

Visual Basic .NET is a pillar of the .NET Framework, and yet another step forward in evolution of the language. It is a high-level programming language for the .NET Framework, and provides the easiest point of entry to the Microsoft .NET platform.

Visual Basic .NET is designed around the .NET Framework, which provides enhanced security, memory management, versioning, and deployment support. The .NET Framework also enables interoperability between objects you create with any .NET programming language. This means you can create objects with Visual Basic .NET that are easy to use from other .NET languages, and you can use objects from other .NET languages just like you use objects created with Visual Basic .NET.

With Visual Basic .NET, you use the contents of assemblies, and add references to them, in much the same way as you use type libraries with previous versions of Visual Basic. What makes assemblies different from .exe or .dll files in earlier versions of Windows, however, is that they contain all the information you would find in a type library, plus information about everything else necessary to use the application or component.

While earlier versions of Visual Basic are targeted for Microsoft Windows client applications, Visual Basic .NET is intended for creating XML Web service applications as well. For this purpose, Visual Basic .NET generates managed code for the common language runtime. This entails changes to the language itself.

Visual Basic .Net is one of the languages that are directed towards meeting the objectives of the .Net initiative of creating distributed applications. It has inherited the capabilities of rapid application development from its earlier versions and strengthened considerably the implementation of object-orientated features.

Visual Basic .NET supports many new or improved object-oriented language features listed below.

Features of Visual Basic .Net: -

- Inheritance
- Abstraction
- Encapsulation
- Polymorphism
- Constructors & Destructors
- Overloading
- Overriding
- Structured exception handling
- Multithreading
- Shared members
- Interfaces
- Delegates etc.,

CHAPTER

4

System Design and Development

4.1 ELEMENTS OF DESIGN

System Design is the most creative and challenging phase in the development of a software system. Design implies to a description of the final system and the process by which it is developed. The first step is to determine what input data is needed for the system and then to design a database that will meet the requirements of the proposed system. The next step is to determine what outputs are needed from the system and the format of the output to be produced.

During the design of the proposed system some areas where attention is required are:

- What are the inputs required and the outputs produced?
- How should the data be organized?
- What will be the processes involved in the system?
- How should the screen look?

The steps carried out in the design phase are as follows:

- Modular Design
- Input Design
- Output Design
- Database Design

4.1.1 Modular Design

It is always difficult for any System Development team to grasp a system without breaking it into several smaller systems. These smaller systems will be a part of the original system yet they will be independent in the sense that they will incorporate within them the major functionalities of the proposed system.

A software system is always divided into several subsystems which make it easier to develop and perform tests on the whole system. The subsystems are known as the modules and the process of dividing an entire system into subsystems is known as Decomposition.
The modules identified for the proposed Result Analysis & Placement system are as below:

- General Information System
- Marks Entry
- Result Analysis
- Internal Marks
- Placement details
- Administration

4.1.1.1 General Information System (GIS)

- General Details like Student details, Staff details, Syllabus details, Course details, Elective configuration, Department details and Class details shall be maintained as a part of the General Information subsystem.
- Staff Allocation details should be maintained by the General Information system which aids in the calculation of Staff performance during Result Analysis.
- Student elective configuration is also maintained. Each & every student have to select their elective subjects available for each semester.
- All these details are configured as and when required by either the system administrator or the concerned staff.

4.1.1.2 Marks Entry

This refers to both Internal Marks entry subsystem as well as the external marks entry subsystem.

4.1.1.2.1 Internal Marks Entry

- Internal Mark entry is done for both autonomous & university calculation.
- The Result analysis & Placement system gets Student, Elective and Subject details from the General Information System.
- The authorized user has to enter details of the marks scored by the Students in each subject.
- The academic year on which the exam was conducted is made available by the Result Analysis subsystem.
- Internal marks of students are then written onto the disk

4.1.1.2.2 External Marks Entry

- General information system makes available the Student and other general information like course and batch details for making the external mark entries.
- Internal mark details are also available for the calculation of external mark entry & calculation.
- The results are available on the University website which is downloaded onto the local system by the staff.
- The marks for each student are then updated into the system through the data entry screens provided.
- The entries are based on the register number of the student.

4.1.1.3 Result Analysis

- General information system makes available the Student, staff and other general information like course and class details to the Aggregation function.
- During external mark calculation, Internal marks are fetched from the database that was stored while Internal mark entry.
- Mark entries of students are fetched from the database.
- Arrear records are separated out and the overall results calculated and written into respective files.
- Cumulative result calculation is done and stored into tables based on the outputs from the cumulative aggregation functions.
- Various reports can be created and displayed to users on demand.

4.1.1.4 Internal Marks

- Student, subject and staff details are made available to the system from the General Information System interface tables.
- Internal mark calculation is done for both autonomous & university. Its upto the user's selection, whether university or autonomous calculation.
- The scheme used for generating the internal marks is to be selected by the staff. This is with reference to the internal marks policy of the department.
- The attendance subsystem provides the necessary attendance percentage of students for the calculation of internal marks, if desired.
- Internal marks are calculated as per the guidelines in the scheme selected.

4.1.1.5 Placement details

- Placement details are maintained only for the final year students.
- All the details regarding the placement will be collected from the Placement cell & stored in the proposed system by any authorized user.
- According to the entries, Reports are also generated.
- Company details are also collected & stored in the proposed system.

4.1.1.6 Administration

- The administration module provides security to the system by preventing unauthorized users from accessing the system and wrecking havoc.
- Administrative module allows for creation of menus and submenu items dynamically as desired by the administrator. It gives the default permissions of changing user passwords to all users registered in the system.
- It allows for assigning roles to users by the administrator. Each menu can be assigned a role which in turn shows the particular menu to the users who is assigned the same role. It provides many more features.

4.1.2 Input Design

The input design is the process of converting the user-oriented inputs into computer-based format. The goal of designing input data is to make sure that the automation is easy, logical and free from errors.

The input design requirements such as user friendliness, consistent format and interactive dialogue which provide users with timely help and correct messages are given high priority.

The input forms of the ***General Information System*** module are as below:

- User Login form
- Course Form
- Class Form
- Syllabus Form
- Student Form
- Staff Form
- Subject Form
- Staff Subject Allocation Form
- Student Elective Form

The *User Login* Form is used by the various users of the system and the system restricts access to the data based on the type of user logged in.

The *Course* Form allows the user to enter the Course Name and assign a unique code to Course Id which in turn referenced in the *Class* Form.

The *Class* Form allows the user to enter the Class Name, Branch, Number of Semester, Class strength and Batch as a unique code.

The *Syllabus* Form allows the Administrator to create a new syllabus and assign a start date to the syllabus for each course. And assign a unique id to it.

The *Student* Form allows Administrator to enter the details of a new student

The *Staff* Form allows Administrator to enter the details of a new staff

The *Subject* Form allows Administrator to enter the subject details for a course.

The *Staff Subject Allocation* Form allows the user to enter the allocated subjects for all the staff.

The *Student Elective* Form allows the user to enter the details regarding the elective selected by the student for each semester.

The input forms of the ***Result Analysis*** module are as below:

- Attendance Marks entry form
- Internal Marks Entry Form(for Autonomous & University)
- External Marks entry form
- External Marks process form
- Arrear & Revaluation entry form

The *Attendance mark entry* Form allows the user to enter attendance marks for the students into the system.

The *Internal marks entry* Form allows for entry of internal marks into the system. The staff concerned can view the subject he or she handles and enter marks. Attendance mark is generated automatically for the calculation of internal mark.

The *External marks entry* Form allows administrator/class advisor to enter external marks obtained by students in a semester. Internal mark is also generated automatically for the calculation of Total mark.

In the *External marks process* Form, the aggregate score of students in a semester is calculated. The cumulative mark percentage is also generated automatically (i.e. the overall academic performance of the students beginning from the date he joined college to the current date). It involves aggregation of marks for all the semesters a student has been involved in.

The *Arrear & Revaluation entry* Form allows administrator to modify or update the mark details (by either revaluation or next semester) for a student who got arrear.

The input forms of the ***Placement*** module are as below:

- Student Placement details Entry Form
- Company details Entry Form

The *Student Placement details entry* Form allows the administrator to add list of student who got placed in one or more company.

The *Company details entry* Form allows the user to enter details regarding company's recruitment.

4.1.3 Output Design

Reports are generated as output for the users to view and take print-outs. Different reports are generated for different criteria. The reports present in the system are:

- Overall Rank List.
- Students Mark List.
- Subject wise Rank List.
- Staff performance Report.
- Placement Report
- Arrears Report.
- Internal Marks monthly Report.
- Internal Marks Final Report
- Overall Internal Marks Report
- Subject wise Comparison Report
- Percentage wise Comparison Report.
- Staff bio data Report
- Student Report.

Overall rank list depicts the performance of students of a class in a particular semester. The ranking of students is listed out in the order of the best performing student to the least performing student. The list does not contain records of students who failed.

Students mark list contains the record of every student with the marks scored by him in each subject in the respective semester. The total and aggregate marks are displayed in the report. Students who have failed are marked in red for easy identification.

Subject wise rank list contains records of the first five toppers in each subject pertaining to a semester.

Staff performance report depicts the pass percentage secured by a staff in his/her subject in a particular semester.

Placement report contains a list of students placed in a company or companies (Dual or Triple Placement) through campus recruitment.

Arrears report contains a list of students with the subjects in which he/she has an arrear in.

Internal marks monthly report contains records of students with the marks scored by him/her in the monthly exam conducted in a particular subject. No aggregation is performed in this report.

Internal marks final report produces the list of students and the marks scored by them in all the exams conducted with the aggregate score in the subject.

Overall Internal Marks report produces a list of students with the aggregate marks in each subject pertaining to the current semester to which they belong.

Subject wise Comparison report depicts a complete comparison of pass percentage for each subject in a particular semester. It is displayed in pie chart.

Percentage wise Comparison report depicts a complete comparison of pass percentage for each class in a particular semester. It is displayed in bar chart.

Staff bio data report contains details about the staff. A Complete history of staff will be found.

Student report contains details about the students.

4.1.4 Database Design

A database is a collection of inter-related data stored with minimum redundancy to serve many users quickly and efficiently. The general objective of database design is to make the data access easy, inexpensive and flexible to the user. An elegantly designed database can play a strong foundation for the whole system.

The details about the relevant data for the system are first identified. According to their relationship, tables are designed through the following method.

- The data type for each data item in the table is decided.
- The tables are then normalized.

The tables are normalized so that they can provide better response time, have data integrity, avoid redundancy and be secure.

The tables for the Result Analysis & Placement system have been normalized up to the Second Normal Form (2NF).

4.2 TABLE STRUCTURE

Design Conventions Used

1. Table name should be given in capital letters.
2. No special character other than an underscore is used in formulating a table name.
3. No number should be used anywhere in the table name string.
4. Field names should be of the format TYPE_FIELDNAME.
5. Types are: C- CHAR, V- VARCHAR, N- NUMBER, D- DATE

Table No. 4.2.1 Table Name: LOGIN

This table contains login details of various users.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_LOGIN_NAME	VARCHAR(50)	Login Name / User ID
2	V_PASSWORD	VARCHAR(30)	Password
3	V_SERVICE_CATEGORY	VARCHAR(30)	Which Service / Privilege

Table No. 4.2.2 Table Name: COURSE

This table deals with course details. Courses which are available in the college will be stored in this table.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_COURSE_ID	VARCHAR(10)	PK
2	V_COURSE_NAME	VARCHAR(40)	NOT NULL
3	V_DEPT_NAME	VARCHAR(40)	NOT NULL
4	V_UNIVERSITY	VARCHAR(60)	NOT NULL
5	N_NO_SEM	NUMBER(2)	Stores the Number of Semesters for the course

Table No. 4.2.3 Table Name: SYLLABUS

This table contains details about syllabus.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	N_SYLLABUS_ID	NUMBER(3)	PK
2	V_COURSE_ID	VARCHAR(10)	FK (COURSE)
3	D_START	DATE	Introduction Date(NOT NULL)
4	D_END	DATE	Syllabus End Date

Table No. 4.2.4	Table Name: CLASS_DETAILS		
This table deals with the class details.			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_COURSE_ID	VARCHAR(10)	FK(COURSE)
2	V_CLASS	VARCHAR(5)	NOT NULL
3	N_BATCH	NUMBER(4)	PK
4	N_CLASS_STRENGTH	NUMBER(3)	NOT NULL[Class Strength]
5	V_STAFF_ID	VARCHAR(10)	FK(STAFF)

Table No. 4.2.5	Table Name: SUBJECT		
This table deals with the various subjects to be stored.			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_SUBJECT_CODE	VARCHAR(8)	PK
2	N_SYLLABUS_ID	NUMBER(3)	FK (SYLLABUS)
3	V_SUBJECT_NAME	VARCHAR(50)	NOT NULL
4	N_TOT_MARK	NUMBER(4)	NOT NULL
5	N_TOT_PASS_MARK	NUMBER(3)	NOT NULL
6	N_EXT_TOT_MARK	NUMBER(3)	NOT NULL
7	N_EXT_PASS_MARK	NUMBER(3)	NOT NULL
8	N_INT_TOT_MARK	NUMBER(3)	NOT NULL
9	V_CATEGORY_ELECTIVE_NOT	VARCHAR(3)	NOT NULL (Yes/No)
10	N_SEM	NUMBER(2)	Which Semester?
11	V_CATEGORY_LAB_NOT	VARCHAR(3)	NOT NULL (Yes/No)

Table No. 4.2.6	**Table Name: STUDENT**		
This table contains details about the students.			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_ROLL_NO	VARCHAR(8)	PK
2	V_REG_NO	VARCHAR(15)	NOT NULL
3	V_NAME	VARCHAR(50)	NOT NULL
4	V_CLASS	VARCHAR(10)	FK (COURSE)
5	N_BATCH	NUMBER(4)	FK(CLASS_DETAILS)
6	D_DOB	DATE	Date Of Birth
7	V_PER_ADDRESS	VARCHAR(200)	Permanent Address
8	V_HOME_PH_NO	VARCHAR(15)	Phone No
9	V_MOBIL_NO	VARCHAR(15)	Mobile
10	V_GENDER	VARCHAR(6)	NOT NULL[Male/Female]
11	V_EMAIL	VARCHAR(40)	Email ID
12	AOI	VARCHAR(30)	Area Of Interest

Table No. 4.2.7 **Table Name: ELECTIVE_CONFIG**

This table deals with the details about elective subject configuration for each semester. The User probably a staff decides with the management & enters the number of electives that is going to be selected by the students for each semester.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	N_BATCH	NUMBER(4)	NOT NULL
2	N_SEMESTER	NUMBER(2)	NOT NULL
3	N_SYLLABUS_ID	NUMBER(3)	FK(SYLLABUS)
4	N_NO_ELECTIVES_CONFIRM	VARCHAR(8)	FK(SUBJECT)

Table No. 4.2.8 **Table Name: STUDENT_ELECTIVE**

This table deals with the details about student's elective configuration.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_ROLL_NO	VARCHAR(8)	FK(STUDENT)
2	N_SEMESTER	NUMBER(2)	NOT NULL
3	N_SYLLABUS_ID	NUMBER(3)	FK(SYLLABUS)
4	V_SUBJECT_CODE	VARCHAR(8)	FK(SUBJECT)

Table No. 4.2.9	Table Name: STAFF		
This table contains details about the staff			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_STAFF_ID	VARCHAR(10)	PK
2	V_NAME	VARCHAR(50)	NOT NULL
3	D_DOB	DATE	Date Of Birth
4	D_DOJ	DATE	Date Of Join
5	N_DEPT_NAME	NUMBER(2)	FK (COURSE)
6	V_QUAL	VARCHAR(30)	Qualification
7	V_PER_ADDRESS	VARCHAR(200)	Permanent Address
8	V_MOBIL_NO	VARCHAR(15)	Mobile
9	V_PH_NO	VARCHAR(15)	Phone No
10	V_EMAIL	VARCHAR(40)	Email ID
11	V_GENDER	VARCHAR(6)	NOT NULL[Male/Female]
12	V_CATEGORY_TEACH	VARCHAR(15)	Teaching / Non Teaching
13	V_DESIGNATION	VARCHAR(30)	NOT NULL[Designation]

Table No. 4.2.10	Table Name: STAFF_ALLOC		
This table deals with details about subjects allocated to the staff.			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_STAFF_ID	VARCHAR(10)	FK (STAFF)
2	N_BATCH	NUMBER(4)	FK(CLASS_DETAILS)
3	N_SYLLABUS_ID	NUMBER(3)	FK(SYLLABUS)
4	N_SEMESTER	NUMBER(2)	NOT NULL[Which Semester]
5	V_SUBJECT_CODE	VARCHAR(8)	FK (SUBJECT)

Table No. 4.2.11 **Table Name: ARREAR**

This table contains details about the students in which he/she has an arrear.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_ROLL_NO	VARCHAR(8)	FK (STUDENT)
2	V_SUBJECT_CODE	VARCHAR(8)	FK (SUBJECT)
3	V_CLEARED	VARCHAR(3)	Yes / No
4	N_MARK_SECURED	NUMBER(3)	Mark Scored[Either By Revaluation or in the Next Semester
5	D_MONTH_YEAR	DATE	Which Month & Year passed

Table No. 4.2.12 **Table Name: ATTENDANCE**

This table contains details about the student's attendance. Attendance Mark for the students will be stored in this table.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_ROLL_NO	VARCHAR(8)	FK(STUDENT)
2	V_REG_NO	VARCHAR(15)	NOT NULL[Registration Number]
3	N_BATCH	NUMBER(4)	FK(CLASS_DETAILS)
4	N_CURRENT_SEM	NUMBER(2)	NOT NULL
5	V_SUB_CODE	VARCHAR(15)	FK(SUBJECT)
6	N_TOTAL_NO_OF_HOURS	NUMBER(3)	Total No of hours per semester
7	N_NO_HOURS_PRESENT	NUMBER(3)	Total No of hours present
8	N_OUT_5	NUMBER(3)	Attendance Mark - Out of 5

Table No. 4.2.13 **Table Name: INTERNAL_MARK**

This table deals with records about the internal mark scored by a student in all the subjects pertaining to a semester. Internal mark will be calculated considering the marks scored in test marks, model test and attendance mark.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_ROLL_NO	VARCHAR(8)	FK(STUDENT)
2	V_REG_NO	VARCHAR(15)	NOT NULL
3	V_ACADEMIC_YEAR	VARCHAR(20)	Current Academic Year
3	N_BATCH	NUMBER(4)	FK(CLASS_DETAILS)
4	N_CURRENT_SEM	NUMBER(2)	NOT NULL
5	V_SUB_CODE	VARCHAR(15)	FK(SUBJECT)
6	N_TEST_MARK1	NUMBER(3)	Test1 Mark
7	N_TEST_MARK2	NUMBER(3)	Test2 Mark
8	N_TEST_MARK3	NUMBER(3)	Test3 Mark
9	N_MODEL_TEST	NUMBER(3)	Model Mark
10	N_OUT_20	NUMBER(2)	Mark - Out of 20

Table No. 4.2.14 **Table Name: UNIVERSITY_MARK**

This table deals with records about the overall external marks scored by a student in all the subjects pertaining to a semester. External mark is calculated considering along with the internal mark generated from the table INTERNAL_MARK.

Sr.	Field Name	Type	Foreign Key/PK/Remarks
1	V_ROLL_NO	VARCHAR(8)	FK(STUDENT)
2	V_REG_NO	VARCHAR(15)	NOT NULL
3	V_ACADEMIC_YEAR	VARCHAR(20)	Current Academic Year
4	N_BATCH	NUMBER(4)	FK(CLASS_DETAILS)
5	N_CURRENT_SEM	NUMBER(2)	NOT NULL
6	V_APPEARED_NOT	VARCHAR(3)	Appeared for the Exam or Not[Yes/No]
7	V_SUB_CODE	VARCHAR(15)	FK(SUBJECT)
8	N_INT_MARK	NUMBER(3)	INT_MARK from INTERNAL_MARK
9	N_EXT_MARK	NUMBER(3)	EXT_MARK[NOT NULL]
10	V_REMARK	VARCHAR(4)	PASS / FAIL

Table No. 4.2.15	Table Name: PLACEMENT_DETAILS		
This table contains details about the students who are placed in one or more company. Non-Placed students details will also get stored in this table.			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_ROLL_NO	VARCHAR(8)	FK(STUDENT)
2	N_BATCH_YEAR	NUMBER(4)	FK(CLASS_DETAILS)
3	V_PLACED_NOT	VARCHAR(3)	NOT NULL[Placed or not]
4	V_COMPANY1	VARCHAR(50)	Company1
5	V_COMPANY2	VARCHAR(50	Company2
6	V_COMPANY3	VARCHAR(50)	Company3

Table No. 4.2.16	Table Name: COMPANY_DETAILS		
This table contains details about the company came for campus recruitment			
Sr.	**Field Name**	**Type**	**Foreign Key/PK/Remarks**
1	V_COMPANY_NAME	VARCHAR(50)	Company Name
2	D_SCHEDULED_DATE	DATE	NOT NULL [Scheduled Date]
3	V_BRANCH	VARCHAR(30)	NOT NULL[Main Branch]
4	N_NO_DAYS	NUMBER(2)	Number of Days conducted
5	N_NO_STUD_ALL	NUMBER(3)	Number of students placed
6	N_NO_STUD_MCA	NUMBER(3)	Number of students placed in MCA

4.3 DATA FLOW DIAGRAMS

Data flow diagrams are graphical representation depicting information regarding the flow of control and the transformation of data from input to output. The DFD may be used to represent the system or software at any level of abstraction. In fact, DFD can be partitioned into levels. A Level 0 DFD called Context Level Diagram represents the entire software system as a single bubble with its interactions. The **Context** diagram shows the overall system with the users who will be interacting with it, being Management, Staff, HOD, Student and administrator in this case.

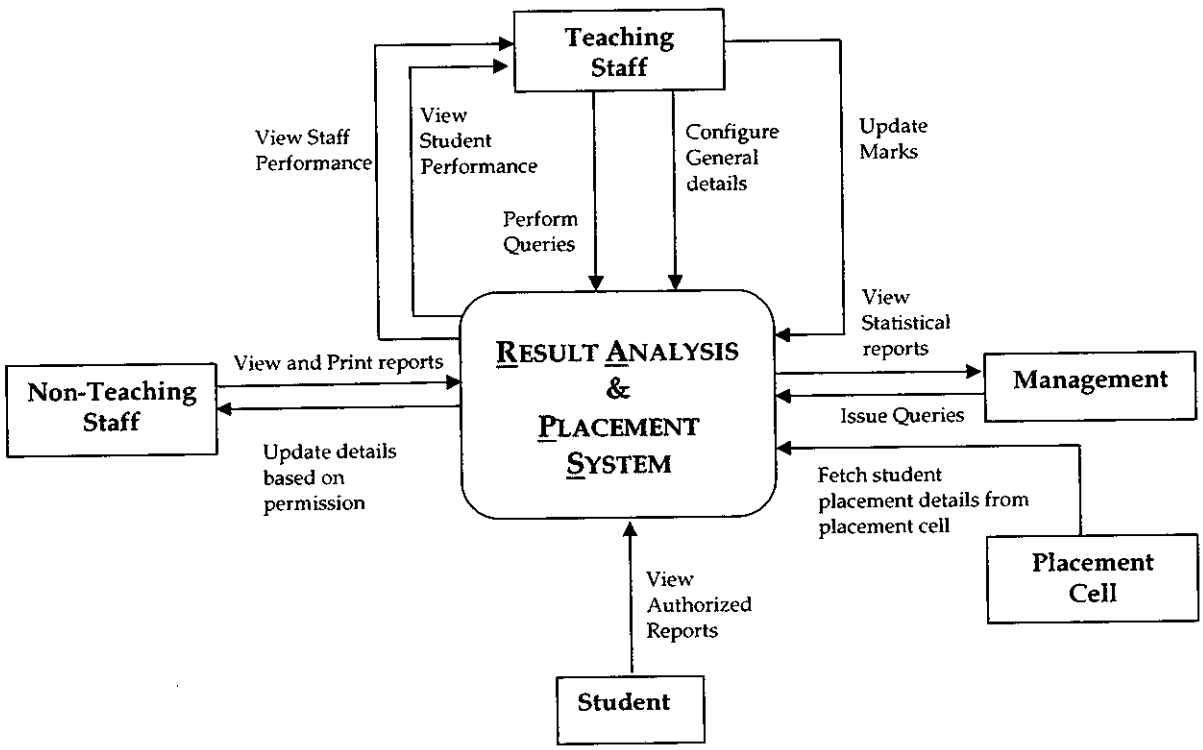


Figure 4.3.1: Context Diagram – RAPS

The Level 1 DFD will explain the major modules in the whole system, i.e., how the data flow between each of these modules. The flow from once a user logins to entering measurement criteria, entering data, conducting reviews, audits etc., is shown in level 1 of the data flow diagram. The interaction of each process with the corresponding tables is also shown.

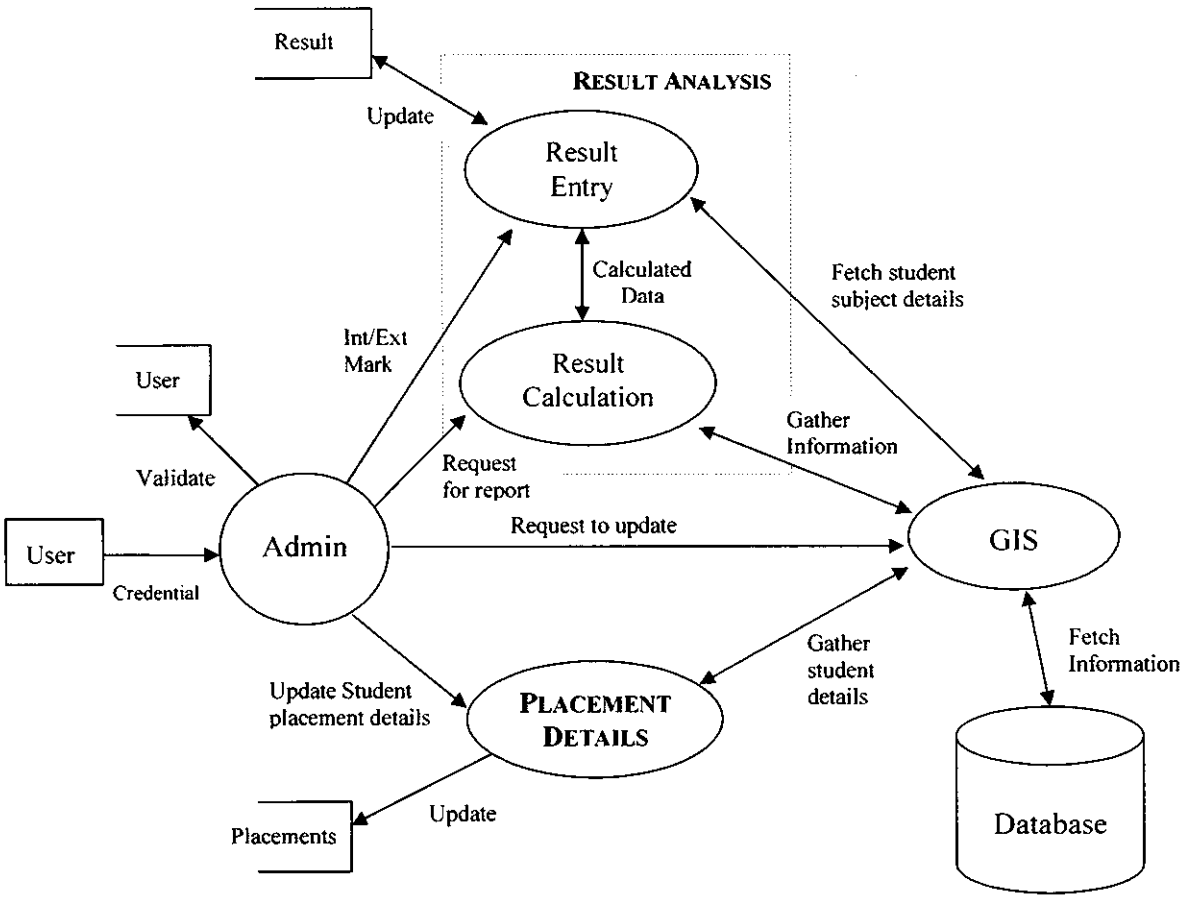


Figure 4.3.2: Level 1 Diagram – RAPS

The level 2 of data flow diagram shows the detailed processing in these modules. The setup module has been depicted in the Level 2 of the DFD starting from Perspective processing to entering of strategic initiatives.

The Level 2 DFD below explains the processes that happen when a user initiates the Internal marks calculation process. Various other sub processes that are invoked, the tables they interact with and other systems that the process depends on are depicted in it.

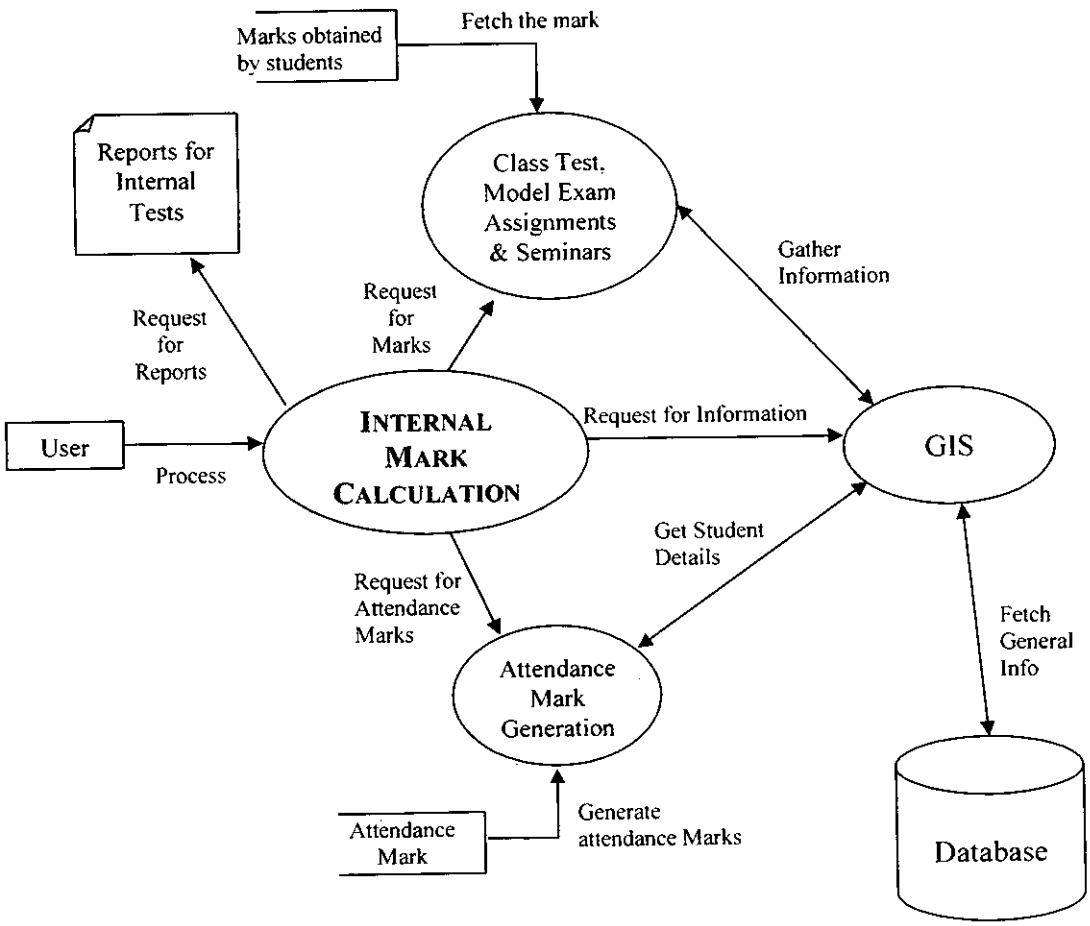


Figure 4.3.3 Level 2 Diagram - Internal Mark Calculation

The Level 2 DFD below explains the processes that happen when a user initiates the external marks calculation process. Various other sub processes that are invoked, the tables they interact with and other systems that the process depends on are depicted in it.

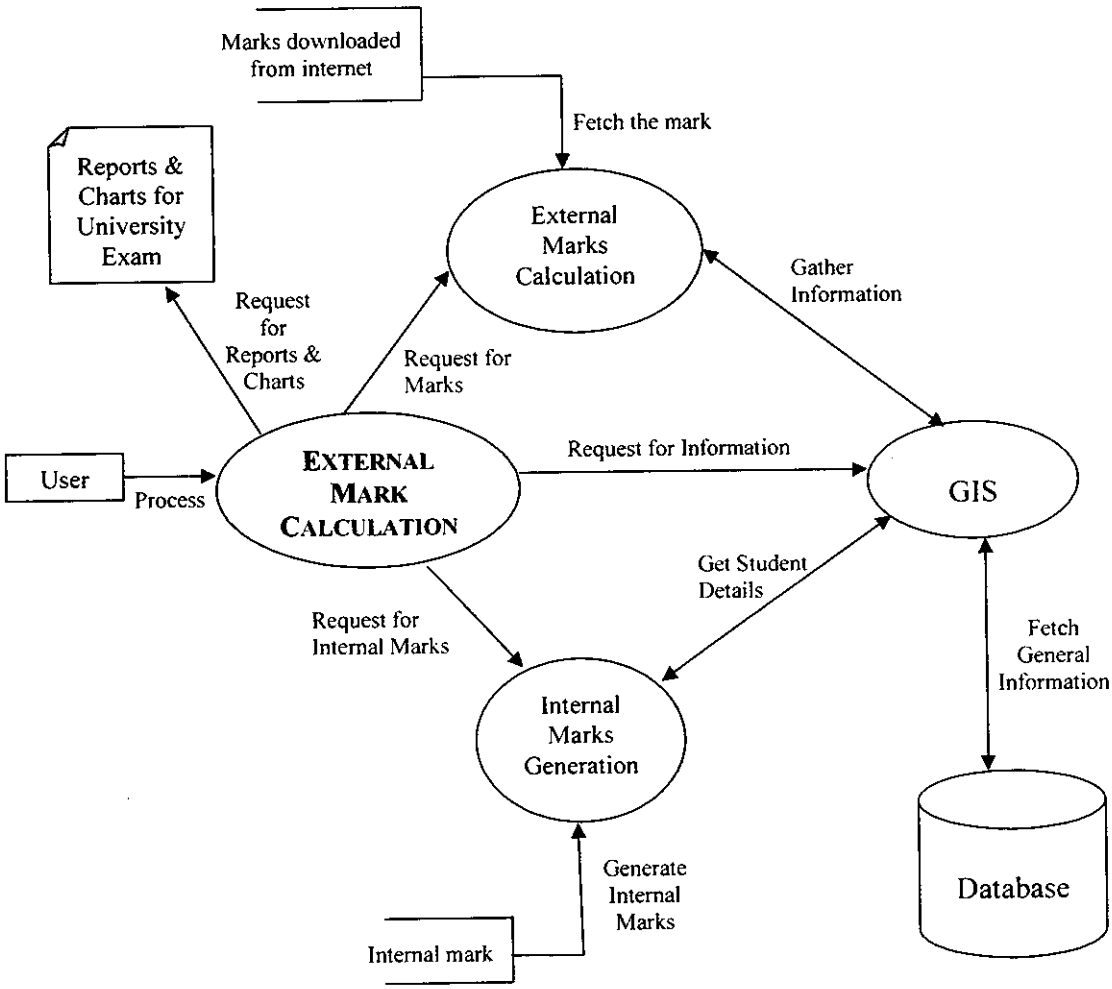


Figure 4.3.4: Level 2 Diagram - External Mark Calculation

The Level 2 DFD below explains the processes that happen when a user initiates the Placement details extraction process. Various other sub processes that are invoked, the tables they interact with and other systems that the process depends on are depicted in it.

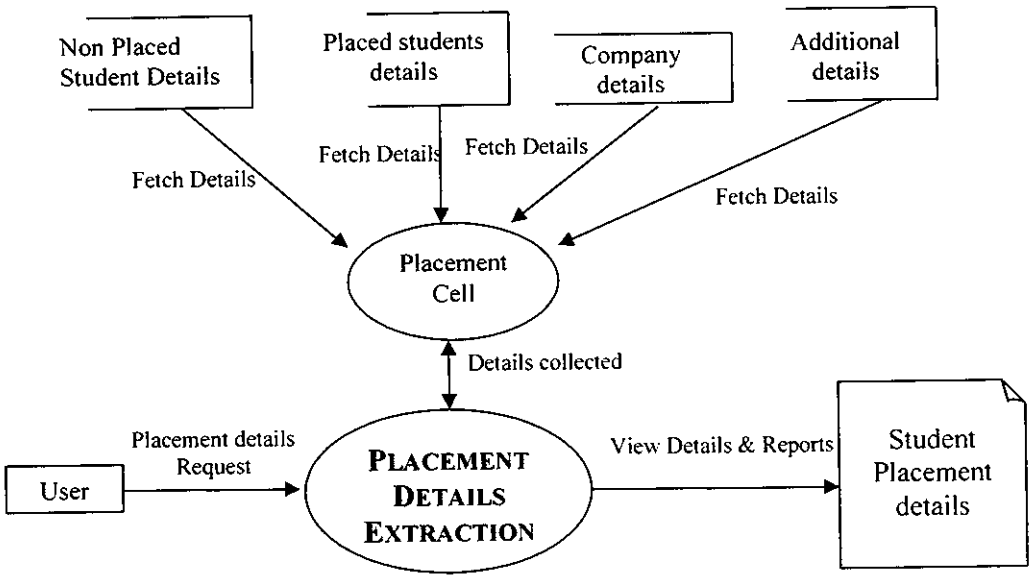


Figure 4.3.5: Level 2 - Student Placement details Generation

4.4 USE CASE DIAGRAMS

Use case diagrams give a picture of the different scenarios wherein users interact with the different components of the system. It gives a general idea on the requirements to be addressed by the system and the sequence of operations happening.

The diagram below gives the overall context of the Result Analysis & Placement system (R A P S). The users of the system are depicted below (Fig 4.4.1).

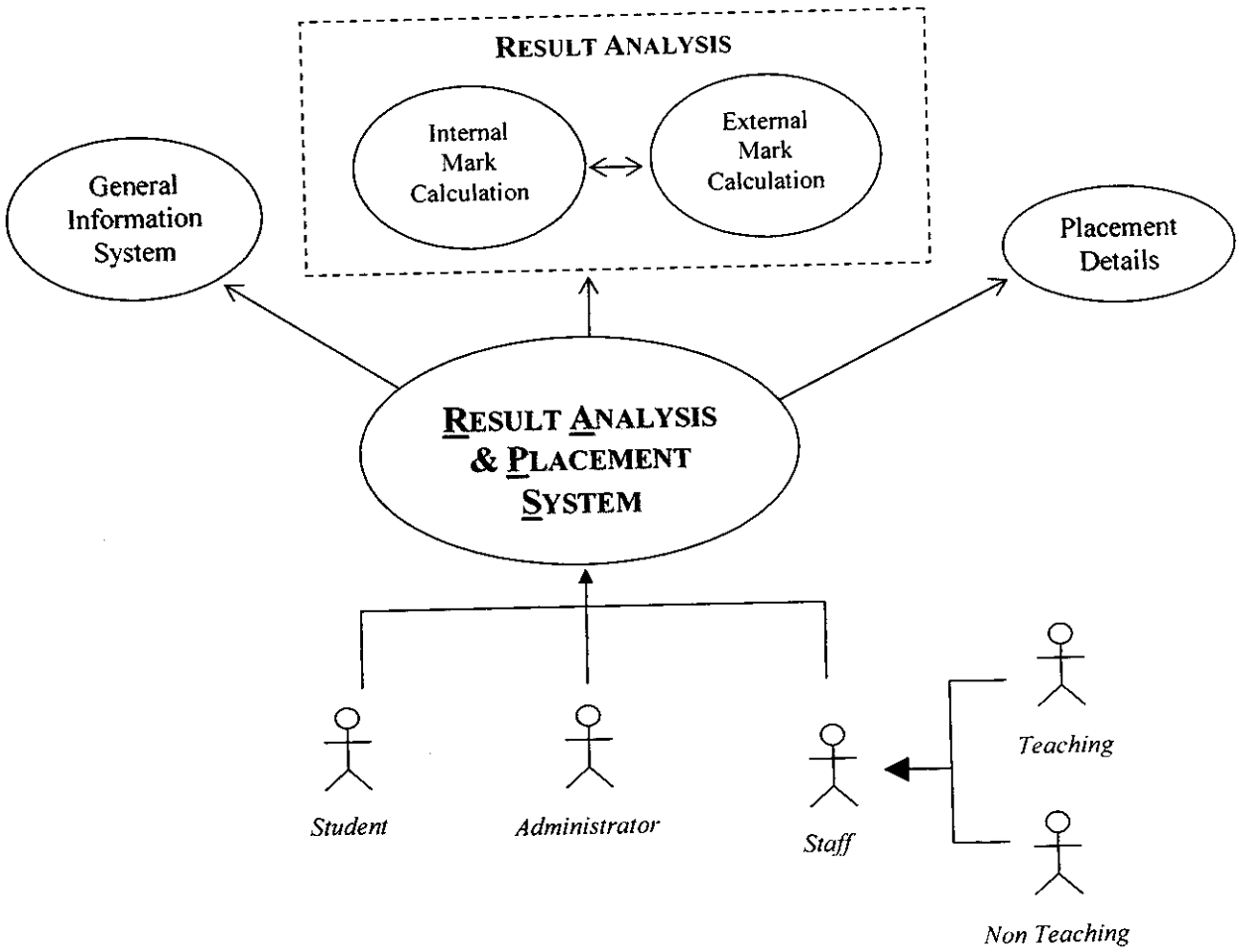


Fig 4.4.1 Use case Diagram - Context of the R A P S

The interaction of the user with the sub processes involved in the Internal marks entry and calculation process is shown below (Fig 4.4.2). Here both the staff & the administrator can access this subsystem.

But in the below diagram, only staff are given as user of the system. Administrator can be a staff too. For more information, see Chapter 2 [Section 2.5 – Users of the System, see administrator description]

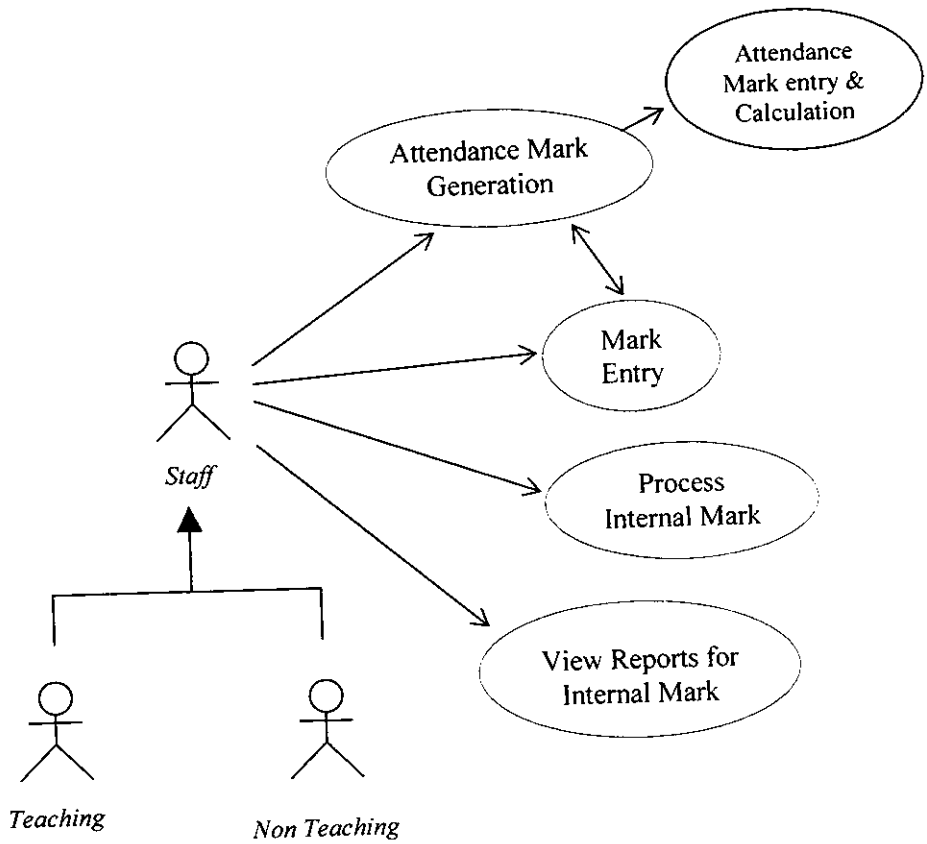


Fig 4.4.2 Use case Diagram - Internal Mark Calculation

The interaction of the user with the sub processes involved in the External Mark Calculation process is shown below (Fig 4.4.3). Here also both the staff & the administrator can access this subsystem.

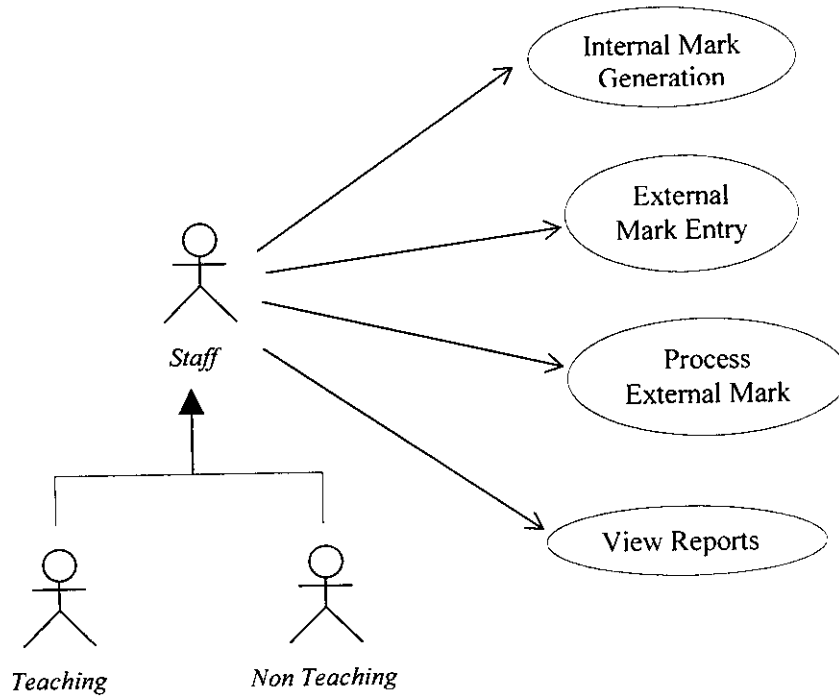


Fig 4.4.3 Use case Diagram - External Mark Calculation

Here in the above diagram, Students can be included as a user only for viewing reports. Because they are having the least privilege for accessing the whole System. They can only view some of the reports (not all, depends upon administrator & management permission). For more, please refer Chapter 2 [Section 2.5 - Users of the System, see Students section].

The interaction of the user with the sub processes involved in the Student Placement details process is shown below (Fig 4.4.4). Here also both the staff & the administrator can access this subsystem.

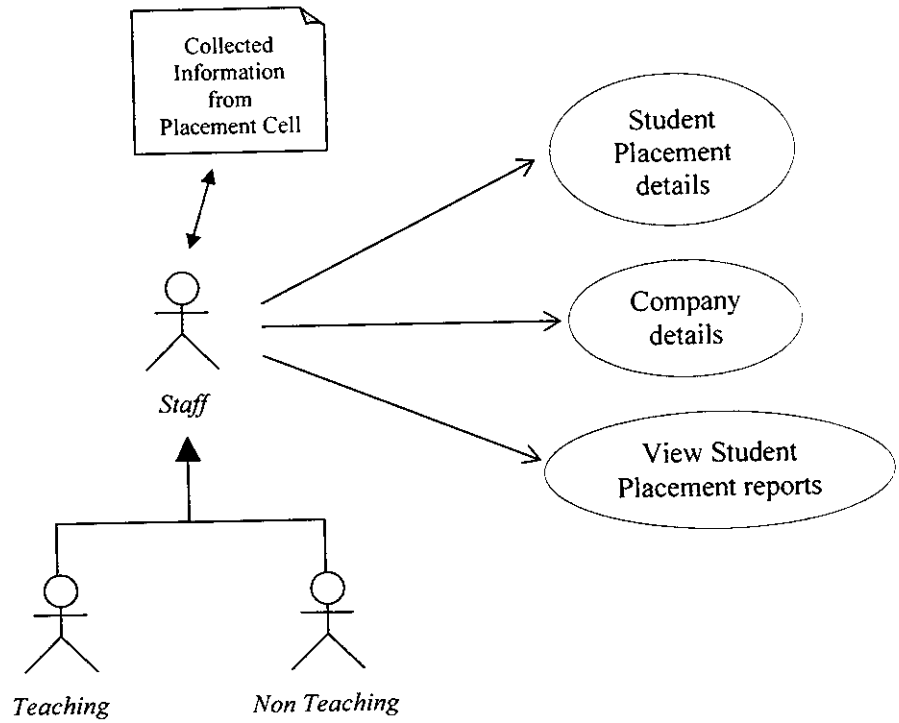


Fig 4.4.4 Use case Diagram – Student Placement Details

Here also, Students can be included as a user only for viewing reports. For more, please refer Chapter 2 [Section 2.5 - Users of the System, see Students section].

4.5 SEQUENCE DIAGRAM

A sequence diagram depicts the various objects involved in a process and the timely flow of information among these objects.

The sequence diagram shown below represents the common objects that are instantiated during the execution of any of the modules in the Result Analysis & Placement system and the operations that are done on these objects.

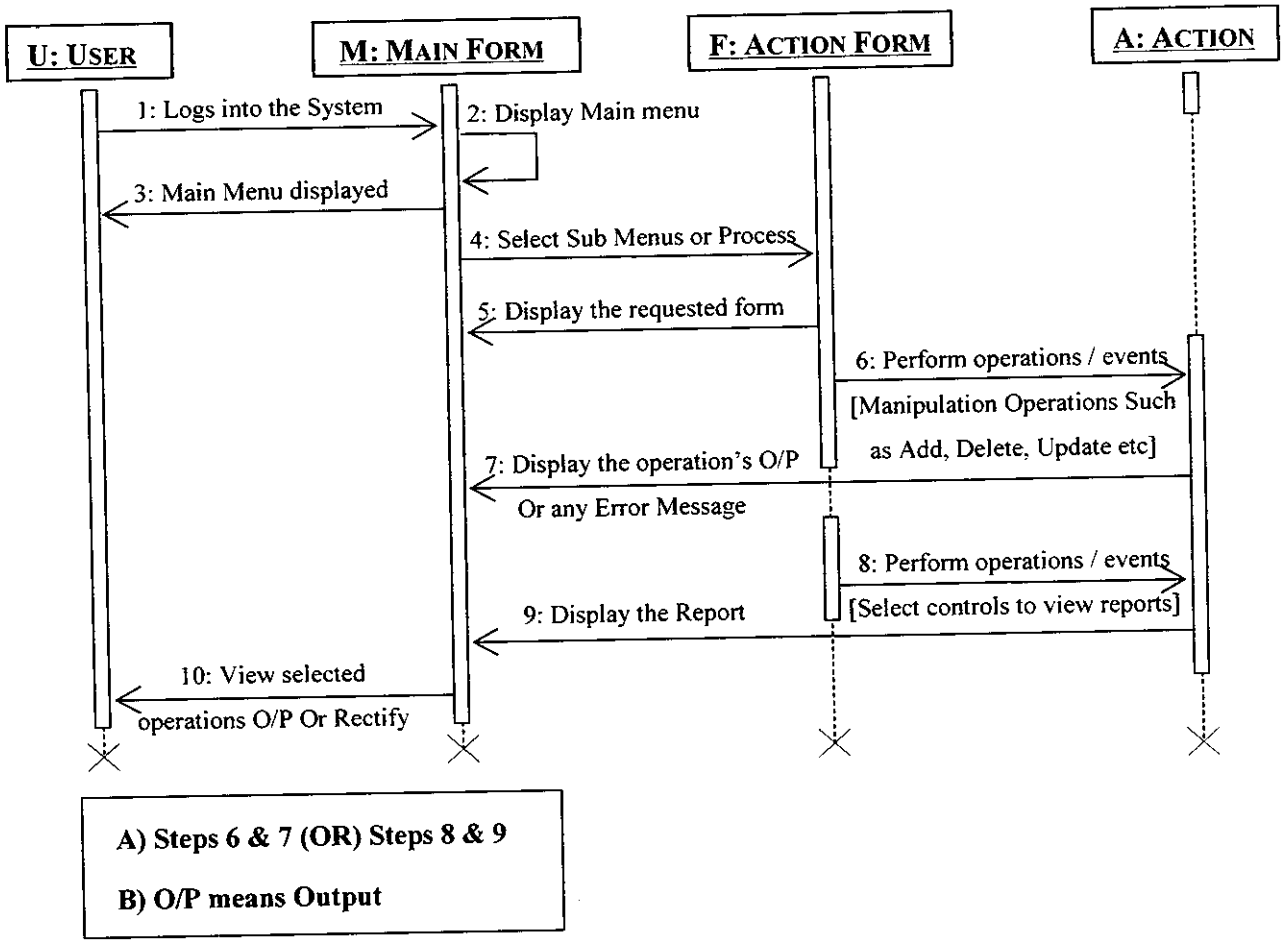


Fig 4.5.1 Sequence Diagram (Program Architecture)

User logs into the System. Main menu will be displayed in the Main Form. From that Menu, user can select various submenus. If the user wants to do some manipulation operations, then he can enter the details into the database. Manipulation operations will be done. (i.e.) Step 6 and step 7 are done. If the user wants to do selection operation, then go to Step 8 and step 9 to view reports. If any error occurs, then user should rectify. Otherwise he should inform it to the administrator. According to the diagram, User requests or logs into the Main form. Then Action Form means the form which is currently used by the user. Last one is action which is performed after the execution of Main form.

CHAPTER 5

Implementation

System Implementation is the part of the software engineering life cycle, where, the design artifacts are converted to a working application. Coding is done in this stage using an apt framework and programming language, which would solve the specific problem the best way. Once the design is coded into a working application, it has to be verified, validated and tested in detail. The tested product if successful is deployed in the user environment.

5.1 SYSTEM VERIFICATION

System Verification answers the question "Am I building the product right?" It includes the review of interim work steps and interim deliverables during a project to ensure they are acceptable. Verification also determines if the system is consistent, adheres to standards, uses reliable techniques and prudent practices, and performs the selected functions in the correct manner. In data access, it verifies whether the right data is being accessed, in terms of the right place and in the right way.

For e.g., the drop downs gather data from the database, so each dropdowns should be verified whether they are bound to the correct database field. It is done during development of the key artifacts. Verification is a demonstration of consistency, completeness, and correctness of the software at each stage and between each stage of the development life cycle. In Result Analysis & Placement System, verification is done during the development itself. Each database bindings are verified after binding to test whether the control is bound to the right data field.

5.2 SYSTEM VALIDATION

Validation answers the question "Am I building the right product?" This checks whether the developer is moving towards the right product, whether the development is moving towards the actual intended product that was agreed upon in the beginning. Validation also determines if the system complies with the requirements and performs functions for which it is intended and meets the organization's goals and user needs. It is traditional and is performed at the end of the project. In data access, it checks whether we are accessing the right data, in terms of data required to satisfy the requirement.

Validation is performed after a work product is produced against established criteria ensuring that the product integrates correctly into the environment. It determines the correctness of the final software product by a development project with respect to the user needs and requirements.

Functional validation is done in the Result Analysis & Placement system (RAPS) to check whether each of the functions are done correctly as expected in every form. Each control in a Screen is designed to do some function. These functions are checked against the requirements stated for them. For e.g., clicking 'Save' button should take the corresponding action of saving the details into the database. Clicking the Edit button should allow one to edit and update the contents that are being currently displayed. This level of validation can continue to all the controls in the system. This checking is usually done after the system is developed so that all activities that are affected can be checked.

Field level validation is done in RAPS to check whether each of the fields either accepts the data as expected and do the validation of data entered. For e.g. a field level validation on a Text box would check against the type of data entered and follow rules such as length of entry etc. The data type validation checks are conducted after the form is submitted. It takes place during or before the execution. If the validation check fails then the processing stops and the control returns back to the original form that was submitted.

The validation is done in a step by step process. First the screen is loaded with the controls. When the user moves between controls on the screen, the validation events for the control that lost the focus are fired and appropriate error messages (if any) are displayed. If the user generates a form save request, the entire form is evaluated for any validation controls that are not valid. If even one control is not valid, the form will not be submitted. It shows error.

5.3 TESTING

Testing is a critical element of software quality & assurance and represents the ultimate review of specification design and coding. It is a vital activity that has to be enforced in the development of any system. This could be done in parallel during all the phases of system development. The feedback received from these tests can be used for further enhancement of the system under consideration. The testing phase conducts test using the Software Requirement Specification as a reference and with the goal to see whether the system satisfies the specified requirements.

Standard procedures have been followed in testing Result Analysis & Placement system (RAPS). Test cases are generated for each screen. These test cases will cover every possibility which could result in both positive and negative results. These test plans are maintained for any further testing done on the system. The test plan stores information such as, the test script/input, expected output, actual output, comments and the name of the tester. This plan will be followed for all types of testing done in the system.

The main types of tests carried out on RAPS are:

- Unit Test
- Integration Test
- System Test

5.3.1 Unit Testing

Module or Unit Testing is the process of testing all the program units that make up a system. Unit testing focuses on an individual module thus allowing one to uncover all the errors made logically and while coding in the module.

In RAPS each form is tested separately as a unit. Initially the flow of control and data through that form is checked. When considering a module as a unit, the flow of data and control through the whole module is tested. The result is stored in the test plan. In a form, each control is further tested in unit testing. The process is done in all the forms of the system. Once the errors are rectified, the testing procedure is repeated with same test cases to ensure this hasn't produced new errors. Hence this is a continuous process.

Test cases were generated to test the control flow of each unit or module. Almost all cases needed for testing control flows have been generated.

Test Cases for the Login Screen:-

S.No	Test Case	Expected Result	Observed Result	Status
1	Login id : staff, Password: staf, Service Name : RASSTUDSERVICE	Invalid Login	Invalid Login	Pass
2	Login id : staff, Password: staff, Service Name : RASSTAFFSERVICE	Login successful	Login Successful	Pass
3	Login id : Xyz, Password: Abc, Service Name : RASADMINSERVICE	Invalid Login	Invalid Login	Pass
4	Login id : student, Password: student, Service Name : RASSTUDSERVICE	Login Successful	Login Successful	Pass

5.3.2 Integration Testing

Integration testing tests the process of integrating the various modules to form the completed system. Integration starts with a set of units each individually tested in isolation and ends when the entire application has been built. Integration testing verifies that the combined units function together correctly. It facilitates in finding problem that occur at interface or communication between the individual parts.

RAPS followed top-down integration testing. Modules were linked to the main menu in a tree structure as required in the real time operating mode of the system. Menu items were created as and when required for the integration. For e.g. Attendance mark details are tested first. That is first attendance marks are entered and stored in Database for a student. Then 'Internal Mark entry' Form is tested. Based on the selection of the student in Internal Mark entry form, attendance mark should be generated automatically when the 'generate' button is clicked. We must be sure that the attendance mark stored for a student in 'attendance Mark entry form' is same as the attendance mark generated in 'Internal Mark entry' after the generate button is pressed. Then only Internal mark calculated for the student will be accurate and finally stored in Database. This indicates proper flow of information in the Internal Mark calculation module. The same procedure is followed in other modules in the same level at first. Then the upper level is taken into action. The flow of data through the whole module in the upper level is taken and executed. A change of data made in one form should have reflected in all other forms.

This process is continued from the form level to module level, finally to the system level. In the final stage, the whole system is taken together and tested for integration. A change in one place should be reflected through out the system. Regression testing is done after each change made into the software. This tests if the change has affected any part of RAPS negatively after the change was made. The whole set of test cases need to be run again to do the regression testing.

5.3.3 System Testing

System testing is actually a serious of different tests, whose primary purpose is to fully exercise the computer-based system. This helps in verifying that all the system elements have been properly integrated and perform the allocated functions. It verifies the entire product after having integrated all software and hardware components, and validates it according to the original project requirement. The system testing takes into consideration the hardware, and the software. That is, RAPS should be able to be run on the specified hardware for variety of cases. The RAPS is tested against recovery from errors.

5.3.3.1 Security Testing

Security testing is important in system testing. The system in no way shall be accessible to unauthorized users. Testing is done to ensure that a user with respective rights can only view the various forms and reports presented by RAPS. If users try to perform something beyond his assigned rights, corresponding messages should be displayed.

Another security issue involves the sensitive data in the system. The system is highly secure with authentication fixed at various levels of the hierarchy.

One more level of security is concerned with user rights. Each user is applied rights module wise. The menus can be configured to roles. Users can also be configured to roles. Menu items are assigned to users dynamically based on the roles assigned to menu items as well as users. A match is done before displaying the menu to the user.

5.3.3.2 Stress Testing

Stress Testing executes a system in a manner that demands resources in abnormal quantity, frequency or volume. RAPS was stress tested in the college lab by having student's simultaneous access to various modules in the system.

CHAPTER

6

Conclusion and Future Enhancement

6.1 CONCLUSION

The RAPS enables the college to get rid of a very tedious and time consuming process which has been followed for over decades. By automating the entire external/internal marks, entry, calculation and report generation process, the teaching staff are spared of a cumbersome and repetitive task. It also eliminates the possibility of any error in manual calculation of the result percentage or in the marks entry procedure.

When fully deployed, the RAPS will transform the entire working of the college and intra department result calculation affairs from the usual register, log and record based exercise into computerized professionally operated process. It makes the entire procedure faster, error free, simple, efficient and more performance enhancing one. RAPS provides a uniform interface for conducting queries and generating reports on demand.

It enhances the scope of the entire project by integrating with the GIS, Placement and Administration modules. GIS provides the basic details and information like student, staff, staff allocation, course & department, class, elective, syllabus and subject details to the RAPS. These information should be maintained upto date with periodic updates. The security feature of the system allows only administrator to make updates to important and sensitive data. It prevents unauthorized access to important data.

Thus the RAPS increases the efficiency and performance of the teaching staff by enabling them to spend more time on concentrating on student's academic studies. The reports and charts provided to the management are error free and leads to improved decision making. It provides an insight into the academic performance of the student at all times in an academic year. This aids the staff concerned in isolating non performing students and assisting them to improve their performance.

6.2 FUTURE ENHANCEMENT

The following features listed below if introduced could benefit the users of the system.

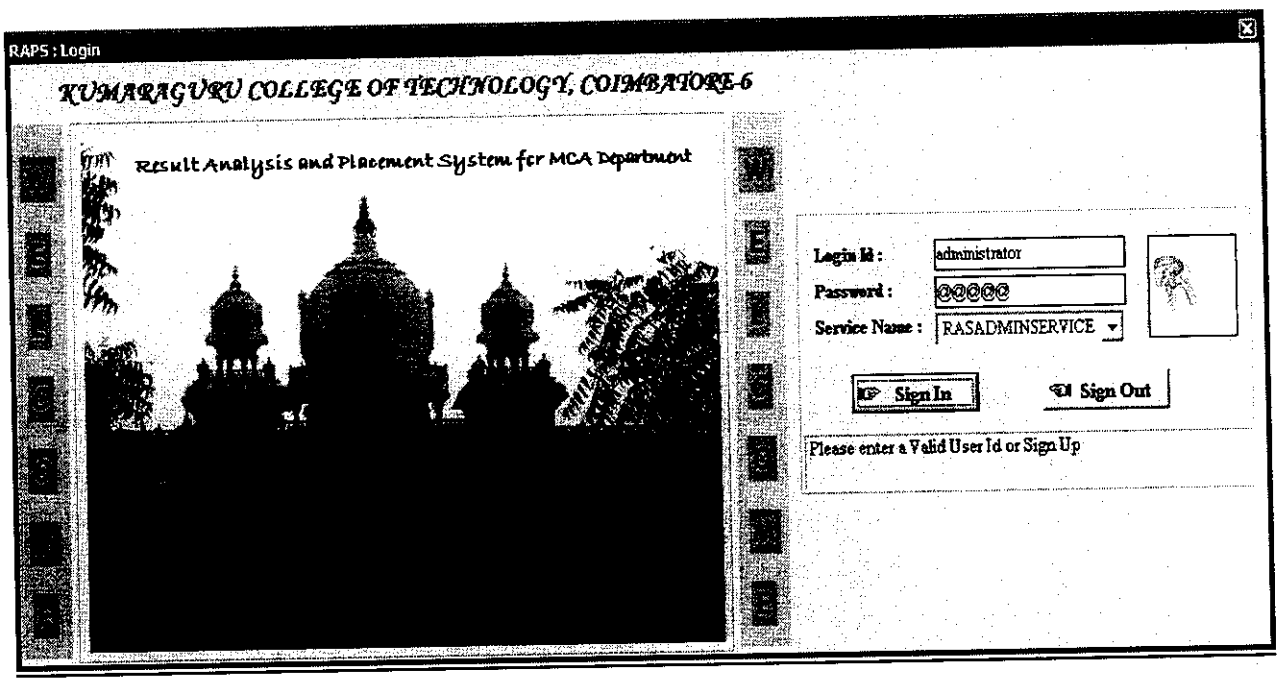
- The system could provide for capturing external marks data presented on the University website. This could reduce typographical errors in data entry and could increase reliability of the information being presented to the management. The only constraint is that the university should provide data on the website in a consistent fashion or else the data capturing function would have to be modified whenever there is an inconsistent read.
- A function to capture data from the database of staff and students available in the office could be embedded into the system to reduce data entry work on the part of the administrator in the General Information System.
- All the other systems like the Library Management System and other systems available in the college office can be integrated to form a bigger system which can be accessed at any time by anyone in the college through the intranet.

CHAPTER 7

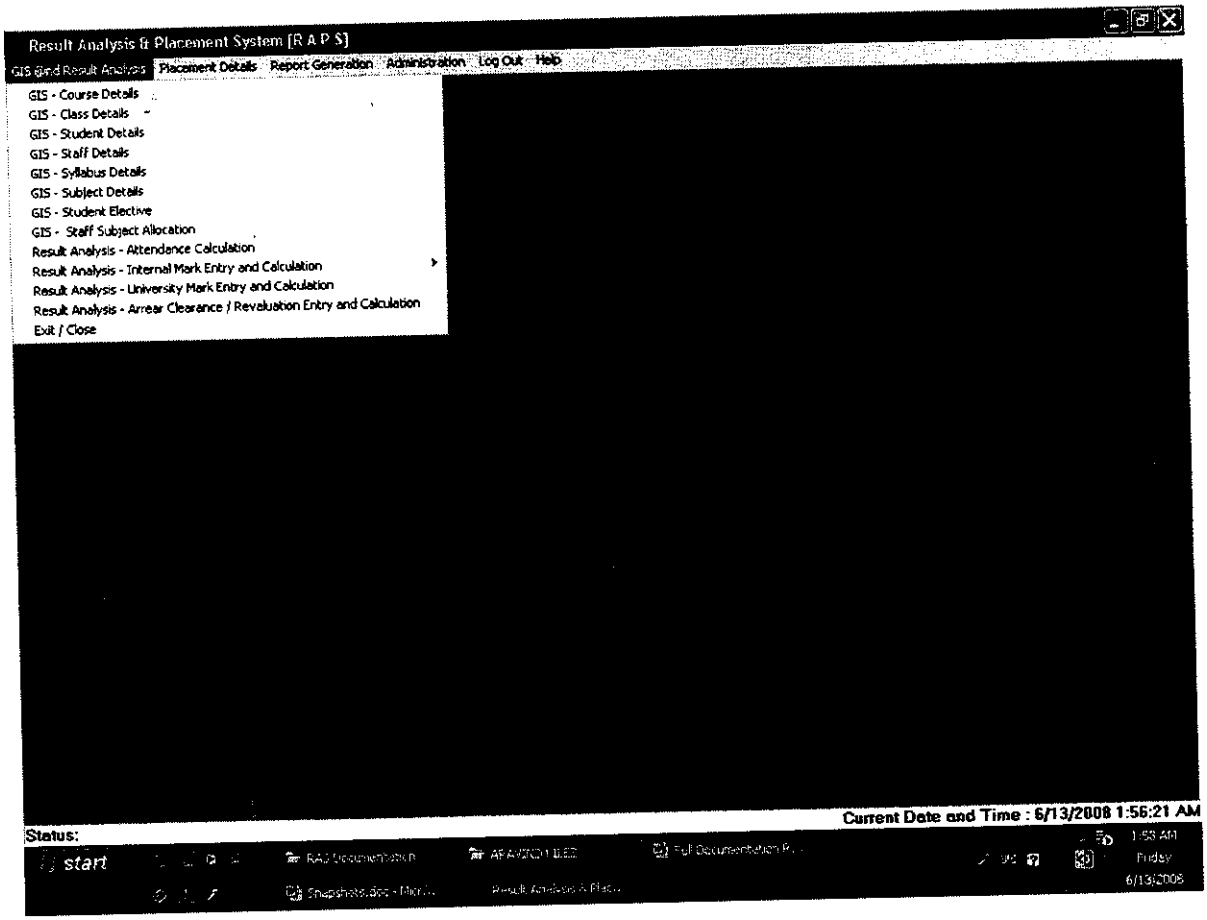
Appendices

7.1 SAMPLE SCREENS

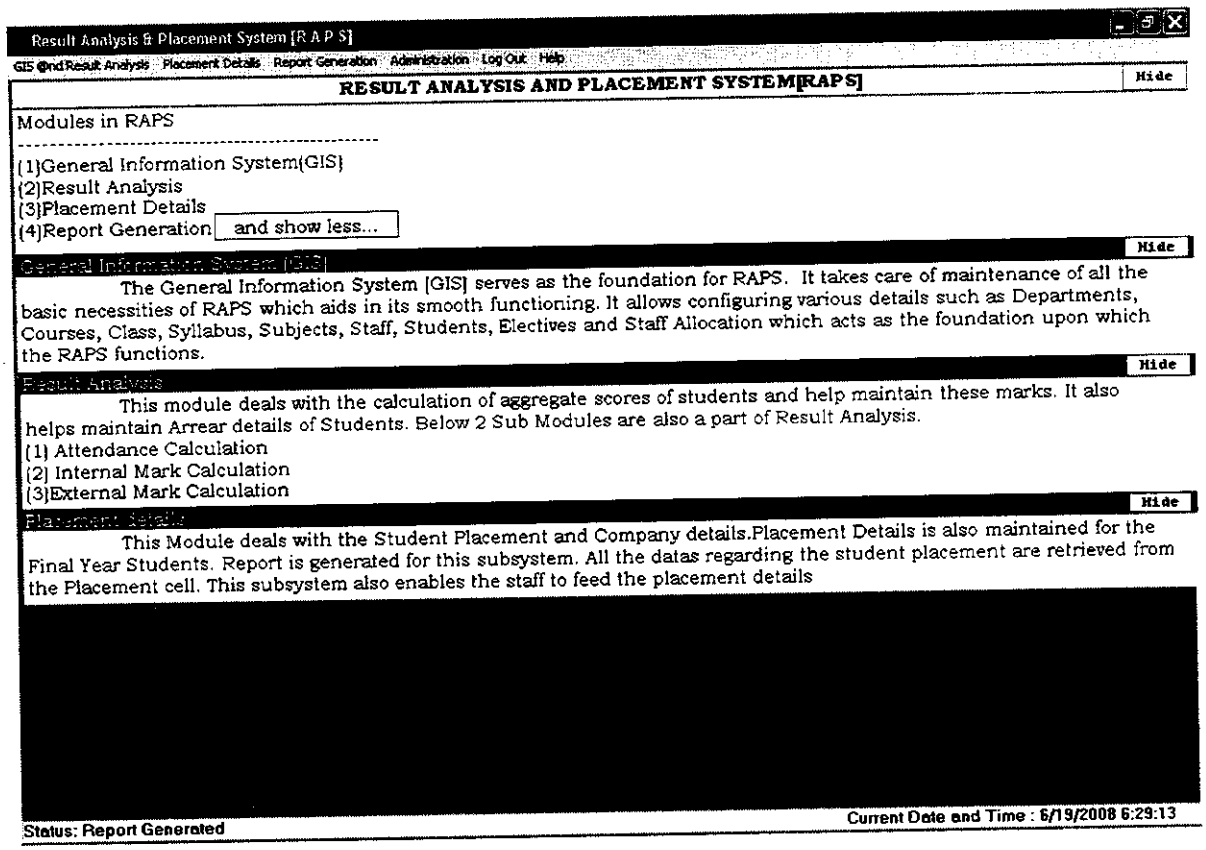
7.1.1 Login Screen



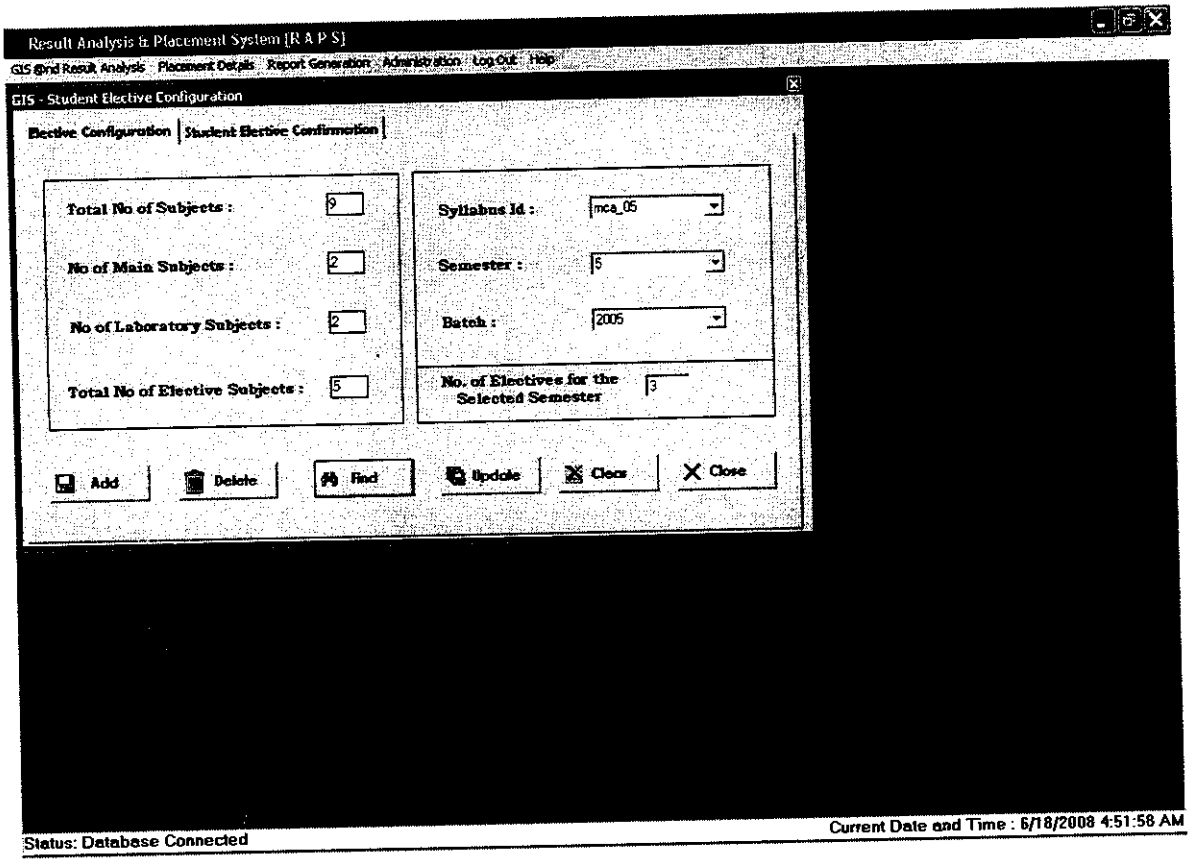
7.1.2 Main Menu page



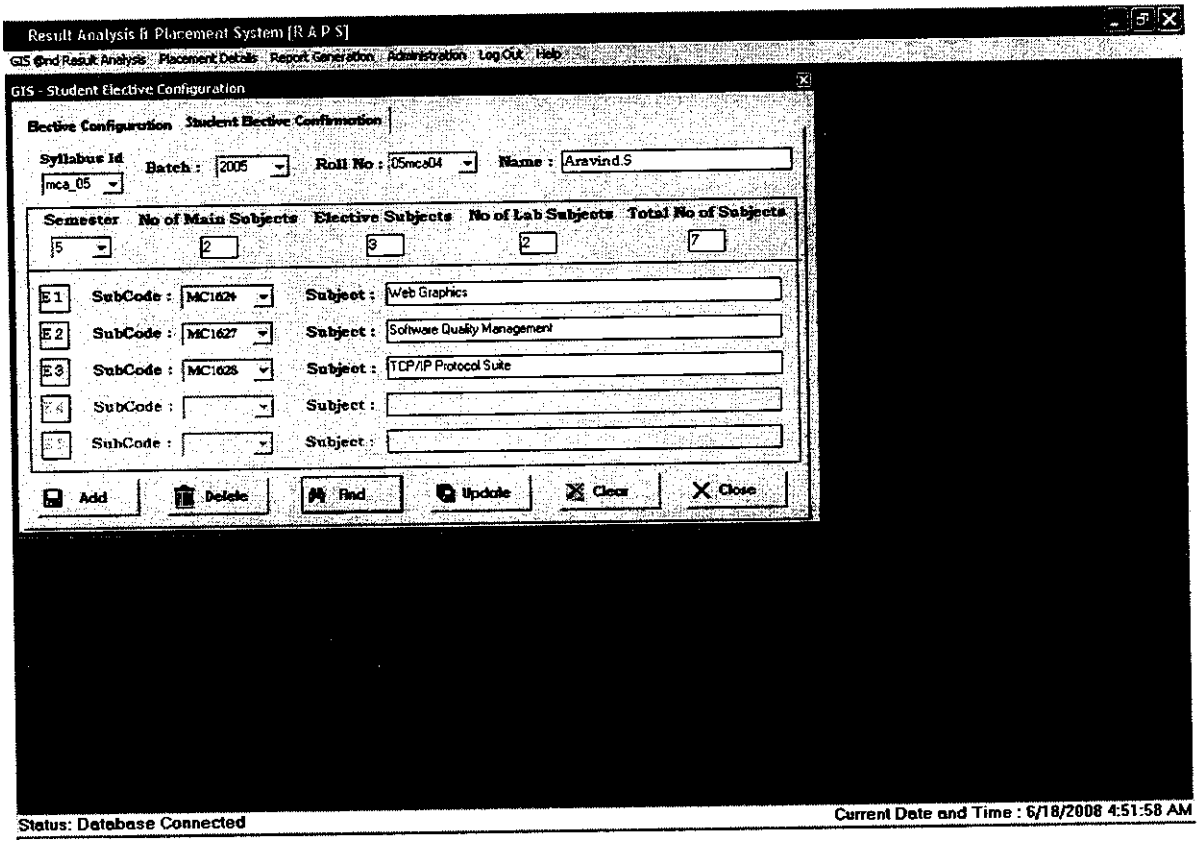
7.1.3 Main menu page with Help



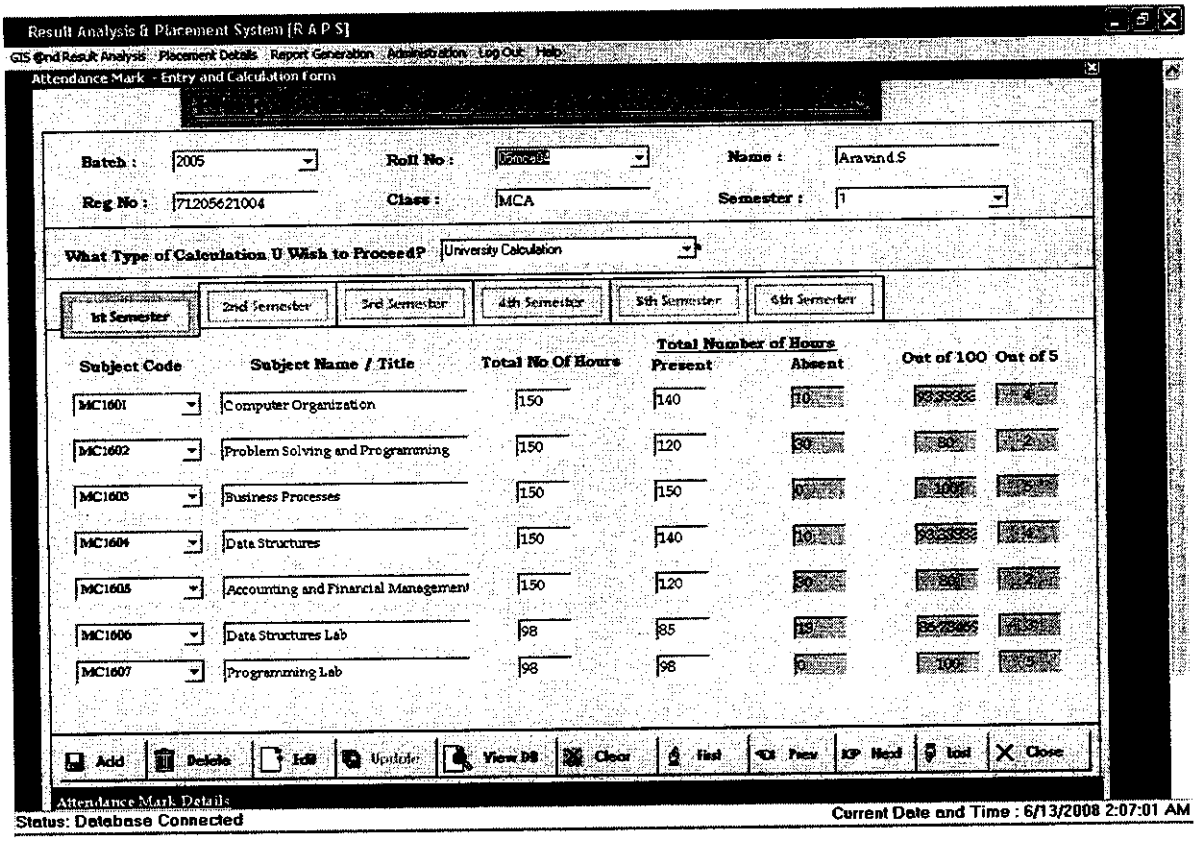
7.1.4 Elective Configuration



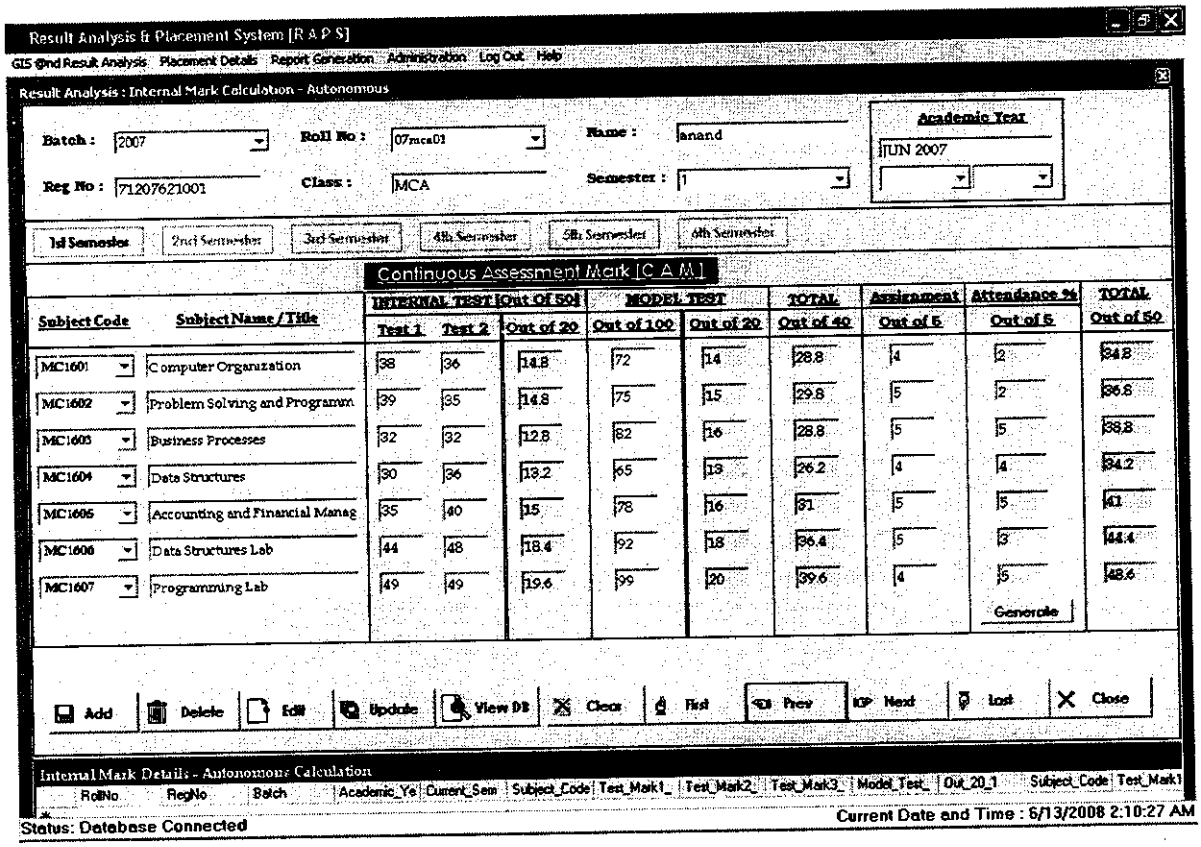
7.1.5 Student Elective Confirmation



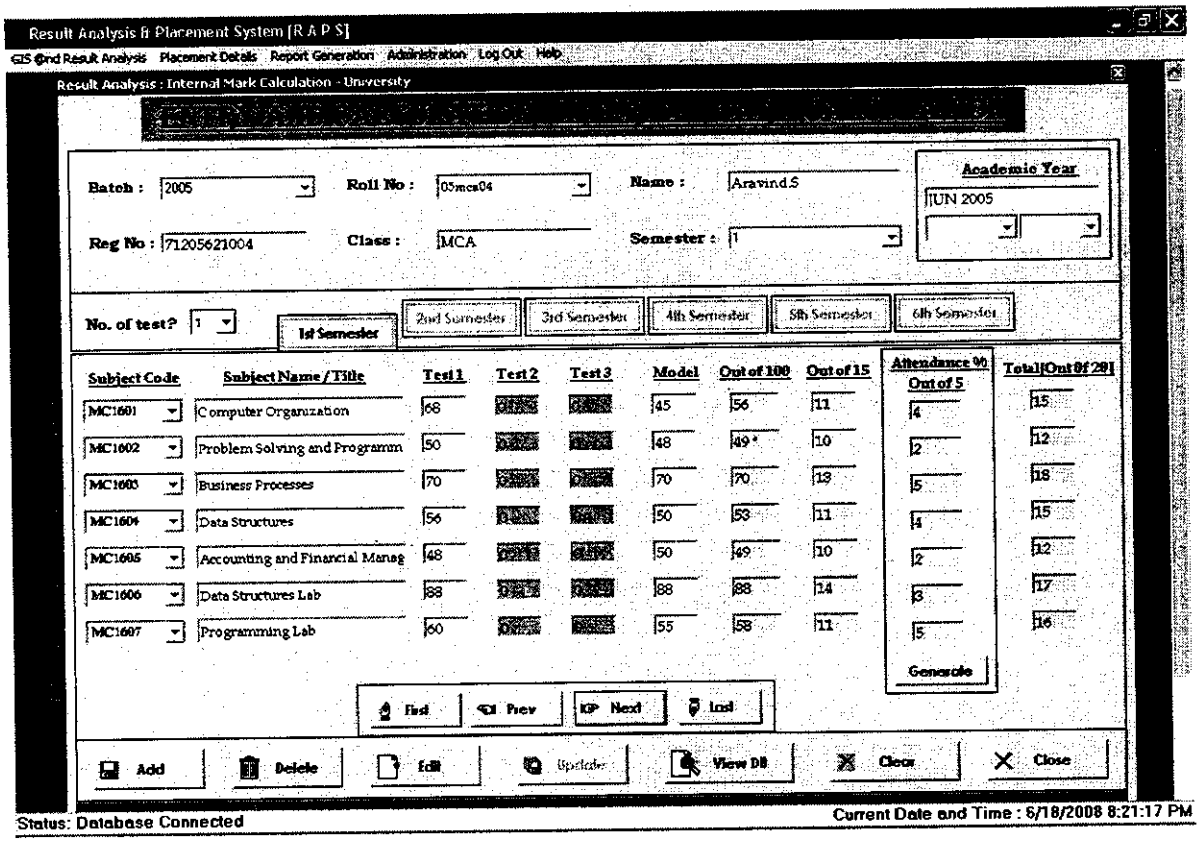
7.1.6 Result Analysis - Attendance Mark Calculation



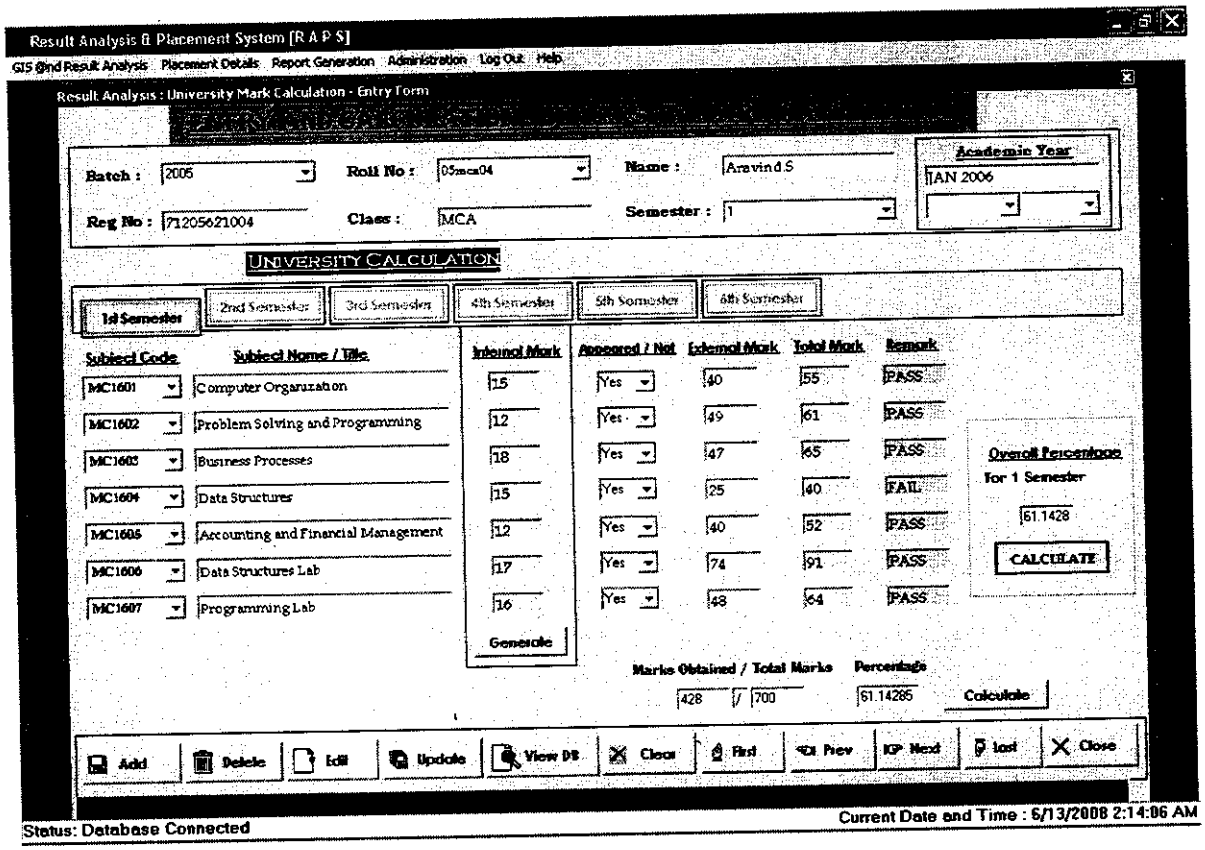
7.1.7 Result Analysis - Internal Mark Entry & Calculation (Autonomous)



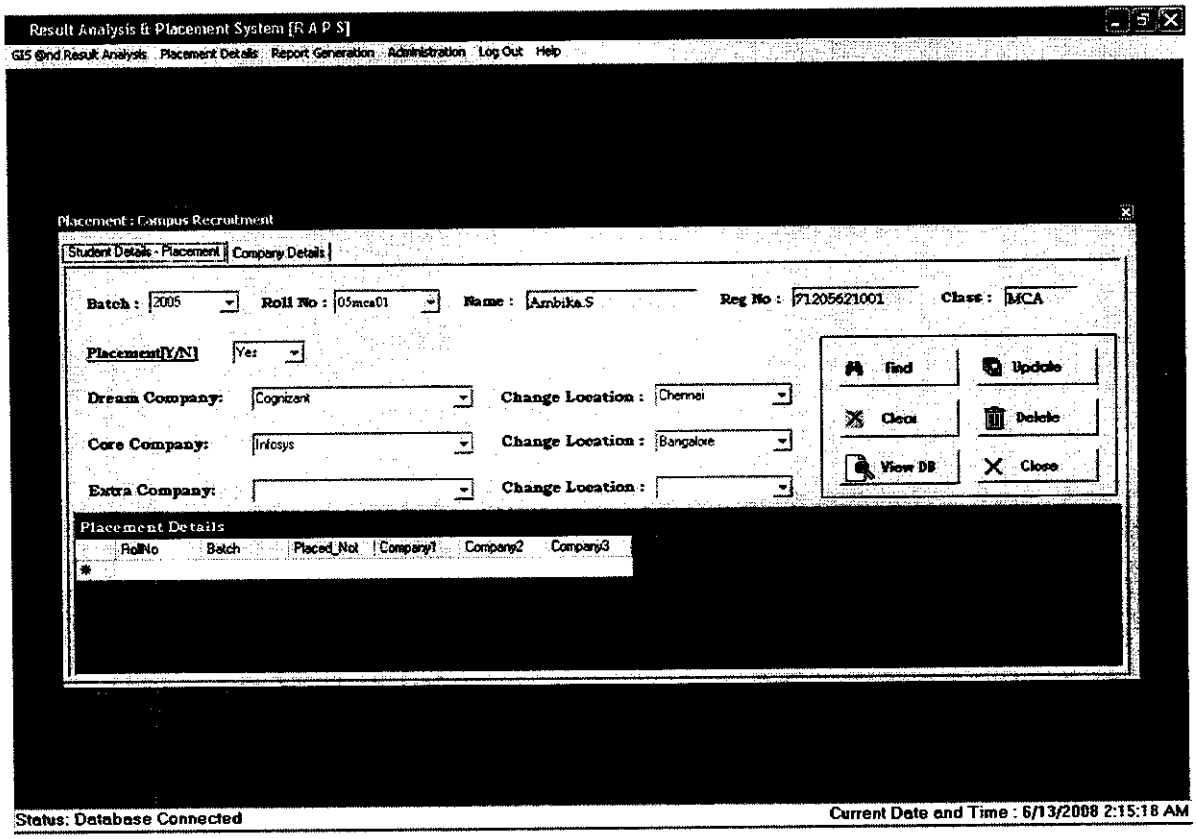
7.1.8 Result Analysis - Internal Mark Entry & Calculation (University)



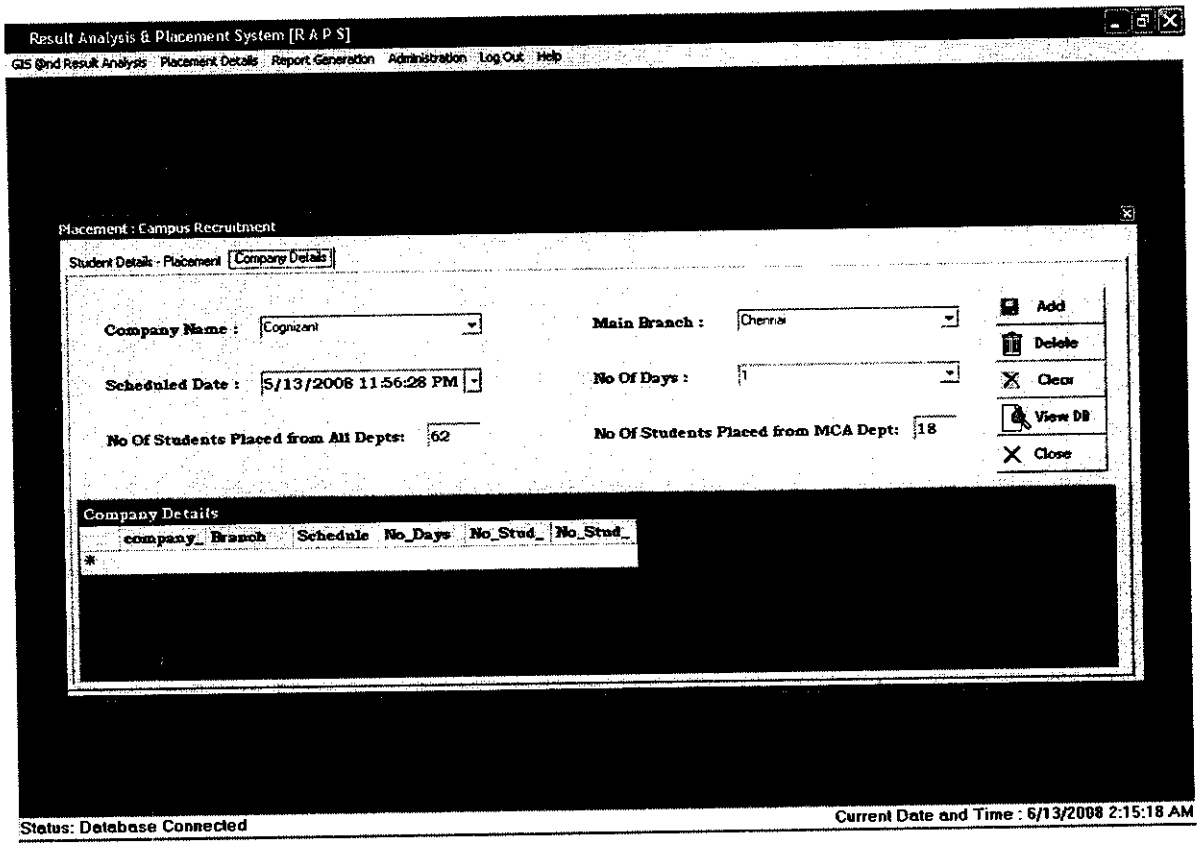
7.1.9 Result Analysis - University Mark Entry & Calculation



7.1.10 Campus Recruitment (Student Placement details)

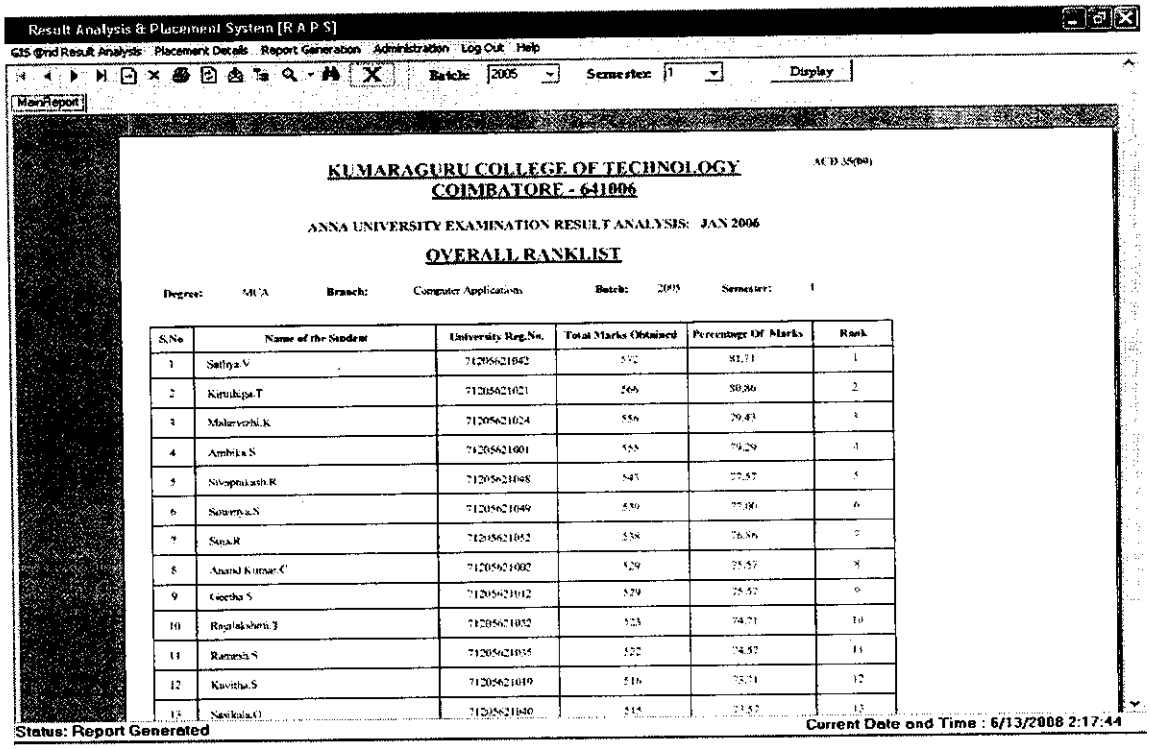


7.1.11 Campus Recruitment (Company details)

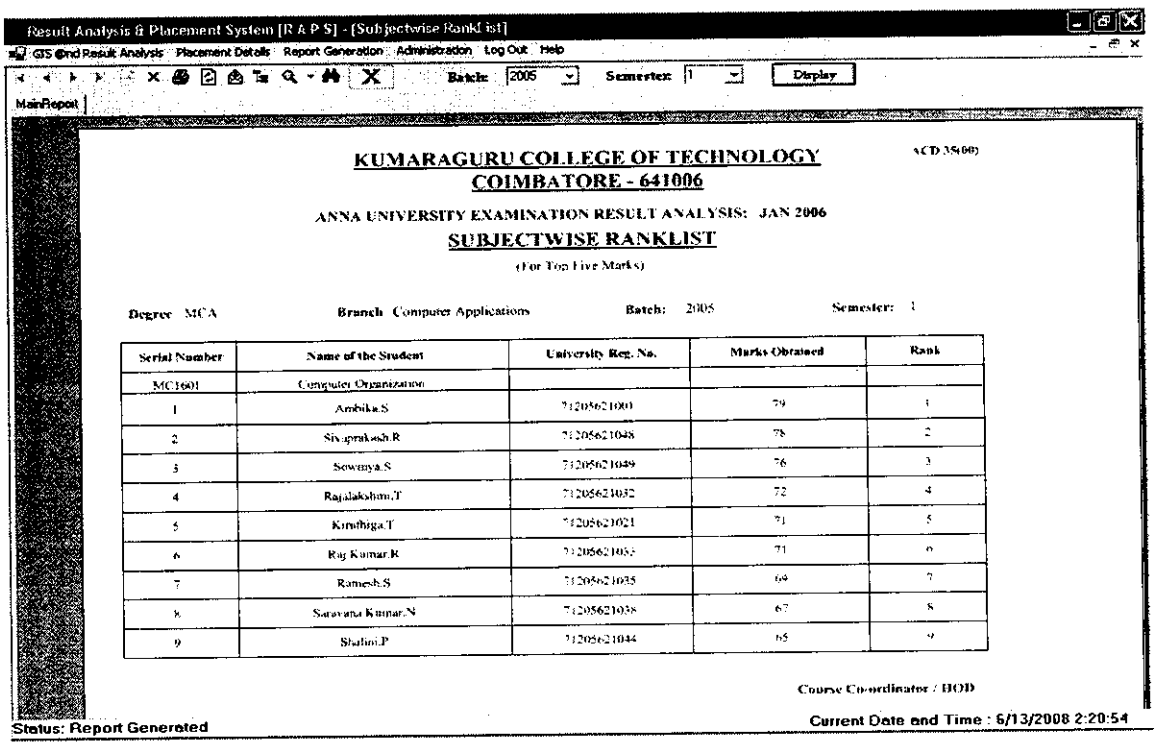


7.2 REPORTS

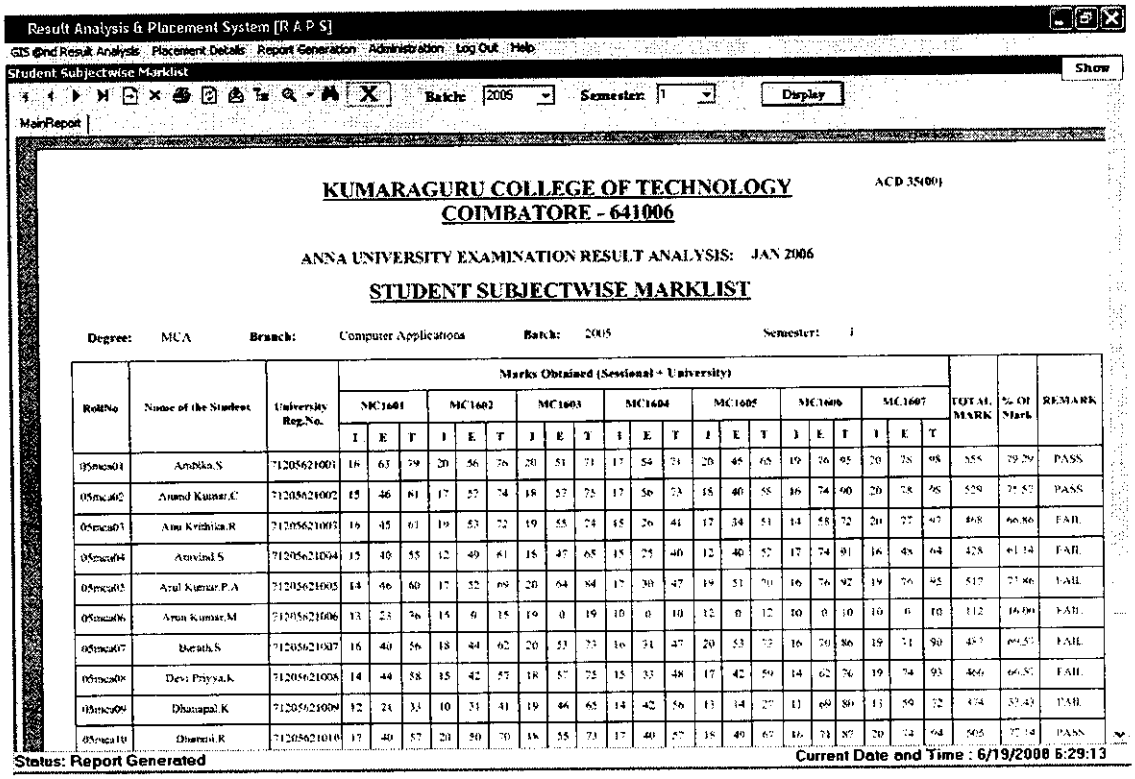
7.2.1 Overall Rank List



7.2.2 Subject wise Rank List



7.2.3 Student Subject wise Mark list



KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE - 641006

ACD 35(00)

ANNA UNIVERSITY EXAMINATION RESULT ANALYSIS: JAN 2006

STUDENT SUBJECTWISE MARKLIST

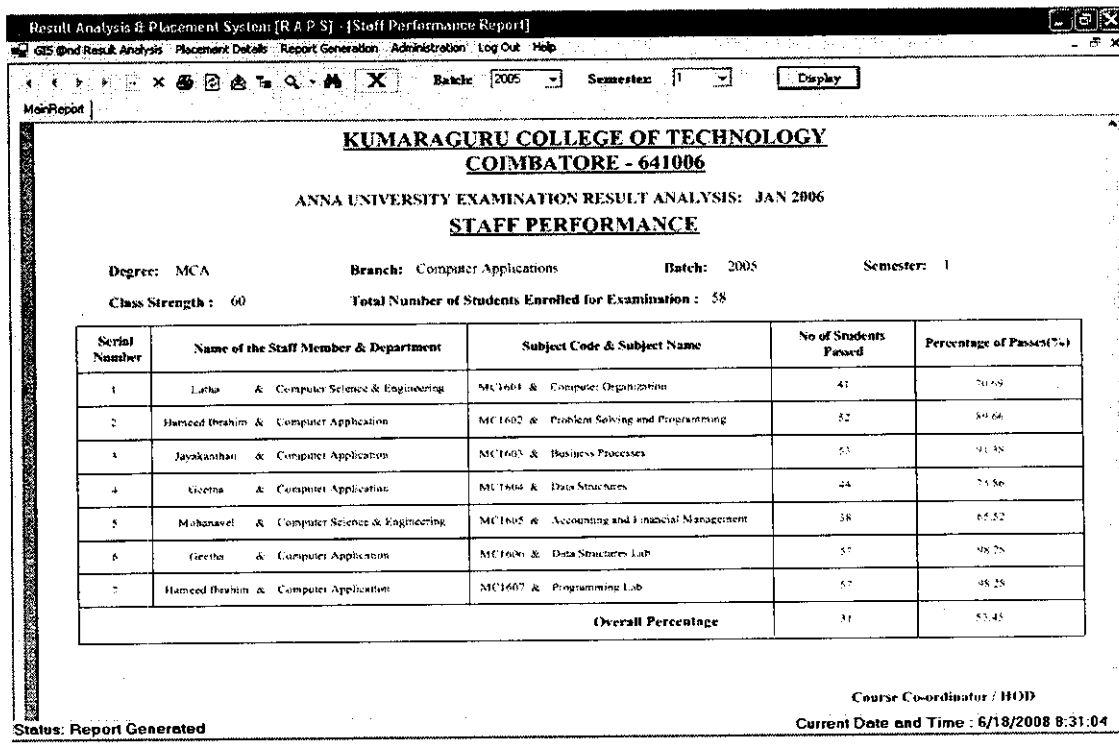
Degree: MCA **Branch:** Computer Applications **Batch:** 2005 **Semester:** 1

RollNo	Name of the Student	University Reg.No.	Marks Obtained (Sessional + University)																				TOTAL MARK	% Of Mark	REMARK
			MC1601			MC1602			MC1603			MC1604			MC1605			MC1606			MC1607					
			I	E	T	I	E	T	I	E	T	I	E	T	I	E	T	I	E	T	I	E	T			
05mca01	Anitha.S	71205621001	16	63	79	20	56	76	20	51	71	17	54	71	20	45	65	19	76	95	20	78	98	555	79.29	PASS
05mca02	Anand Kumar.C	71205621002	15	46	61	17	57	74	18	57	75	17	56	73	15	40	55	16	74	90	20	78	98	529	75.57	PASS
05mca03	Anu Krithika.R	71205621003	16	45	61	19	53	72	19	55	74	15	26	41	17	34	51	14	58	72	20	27	47	468	66.86	FAIL
05mca04	Aravind.S	71205621004	15	40	55	12	49	61	15	47	62	15	25	40	12	40	52	17	74	91	16	48	64	428	61.14	FAIL
05mca05	Arul Kumar.P.A	71205621005	14	46	60	17	52	69	20	64	84	17	30	47	19	51	70	16	76	92	19	76	95	517	73.86	FAIL
05mca06	Arun Kumar.M	71205621006	13	23	36	15	0	15	19	0	19	10	0	10	12	0	12	10	0	10	10	0	10	112	16.00	FAIL
05mca07	Bharath.S	71205621007	16	40	56	18	44	62	20	53	73	16	31	47	20	53	73	16	70	86	19	71	90	453	64.71	FAIL
05mca08	Devi Priya.k	71205621008	14	44	58	15	42	57	18	57	75	15	33	48	17	42	59	14	62	76	19	74	93	466	66.57	FAIL
05mca09	Dhanapal.K	71205621009	12	21	33	10	31	41	19	46	65	14	42	56	13	14	27	11	69	80	13	59	72	374	53.43	FAIL
05mca10	Dharani.R	71205621010	17	40	57	20	50	70	18	55	73	17	40	57	15	40	55	16	74	90	20	78	98	505	72.14	PASS

Status: Report Generated

Current Date and Time : 6/19/2008 5:29:13

7.2.4 Staff Performance



KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE - 641006

ANNA UNIVERSITY EXAMINATION RESULT ANALYSIS: JAN 2006

STAFF PERFORMANCE

Degree: MCA **Branch:** Computer Applications **Batch:** 2005 **Semester:** 1

Class Strength : 60 **Total Number of Students Enrolled for Examination :** 58

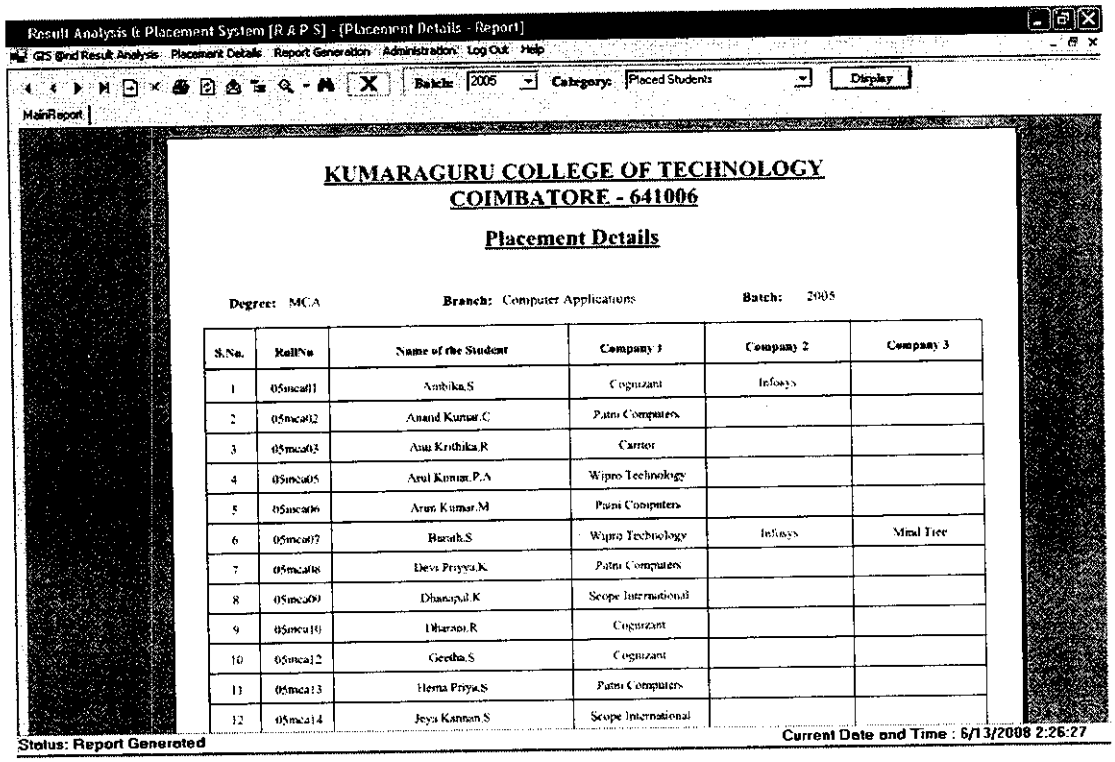
Serial Number	Name of the Staff Member & Department	Subject Code & Subject Name	No of Students Passed	Percentage of Passes(%)
1	Latha & Computer Science & Engineering	MC1604 & Computer Organization	41	70.69
2	Hameed Ibrahim & Computer Application	MC1602 & Problem Solving and Programming	32	55.66
3	Jayakanthan & Computer Application	MC1603 & Business Processes	53	91.38
4	Geetha & Computer Application	MC1606 & Data Structures	44	75.86
5	Mahanavel & Computer Science & Engineering	MC1605 & Accounting and Financial Management	38	65.52
6	Geetha & Computer Application	MC1606 & Data Structures Lab	57	98.28
7	Hameed Ibrahim & Computer Application	MC1607 & Programming Lab	57	98.28
		Overall Percentage	31	53.45

Course Co-ordinator / HOD

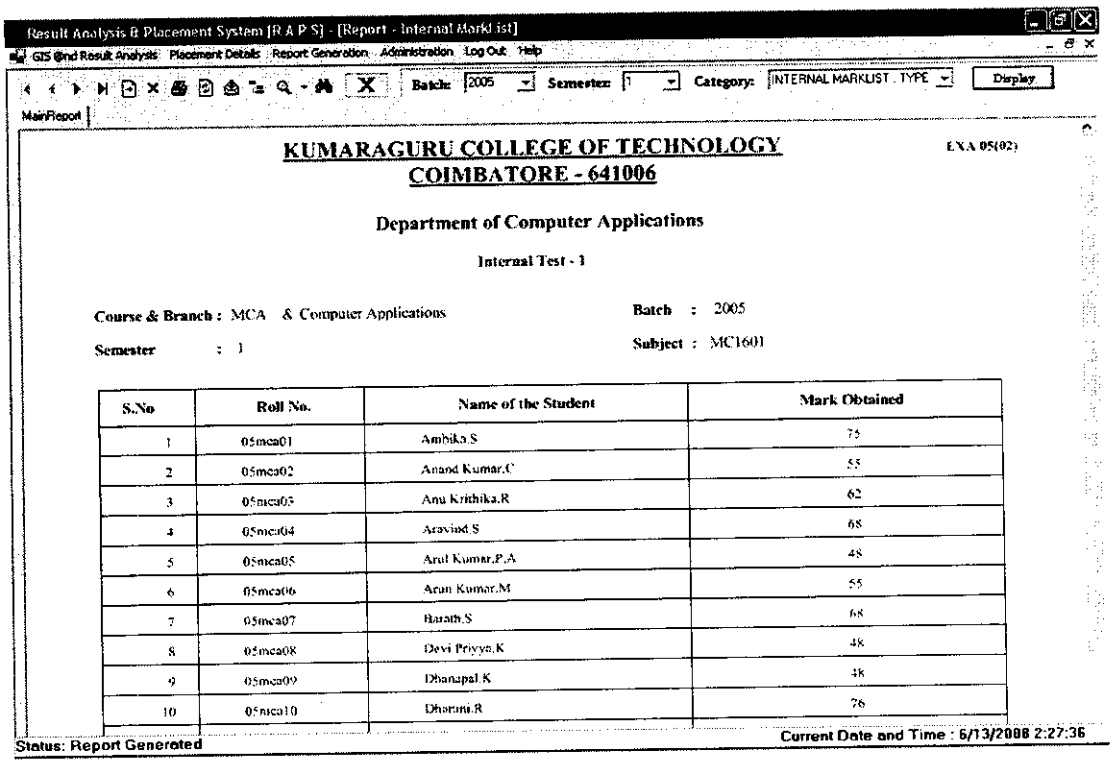
Status: Report Generated

Current Date and Time : 6/18/2008 8:31:04

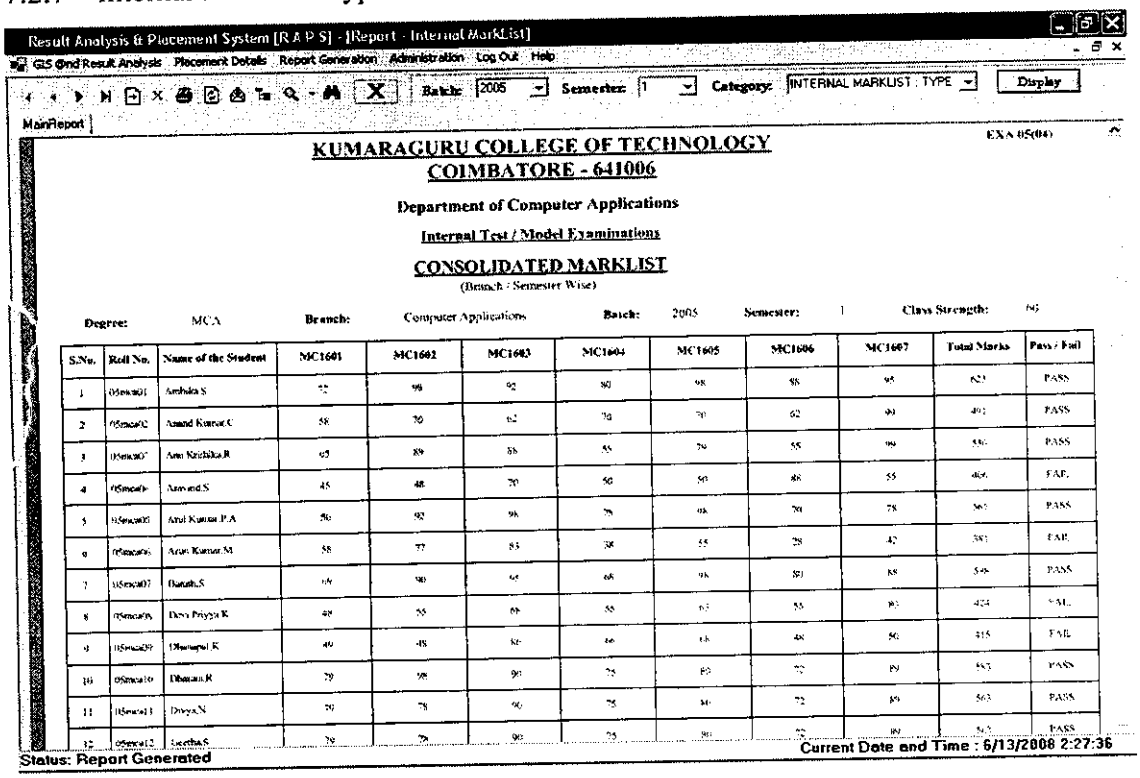
7.2.5 Placement details



7.2.6 Internal Mark list Type 1



7.2.7 Internal Mark list Type 2



Result Analysis & Placement System [R A P S] - [Report - Internal MarkList]

GIS @nd Result Analysis | Placement Details | Report Generation | Administration | Log Out | Help

Batch: 2005 Semester: 1 Category: INTERNAL MARKLIST - TYPE Display

MainReport

EXA 05(04)

KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE - 641006

Department of Computer Applications

Internal Test / Model Examinations

CONSOLIDATED MARKLIST
(Branch : Semester Wise)

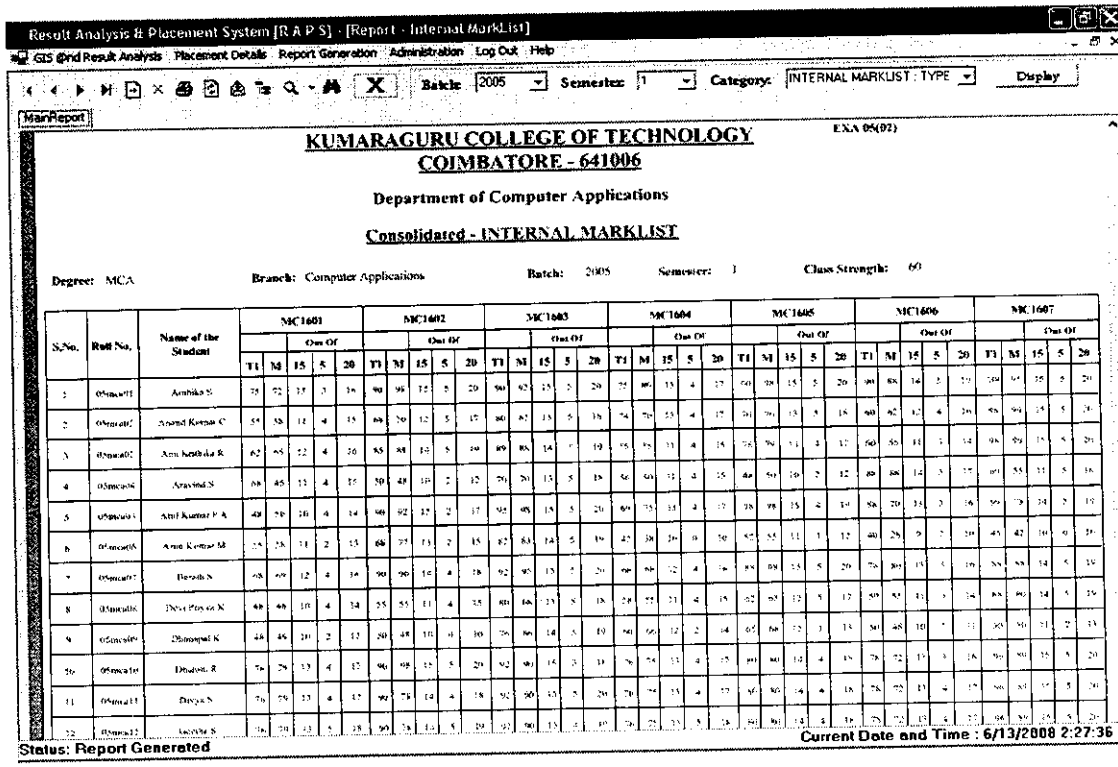
Degree: MCA Branch: Computer Applications Batch: 2005 Semester: 1 Class Strength: 66

S.No.	Roll No.	Name of the Student	MC1601	MC1602	MC1603	MC1604	MC1605	MC1606	MC1607	Total Marks	Pass / Fail
1	05mca01	Ambika S	92	96	92	80	98	86	95	623	PASS
2	05mca02	Anand Kumar C	58	70	62	70	70	62	60	492	PASS
3	05mca03	Anu Krithika R	65	89	86	55	79	55	99	530	PASS
4	05mca04	Aravind S	45	48	20	50	50	46	55	464	FAIL
5	05mca05	Atul Kumar P A	86	92	96	76	98	70	78	565	PASS
6	05mca06	Arun Kumar M	58	77	85	58	55	29	42	383	FAIL
7	05mca07	Barath.S	69	90	66	68	96	80	85	546	PASS
8	05mca08	Devi Priya R	49	55	69	55	63	55	30	424	FAIL
9	05mca09	Dhanapal R	40	48	86	66	68	48	50	415	FAIL
10	05mca10	Dhanam.R	79	98	90	75	89	92	89	562	PASS
11	05mca11	Divya.N	79	78	90	75	86	72	89	569	PASS
12	05mca12	Geetha.S	76	79	90	75	90	72	89	571	PASS

Status: Report Generated

Current Date and Time : 6/13/2008 2:27:36

7.2.8 Internal Mark list Type 3



Result Analysis & Placement System [R A P S] - [Report - Internal MarkList]

GIS @nd Result Analysis | Placement Details | Report Generation | Administration | Log Out | Help

Batch: 2005 Semester: 1 Category: INTERNAL MARKLIST - TYPE Display

MainReport

EXA 05(02)

KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE - 641006

Department of Computer Applications

Consolidated - INTERNAL MARKLIST

Degree: MCA Branch: Computer Applications Batch: 2005 Semester: 1 Class Strength: 60

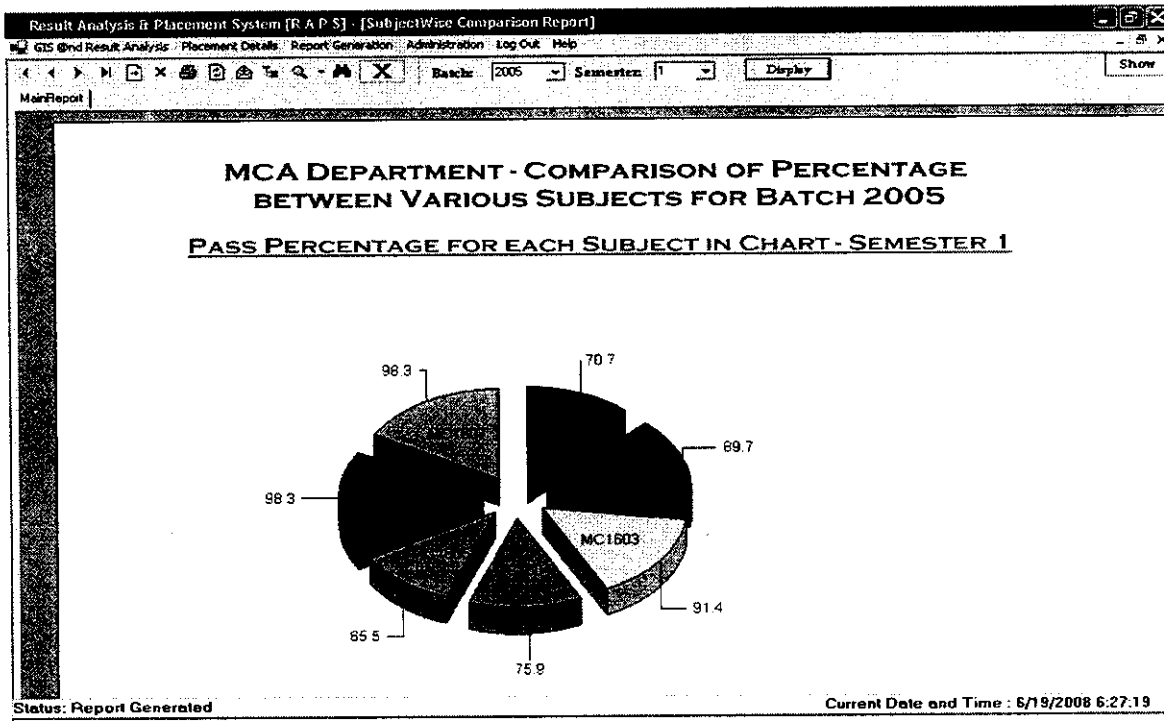
S.No.	Roll No.	Name of the Student	MC1601					MC1602					MC1603					MC1604					MC1605					MC1606					MC1607				
					Out Of					Out Of					Out Of					Out Of					Out Of					Out Of					Out Of			
			T1	M	15	5	20	T1	M	15	5	20	T1	M	15	5	20	T1	M	15	5	20	T1	M	15	5	20	T1	M	15	5	20	T1	M	15	5	20
1	05mca01	Ambika S	78	92	15	3	16	90	96	12	5	20	90	92	15	5	20	72	80	13	4	17	60	98	15	5	20	80	86	14	3	17	84	94	15	5	20
2	05mca02	Anand Kumar C	54	58	11	4	15	68	70	12	5	17	60	62	13	5	18	74	70	13	4	17	70	70	13	4	17	60	62	12	4	16	98	98	15	5	20
3	05mca03	Anu Krithika R	62	65	12	4	16	85	88	15	5	20	89	86	14	5	19	55	55	11	4	15	79	79	14	5	19	60	55	11	3	14	96	99	15	5	20
4	05mca04	Aravind S	46	45	11	4	15	50	48	10	2	12	20	20	13	5	18	56	60	11	4	15	46	50	10	2	12	80	86	14	3	17	60	55	11	5	16
5	05mca05	Atul Kumar P A	48	50	10	4	14	90	92	15	2	17	95	95	15	5	20	69	75	14	4	18	78	78	15	4	19	58	70	14	3	16	99	9	14	5	19
6	05mca06	Arun Kumar M	35	28	11	2	13	66	55	11	2	13	85	83	14	5	19	45	38	10	0	10	55	55	11	1	12	40	26	9	2	11	45	42	10	0	10
7	05mca07	Barath.S	68	69	12	4	16	90	90	14	4	18	92	95	15	5	20	66	66	12	4	16	85	88	15	5	20	76	80	15	4	19	86	86	14	5	19
8	05mca08	Devi Priya K	48	46	10	4	14	55	55	11	4	15	80	86	13	5	18	58	55	11	4	15	62	65	12	5	17	69	62	11	3	14	86	86	14	5	19
9	05mca09	Dhanapal K	48	46	10	2	12	20	48	10	0	10	76	86	14	5	19	60	60	12	2	14	65	68	13	3	16	50	48	10	2	12	90	90	15	5	20
10	05mca10	Dhanam. R	76	79	13	4	17	90	98	15	5	20	92	90	14	5	19	76	74	13	4	17	80	80	14	4	18	78	72	13	3	16	96	90	15	5	20
11	05mca11	Divya.N	76	78	13	4	17	90	78	14	4	18	92	90	15	5	20	76	74	13	4	17	85	90	14	4	18	78	72	13	4	17	90	90	15	5	20
12	05mca12	Geetha.S	76	79	13	5	18	90	78	14	5	19	92	90	15	5	20	76	75	13	5	18	80	80	14	5	19	78	72	13	4	17	90	90	15	5	20

Status: Report Generated

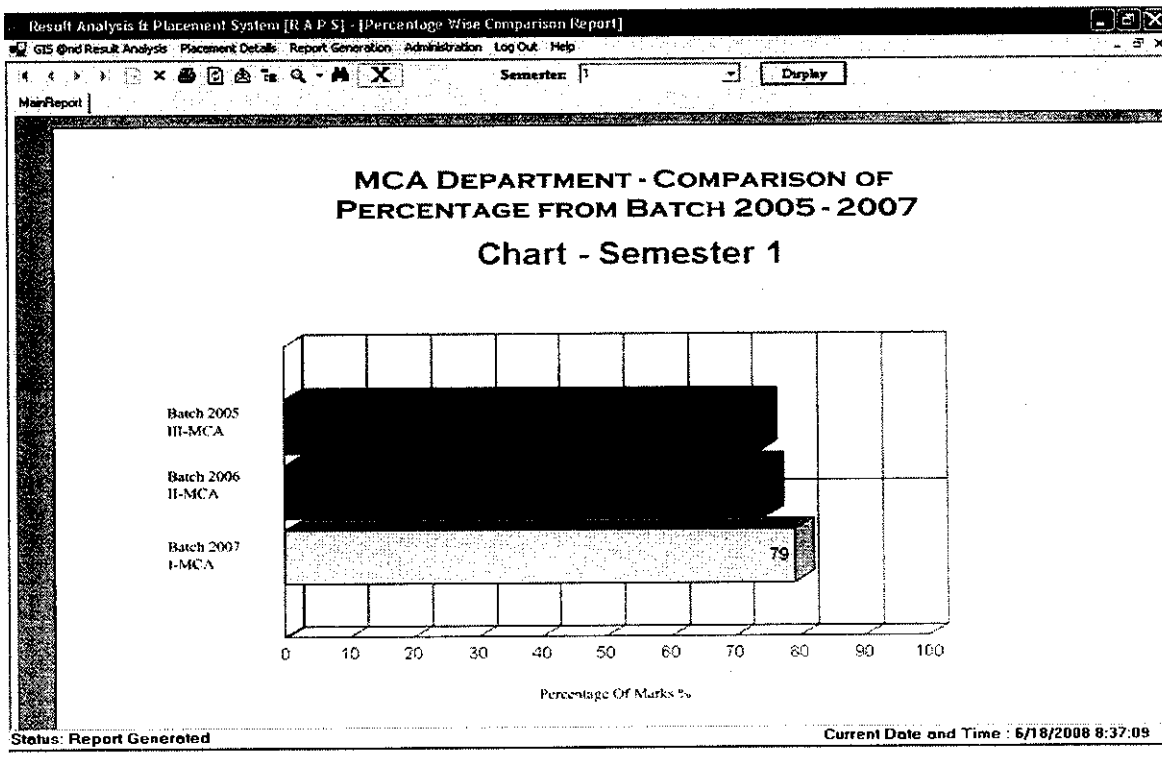
Current Date and Time : 6/13/2008 2:27:36

7.3 CHARTS

7.3.1 Subject wise comparison



7.3.2 Percentage wise comparison



CHAPTER

8

References

Book References:-

1. "Developing Enterprise Applications using .NET Framework, Programming in Visual Basic .Net" from NIIT.
2. Barn Stroustrup, (2004) "**VB.NET Programming Language**", First Edition.
3. David J. Kruglingski, Scott Wingo and George Shepherd, (2003) "**Programming MS VB.NET**" V W.P.Publications and Distributors First Edition.

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