BASELIOS POULOSE II CATHOLICOS COLLEGE

PIRAVOM-686 664, KERALA

(NAAC Accredited with A Grade)

(Affiliated to Mahatma Gandhi University)

DEPARTMENT OF COMPUTER APPLICATIONS

2014

Project Report

ON

STUDENTS INFORMATION SYSTEM

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ON

STUDENTS INFORMATION SYSTEM

Submitted in partial fulfillment of the

Requirements for the award of the degree of

BACHELOR OF COMPUTER APPLICATION

Guided by:

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DEPARTMENT OF COMPUTER APPLICATIONS

Certificate

This is to certify that the project entitled **"STUDENTS INFORMATION SYSTEM"** *submitted in partial fulfillment for the award of the degree of* **BACHELOR OF COMPUTER APPLICATION** *is a bona fide report of the project done by* **AMAL JACOB MOHAN** *&* **VISHNU SIVAN,** *RegNo.***12119686** *and RegNo.***12119744** *respectively during the year 2014.*

Internal Guide

Dr. ELDHOSE. T. JHON
(Dept. Of Computer Applications)

Head of the department

Prof SHAJU VARGHESE
(Dept. Of Computer Applications)

Examiners:

1.
2.

College Seal

Department Seal

DECLARATION

We hereby declare that this project work entitled **"STUDENTS INFORMATION SYSTEM"** *is a record of original work done by us under the guidance of Dr. ELDHOSE T JHON , B.C.A department and the work has not formed the basis for the award of any degree or diploma or similar title to any candidate of any university subject.*

Internal Guide **Signature of student**

Dr. ELDHOSE T JHON
(Dept. of Computer Applications)

ACKNOWLEDGEMENT

At the outset, we thank God Almighty for making endeavor a success.

We express our gratitude to **Mr.Tiji zachariah ,** principal of Baselios Poulose II Catholicos College Piravom, for providing us with adequate facilities, ways and means by which we were able to complete the project work.

With immense pleasure we take this opportunity to record out sincere thanks to our Guide Dr. **Asst. Prof. ELDHOSE T JHON**, Department of Computer Application in examining the draft of this project and suggestions modifications. We especially thank **Prof. SHAJU VARGHESE** , Head of the Department, B.P.C College, Piravom, for having shown keen interest in the development of this project.

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CONTENTS

1. SYNOPSIS

SYNOPSIS

1.1 OVERVIEW OF THE SYSTEM

The title of the project is **'Student Information System'.** This project will handle whole activities of the students. The project **'Student information System'** contains the details to manage student information automatically by software.

After the study of the existing system, we realized that the current system use handwritten records to store and update the details of students. It is not very easy to manage student's activities manually and also it requires a lot of time and efforts to maintain the accurate data. Also if need to search an information of a particular student, it is quite difficult to retrieve that information with proper time delay.

1.2 OBJECTIVES OF THE SYSTEM

- It may not only help the administrator but also help the Parents -Teachers Association members of the school for analyzing progress of their students in different areas during the academic year very fast and efficiently.
- It will help us to access information very fast because all the information is represented in the form of reports and graphs.
- We can easily prepare documents and Report generation of various areas very easily by using computers & we can keep it safe.
- Reduce time consumption
- Reduce error scope
- Centralized database management
- The system is a menu driven one. The user-friendly menus will help the end use to work on it without any operational difficulty.

2. SYSTEM STUDY

2. SYSTEM STUDY

2.1 EXISTING SYSTEM

The existing system is totally manual. The existing system for Managing Student information involves various functions carried out manually on paper. The personal and educational information are stored in the traditional book keeping system and the reports are also uses the same method.

The main limitation of this system is that it is time consuming process; resulting is over use of manpower. There is no security and a great chance for loss of valuable data stored in paper files due to hazards like fire and improper storage. Error detection is very difficult. While carrying out error correction methods, the whole process may have to be repeated. Searching for particular data is also very difficult in this system. So an alternative solution is needed.
In the present system all the operations are done manually. It is very difficult to do calculations manually and may not be accurate. That is why we are automating the information of students. The mark and grade calculation are very difficult but it is very easy to implement computer software at a minimum cost. And it is economically feasible.

Drawbacks of Existing system:

- Slower:

Processing is slower where large volumes of data need to be dealt with. Slower processing means that some information that could be provided if computerized systems were used will not be provided at all, because there is no time.

- Risk of Errors:

The risk of errors is greater.

- Less accessible:

Information is generally less accessible. Access to information is often is restricted to one user at a time, paper files can easily be misled in trays, in which case the information they contain is not available to all.

- Bulk:

Paper based systems are generally very bulky both to handle to store and office space are expensive.

- Time and Manpower:

Report generation various area is done manually using great amount of manpower and time. Erroneous records may lead to misleading information, which is more likely in manual system.

- Less User-friendly:

The technique is used in existing system is more complicated and there is lack of technical background towards the system and also it's less user-friendly.

2.1.1 Identifying Needs of the System

The work that was being carried out with the help of the manual system has to be transferred to the personal computer from the variety of reasons,

1. The manual system is slowly being phased out and all the activities that are being carried out by manual system are to be taken care of by the system.
2. There are many functions that demanded computerization, but were not being covered by the manual system.
3. Throughout time is high for processing.
4. As information is very voluminous and it is not possible to run systematically and accurately considering the time factor.

The system also needs easy access. With a computer system we can easily access any records (Personal details, Educational details etc.) in it. But when it is in manual systems it is difficult to find it using its serial numbers or something like that. So now-a-days the need of the system is important.

2.1.2 Preliminary Investigation

While designing any system preliminary investigation is very important. It is the essential part of the requirement analysis. Preliminary investigation is the basic of the total system. Preliminary investigation is to be carried out in two steps. These are also known is fact finding techniques.

Interview: - Various interviews are being carried out on the concerned client to get the information about the system. We met the Department head of the College and he explained the working of the current system.

Record Review: Various documents such as the curriculum vita and mark list studies. This provided me about what data is to be stored. And how to interrelate them. They have stored information about the student's personal details as well as the educational details.

In our system investigation we found some details like,

We visited a College named 'Baselios Poulose II Catholicos College'at Piravom which is now an NACC accredited institution with A grade. We collect all information about the students. From

that information we understood that all the details are stored manually. It takes more time and not safe.

We are also study about Earlier software development system development life cycle (SDLC) models have been created: waterfall, spiral etc.

The oldest of these and best known, is the waterfall: Sequence of stages in which the output of each stage becomes the input for the next. These stages can be characterized and divided up in different ways.

- Project planning, feasibility study: Establishes a high level view of the indented project and determines its goals.
- System Analysis, requirement definition: Analyses end- user information needs.
- System design: Describe desired features and operations in detail.
- Implementation: The real code is written here.
- Integration and testing: Bring all pieces together and checks for error, and bugs.
- Acceptance, Installation, Deployment: The final stage of initial development.
- Maintenance: This is the least glamorous and perhaps most important step of all.

2.2 PROPOSED SYSTEM

The primary objective of the proposed system design is to overcome the drawbacks of the existing system and reduce the manual work. We can achieve this objective by computerizing the whole activities that are carried out manually. Computerization will reduce manual work and produce desired information efficiently and quickly.

The "Student Information System" has been design to reduce the manual work in the following manner.

- ✓ Data entry screens are designed such that they are very user friendly and minimum typing is required from the user.
- ✓ Novice user can also use the system without any training.
- ✓ System provides various information through reports quickly and accurately in easily understandable formats.
- ✓ The new system is more user friendly due to GUI feature of Visual Basic.
- ✓ The system supports security at operational level i.e. it gives access to view and manipulate the information based on the user login.
- ✓ Duplication of data will be avoided.
- ✓ Menu driven interface provides ease of use.
- ✓ Availability of previous data for future reference.

2.3 FEASIBILITY STUDY

One of the important outcomes of the preliminary investigation is the determination of the feasibility of the system. These are different aspects of the feasibility study in the investigation phase. After the documents reviewing the selected personnel, investigating the various resources the following are the results for the three feasibility.

Three key combinations are involved in the feasibility study

1. Economic feasibility
2. Technical feasibility
3. Operational feasibility

2.3.1 Economic Feasibility

Economic analysis is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost/benefit analysis, the procedure is to

determine the benefit and saving that are expected from a candidate system and compare them with the term of time by automating the process of report generation.

The system can be developed technically and if installed would still be good for the organization. The cost is found to be lesser compared to the benefits of the proposed system because proposed system needs only a single computer and an administrator for operating. It compared to the existing system, it loses so many cost for buying papers as well as the case of salary of the operator. Also the workload of a user will decrease to half of the current workload. Hence the proposed system is found to be economic feasible.

2.3.2 Technical Feasibility

Technical study is a study of hardware and software requirements.

All the technical issue related to the proposed system is dealt during feasibility stage of preliminary investigation produced the following results:

Hardware Requirement:

Pentium IV

256 MB RAM

500 MB HDD

Software Requirements:

Window 2000

Visual Basic

Microsoft SQL Server

- Data keeping capacity of the proposed equipment to be used for the system are enough.
- Data retrieval for the various enquires are fast enough technically, according to the proposed hardware. The entire terminal user connected to the proposed system will get the adequate response.
- The proposed system is very easy in use, database security is very high, easy in access, and reliability and accuracy are enough.

Considering the above facts the proposed system is fully technically feasible.

2.3.2 Operational Feasibility

The developed system is completely menu driven and user friendly. Also the system is developed in Visual Basic, which is GUI. There is little need skill for new user to operate the software. Reports will be exactly as per the requirement.

At the beginning of preliminary investigation work all the personnel approached responded positively this reduces the chance of resistance to the proposed system. Considering all the issue stated above makes the proposed system operationally feasible. In our organization only the admin user (Department head or Teacher of the college) uses the software. So they needs to be aware of the software initially. Then he can use it easily. So it is feasible.

3. SYSTEM ANALYSIS AND DESIGN

SYSTEM ANALYSIS

System design's main aim is to identify the modules that should be in the system, and the specifications of these modules and how they interact with each other to produce the desired results. At the end of the system design all the major data structures, file formats and the major modules in the system and their specification are decided.

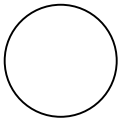
3.1 DATA FLOW DIAGRAM

A DFD has the purpose of clarifying system requirements and identifying major transformations that will become programs in system design.

The symbols used in DFD are shown below

Source or destination of data

Data flow

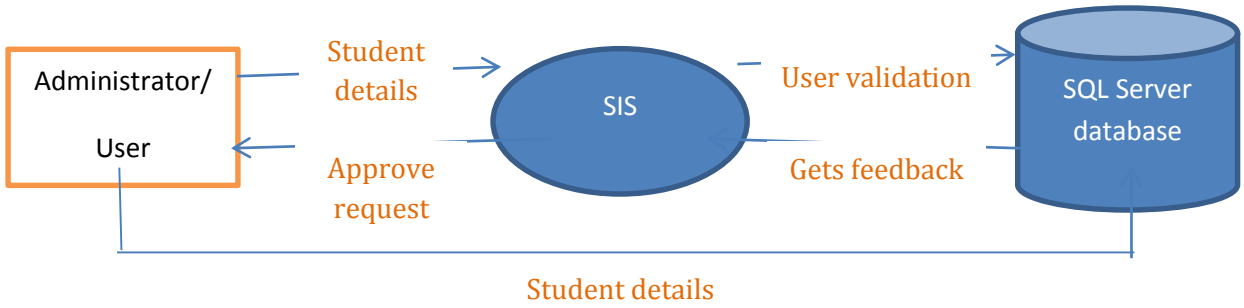


Process that transforms data flow

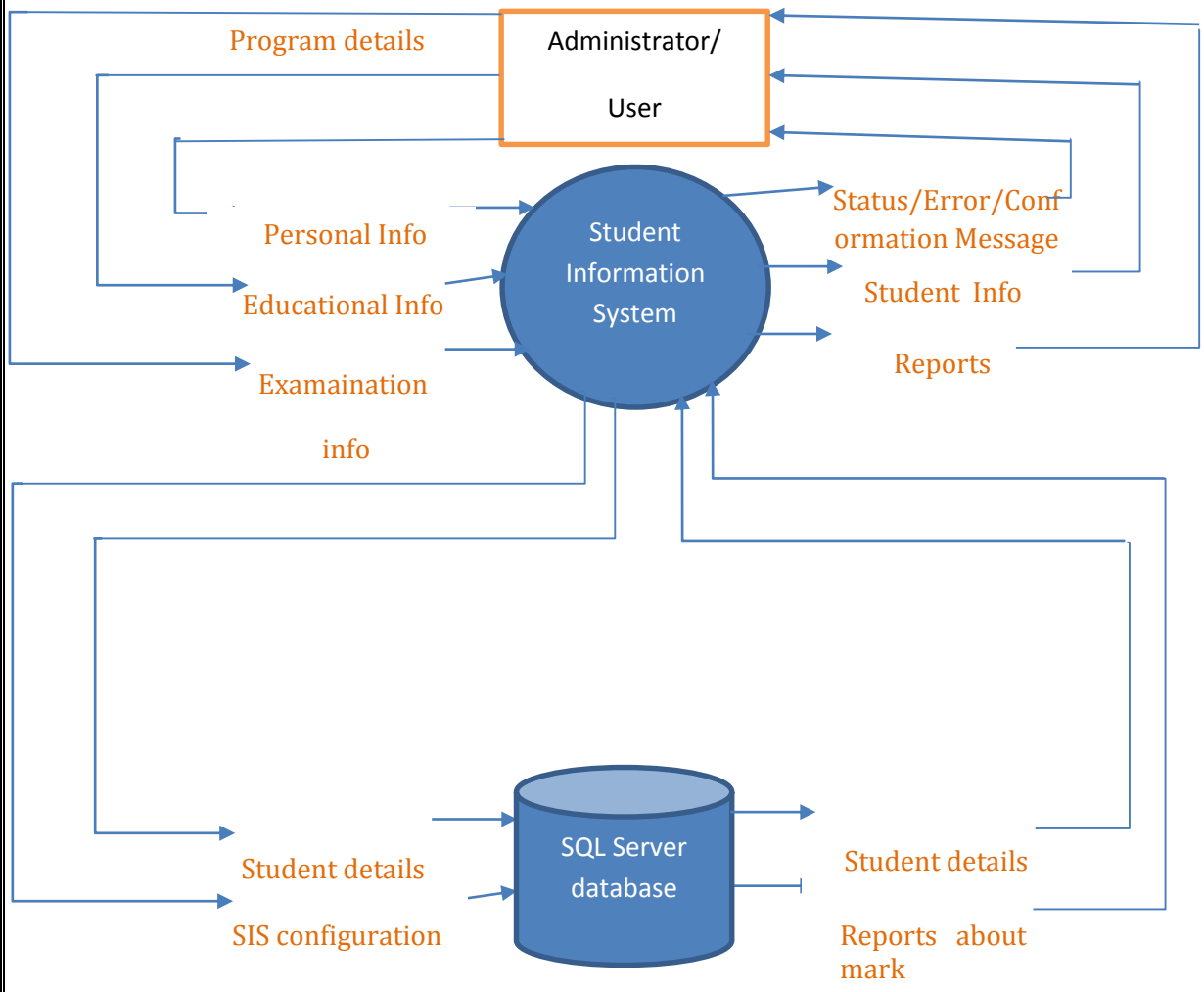
Data store

DFD(Data Flow Diagrams)

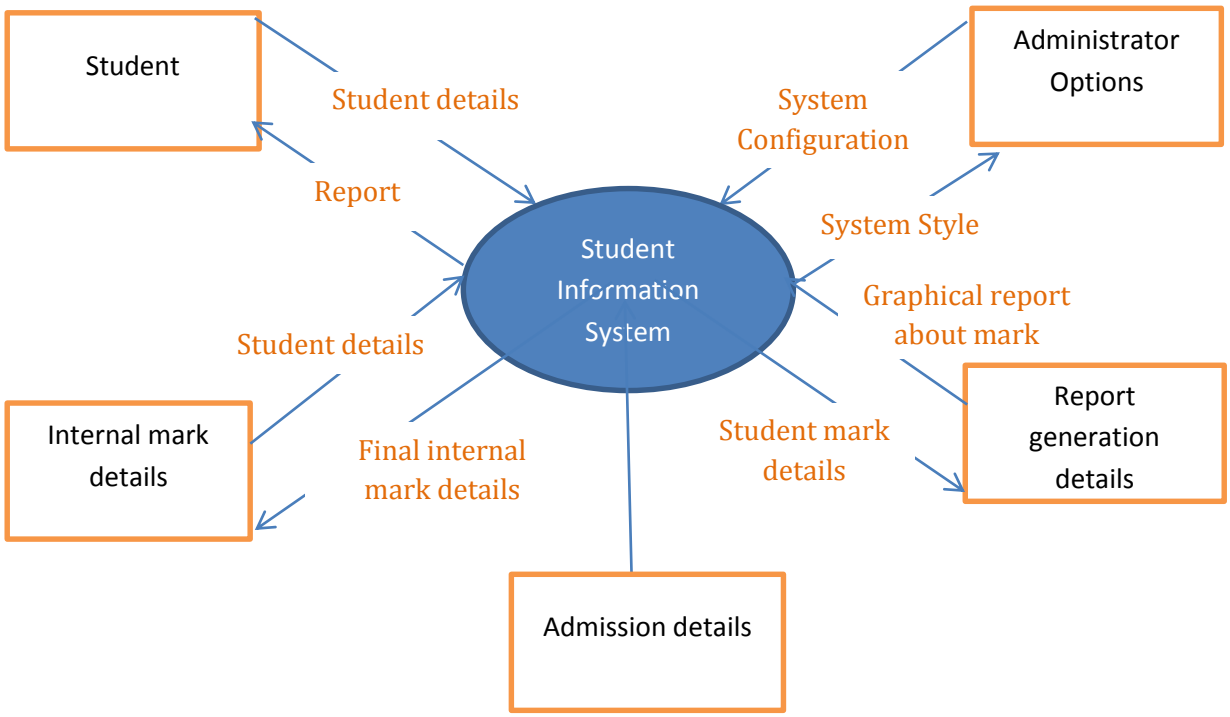
Context level Diagram



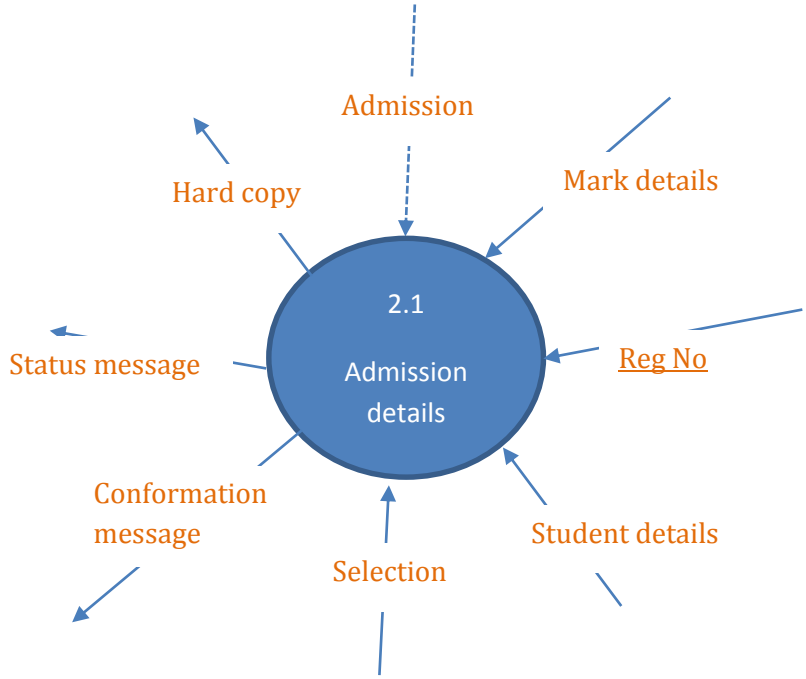
Level 0 Data Flow Diagram

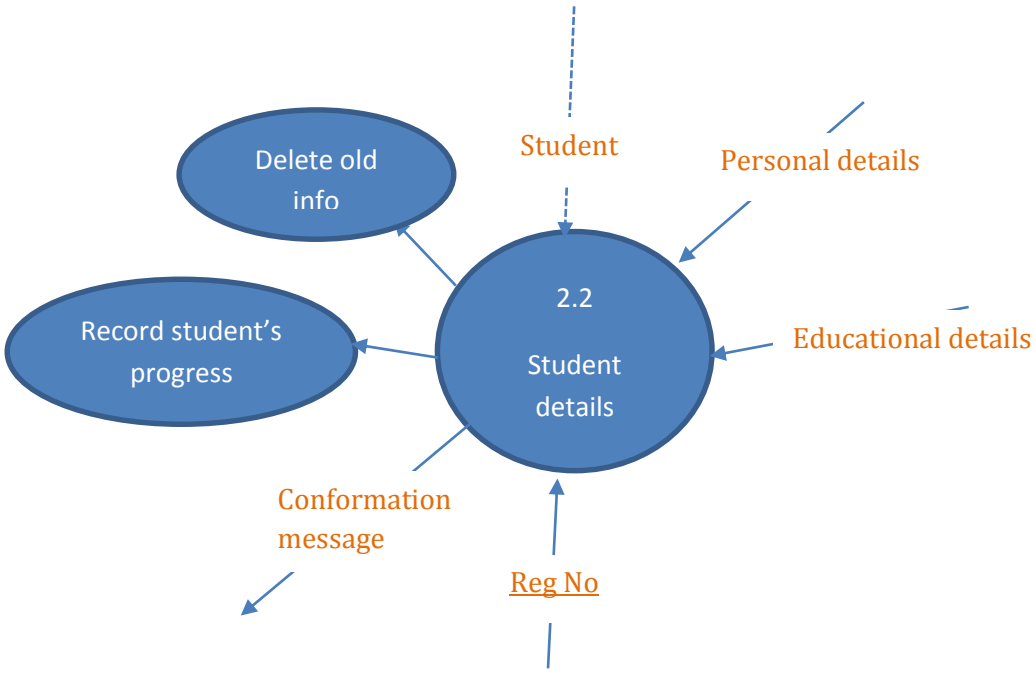


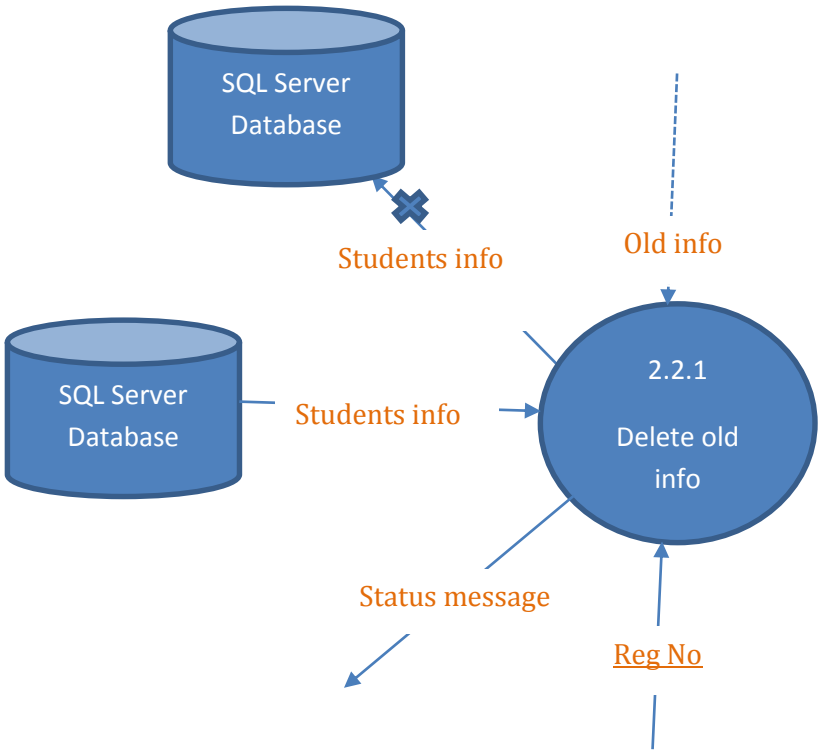
Level 1 Data Flow Diagram

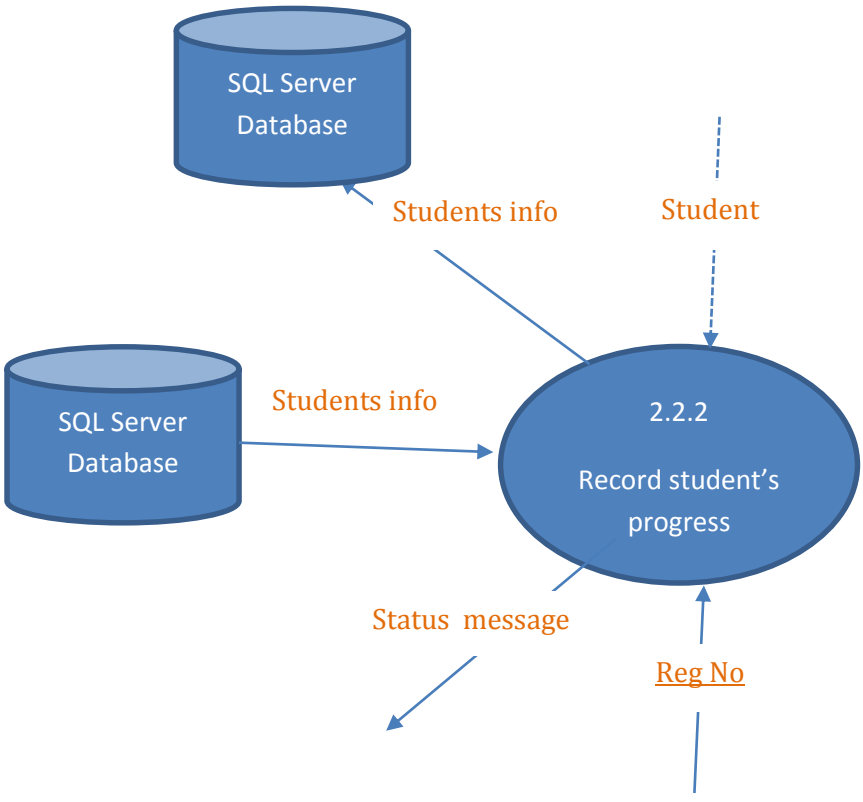


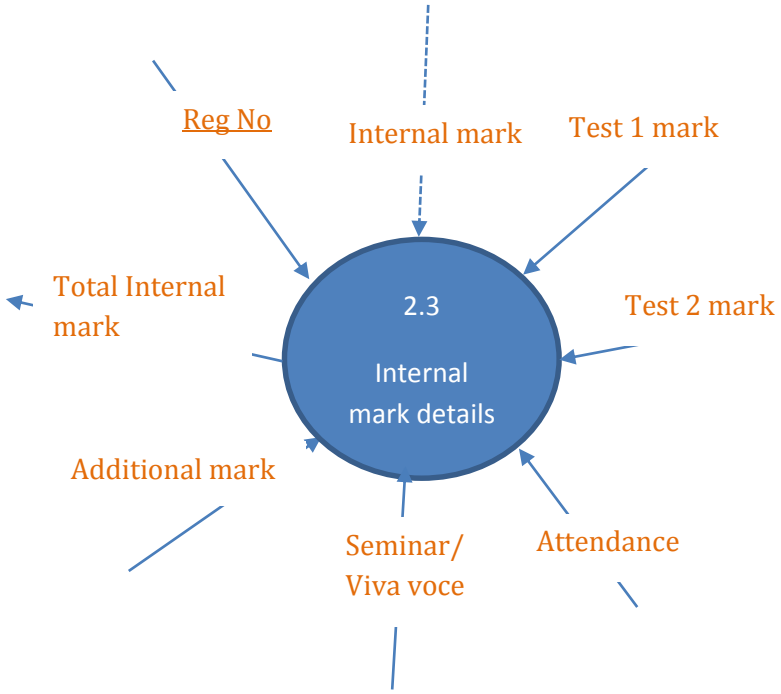
Level 2 Data Flow Diagram

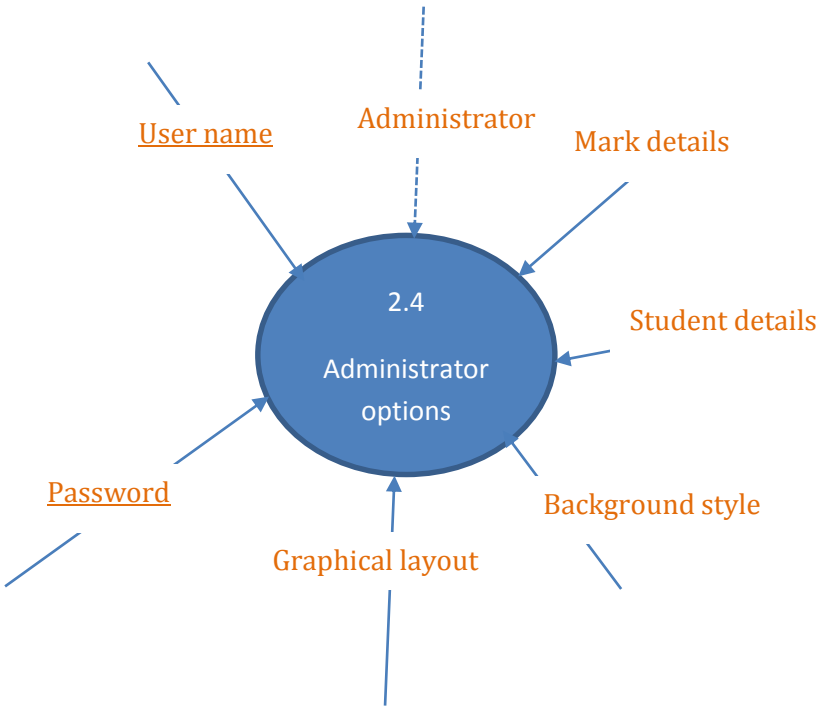


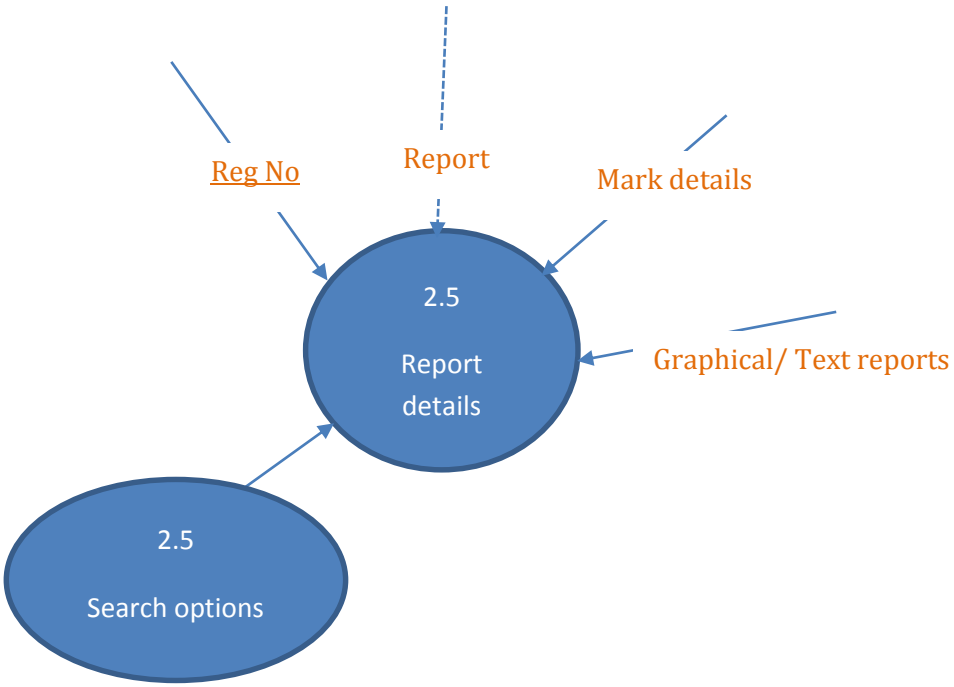


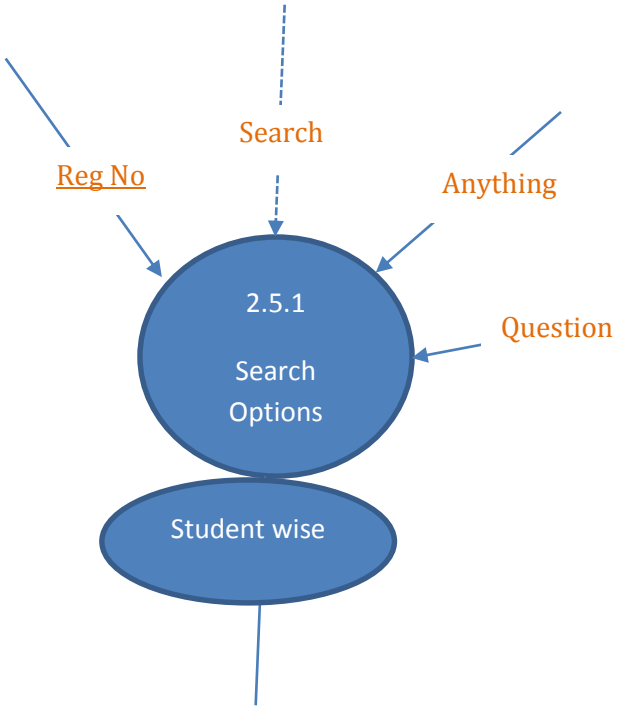

SQL Server Database
Students info
Old info
SQL Server Database
Students info
2.2.1
Delete old info
Status message
Reg No

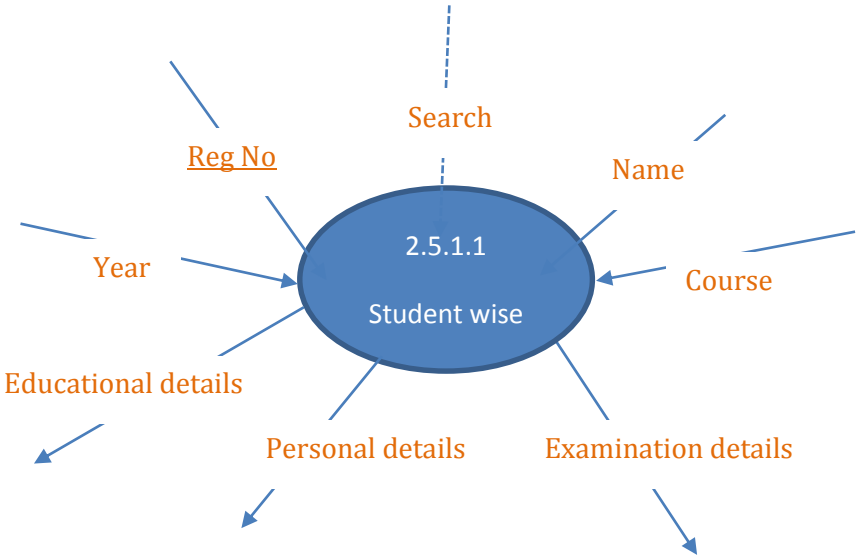

SQL Server Database
Students info
Student
SQL Server Database
Students info
2.2.2
Record student's progress
Status message
Reg No


Reg No
Internal mark
Test 1 mark
Total Internal mark
2.3
Internal mark details
Test 2 mark
Additional mark
Seminar/ Viva voce
Attendance


User name
Administrator
Mark details
2.4
Administrator options
Student details
Password
Background style
Graphical layout


Reg No
Report
Mark details
2.5
Report details
Graphical/ Text reports
2.5
Search options


Search
Reg No
Anything
2.5.1
Search Options
Question
Student wise


Search
Reg No
Name
2.5.1.1
Student wise
Year
Course
Educational details
Personal details
Examination details

3.4 TABLE DESIGN

The general theme behind a database is to handle information as an integrated whole. A database is a collection of interrelated data stored with minimum redundancy to serve many quickly and effectively. The database is a collection of stored data organized in such a way that all the data requirements are satisfied by the database.

The aim of database design is to improve the existing system situation. A number of database files were designed to hold the data requirements for running their systems.

Here we have 16 major tables , described below.

TABLE DESIGN

DATABASE: STUDENTINFORMATIONSYSTEM

1. TABLE: LOGINTABLE

Primary Key: Username

Description: To store the changed username and password.

Field name	Data Type	Size	Description
Username	Varchar	50	username
Password	Varchar	50	password
Hint	Varchar	50	Password Hint

2. TABLE: SUBJECTTABLE

Primary Key: SubjectId

Description: to store the Subject details

Field name	Data Type	Size	Description
SubjectId	int	3	Subject ID
Subject Name	Varchar	65	Name of the subject
Course	Varchar	15	Course name
Sem	int	1	Semester
Credit	int	2	Credits of each subject

3. TABLE: MAINTABLE

Primary Key: RegNo

Description: to store the most require details

Field name	Data Type	Size	Description
RegNo	Int	8	Register Number
StudentName	Varchar	35	Name of the student
Course	Varchar	15	Course name
Yearofstudy	Int	4	Year of study

4. TABLE: PERSONALTABLE

Primary Key: RegNo

Description: to store the Personal details

Field name	Data Type	Size	Description
RegNo	int	8	Register Number
StudentName	Varchar	35	Name of the student
Course	Varchar	15	Course name

Yearofstudy	**int**	**4**	**Year of study**
Address	**Varchar**	**75**	**Address of student**
Phone	**Varchar**	**13**	**Phone**
Religion	**Varchar**	**15**	**Religion**
Cast	**Varchar**	**15**	**Cast**
Blood	**Varchar**	**3**	**Blood**
Income	**float**	**10**	**Income**
Dob	**Date**	**4**	**Date of Birth**

5. TABLE: FAMILYTABLE

Primary Key: RegNo

Description: to store the Family details

Field name	Data Type	Size	Description
RegNo	**int**	**8**	**Register Number**
FatherName	**Varchar**	**20**	**Father Name**
FatherOccupation	**Varchar**	**20**	**Father Occupation**
FatherAddress	**Varchar**	**75**	**Father Address**

FatherPhone	**Varchar**	**13**	**Father Phone**
MotherName	**Varchar**	**20**	**Mother Name**
MotherOccupation	**Varchar**	**20**	**Mother Occupation**
GuardianName	**Varchar**	**20**	**Guardian Name**
GuardianAddress	**Varchar**	**75**	**Guardian Address**
GuardianOccupation	**Varchar**	**20**	**Guardian Occupation**
GuardianPhone	**Varchar**	**13**	**Guardian Phone**
Sis	**Vatchar**	**100**	**About Brothers and Sisters**

6. TABLE: EXAMTABLE

Primary Key: RegNo

Description: to store the Previous Exam details

Field name	Data Type	Size	Description
RegNo	**int**	**8**	**Register Number**
ExamNo	**int**	**7**	**Exam No**

Course	Varchar	6	Course
YearOfPassing	int	4	Year Of Passing
InstitutionName	Varchar	30	Name of the Institution
Grade	Varchar	2	Grade
Percentage	int	3	Percentage
NoOfChances	int	1	No Of Chances

7. TABLE: PHYSICALTABLE

Primary Key: RegNo

Description: to store the Physical activities details

Field name	Data Type	Size	Description
RegNo	int	8	Register Number
CurricularActivities	Varchar	20	Curricular Activities

8. TABLE: INTERNALMARKTABLE

Primary Key: RegNo

Description: to store the Internal mark details

Field name	Data Type	Size	Description
RegNo	int	8	Register Number
SubjectName	Varchar	20	Subject Name
Sem	int	1	Semester
Course	Varchar	6	Course
Test1	int	3	Mark of first test
Test2	int	3	Mark of second test
Attendance	int	3	Attendance
Seminar/ viva	int	3	Seminar/ viva
AdditionalMark	int	3	AdditionalMark
TotalMark	int	3	TotalMark

9. TABLE: QUESTIONTABLE

Primary Key: QuestionId

Description: To store the changed username and password.

Field name	Data Type	Size	Description
QuestionId	Int	3	Question ID
Question	Varchar	200	password
StoredProcedure	Varchar	200	Stored Procedure

10. TABLE: ADMINOPTIONSTABLE

Description: To store the programme names

Field name	Data Type	Size	Description
SISDate	Date	8	Current date
Mark	Int	4	Maximum Mark

11. TABLE: SISSETTINGSTABLE

Description: To store the programme names

Field name	Data Type	Size	Description
MaxMark	Int	4	Maximum Mark
AddMark	Int	4	Additional Mark

12. TABLE: PERFOMANCETABLE

Description: To evaluate the performance of the student

Field name	Data Type	Size	Description
RegNo	Varchar	8	Reg. No of student
SSLC	Int	4	SSLC Mark
HSE	Int	4	HSE Mark
Sem1	Int	4	First Semester Mark
Sem2	Int	4	Second Semester Mark
Sem3	Int	4	Third Semester Mark
Sem4	Int	4	Fourth Semester Mark
Sem5	Int	4	Fifth Semester Mark
Sem6	Int	4	Sixth Semester Mark

13. TABLE: ATTACHMENTTABLE

Description: To store the attachment details

Field name	Data Type	Size	Description
RegNo	Varchar	8	Reg. No of the student
Programme	Varchar	20	Name of the programme

14. TABLE: PROGRAMMETABLE

Description: To store the programme names

Field name	Data Type	Size	Description
Programme	Varchar	20	Name of the programme

15. TABLE: RELIGIONTABLE

Description: To store the Religion names

Field name	Data Type	Size	Description
Religion	Varchar	20	Religion Name

16. TABLE: CASTTABLE

Description: To store the programme names

Field name	Data Type	Size	Description
Cast	Varchar	20	Caste Name

17. TABLE: SCHOOLTABLE

Description: To store the school names

Field name	Data Type	Size	Description
School	Varchar	40	Name of the programme

3.5 INPUT DESIGN

Input is the process of converting user inputs to computer based format. The project requires a set of information from the user to prepare a report. In the order, when organized input data are needed.

In the system design phase, the expanded DFD identifies logical data flow, data stores and destination. Input data is collected and organized into groups of similar data. The goal behind designing input data is to make the data entry easy and make it free from logical error. The input entry to all type of clients is the username and password. If they are valid the client is allowed to enter into the software. Refer Appendix 9.1.

Objectives

- To produce a cost-effective method of input
- To achieve the highest possible level of accuracy.
- To ensure that the input is acceptable and understandable

Here in our system , 'STUDENT INFORMATION SYSTEM' we can find that we want to get input information like student details at the time of registration, and about parents details & mark details in the same manner and various other information too. With our input design we can say that it is more user friendly as compared to the existing manual system containing paper and pencil operations.

3.4 OUTPUT DESIGN

Outputs are the most important direct source of information to the user and to the management. Efficient and eligible output design should improve the system's relationship with the user and help in decision making,

Output design generally deals with the results generated by the system i.e., reports. These reports can be generated from stored or calculated values. Reports are displayed either as screen window preview or printed form. Most end users will not actually operate the information system or enter data through workstation, but they will use the output from the system.

Outputs from computer systems are required primarily to communicate the results of processing to the user. They are also used to provide a permanent copy of these results for later consultation.

3.5 MENU DESIGN

Menus are designed for the manipulation of the screen. Menu is universal interface for any type of environment. The menu allows the user's choice of response but reduce the chances of error in data.

There is a main window, which contain main menu. By using the appropriate menu option we select screens or

windows for input data entry. Access protection is achieved through the password. The user can enter into main window only by giving the correct user name and password.

Menu provides a set of options on the screen. Cursor movements can select the options. The application consists of number of data manipulation screens. We have 3-4 menu items like file, reports, … By clicking in the options we can go to the desired form.

4.SYSTEM SPECIFICATION

4.1 ABOUT THE FRONT END

The system has been developed in Visual Basic 6.0 as front end.

VISUAL BASIC 6.0

MicroSoft Visual Basic 6.0 is the newest of the popular programming language. Visual Basic is even stronger contender in the application development areas than ever before.

The Visual Basic environment is for great creating almost any type of locations we can think of. We can develop robust stand-alone applications, games and utilities is less time than in order languages. We can also use Active X technology to create internet enabled application that is limited only by our imagination.

Visual Basic 6.0 is an addition to VB products. It allows Windows application and easy learning which enables us to create programs quickly for PC without being an expert in C++ or other programming language.

Visual Basic provides a graphical environment where we usually design the forms and control that our application uses. Visual Basic support many useful tools that are more productive. This includes but is not limited to project, forms, objects and templates. Custom controls, add-ins and data manager. We can use these tools together to create applications in months, weeks, or everyday, when compared too much longer development time when we use other languages. Version 6 of Visual Basic is specifically designed to utilize the Internet. It becomes with several controls that allows to create web-based application.

4.2 ABOUT THE BACK END

The system has been developed in Microsoft SQL Server 2008 as back end.

SQL Server2008

SQL Server2008 includes support for structured and semi-structured data, including digital media formats for pictures, audio, video and other multimedia data. In current versions, such multimedia data can be stored as BLOBs (binary large objects), but they are generic bit streams. Intrinsic awareness of multimedia data will allow specialized functions to be performed on them. According to Paul Flessner, senior Vice President, Server Applications, Microsoft Corp., SQLServer2008 can be a data storage backend for different varieties of data: XML, email, time/calendar, file, document, spatial, etc as well as perform search, query, analysis, sharing, and synchronization across all data types.

The most important aspects of SQL Server are:

- SQL Server is easy to use.
- SQL Server scales from a mobile laptop to symmetric multiprocessor systems.
- SQL Server provides data warehousing features that until now have only been available in Oracle and other more expensive DBMS.

A database system must provide the following features:

- Data integrity
- Concurrency control
- Physical data independence
- Logical data independence
- Query optimization
- Backup and recovery
- Security and authentication

When creating a database, the main concept is to know how the database is structured in SQL.SQL stands for Structured Query Language. It is a language that enables us to create and operate on relational database, which are sets of related information stored in tables.

There are two types of SQLs-interactive and embedded. Interactive SQL is used to operate directly on a database to produce output for human consumption. Embedded SQL consists of SQL commands put inside of programs that are mostly written in some other languages such as COBOL, Pascal, and C etc. This can make programs more powerful and efficient. The functional categories of SQL commands consist of DDL and DML.

4.3 ABOUT THE OS

The OS used is Windows Operating System.

WINDOWS OS

The advent of Microsoft plus has cured whatever faults were there in the original WINDOWS XP version and made it and useful tool to work with the memory resident programs of it, make the reloading of WINDOWS XP easier, it plug and play connectivity for input output devices makes a new dimension towards the use of computer system. Connectivity to the information networks like Internet through modems makes it overstate software. Almost all new software have their windows version also. The programmer and file manager facilities of it had made a leap way towards giving a new dimension towards the operation of computer systems.

4.4 HARDWARE SPECIFICATION

Selection of hardware configuration is very important task related to the software development. The processor should be powerful to handle all the operations . The hard disk should have the sufficient capacity to solve the database and the application.

Minimum hardware requirements

Processor	:	Pentium IV
RAM	:	256 MB
HDD	:	500 MB free space
Monitor	:	SVGA with 1024 by 768 resolutions
CD-R/W Drive	:	52X CD/RW
Printer	:	Standard

5. SYSTEM DESCRIPTION

The new system is intended to perform the following tasks

- Entering the details of student details. Also it allow us to enter details like parents details ,mark details.

  In each stage we will entering the information we conformed that all the necessary fields are should be filled or not.

- After entering the details of student , parents details ,mark details accurately store the details. It should be carefully done because we want to prepare accurate report about the student at the end.

  Also this information is useful for showing their marks as graphs, it help us to understand the performance of the student.

  Note that the performance of the student is valued with not only their mark but also their extra-curricular activities..

The system provides interface to all these tasks using menu. On starting this system a login window appears on the screen. It has two entries, one is username(Admin, Student and User) and a password. It has three username because it uses for providing some security measures, if login as Admin all the options are available but if login as a student registration and edition are not enabled. After the login

form a main menu window appears on the screen. The menu items that appear on the screen are

- File
- Utility
- Settings
- Help
- Logout

❖ File

This menu item consists of a list of submenus and they have further classifications .

They are Registration, Edition, Search, Report, Delete and Exit.

❖ **Registration**

It is the first submenu of File.by clicking on this we get registration form. There we have the option to register the student using all the personal details including their previous marks and family details. Two pictures are there , NEXT and PREV for the purpose of adding Family and Educational informations.

- SAVE

This button helps to add a new entry into the database. This button also edits the details of the selected values or record from the database.

❖ **Edit**

By clicking on this we get a subform for adding their Internal Marks. It also contains options for Adding, Editing, Deleting informations from the database.

- DELETE

This button helps to delete the selected record or values from the database.

❖ **Search**

The most powerful control in the system is Search. By clicking Search we get a Search form. It contains a 3 tabs. The first tab will contain a general Search engine. In this search engine we can search anything related to the database like student name, regno etc. the second tab will contain another search engine with specific questions like 'Name of the student starting with a' and the last tab will contain another search engine; searchis specified by regno or (combination of Name, Course and Year).

❖ **Report**

This menu is use to view the report based on certain criteria's.

By clicking on the Report we get a subform of report. It contains 8 pictures – Personal, Family, Educational, Internal, Physical, Perfomance, Attachment

Personal report was accessed by providing our RegNo. It contains the deatails of Personal information of the student.

All the reports are accessed by proving only the register number of the student.

- **Utility**

  This button is used to open the Notepad installed in the system for a rough work.

- **Settings**

  This menu will contains two sub menu items – Theme and System Settings.

  Theme is used to change the style of the environment. And System settings are handle the control of the System. It used to change the password of the system as well as providing additional inputs to the system.

- **Logout**

  System was designed with high end security. So logout menu item is used to change the accessability of the user.

- **Exit**

  Exit button is used to exit from the system.

6. SYSTEM TESTING AND IMPLEMENTATION

Software testing is a critical element of software quality assurance and represents the ultimate reviews of specification, design and coding. Testing present an interesting anomaly for the software. Testing is vital to the success of the system. Errors can be injected at any stage during development. System testing makes a logical assumption that if all the parts of the system are correct, the goal will be successfully achieved.

During testing, the program to be tested is executed with set of test data and the output of the program for the test data is evaluated to determine if the program is performing as expected. A series of testing are performed for the proposed system before the system is ready for user acceptance testing.

TYPES OF TESTING:

- Unit Testing
- Integration Testing
- Validation Testing
- Output Testing
- User Acceptance Testing

6.1 SYSTEM TESTING

6.1.1. UNIT TESTING

Unit testing focuses verification effort on the smallest unit of the software design, the module this is known as module testing. Since the proposed system has modules the testing is individually performed on each module.

Using the details description as a guide, important control paths are tested to uncover errors within the boundary of the modules. This testing was carried out during programming stage itself. In this testing step each module is found to be working satisfactorily as regards to the expected output from the module .In our system we want to check the informations like whether the inputs are saved to back end correctly. So Every form includes this testing because we want to maintain our database because informations like Employee details, calculation tables including Test and Clr should be maintained correctly. These are checked in the programming step itself.

6.1.2. INTEGRATION TESTING

Data can be test across an interface, one module can have adverse effect on another, sub function when combined may not produced the desired function. Integration testing is a systematic technique for constructing the program structure while at the same time conducting test to uncover errors associated within the interface.

The objective is to take unit tested modules and built a program structure that has been dictated by design. All modules

are combined in this testing step. The entire program is tested as a whole. Correction is difficult at this stage because the isolation of causes is complicated by the vast expense of the program. Thus in the integration testing step all the errors uncover are corrected for the next testing step. Primarly we have met with several errors like data save and table linking. These are corrected well.

6.1.3 VALIDATION TESTING

At the culmination of integration testing, software is completely assembled as a package. Interfacing errors have been uncovered and corrected and a final series of software test-validation testing begins. Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software functions in manner that is reasonably expected by the user. Software validation is achieved through a series of tests that demonstrate conformity with requirement. After validation test has been conducted, one of two conditions exists.

- The function or performance characteristics confirm to specifications and are accepted.
- A validation from specification is uncovered and a deficiency created.

There was some errors with our project in this stage too. Because there are some validation problems like saving the deatls without filling all the fields , Data type mismatch errors and so on. These are corrected in this validation stage.

Deviation or error discovered at this step in this project is corrected prior to completion of the project with the help of the user. Thus the proposed system under consideration has been tested by using validation testing and found to be working satisfactorily.

6.1.4 OUTPUT TESTING

After performing the validation testing, the next step is output testing of the proposed system since no system could be useful if it does not produce the required output in the specific format. The output generated or displayed by the system under consideration is tested asking the users about the format required by them. Here, the output is considered in two ways: one is on the screen and the other is printed format.

In the first test we saw that our reports are disorderd and not Interactive. We found that Customer bills, Salary payment statements like outputs should be interactive. We made it in this step.

The output format on the screen is found to be correct as the format designed according to the user needs. For the hard copy also, the output comes out as specified by the user. Hence output testing doesn't result in any connection in the system.

6.1.5 USER ACCEPTANCE TESTING

User acceptance of a system is the key factor for the success of any system. The under consideration is tested for user acceptance by

constantly keeping in touch with the prospective system users at a time of developing and making for '**Student Information System**'.

The testing of the software began along with coding. Since the design was fully object oriented, first the interfaces were developed and tested. Then unit testing was done for every module in the software for various inputs, such that each line of code is once executed.

After all modules were coded the integration test were carried out. Some minor errors were found in the output at the earlier stage and each of them was corrected. In the implementation of user interface part no major errors were found. After the software was completely developed, the testing was done. The output of the software were correct and accurate during the time of demonstration, after that no errors were reported.

6.2. IMPLEMENTATION

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users, that it will work efficiently and effectively. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the change over, an evaluation, of change over methods.

Implementation is the final and important phase. The most critical stage in achieving a successful new system and in giving the users confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and if it found to working according to the specification. This method also offers the greatest security since the old system can take over if the errors are found or inability to handle certain type of transactions while using the new system.

At the beginning of the development phase a preliminary implementation plan is created to schedule and manage the many different activities must be integrated into plan. The implementation plan is updated throughout the development phase, culminating in a changeover plan for the operation phase. The major elements of implementation plan are test plan, training plan, equipment installation plan and a conversion plan.

There are three types of implementation:

- Implementation of a computer system to replace a manual system.

- Implementation of a new computer system to replace an existing one.
- Implementation of a modified application to replace an existing one, using the same computer.

In our case it was about to implement a new system to replacemanual system. All the operations in the ”STUDENTS INFORMATION SYSTEM “ was conducted manually. They have keep a lage list of books to maintain their records.

7. CONCLUSION

7. CONCLUSION

The project entitled "STUDENT INFORMATION SYSTEM" was completed on time and was tested with proper data. The aim of the project is to make a software for the Computer. The main objective of the system is to reduce time delays and provide security of data. The system generated regular and accurate outputs as per requirements. In comparison with the manual system, the benefits of the computerized system were considerable in the savings of manpower , working hours, efforts and accuracy. Also adequate security has been provided to prevent unauthorized access of this system. '**STUDENT INFORMATION SYSTEM**' has many more advantages beyond description. We tried to cover almost all the function aspects by developing the software. This system intends to maintain the requirements for a good security system.

By the usage of computers one can save the tine to a great extend the computer increases satisfaction of those that comes to an organization. In addition this contains certain control measures that are included for checking the correctness of the input data. The changeover results in a good successful system. The system was continually monitored after the changeover process and performance of the system proved to be efficiently excellent for the usage of the organization.To conclude this, we thank all people who help us to complete this project work successfully.

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9.APPENDIX

11.1 SAMPLE SOURSE CODE

```
Option Explicit
Public LoginSucceeded As Boolean
Private Sub Form_Load()
  connection
End Sub
Private Sub imgHint_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As Single)
  reccheck
  rec.Open ("select HINT from LOGINTABLE where username = '" & Trim(UserNameCmb.Text) & "'"), con, adOpenDynamic, adLockOptimistic
  If rec.EOF = False Then
    lblHint.Caption = rec.Fields(0)
    lblHint.Visible = True
  End If
End Sub
```

```
  Private Sub imgHint_MouseUp(Button As Integer, Shift As Integer,
X As Single, Y As Single)
     lblHint.Visible = False
  End Sub
  Private Sub passwordtxt_Change()
    If Not passwordtxt.Text = "" Then
       fieldlbl.Visible = False
       fieldblank.Visible = False
    End If
    If passwordtxt.Text = "" Then
       fieldlbl.Visible = False
       fieldblank.Visible = False
       errorlbl.Visible = False
       errorimg.Visible = False
    End If
  End Sub
  Private Sub usernamecmb_Change()
    If UserNameCmb.Text = "" Then
       passwordtxt.Text = ""
```

```
    errorlbl.Visible = False
    errorimg.Visible = False
    fieldlbl.Visible = False
    fieldblank.Visible = False
  End If
  If Not UserNameCmb.Text = "" And passwordtxt.Text = "" Then
    fieldlbl.Visible = False
    fieldblank.Visible = False
  End If
End Sub
Private Sub imgCancel_Click()
  LoginSucceeded = False
  Unload Me
End Sub
Private Sub imgOK_Click()
  If UserNameCmb.Text = "" Then
    UserNameCmb.SetFocus
    fieldlbl.Visible = True
    fieldblank.Visible = True
```

```
    Exit Sub
  End If


  If passwordtxt.Text = "" Then
    UserNameCmb.SetFocus
    fieldlbl.Visible = True
    fieldblank.Visible = True
    Exit Sub
  End If
  reccheck
  rec.Open ("select * from LOGINTABLE where username = '" &
Trim(UserNameCmb.Text) & "' and pwd ='" &
Trim(passwordtxt.Text) & "'"), con, adOpenDynamic,
adLockOptimistic
  If rec.EOF = False Then
   If (UserNameCmb.Text = rec.Fields(0)) And (passwordtxt.Text =
rec.Fields(1)) Then
    'Unload Me
     'frmMain.Show
     frmshutdown.Label2.Caption = "Loading"
```

```
        frmshutdown.Show
        LoginSucceeded = True
        Me.Hide
      Else
        errorlbl.Visible = True
        errorimg.Visible = True
        fieldlbl.Visible = False
        fieldblank.Visible = False
        errorlbl.Refresh
        errorimg.Refresh
        passwordtxt.SetFocus
        SendKeys "{Home}+{End}"
      End If
    End If
  End Sub
```

11.2 INPUT OUTPUT FORMS

BASELIOS POULOSE II CATHOLICOS COLLEGE PIRAVOM

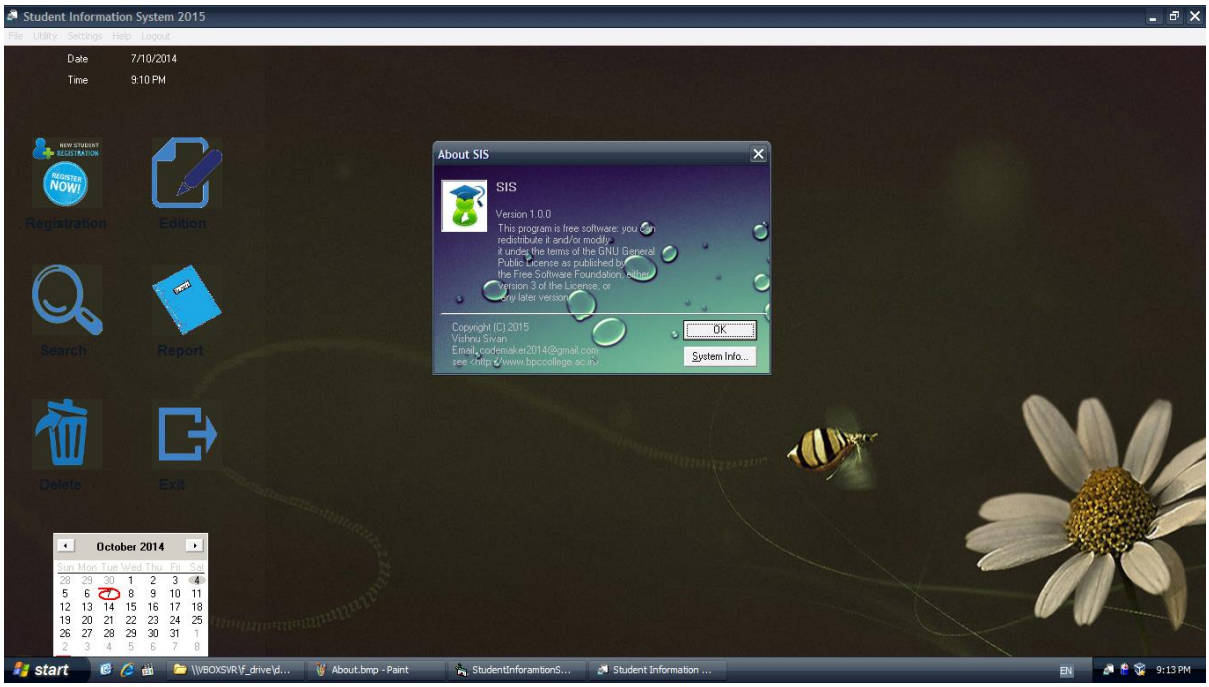
STUDENT INFORMATION SYSTEM

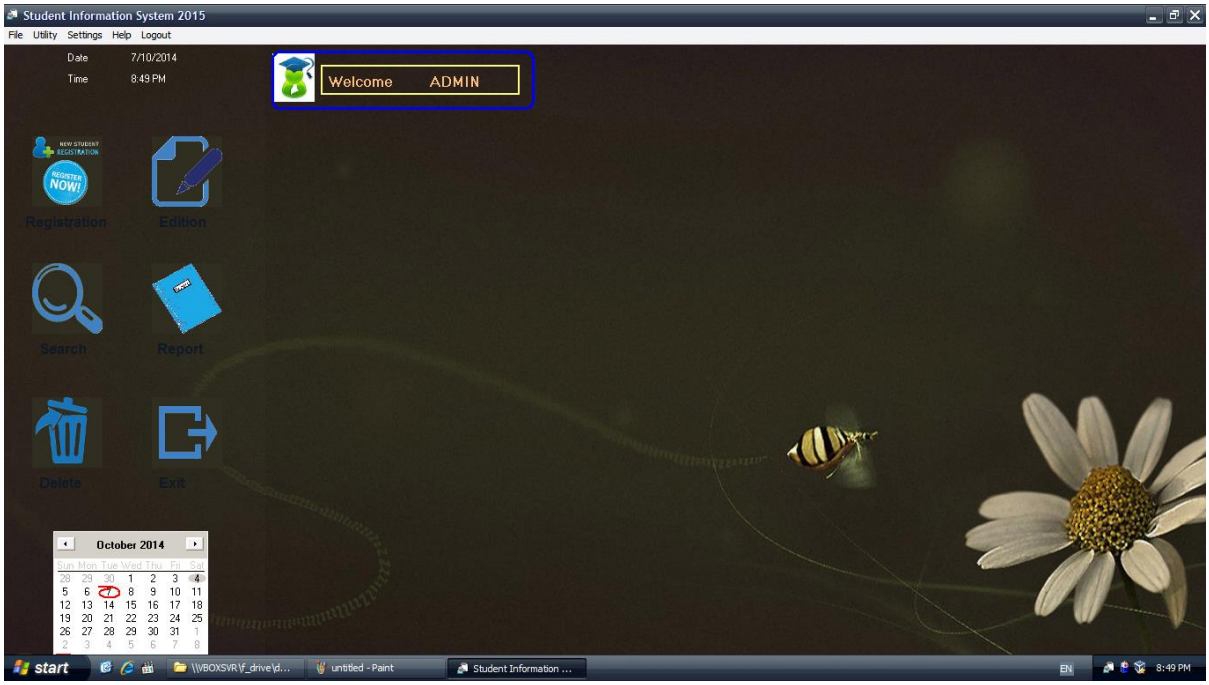
For use by Authorized Personnel Only....

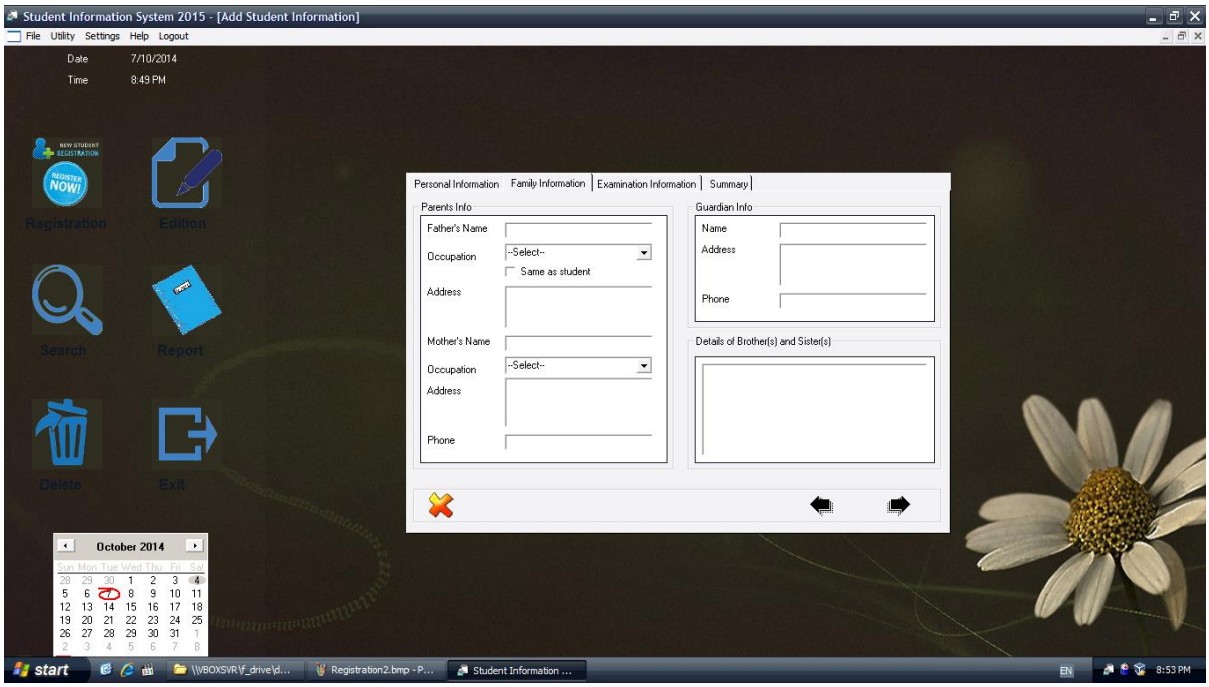
User Name : ADMIN

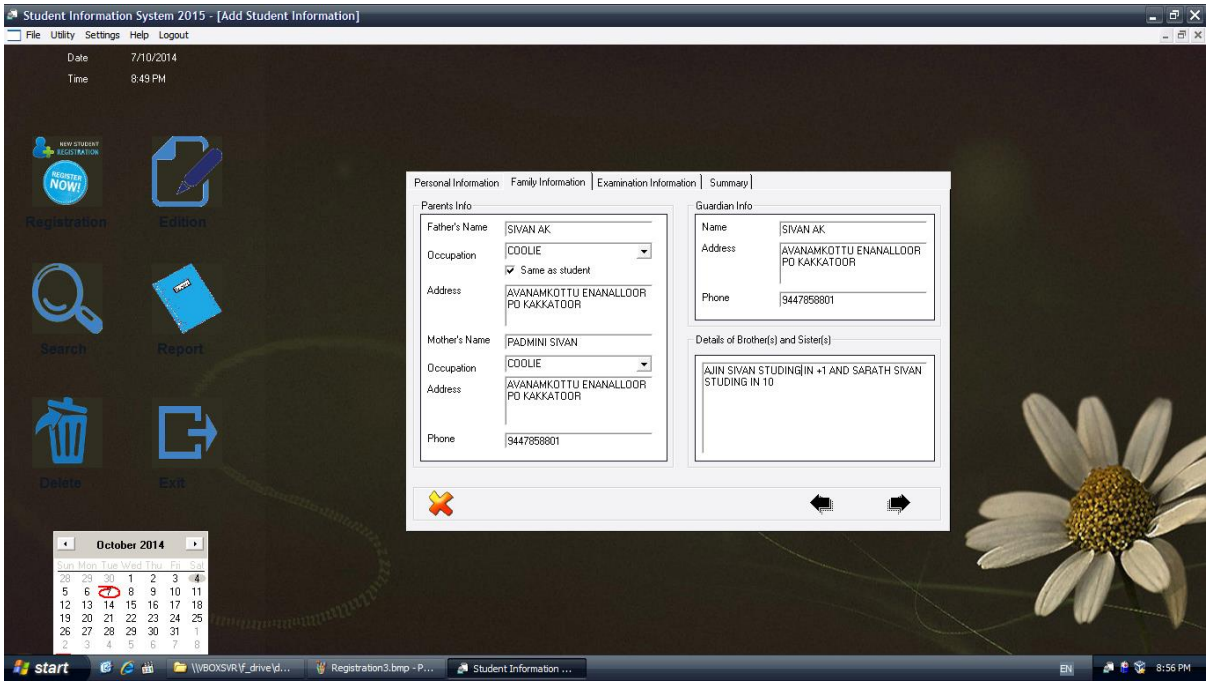
Password :

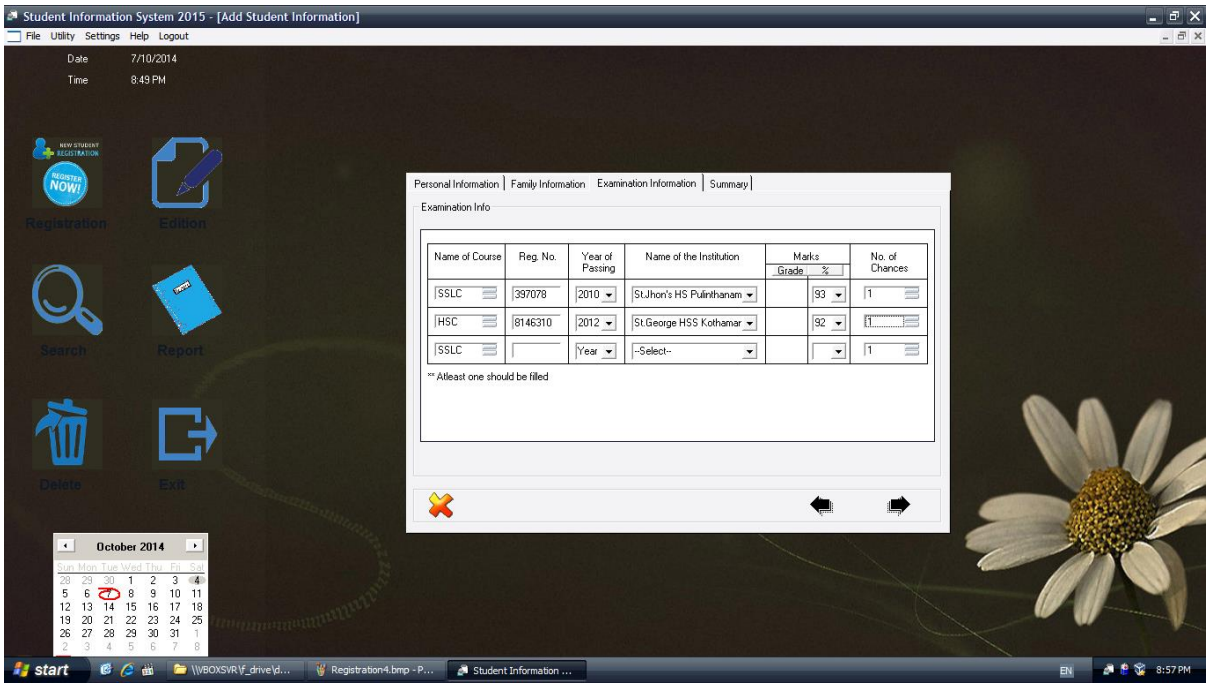
Login

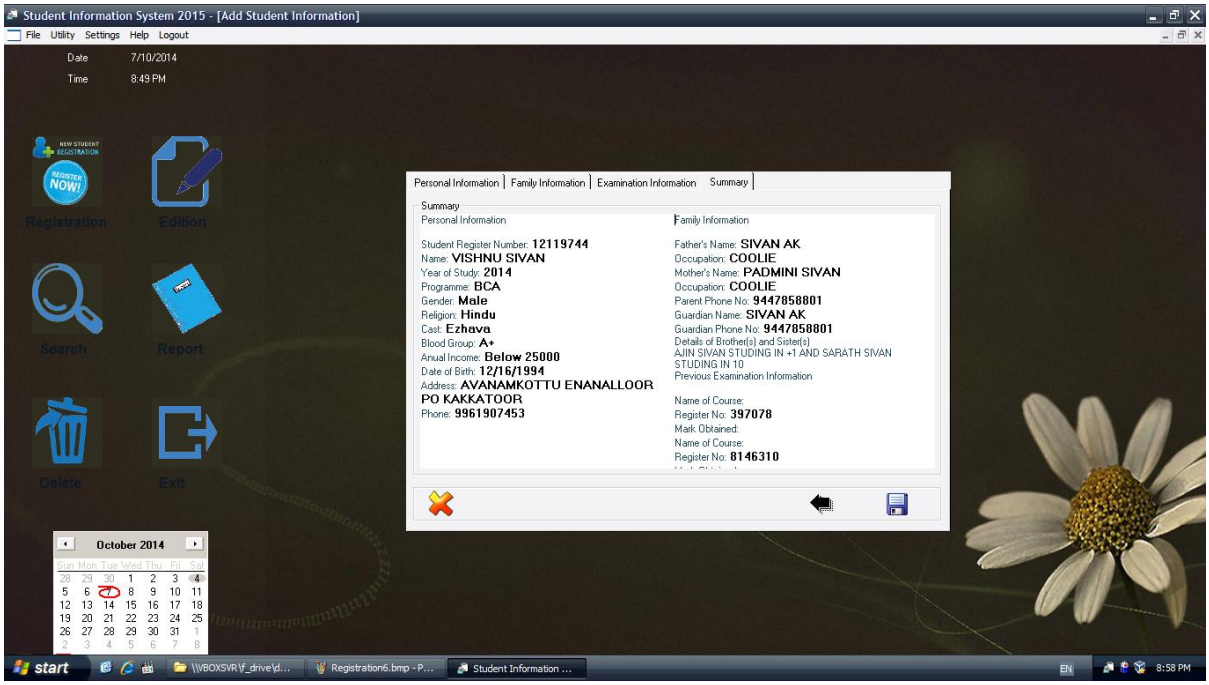


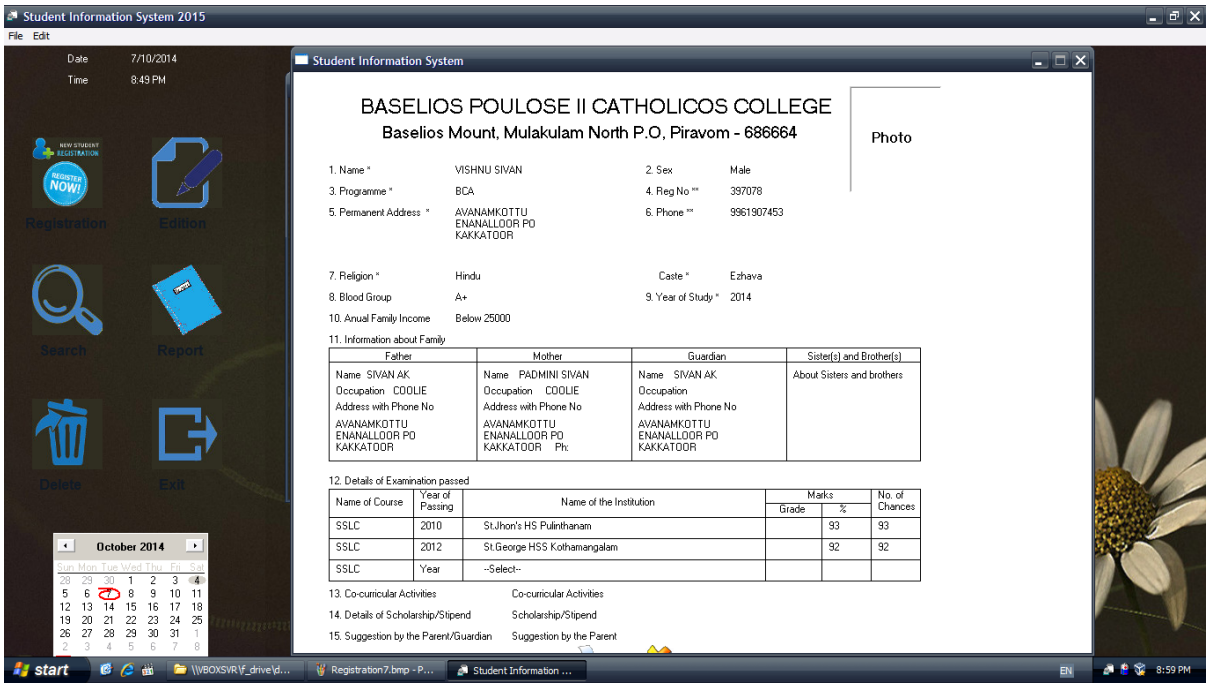

Student Information System 2015
File Utility Settings Help Logout
Date 7/10/2014
Time 8:49 PM
Welcome ADMIN
Registration
Edition
Search
Report
Delete
Exit
October 2014
start
8:49 PM

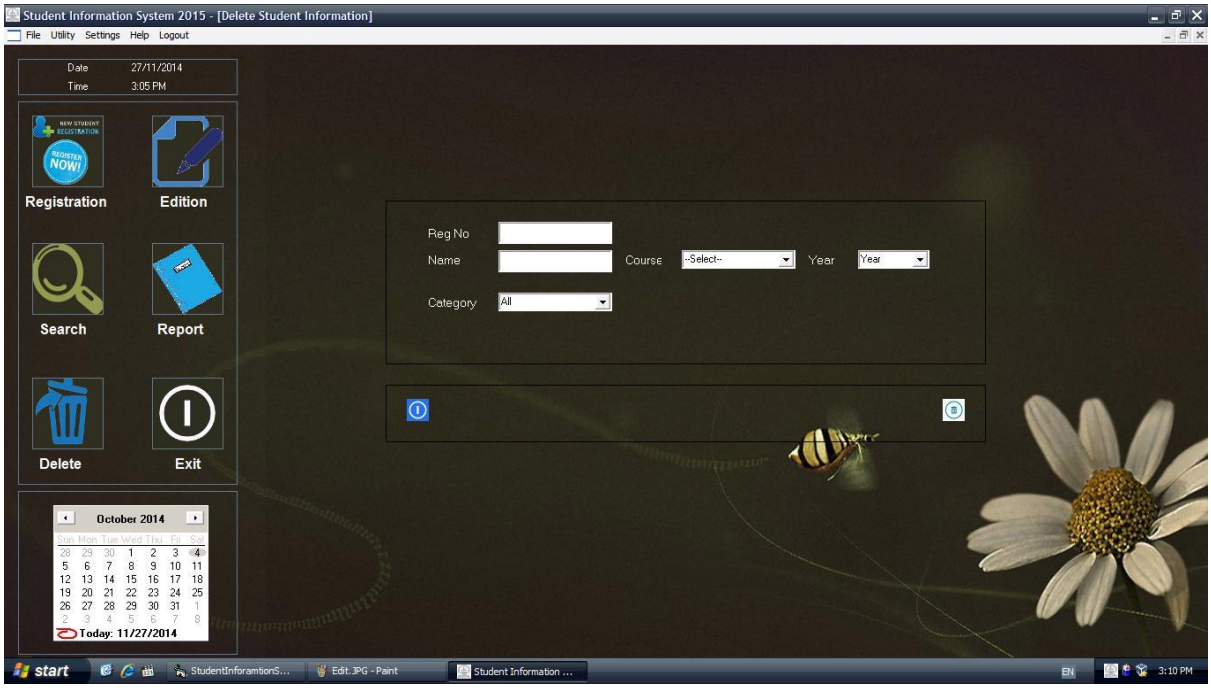

Student Information System 2015 - [Add Student Information]
File Utility Settings Help Logout
Date 7/10/2014
Time 8:49 PM
Personal Information
Family Information
Examination Information
Summary
Parents Info
Father's Name
Occupation
--Select--
Same as student
Address
Mother's Name
Occupation
--Select--
Address
Phone
Guardian Info
Name
Address
Phone
Details of Brother(s) and Sister(s)
Registration
Edition
Search
Report
Delete
Exit
October 2014
start
8:53 PM

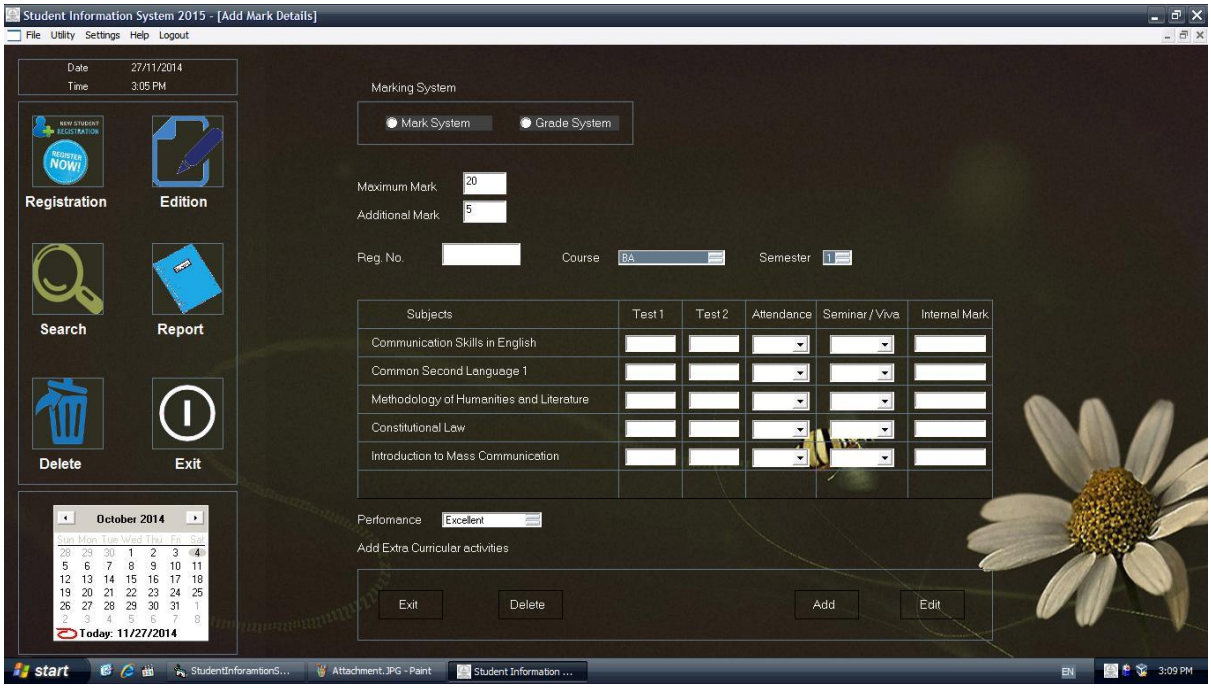

Student Information System 2015 - [Add Student Information]
File Utility Settings Help Logout
Date 7/10/2014
Time 8:49 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Personal Information | Family Information | Examination Information | Summary
Parents Info
Father's Name SIVAN AK
Occupation COOLIE
Same as student
Address AVANAMKOTTU ENANALLOOR PO KAKKATOOR
Mother's Name PADMINI SIVAN
Occupation COOLIE
Address AVANAMKOTTU ENANALLOOR PO KAKKATOOR
Phone 9447858801
Guardian Info
Name SIVAN AK
Address AVANAMKOTTU ENANALLOOR PO KAKKATOOR
Phone 9447858801
Details of Brother(s) and Sister(s)
AJIN SIVAN STUDING IN +1 AND SARATH SIVAN STUDING IN 10
start
Registration3.bmp - P...
Student Information ...
8:56 PM

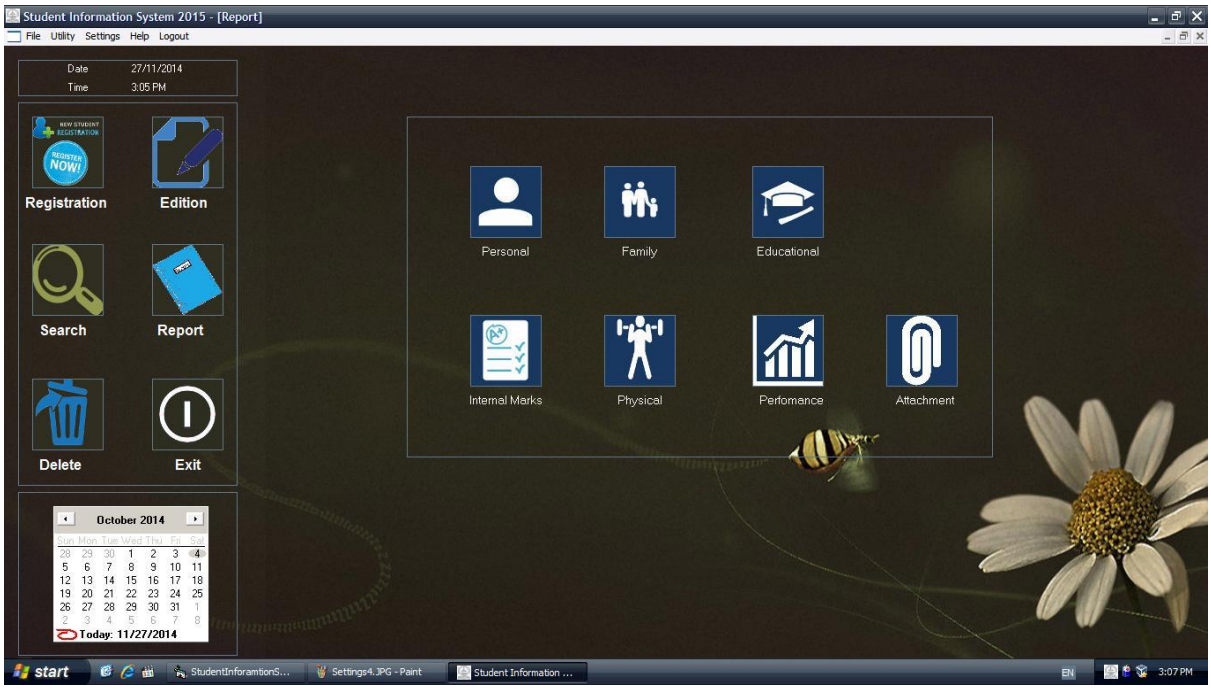

Student Information System 2015 - [Add Student Information]
File Utility Settings Help Logout
Date 7/10/2014
Time 8:49 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Personal Information | Family Information | Examination Information | Summary
Examination Info
Name of Course | Reg. No. | Year of Passing | Name of the Institution | Marks Grade % | No. of Chances
SSLC 397078 2010 St.Jhon's HS Pulinthanam 93 1
HSC 8146310 2012 St.George HSS Kothamar 92 1
SSLC Year --Select-- 1
** Atleast one should be filled
start
Registration4.bmp - P...
Student Information ...
8:57 PM

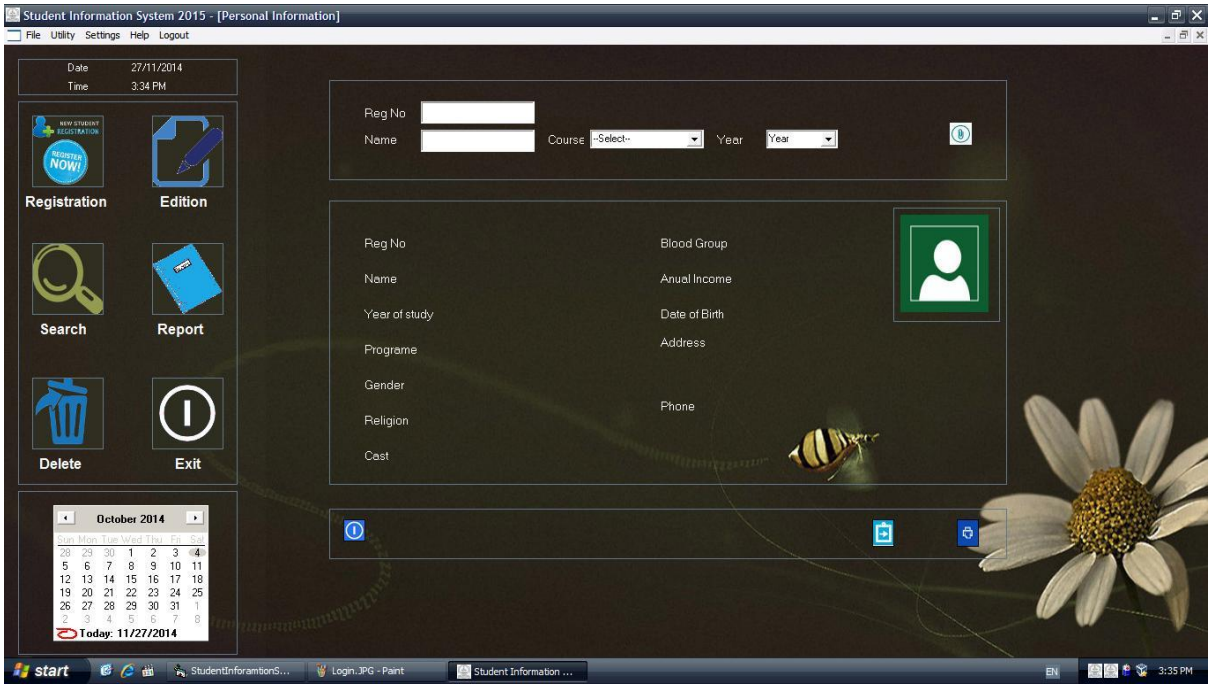

Student Information System 2015 - [Add Student Information]
File Utility Settings Help Logout
Date 7/10/2014
Time 8:49 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Personal Information | Family Information | Examination Information | Summary
Summary
Personal Information
Student Register Number: 12119744
Name: VISHNU SIVAN
Year of Study: 2014
Programme: BCA
Gender: Male
Religion: Hindu
Cast: Ezhava
Blood Group: A+
Anual Income: Below 25000
Date of Birth: 12/16/1994
Address: AVANAMKOTTU ENANALLOOR
PO KAKKATOOR
Phone: 9961907453
Family Information
Father's Name: SIVAN AK
Occupation: COOLIE
Mother's Name: PADMINI SIVAN
Occupation: COOLIE
Parent Phone No: 9447858801
Guardian Name: SIVAN AK
Guardian Phone No: 9447858801
Details of Brother(s) and Sister(s)
AJIN SIVAN STUDING IN +1 AND SARATH SIVAN STUDING IN 10
Previous Examination Information
Name of Course:
Register No: 397078
Mark Obtained:
Name of Course:
Register No: 8146310
start
Student Information ...
8:58 PM

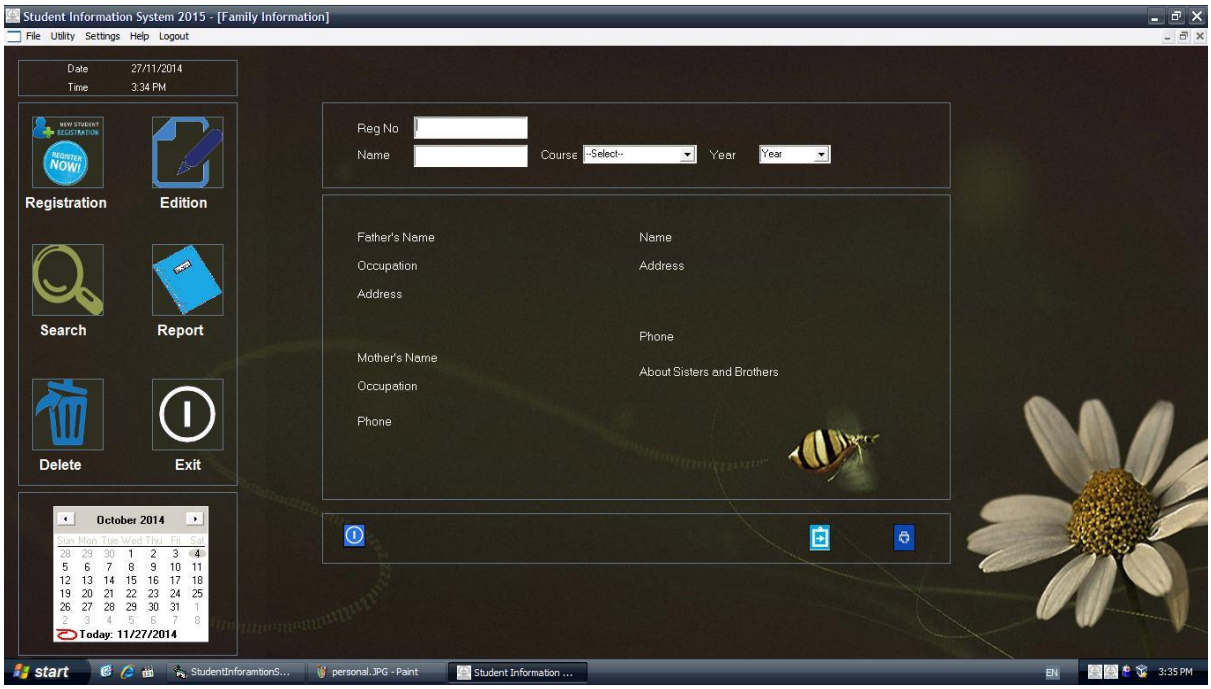

Student Information System 2015
File Edit
Date 7/10/2014
Time 8:49 PM
Student Information System
BASELIOS POULOSE II CATHOLICOS COLLEGE
Baselios Mount, Mulakulam North P.O, Piravom - 686664
Photo
1. Name * VISHNU SIVAN
2. Sex Male
3. Programme * BCA
4. Reg No ** 397078
5. Permanent Address * AVANAMKOTTU ENANALLOOR PO KAKKATOOR
6. Phone ** 9961907453
7. Religion * Hindu
Caste * Ezhava
8. Blood Group A+
9. Year of Study * 2014
10. Anual Family Income Below 25000
11. Information about Family
Father: Name SIVAN AK, Occupation COOLIE, Address with Phone No AVANAMKOTTU ENANALLOOR PO KAKKATOOR
Mother: Name PADMINI SIVAN, Occupation COOLIE, Address with Phone No AVANAMKOTTU ENANALLOOR PO KAKKATOOR Ph:
Guardian: Name SIVAN AK, Occupation, Address with Phone No AVANAMKOTTU ENANALLOOR PO KAKKATOOR
Sister(s) and Brother(s): About Sisters and brothers
12. Details of Examination passed
Name of Course | Year of Passing | Name of the Institution | Marks: Grade | Marks: % | No. of Chances
SSLC | 2010 | St.Jhon's HS Pulinthanam | | 93 | 93
SSLC | 2012 | St.George HSS Kothamangalam | | 92 | 92
SSLC | Year | --Select-- | | |
13. Co-curricular Activities Co-curricular Activities
14. Details of Scholarship/Stipend Scholarship/Stipend
15. Suggestion by the Parent/Guardian Suggestion by the Parent
October 2014
start
Student Information ...
8:59 PM

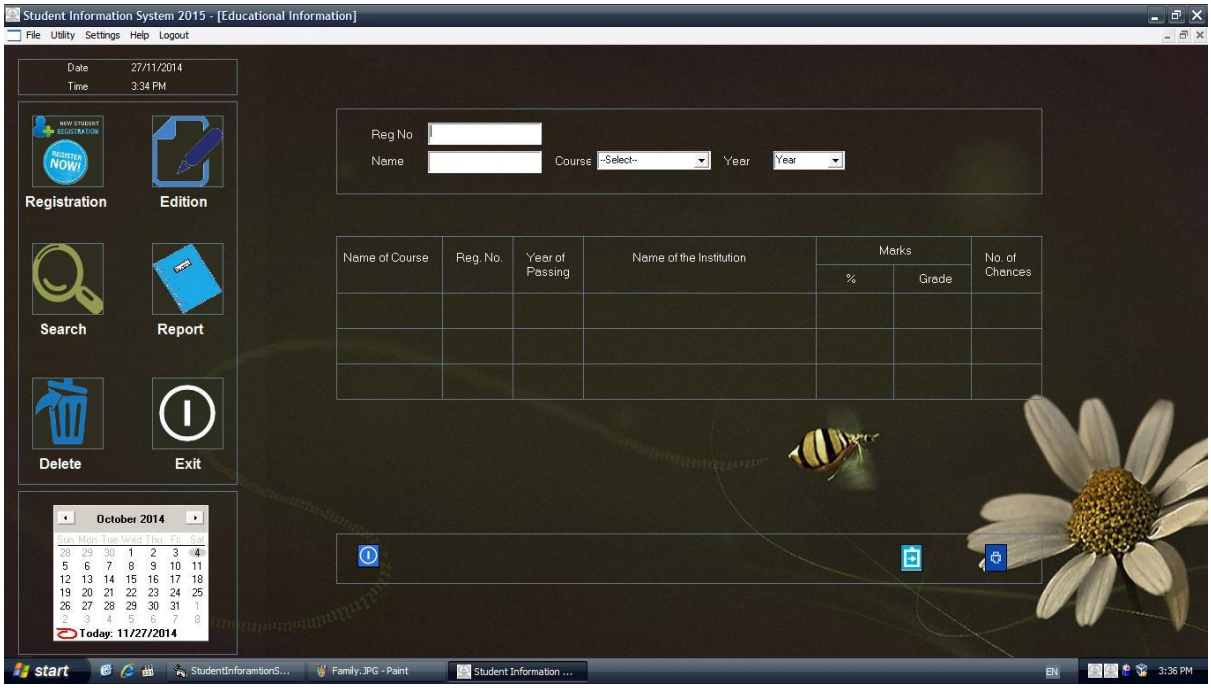

Student Information System 2015 - [Delete Student Information]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Reg No
Name
Course
--Select--
Year
Year
Category
All
start
StudentInforamtionS...
Edit.JPG - Paint
Student Information ...
EN
3:10 PM

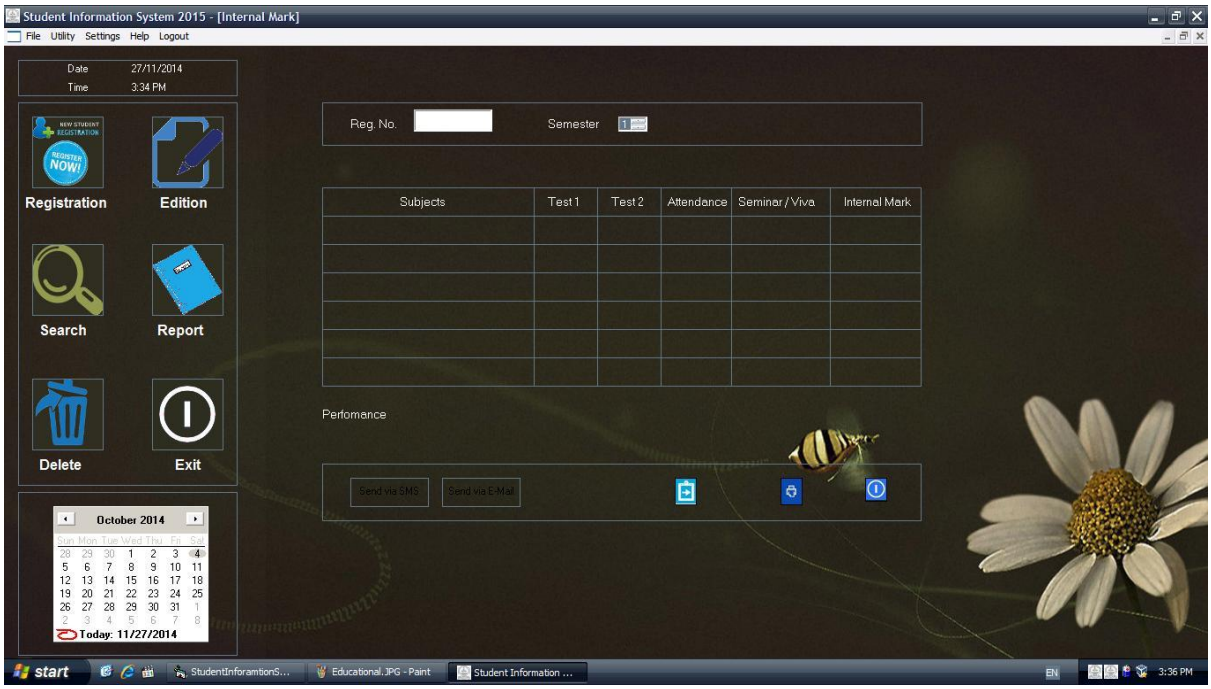

Student Information System 2015 - [Add Mark Details]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Marking System
Mark System
Grade System
Maximum Mark 20
Additional Mark 5
Reg. No.
Course BA
Semester 1
Subjects
Test 1
Test 2
Attendance
Seminar / Viva
Internal Mark
Communication Skills in English
Common Second Language 1
Methodology of Humanities and Literature
Constitutional Law
Introduction to Mass Communication
Perfomance Excellent
Add Extra Curricular activities
Exit
Delete
Add
Edit
start
StudentInforamtionS...
Attachment.JPG - Paint
Student Information ...
EN
3:09 PM

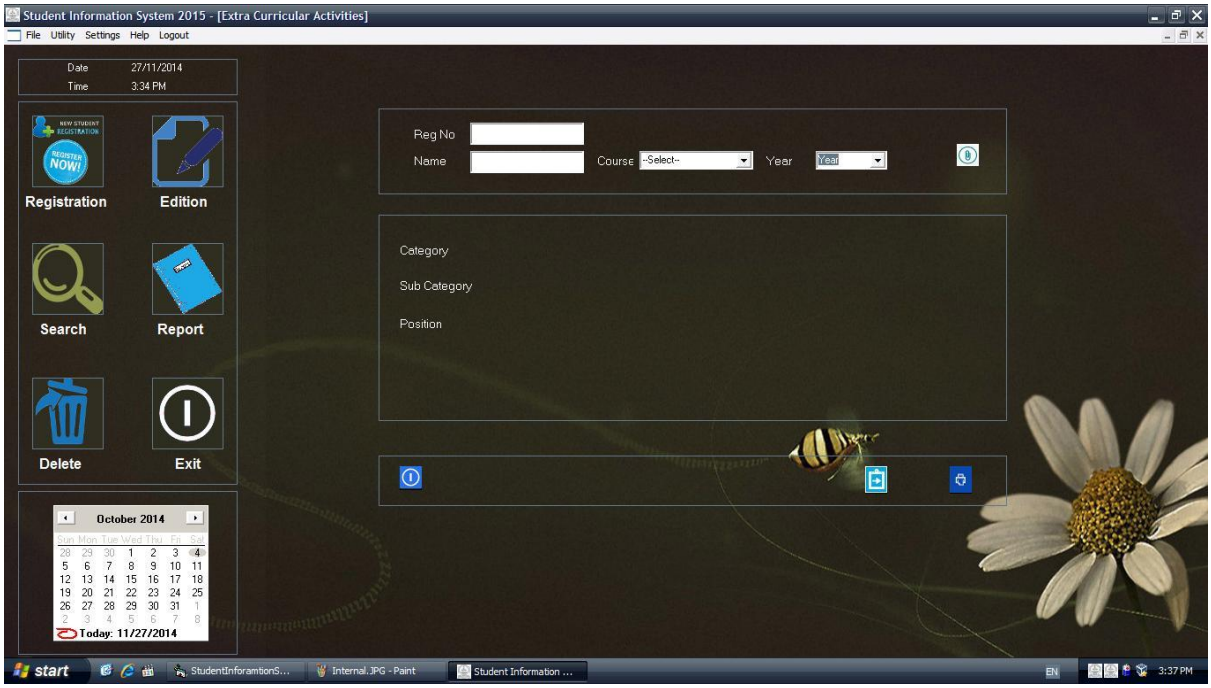

Student Information System 2015 - [Report]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Personal
Family
Educational
Internal Marks
Physical
Perfomance
Attachment
start
StudentInforamtionS...
Settings4.JPG - Paint
Student Information ...
EN
3:07 PM

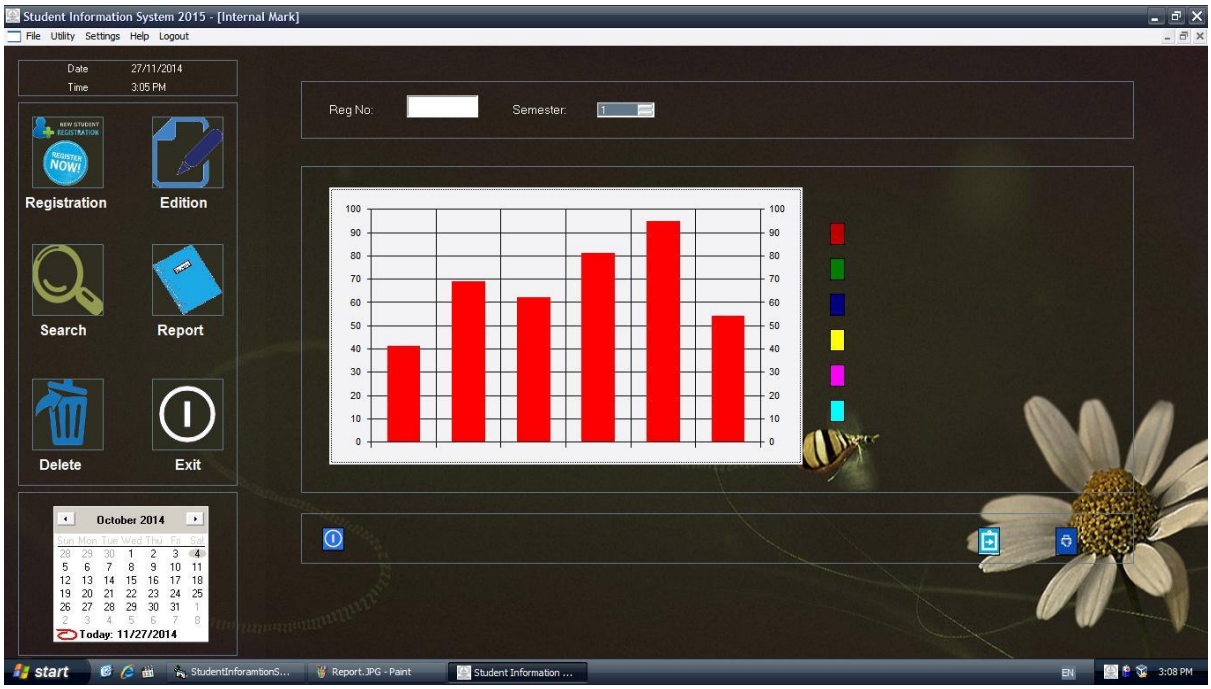

Student Information System 2015 - [Personal Information]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:34 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Reg No
Name
Course -Select-
Year Year
Reg No
Name
Year of study
Programe
Gender
Religion
Cast
Blood Group
Anual Income
Date of Birth
Address
Phone
start
StudentInforamtionS...
Login.JPG - Paint
Student Information ...
EN
3:35 PM

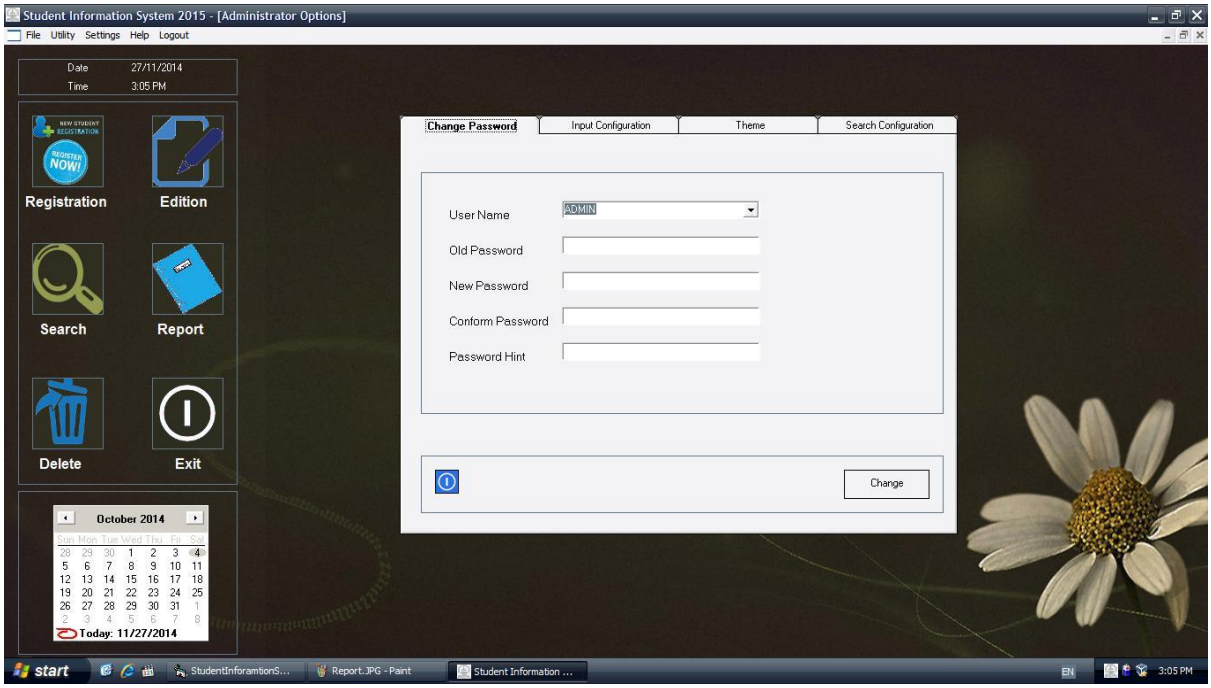

Student Information System 2015 - [Family Information]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:34 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Reg No
Name
Course -Select-
Year Year
Father's Name
Occupation
Address
Mother's Name
Occupation
Phone
Name
Address
Phone
About Sisters and Brothers
start
StudentInforamtionS...
personal.JPG - Paint
Student Information ...
EN
3:35 PM

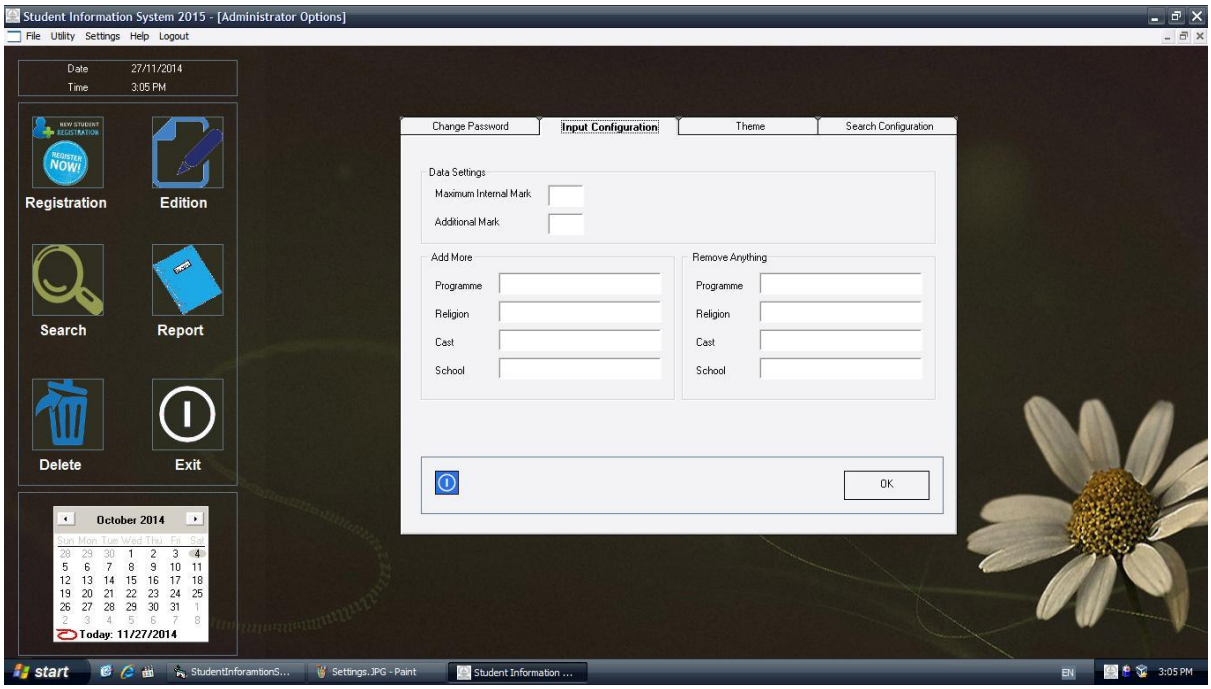

Student Information System 2015 - [Educational Information]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:34 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Reg No
Name
Course --Select--
Year Year
Name of Course
Reg. No.
Year of Passing
Name of the Institution
Marks
%
Grade
No. of Chances
start
StudentInforamtionS...
Family.JPG - Paint
Student Information ...
EN
3:36 PM

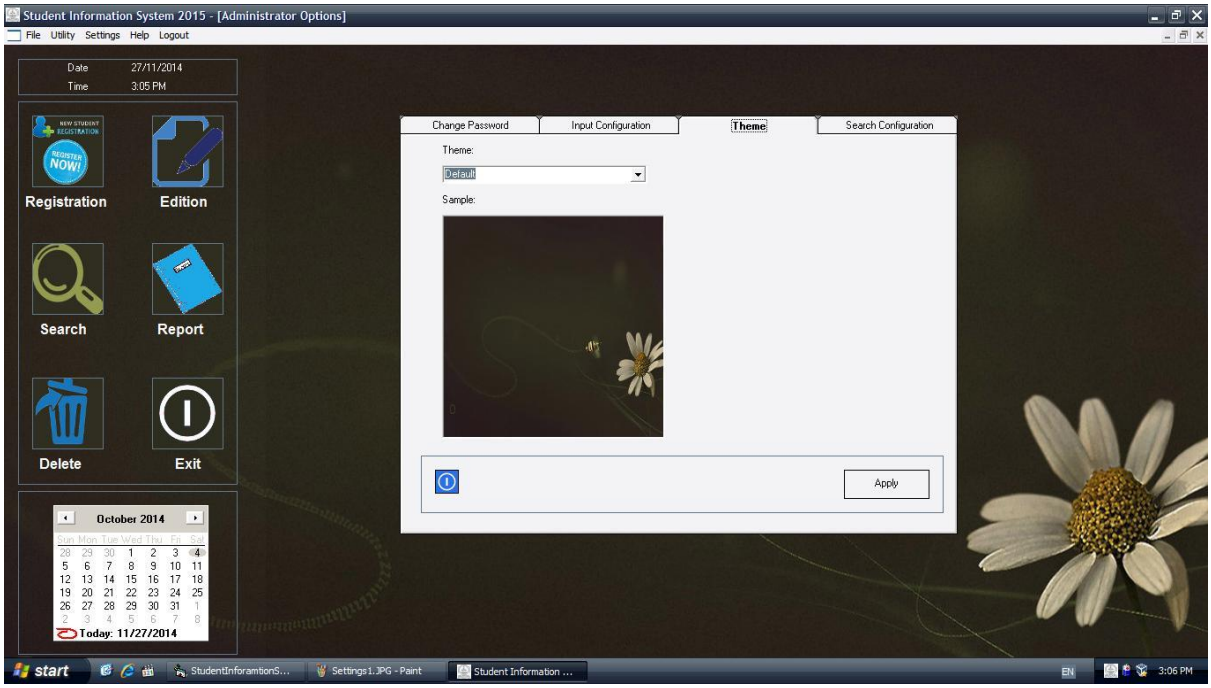

Student Information System 2015 - [Internal Mark]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:34 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Reg. No.
Semester
Subjects
Test 1
Test 2
Attendance
Seminar / Viva
Internal Mark
Perfomance
Send via SMS
Send via E-Mail
start
StudentInforamtionS...
Educational.JPG - Paint
Student Information ...
EN
3:36 PM

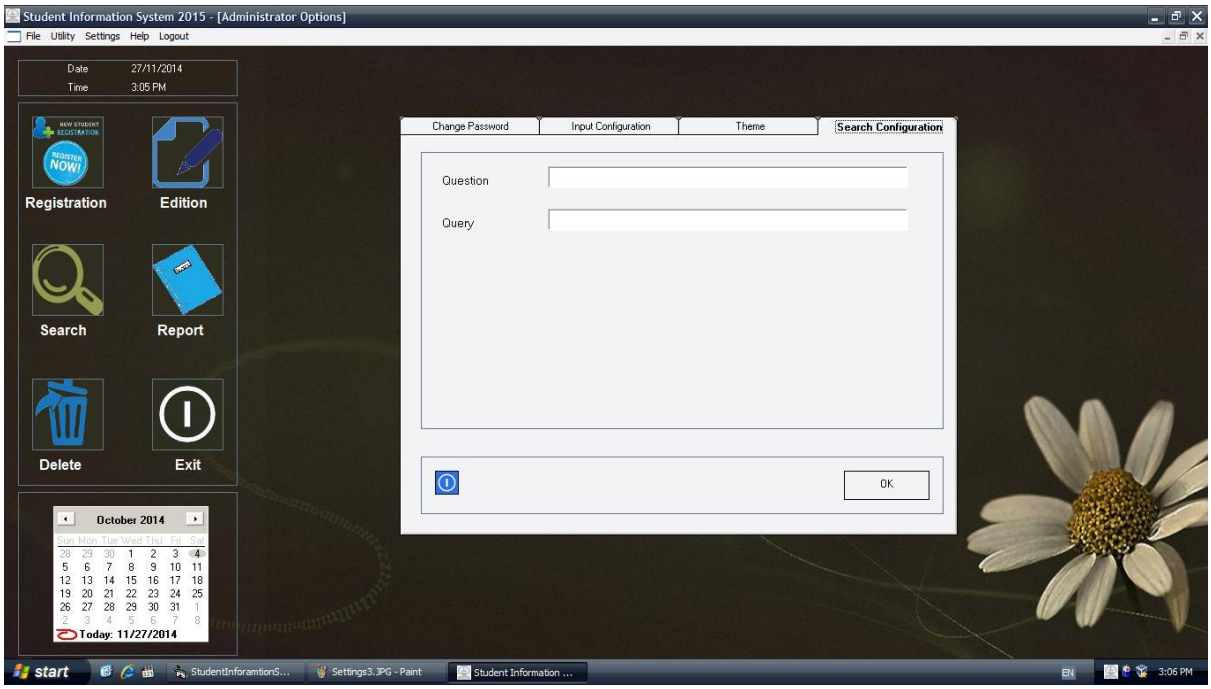

Student Information System 2015 - [Extra Curricular Activities]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:34 PM
Registration
Edition
Search
Report
Delete
Exit
Reg No
Name
Course --Select--
Year Year
Category
Sub Category
Position
October 2014
Today: 11/27/2014
start
StudentInforamtionS...
Internal.JPG - Paint
Student Information ...
3:37 PM

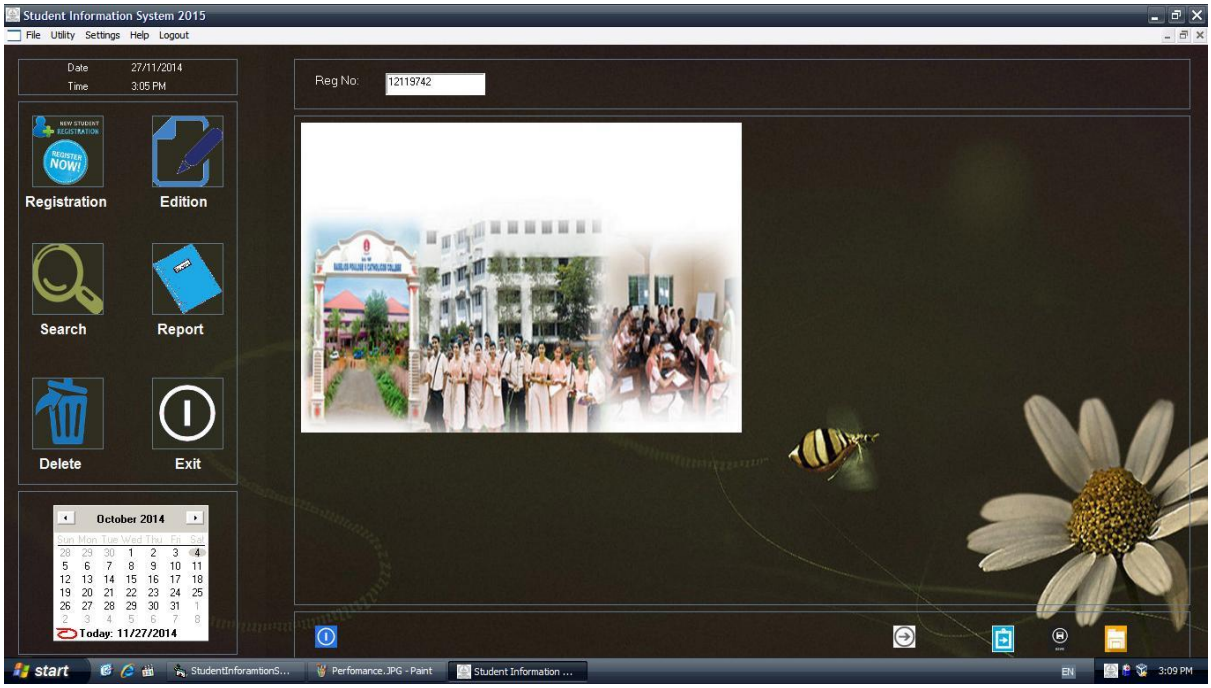

Student Information System 2015 - [Internal Mark]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
Reg No:
Semester:
1
October 2014
Today: 11/27/2014
start
StudentInforamtionS...
Report.JPG - Paint
Student Information ...
3:08 PM


Student Information System 2015 - [Administrator Options]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Change Password
Input Configuration
Theme
Search Configuration
User Name
ADMIN
Old Password
New Password
Conform Password
Password Hint
Change
start
StudentInforamtionS...
Report.JPG - Paint
Student Information ...
EN
3:05 PM


Student Information System 2015 - [Administrator Options]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Change Password
Input Configuration
Theme
Search Configuration
Data Settings
Maximum Internal Mark
Additional Mark
Add More
Programme
Religion
Cast
School
Remove Anything
Programme
Religion
Cast
School
OK
start
StudentInforamtionS...
Settings.JPG - Paint
Student Information ...
EN
3:05 PM


Student Information System 2015 - [Administrator Options]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Change Password
Input Configuration
Theme
Search Configuration
Theme:
Default
Sample:
Apply
start
StudentInforamtionS...
Settings1.JPG - Paint
Student Information ...
3:06 PM


Student Information System 2015 - [Administrator Options]
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
Change Password
Input Configuration
Theme
Search Configuration
Question
Query
OK
start
StudentInforamtionS...
Settings3.JPG - Paint
Student Information ...
3:06 PM


Student Information System 2015
File Utility Settings Help Logout
Date 27/11/2014
Time 3:05 PM
Reg No: 12119742
Registration
Edition
Search
Report
Delete
Exit
October 2014
Today: 11/27/2014
start
StudentInforamtionS...
Perfomance.JPG - Paint
Student Information ...
3:09 PM