

Topic:

STUDENTS MANAGEMENT SYSTEM

Presented to Naijahacks

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by

Team vision builders

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INTRODUCTION

Student Management System is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. It is very time consuming and costly. Our Student Management System deals with the various activities related to the students.

There are mainly 3 modules in this software

- User module
- Student Module
- Mark management

In the Software we can register as a user and user has of two types, student and administrator. Administrator has the power to add new user and can edit and delete a user. A student can register as user and can add edit and delete his profile. The administrator can add edit and delete marks for the student. All the users can see the marks.

SYSTEM ANALYSIS

EXISTING SYSTEM

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- what all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system.

During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram, interviews, etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the frame work of the solution. Thus it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs.

System analysis can be categorized into four parts.

- ✓ System planning and initial investigation
- ✓ Information Gathering
- ✓ Applying analysis tools for structured analysis
- ✓ Feasibility study

✓ Cost/ Benefit analysis.

In the current system we need to keep a number of records related to the student and want to enter the details of the student and the marks manually. In this system only the teacher or the school authority views the mark of the student and they want to enter the details of the student. This is time consuming and has much cost.

PROPOSED SYSTEM

In our proposed system we have the provision for adding the details of the students by themselves. So the overhead of the school authorities and the teachers is become less. Another advantage of the system is that it is very easy to edit the details of the student and delete a student when it found unnecessary. The marks of the student are added in the database and so students can also view the marks whenever they want.

Our proposed system has several advantages

- User friendly interface
- Fast access to database
- Less error
- More Storage Capacity
- Search facility
- Look and Feel Environment
- Quick transaction

All the manual difficulties in managing the student details in a school or college have been rectified by implementing computerization.

FEASIBILITY ANALYSIS

Whatever we think need not be feasible .It is wise to think about the feasibility of any problem we undertake. Feasibility is the study of impact, which happens in the organization by the development of a system. The impact can be either positive or negative. When the positives nominate the negatives, then the system is considered feasible. Here the feasibility study can be performed in two ways such as technical feasibility and Economical Feasibility.

Technical Feasibility:

We can strongly says that it is technically feasible, since there will not be much difficulty in getting required resources for the development and maintaining the system as well. All the resources needed for the development of the software as well as the maintenance of the same is available in the organization here we are utilizing the resources which are available already.

Economical Feasibility

Development of this application is highly economically feasible .The organization needed not spend much money for the development of the system already available. The only

thing is to be done is making an environment for the development with an effective supervision. If we are doing so, we can attain the maximum usability of the corresponding resources. Even after the development, the organization will not be in condition to invest more in the organization. Therefore, the system is economically feasible.

HARDWARE CONFIGURATION

Processor	:	Pentium III 630MHz
RAM	:	128 MB
Hard Disk	:	20GB
Monitor	:	15" Color monitor
Key Board	:	122 Keys

SOFTWARE CONFIGURATION

Operating System : Windows NT,

Windows 98,

Windows XP.

Language : Java 2 Runtime Environment

Database : MS Access2007.

SYSTEM REQUIREMENTS

This management system can be used in windows 98, Windows2000, Windows XP and Windows NT, supported for other platform such as Applet, Macintosh and UNIX.

The system must be running Windows 98, Windows 98 or Windows NT4.0 operating system and must meet the following hardware requirements.

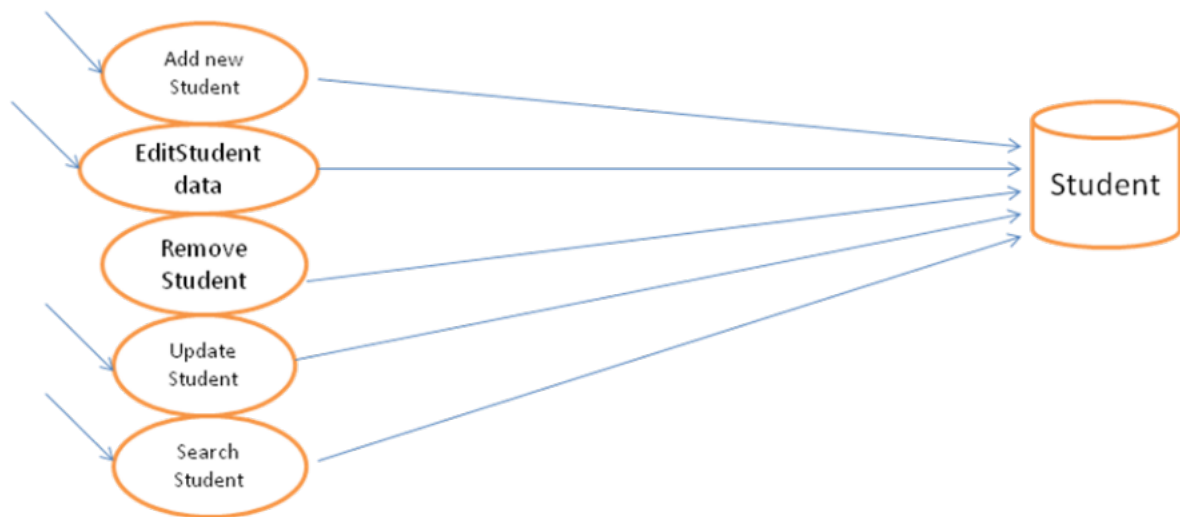
- For Windows 95 based computers , a 486 / 66 MHz or higher processor with 8MB
- For Windows 98 based computers , a 500/88MHz or higher processor with 32 Mb of RAM
- For Windows NT based computers , a 486 / 66 MHz or higher processor with 16 MB of RAM
- For Windows 200 based computers , a 700/850 MHz or higher processor with 512 MB of Ram

DATA FLOWDIAGRAM

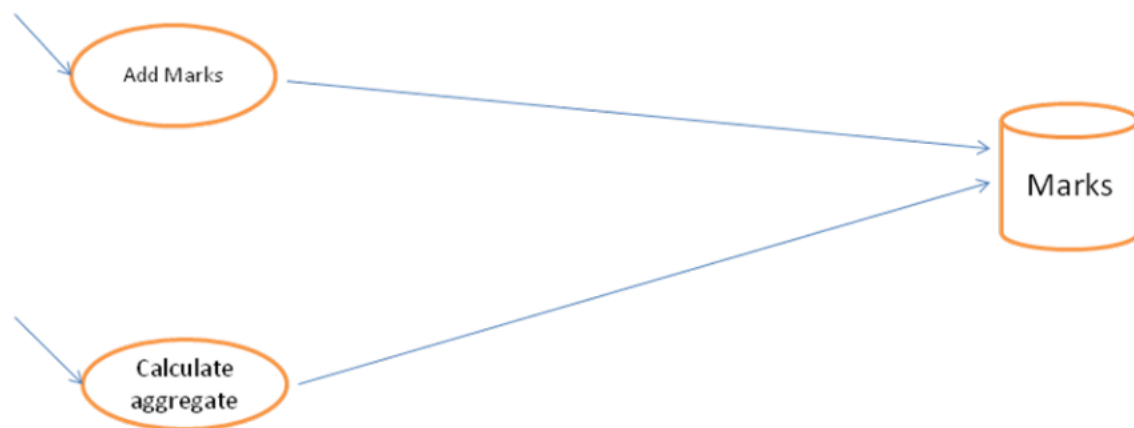
Context Diagram



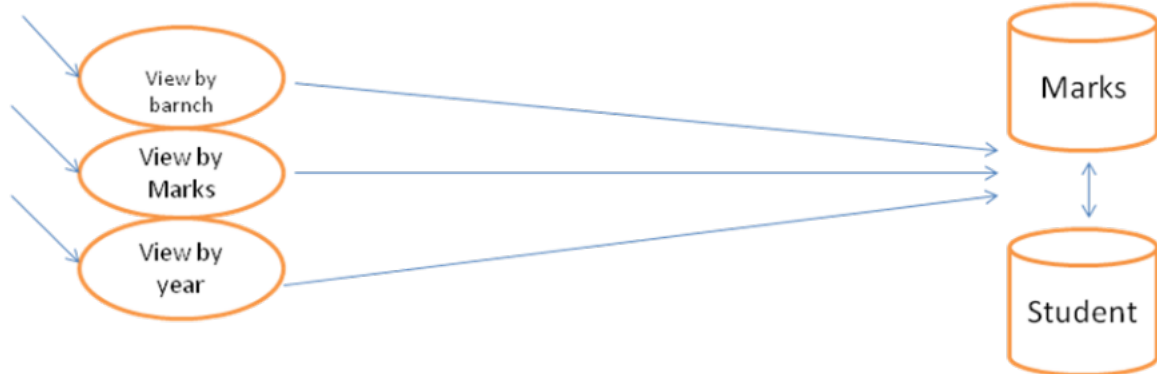
▣ Level 1



Level 1



Level 1

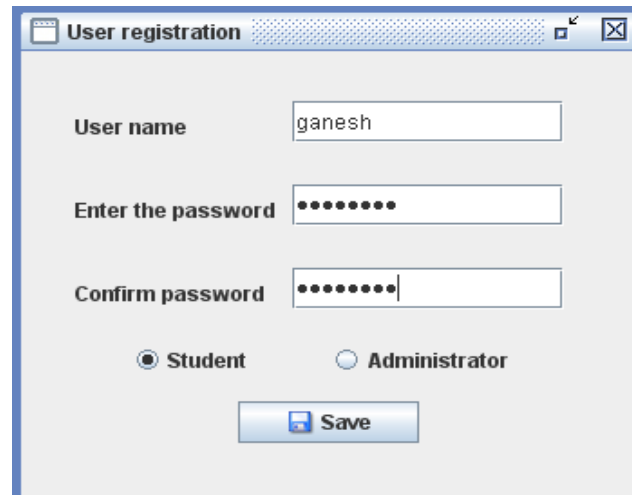


SOFTWARE INTERFACE

Login

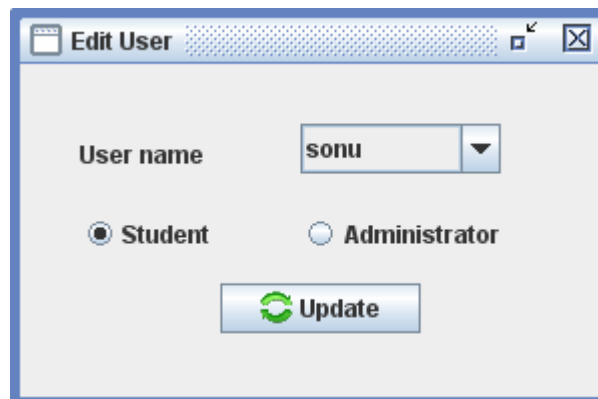
A screenshot of a Windows-style dialog box titled "Login ...". The dialog box has a light gray background and a blue title bar with standard minimize, maximize, and close buttons. It contains two input fields: "Username" with the text "admin" and "Password" with masked characters ".....". Below the input fields are two buttons: "Login" with a green arrow icon and "Cancel" with a red X icon.

Add New User



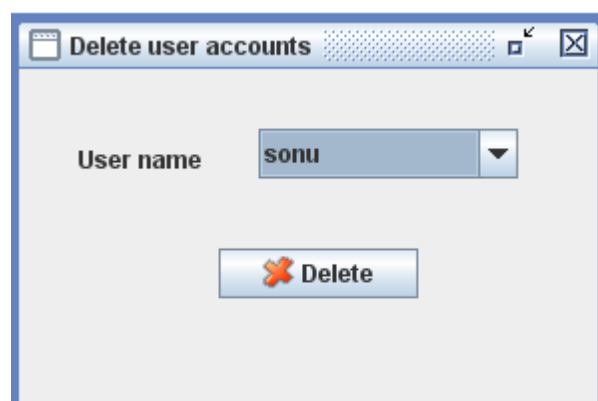
A screenshot of a 'User registration' window. It contains three text input fields: 'User name' with the value 'ganesh', 'Enter the password' with masked characters '.....', and 'Confirm password' with masked characters '.....'. Below the fields are two radio buttons: 'Student' (selected) and 'Administrator'. At the bottom is a 'Save' button with a floppy disk icon.

Edit User Type



A screenshot of an 'Edit User' window. It features a 'User name' field with a dropdown menu showing 'sonu'. Below this are two radio buttons: 'Student' (selected) and 'Administrator'. At the bottom is an 'Update' button with a circular arrow icon.

Delete User



A screenshot of a 'Delete user accounts' window. It has a 'User name' field with a dropdown menu showing 'sonu'. At the bottom is a 'Delete' button with a red 'X' icon.

Student Registration

New Student Registration

Admission no

1

Name

Kumar

Age

25

Phone no

2695845

Religion

Hindu

Sex

MALE

House Name

KK House

Father's name

Ganesh

City

Kollam

Occupation

Driver

District

Kollam

Mother's name

Radha

State

Kerla

DOB

11/10/1984

Pin

695214

Caste

Nair

Year

2008

Qualification

PLUS TWO

Save

Cancel

Clear

Edit Student Details

Edit Student Registration

Admission no

15

Name

Kumar

Age

25

Phone no

2695845

Religion

Hindu

Sex

MALE

House Name

KK House

Father's name

Ganesh

City

Kollam

Occupation

Driver

District

Kollam

Mother's name

Radha

State

Kerla

DOB

1984-11-10

Pin

695214

Caste

Nair

Year

2008

Qualification

PLUS TWO

Update

Cancel

View

Delete Student details

Edit Student Registration

Admission no

Name Age

Phone no Religion

Sex House Name

Father's name City




Occupation District

Mother's name State

DOB Pin

Caste Year

Qualification



 Delete  Cancel  View

Add/Edit Mark Details

First Semester marks

Subject Code Internal Theory Practical

Subject	Code	Internal	Theory	Practical	Total Mark
Maths-1	103	6	22	33	61

 Save  close

View Marks

Mark List					
Semester 1		View		Cancel	
Subject	Code	Internal	Theory	Practical	Total
Maths-1	103	6	22	33	61

ViewUser details

Users List											
Refresh Cancel											
<div> <div>USERS LIST</div> <table> <tr> <th>USERNAME</th><th>TYPE</th></tr> <tr> <td>admin</td><td>admin</td></tr> <tr> <td>sonu</td><td>Admin</td></tr> <tr> <td>anil</td><td>Student</td></tr> <tr> <td>beena</td><td>Admin</td></tr> </table> </div>		USERNAME	TYPE	admin	admin	sonu	Admin	anil	Student	beena	Admin
USERNAME	TYPE										
admin	admin										
sonu	Admin										
anil	Student										
beena	Admin										

ViewStudent Details

View student details

Admission no	<input type="text" value="15"/>		
Name	<input type="text" value="Kumar"/>	Age	<input type="text" value="25"/>
Phone no	<input type="text" value="2695845"/>	Religion	<input type="text" value="Hindu"/>
Sex	<input type="text" value="MALE"/>	House Name	<input type="text" value="KK House"/>
Father's name	<input type="text" value="Ganesh"/>	City	<input type="text" value="Kollam"/>
Occupation	<input type="text" value="Driver"/>	District	<input type="text" value="Kollam"/>
Mother's name	<input type="text" value="Radha"/>	State	<input type="text" value="Kerla"/>
DOB	<input type="text" value="1984-11-10"/>	Pin	<input type="text" value="695214"/>
Caste	<input type="text" value="Nair"/>	Year	<input type="text" value="2008"/>
Qualification	<input type="text" value="PLUS TWO"/>		

Add New Subjects

Add Subjects

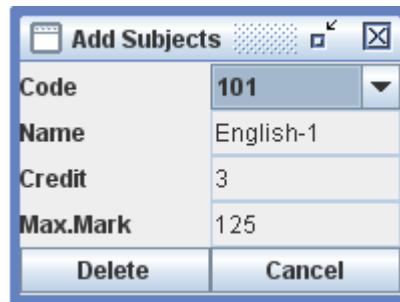
Code	<input type="text"/>
Name	<input type="text"/>
Credit	<input type="text"/>
Max.Mark	<input type="text"/>
Type	<input type="text" value="COUNTING"/>

Edit Subject details

Add Subjects

Code	<input type="text" value="101"/>
Name	<input type="text" value="English-1"/>
Credit	<input type="text" value="3"/>
Max.Mark	<input type="text" value="125"/>
Type	<input type="text" value="COUNTING"/>

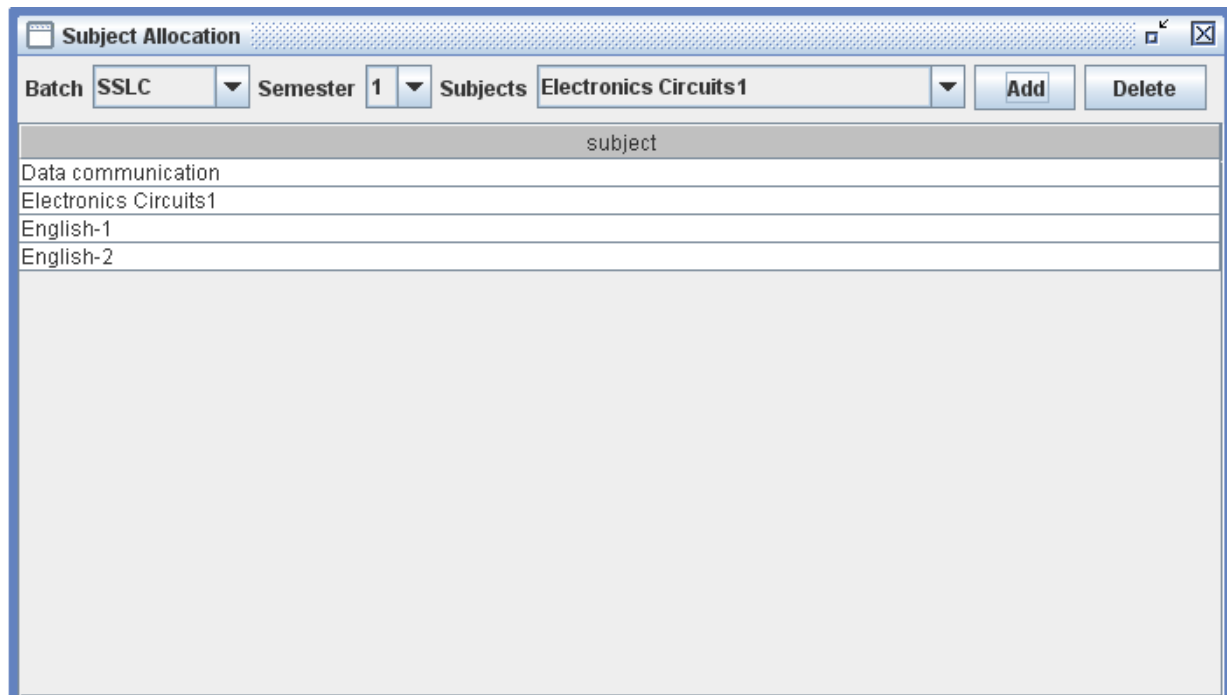
Delete Subject details



A dialog box titled "Add Subjects" with a close button in the top right corner. It contains four input fields: "Code" with a dropdown menu showing "101", "Name" with a text field containing "English-1", "Credit" with a text field containing "3", and "Max.Mark" with a text field containing "125". At the bottom, there are two buttons: "Delete" and "Cancel".

Code	101
Name	English-1
Credit	3
Max.Mark	125
<div>Delete Cancel</div>	

Subject Allocation



A window titled "Subject Allocation" with a close button in the top right corner. It features a header section with four dropdown menus: "Batch" (SSLC), "Semester" (1), and "Subjects" (Electronics Circuits1). To the right of these are "Add" and "Delete" buttons. Below the header is a table with a single column labeled "subject". The table contains four rows: "Data communication", "Electronics Circuits1", "English-1", and "English-2". The rest of the window is a large, empty light gray area.

subject
Data communication
Electronics Circuits1
English-1
English-2

SYSTEM DESIGN

INPUT DESIGN

Input design is the process of converting user-oriented input to a computer based format. Input design is a part of overall system design, which requires very careful attention. Often the collection of input data is the most expensive part of the system. The main objectives of the input design are ...

1. Produce cost effective method of input
2. Achieve highest possible level of accuracy
3. Ensure that the input is acceptable to and understood by the staff.

Input Data

The goal of designing input data is to make entry easy, logical and free from errors as possible. The entering data entry operators need to know the allocated space for each field; field sequence and which must match with that in the source document. The format in which the data fields are entered should be given in the input form. Here data entry is online; it makes use of processor that accepts commands and data from the operator through a key board. The input required is analyzed by the processor. It is then accepted or rejected. Input stages include the following processes

- Data Recording
- Data Transcription
- Data Conversion
- Data Verification
- Data Control
- Data Transmission
- Data Correction

One of the aims of the system analyst must be to select data capture method and

devices, which reduce the number of stages so as to reduce both the chances of errors and the cost. Input types, can be characterized as.

- External
- Internal
- Operational
- Computerized
- Interactive

Input files can exist in document form before being input to the computer. Input design is rather complex since it involves procedures for capturing data as well as inputting it to the computer.

OUTPUT DESIGN

Outputs from computer systems are required primarily to communicate the results of processing to users. They are also used to provide a permanent copy of these results for latter consultation. Computer output is the most important and direct source of information to the users. Designing computer output should proceed in an organized well thought out manner. The right output must be available for the people who find the system easy to use. The outputs have been defined during the logical design stage. If not, they should be defined at the beginning of the output designing terms of types of output, content, format, response etc,

Various types of outputs are

- External outputs

- Internal outputs
- Operational outputs
- Interactive outputs
- Turn around outputs

All screens are informative and interactive in such a way that the user can fulfill his requirements through asking queries.

DATABASE 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 users quickly and effectively. After designing input and output, the analyst must concentrate on database design or how data should be organized around user requirements. The general objective is to make information access, easy quick, inexpensive and flexible for other users. During database design the following objectives are concerned:-

- Controlled Redundancy
- Data independence
- Accurate and integrating
- More information at low cost
- Recovery from failure
- Privacy and security

- Performance
- Ease of learning and use

TABLES USED

Student

Field Name	Data Type	Description
RollNo	Number	Primary Key
SName	Text (50)	-
Phno	Text (15)	-
Sex	Text (10)	-
FName	Text (50)	-
Occupation	Text (50)	-
MName	Text (50)	-
DOB	Date/Time	-
Age	Number	-
Cast e	Text (25)	-
Religion	Text (30)	-
Hname	Text (50)	-
City	Text (50)	-
District	Text (50)	-
State	Text (50)	-
Pin	Text (10)	-
Year	Number	-

Qualification	Text (25)	-
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UAD

Field Name	Data Type	Description
Username	Text (25)	Primary Key
Password	Text (15)	-
Type	Text (15)	-

Subjects

Field Name	Data Type	Description
Subject code	Text (10)	Primary Key
Subject name	Text (50)	-
Credit mark	Number	-
MaxMark	Number	-
Type	Text (25)	-

Subject Allocation

Field Name	Data Type	Description
Subject name	Text (50)	-
Semester	Number	-
Batch	Text (15)	-

SSLC1

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-

Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SSLC2

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SSLC3

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SSLC4

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SSLC5

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SSLC6

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-

Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

PLUSTWO1

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

PLUSTWO2

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

PLUSTW03

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

PLUSTW04

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-
Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

PLUSTW05

Field Name	Data Type	Description
RollNo	Number	-
Subject Name	Text (50)	-
Subject code	Text (15)	-

Internal	Number	-
Theory	Number	-
Practical	Number	-
Total	Number	-

SYSTEM IMPLEMENTATION

Implementation is the stage in the project where the theoretical design is turned into a working system. The implementation phase constructs, installs and operates the new system. The most crucial stage in achieving a new successful system is that it will work efficiently and effectively.

There are several activities involved while implementing a new project. They are

- End user training
- End user Education
- Training on the application software
- System Design
- Parallel Run and To New System
- Post implementation Review

End user Training:

The successful implementation of the new system will purely upon the involvement of the officers working in that department. The officers will be imparted the necessary training

on the new technology

End User Education:

The education of the end user start after the implementation and testing is over. When the system is found to be more difficult to understand and complex, more effort is put to educate the end user to make them aware of the system, giving them lectures about the new system and providing them necessary documents and materials about how the system can do this.

Training of application software:

After providing the necessary basic training on the computer awareness, the users will have to be trained upon the new system such as the screen flows and screen design type of help on the screen, type of errors while entering the data, the corresponding validation check at each entry and the way to correct the data entered. It should then cover information needed by the specific user or group to use the system.

Post Implementation View:

The department is planning a method to know the states of the past implementation process. For that regular meeting will be arranged by the concerned officers about the implementation problem and success.

SOFTWARE TESTING

Is the menu bar displayed in the appropriate contexted some system related features included either in menus or tools? Do pull -Down menu operation and Tool-bars work properly? Are all menu function and pull down sub function properly listed ?; Is it possible to invoke each menu function using a logical assumptions that if all parts of the

system are correct, the goal will be successfully achieved. In adequate testing or non-testing will lead to errors that may appear few months later.

This creates two problems

1. Time delay between the cause and appearance of the problem.
2. The effect of the system errors on files and records within the system

The purpose of the system testing is to consider all the likely variations to which it will be subjected and push the systems to limits.

The testing process focuses on the logical intervals of the software ensuring that all statements have been tested and on functional interval is conducting tests to uncover errors and ensure that defined input will produce actual results that agree with the required results. Program level testing, modules level testing integrated and carried out.

There are two major types of testing they are

- 1) White Box Testing.
- 2) Black Box Testing.

White Box Testing

White box sometimes called "Glass box testing" is a test case design that uses the control structure of the procedural design to drive test cases.

Using white box testing methods, the following tests were made on the system

- a) All independent paths within a module have been exercised once. In our system, ensuring that each case was selected and executed checked all case structures. The bugs that were prevailing in some part of the code were fixed
- b) All logical decisions were checked for the truth and falsity of the values.

Black box Testing

Black box testing focuses on the functional requirements of the software. This is black box

testing enables the software engineering to derive a set of input conditions that will fully exercise all functional requirements for a program. Black box testing is not an alternative to white box testing rather it is complementary approach that is likely to uncover a different class of errors that white box methods like..

- 1) Interface errors
- 2) Performance in data structure
- 3) Performance errors
- 4) Initializing and termination errors

CONCLUSION

Our project is only a humble venture to satisfy the needs in an Institution. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the organization.

The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses. Last but not least it is no the work that played the ways to success but **ALMIGHTY**

Teams - Vision builders

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