**Project Report**

**On**

**“Examination Management System”**

**(***Project Stage 1***)**

Submitted in partial fulfilment of B.Tech. Degree

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**CERTIFICATE**

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**Examination Management System**

**Introduction:-**

Examination Management System is a software developed for the students who give exams in colleges and institutes**.** It facilitates to access the examination information of a particular student in a particular class. The information issorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating examination eligibility criteria of a student.

**Purpose:-**

The purpose of developing examination management system is to computerized the traditional way of taking exams. Another purpose for developing this software is to generate the report automatically about the sitting arrangement during exams at the end of the session or in the between of the session.

**Scope:-**

The scope of the project is the system on which the software is installed, i.e. the project is developed as a desktop application, and it will work for a particular institute. But later on the project can be modified to operate it online.

**Technology Used:-**

Language:-VB.NET

Backend:-MS-SQL

**System Requirement:-**

Minimum RAM:-256 MB

Hard Disk:-40 GB

Processor:-Intel Pentium 4

Operating System:-Windows XP Service Pack2

**Overview:-**

Examination Management System basically has two main modules for proper functioning

* First module is admin which has right for creating new examination cell for new batch and update student results.
* Second module is handled by the user which can be a faulty or an operator. User has a right to see the results.

**Economically Feasibility:**

The system being developed is economic with respect to School or College’s point of view. It is cost effective in the sense that has eliminated the paper work completely.

The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement. The result obtained contains minimum errors and are highly accurate as the data is required.

**Technical feasibility:**

The technical requirement for the system iseconomic and it does not use any other additional Hardware and software.

**Behavioral Feasibility:**

The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system. They can easily work and operate this system.

**Problem Recognition:**

Currently the system used is very slow and inefficient. Report generation is also not easy in the current situation. Also if report is generated then calculations are done manually that lead to more errors. There is a lot of paper work involved in current system and loss of even one paper can lead to improper report generation. All these problems lead to the requirement of developing this module. The purpose of developing this module is to computerize the traditional way of examination management. Another purpose for developing this module is to generate a report automatically at the end of the session or in the between of the session.

**Evaluation and synthesis:**

Current Problems in Manual System:

1. Current system is manual so all the record keeping is done manually. So we cannot determine the sitting arrangement of student if updation is not done.
2. Detained List and attendance list is generated manually by checking all the records.

So keeping in mind the above problems the new system will automate the manual system and will generate the detained list both as user and Administrator perspective. This system is efficient, fast and accurate in comparison to the manual system.

The data objects of the system encompass the records of the students which include Semester wise and branch wise sitting arrangement during the conduct of internal exams. Also the detained list is prepared from this record. The record of attendance of students goes to the system by the administrator and hence the detained list and attendance list are generated.

**Working of Present System**

In the present system all work is done on paper. The whole session attendance is stored in register and at the end of the session the reports are generated. We are interested in generating report during the internal exams of each branch of each semester in the middle of the session or as per the requirement.

DISADVANTAGES OF PRESENT WORKING SYSTEM:-

• **Not User Friendly:** The existing system is not user friendly because the retrieval of data is very slow and data is not maintained efficiently.

• **Difficulty in report generating:** We require more calculations to generate the report so it is generated at the end of the session. And the student not able to know in which class they will sit for exam.

• **Manual control**: All calculations for generating report are done manually which may lead to errors.

• **Lots of paperwork**: Existing system requires lots of paper work. Loss of even a single register/record can lead to difficult situation because all the papers are needed to generate the reports.

• **Time consuming**: Every work is done manually so we cannot generate report in the middle of the session or as per the requirement because it is very time consuming.

**CHARACTERISTIC OF THE**

**PROPOSED SYSTEM**

• User **Friendly:** The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.

• Reports **are easily generated:** Reports can be easily generated in the proposed system so user can generate the report as per the requirement (monthly) or in the middle of the session.

• Very **less paper work:** The proposed system requires very less paper work. All the data is feted into the computer immediately and reports can be generated through computers. Moreover work becomes very easy because there is no need to keep data on papers.

• Computer **operator control**: Computer operator control will be there so no chance of errors. Moreover storing and retrieving of information is easy. So work can be done speedily and in time.

:

**Abstract:**

Examination Management System is a software, which is being developed for recording attendance, detained list and sitting arrangement of students during exams in schools, colleges and institutes**.** It facilitates the information of a particular student in a particular class. The information issorted by the operators, which will be provided by the teacher for a particular class.

**System Objectives and Overall Description:**

The current system is manual thus record keeping is done manually and all types of lists are generated manually so we need a system to automate this work. The system will have function to automate the current manual record keeping of sitting arrangement of students. Automatic updating of attendance will be done on choice of administrator. The system will also generate attendance and detained list both from user and administrator’s perspective. The new system will be fast, efficient, easy to operate and accurate.

**System Boundary:**

System Context:

1. The EMS is located at the office of the administrator i.e. generally the Lecturer.
2. The EMS provides the functionality to enter the attendance record and other record for the sitting arrangement of the students.
3. A Graphical Interface will support all functionalities.

System Constraints and Assumptions:

The System assumes that the database used for storage of records is large enough to handle all records of the students.

**Functional Requirements:**

1. Recording the sitting arrangement of students:

Informal Description: The administrator initiates the EMS and enters the list of students according branch wise for all the internal exams. All the records are stored in the database.

Pre-Condition: The Administrator only has the EMS.

Post-Condition: Every student has own college ID.

1. Updating of records:

Informal Description: The administrator initiates the EMS and initiates the function of updating of all records.

Pre-Condition: There should be new records for updating.

Post-Condition: Updating of records is done on wish of administrator.

1. Generation of Attendance and Detained List:

Informal Description: The administrator initiates the function of report generation of either or both of the reports according to choice.

Pre-Condition: There should be records for report generation.

Post-Condition: The reports so generated decide the attendance of student.

**Non-Functional Requirements:**

The GUI of EMS should be easy, accurate, clear and precise to the user. A mouse and keyboard will be used to enter the information or select the options on the GUI.

**Future Requirements:**

1. The EMS would be needed to change to online mode instead of the current system.
2. The student also should be allowed to see his/her attendance or detained list, so this functionality still remains to be added.

Admin Table:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO. | Field Name | Data Type | Description |
| 1. | User name | Text | Store user name for checking correct username |
| 2. | Password | Text | Store password corresponding to username |
| 3. | User Type | Text | User Type Administrator or User |

Attendence Table:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Field Name | Data Type | Description |
| 1. | Student Name | Text | Name of the student |
| 2. | Status | Text | Attend/Detained |
| 3. | Semester | Text | In which semester student is studying |
| 4. | Subject | Text | The subject wise list is maintained |
| 5. | Answer sheet no. | nvarchar | Answer sheet no. of each student during exams. |
| 6. | Signature | Char | Sign of the students |

Subject Table:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Field Name | Data Type | Description |
| 1. | Code | Number | Subject code a unique key |
| 2. | Subject Name | Text | Name of subjects in all semester |
| 3. | Semester | Text | In which semester student is studying |

Student Table:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Field Name | Data Type | Description |
| 1. | Student ID | Number | This is the roll no. of the student |
| 2. | Student name | Text | This is the name of the student |
| 3. | Course | Text | This is the course in which students are studying. By default course is B.Tech |
| 4. | Semester | Text | This is the semester in which students are studying. |

Room Table:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Field Name | Data Type | Description |
| 1. | Room No. | nvarchar | Name or no. of the room in which students sitting during exams. |
| 2. | No. of students | Number | Total no. of students sitting in a room. |

**0-level DFD:**

User/Administrator

System

Output

**1-level DFD:**

**Login Process**

Attendance entry

Report Generation

Student entry

Room entry

**2-level DFD:**

2.1:

Administrator

**Login**

**Process**

Login

Room Entry

Student Entry

Student Room No.

Administrator

2.2:

User

**Login Process**

Login

Attendence Entry

Report Generation

Room list Attendence

**User**

**Conclusion**

The Examination Management System is developed using Visual Basic.NET fully meets the objectives of the system which it has been developed. The system design and analysis has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

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