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Introduction

Online Examination System is an on-line test simulator is to take online examination, test in an efficient manner and no time wasting for manually checking of the test paper. The main objective of this web based online examination system is to efficiently evaluate the student thoroughly through a fully automated system that not only saves lot of time but also gives fast and accurate results. For students they give papers according to their convenience from any location by using internet and time and there is no need of using extra thing like paper, pen etc.

Online examination system helps students to offer a quick and easy way to appear for the test. It also provides the results immediately after the examination with 100% accuracy and security. Student can enter to perform exam only with their valid username and password. This examination contains multiple choice questions and appropriate number of options. There are no limitations on number of options and it can be randomized so same set of question will not appear to all student so it prevent manipulation. More than one option can be correct but the user can select only one option. This provides time limit. The user can see their results after completing the exam. This helps the students to write the exam from far distance and which can provide security and simplicity and other beneficial features to the user.

Scope

We have study Meerut institute of Technology, Meerut and find existing system is manual entry of up keeping of the details of the student who are registered already. And it is very difficult for each student to come to the exam centre. It is very difficult to the students from far distance to reach the exam centre. This system is required to prepare registration\application form, question paper for the students and required to print a lot of number manually. To calculate how many students registered, and verification of details of these students in a month by hand is very difficult. This requires quite a lot of time and wastage of money as it requires quite lot of manpower to do that. Another factor that takes into account that is the possibility of errors. The limitation of existing system is that it is not all personalized. It cannot be used for personal and quick reference. Even the other staff members can make quick entries if the responsible person is not present.

The system handles all the operations, and generates reports as soon as the test is finish, that includes name, mark, time spent to solve the exam.

Factors considered to be resolved:

- Human error.

- Calculation of Marks.

- Limitation of no. of student can give examination at a time.

- Time to check right and wrong answers.
- Require teacher to monitor exam centre.

Functional aspects:

- Module should work as designed.

- Minimum resource utilization.

- Must opt data base atttributes securely and efficiently.

- Must be user friendly.

Non functional:

- Adequate software features.

- Easy to use UI to provide user better user experience.

- Easy to peform ralated task asuch as editing user's experience.

<u>Significance</u>

Exams are very important in our life. They let us check our subject expertise and skills. If you are learning something, you can judge the result of your learning online through an exam. This is why exams are conducted. There are basically two methods of conducting an exam: offline and online. With the ease of the internet access, many exams these days are conducted online. Online exams are easy to conduct and maintain professionalism in the process.

Traditional exams are good, but it takes them many days or months to display the result of the examination as the copies are checked manually. While in online examination, checking and result process is completely online performed by a computer that makes it faster. Results of an online exam can be declared within a few days of the exam.

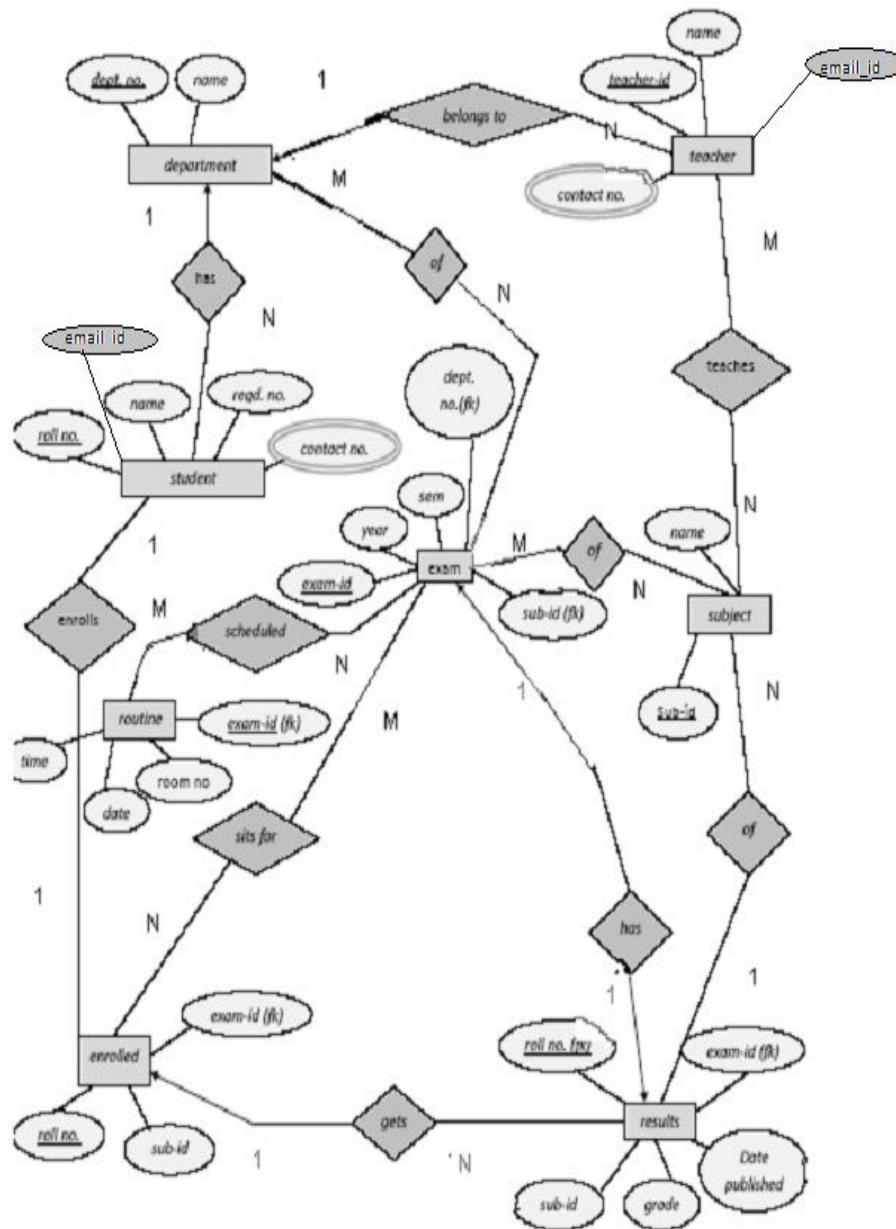# Process Description

ER Diagrams for Online Examination System:

Fig. 1

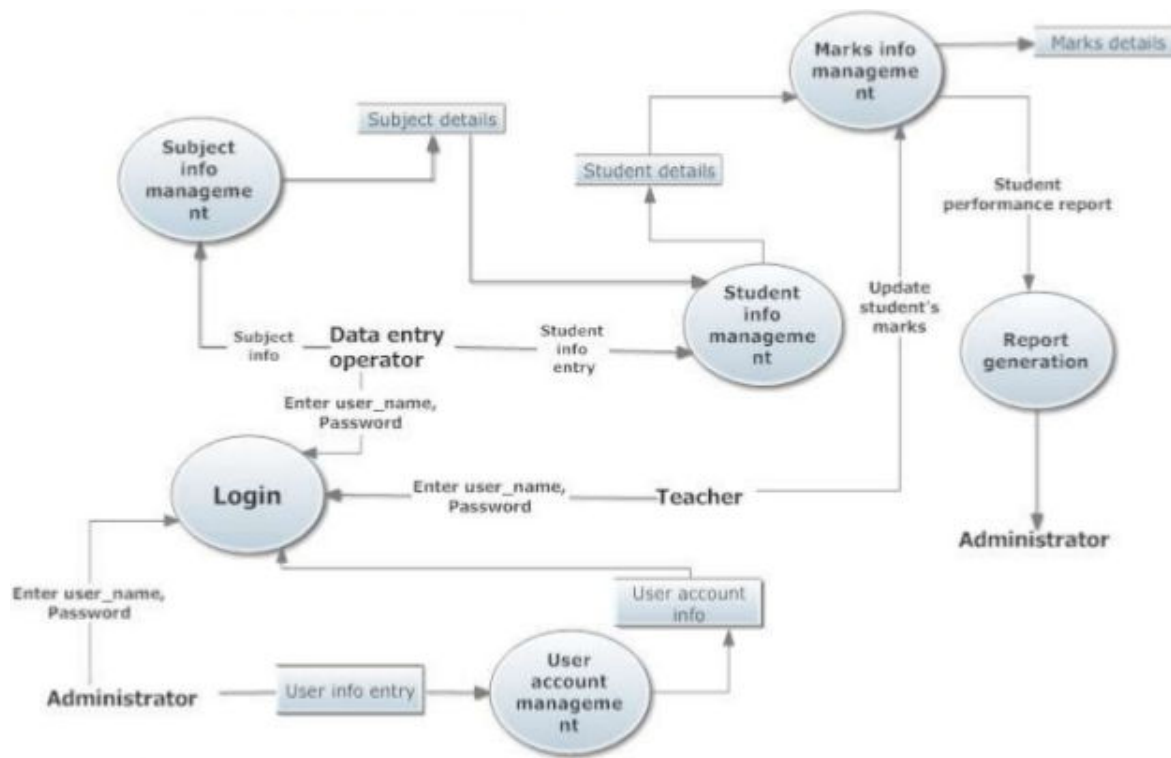## DFD - Data Flow Diagram for Online Examination System :

Fig. 2

Resource Requirements

Hardware Requirement:

- Processor: 1.5 GHz (Pentium 4) or higher.

- Ram: 1 GB (Minimum).

- VGA monitor.

- NIC (Network interface controller).

- HDD: Minimum 20 GB (Minimum).

Software Requirements:

- Operating system: Microsoft Windows XP / Win7/win 8.
- Platform of development: Eclipse IDE.
- Database: Oracle Database10G
- Server: Apache Tomcat 8.
- Web Browser: Windows Internet Explorer 8.0 and above, Mozilla Firefox, etc.
- Front-End: HTML5, CSS3.
- Script Language: JScript, JSP.
- Back-End: Oracal Database 10G.

Conclusion

The current System of a company is very ancient and need to be replacing as companies business is expanding. One of the biggest disadvantages of the current system is that lacking of online Exam system each time a student need to call in office to check the Examination timetable and student can physical present at the classes. This is very difficult to manage. Lots of Exam schedule and manual work done in the office.

All the existing system is traditional and lack of use of technology, therefore the process is very time consuming and lengthy as paper work is there. This was creating problem in maintain data record at the end like student details, Question papers, Results, Marking schemas etc.

This document will propose all features and procedures to develop the system. This document specially containing details about objectives, scope limitation, process model, primary requirements, team development, possible project risks, project schedule, and finally monitoring and reporting mechanisms.

On-line Exam System is very useful for Educational Institute to prepare an exam, safe the time that will take to check the paper and prepare mark sheets. It will help the Institute to testing of students and develop their skills. But the disadvantages for this system, it takes a lot of times when you prepare the exam at the first time for usage. And we need number of computers with the same number of students. The effective use of "On-line Exam System", any Educational Institute or training centres can be use it to develop their strategy for putting the exams, and for getting better results in less time.