

# Computer Aided Examination System

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**Abstract** - Computer Aided Online Examination System would be used by Educational Institutes for hosting online program based examination. Maintaining examination records and results is very important for Institutes. Student development is necessary which can be done by continuous conducting examination by Institute. This system can conduct test at any time and provide instantaneous result of programs assignment saving valuable time of teachers to check the assignment and store the result. This system benefits in conducting examinations and show students programming skill and thus can help in to evaluation of assignment done by students. The purpose of this system is to develop web client server based Examination System, used to test the core knowledge of the students, with respect to the particular computer language. The current examination practice used is time consuming process and has errors due to human restrictions. The old manual process of examination is upgraded with Online Web Based Examination System. Online Examination is web based application for discovery of technical knowledge of students. This application includes evaluation of student's domain knowledge on different technologies like C, C++, and Java Which will develop student's practical knowledge apart from the current syllabus and benefit them in future.

## 1. INTRODUCTION

With the advancement in education system Online Exams is very beneficial for students to develop their technical skills. Institutes can host online exams. Students can give exams and view their results. The site is an attempt to remove the existing flaws in the manual system of conducting exams. This examination contains programming questions, with there fixed inputs. Time limit is provided. Educational institutions are the majority to be influenced by our system and exam participants will also be involved.

### 1.1 Purpose

Online Exams System fulfills the requirements of the institutes to conduct the online exams. One do not have to go to install any software to give exams. The students just have to register on the site with whole details and the registered student details can be viewed at server site. Students can give exam from any place and any corner of the world. The result can viewed by student at the same time. Thus the main objective of the site is to provide a system that saves the efforts and time of both the institutes and the students.

Online Exams System is a web based application. Institutes upload the programming questions on the site they want in the exam. These questions are randomly given as a test to the students. The programs as answer submitted by the students that are then evaluated and their score is calculated and saved. This score then can be accessed by the institutes to determine to evaluate the performance of student. Online Exams System provides the platform to judge the technical skills of the students and their logic. Questions are posted by sever of the site. The site requires student to register before attempting the questions. The site has an administrator who keeps an eye on the overall functioning of system.

## 2. EXISTING SYSTEM

We have studied few Institutions and found existing system that has manual entry of keeping the information of the student who are registered. It is very difficult for each candidate to give exam at exam centre at a particular time. This existing system requires to print registration form, question paper for the candidates and required manual allocation to student. To estimate how many candidates are registered and verification of details of these students in a month is very difficult. Man power is required for constant monitoring, printing and allocation of the questions, money is wasted on printing the papers and also time of faculties. There is no existing system use in institute to check the programming knowledge of a student.

Human error or miscalculations are prone to happen in existing system. The drawback of current system is that it is not all candidate oriented in respect to past exam results and candidates strong and weak sides. Faculties cannot point out if students are absent for particular exam without taking a roll call.

- Time consuming for creating and assigning questions .
- Time to check programs quality.
- Calculation of grades.
- Human error.
- Limitation of space for student to give examination at a particular time.
- Require constant presence of teacher at exam centre.

### 3. PROPOSED SYSTEM

In this we are going to see system analysis, system architectures, advantages and limitations of the system.

#### 3.1 System Analysis

This section contains control flow i.e. start to end process which is done by user to use the system and also contains dataflow i.e. how documents gets stored and retrieved by the user and operators.

##### 3.1.1 Data Flow

A DFD also known as bubble chart, has the purpose of describing system requirements and identifying major conversions. It displays the flow of data through a system. It is a graphical tool because it consist of diagrams. The DFD may be partitioned into levels that represent increasing information flow and functional detail.

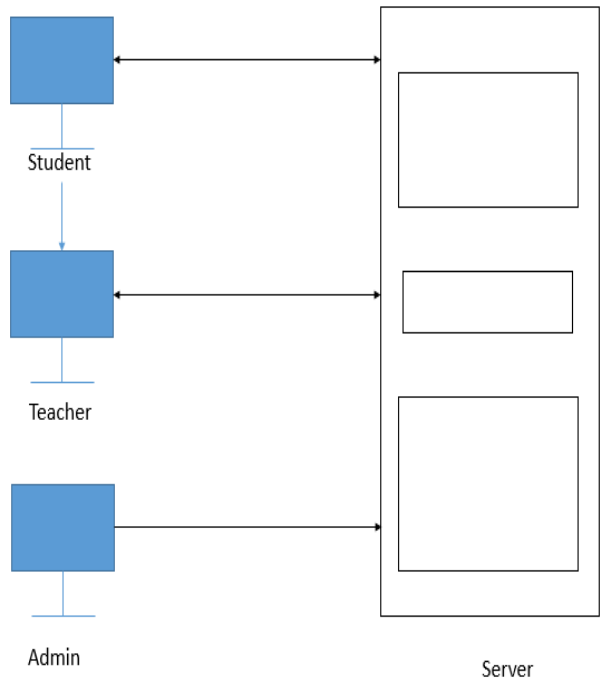


Fig-3.2: : Data Storing and Accessing on local system



Fig-3.1: Data Flow between User, Operator and Server

#### 3.2 System Architecture

The current computerized system is developed with the goal of overcoming the drawbacks of existing manual system. We have studied manual examination system of institution and identified possible upgradation. The proposed system has got many advantages. Candidates from different parts of the world can register to our system. The new system is more personalized for candidate. It is user friendly in such a manner that all the new users can understand options provided. It is made in a quick and easy referential manner. Functions to all matters are not hidden and can be changed easily at the time of need. The benefits of proposed system are that security is maintained in the system. Securities for all important data records are maintained confidentially. As it is user friendly, quick entries can be made in this system.

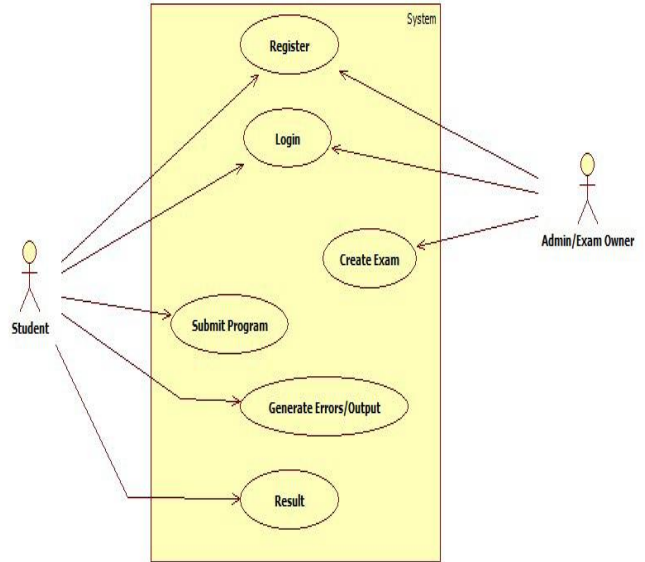


Fig-3.3: Use Case Diagram

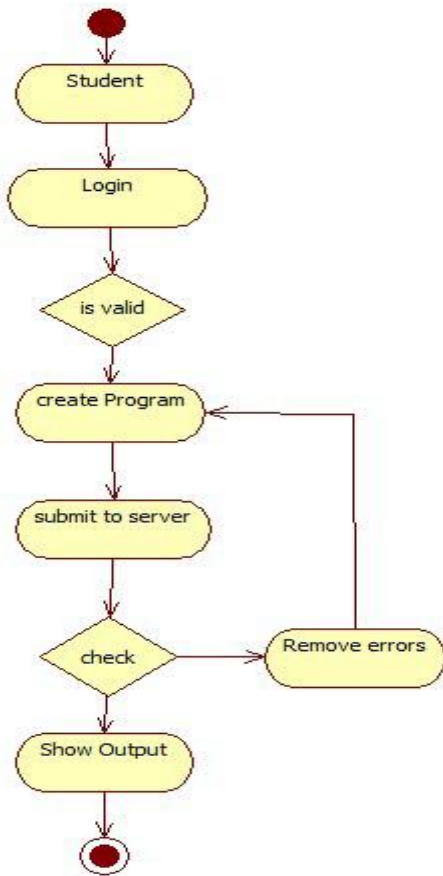


Fig-3.4: Activity Diagram

Diagram gives us a clear idea of the system and the things we discussed earlier about our system in a pictorial manner which is very easy to understand.

Below fig 3.5 represents State chart diagram which will give detail flow of the system. These diagram represents the actual states of the system in detail.

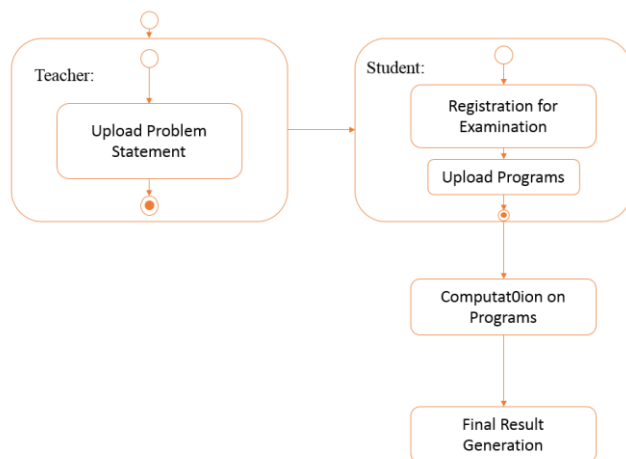


Fig-3.5: State Flow Diagram

### 3.3 Advantages

- This section covers all the benefits of our system. Complete Automation, no manual intervention in whole process of examination No location boundary to candidates.
- accuracy in result calculation, Randomization of question set while allocating.

### 3.4 Limitations

This section covers all the limitations of our system.

- Requires internet connection.
- No linking to other online sites.

### 4. CONCLUSION

We have prepared new system after identifying issues in existing manual examination system. In Online examination system institute can register to conduct an online test and view the records later. Students can give the test and their respective records, which include their marks for each test given by them, will be maintained separately. Student can take a particular exam more than once. Scope of this online examination system is very broad in terms of other manually taking exams. We have Hence a system with easy to use GUI is being proposed that provides easy accessibility to assignment and can be dynamically allocated, maintained, compiled and evaluated at the same place.

However we can improve our system in next version like.

- Linking of other online site.
- Include graphical and media as question and answers.
- Use of JQuery for more smooth interface.

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