

Software Requirements Specification

For

Online Exam Portal

Version 1.0 approved

Prepared by

TEAM 10

CDAC Kharghar

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Purpose of the Document:-

The purpose of on-line test system is to take online test in an efficient manner and no time wasting for checking the paper. It provides online facility to Institutes to conduct online exams and to Students to give online exams. Institutes (i.e the faculties in institute) can enter and edit the questions in test. Students can login and give their respective exams and view their score then and there. The main objective of on-line test simulator is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results.

Intended Audience:-

This document is intended for developers, users, testers and project managers for the purpose of understanding the design of systems in terms of different perspectives. Further, this document contains functionalities and characteristics of the system along with the working environment. It also includes other information related to systems such as external interface requirements, features and other non - functional requirements.

Scope of software:-

This website provides facility to institutes to conduct online exams and maintaining the records of users by providing authorized entry. Users can register as Faculty / Student and wait for the admin to send a noti_cation email. User can then login with the valid username and password and can carry out their respective tasks. Online examination is conducting a test online to measure the knowledge of the participants on a given topic. In the olden days everybody had to gather in a classroom at the same time to take an exam. With online examination students can do the exam online, in their own time and with their own device, regardless where they life. You online need a browser and internet connection.

Software Requirements Specification:-

A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide. A software requirements specification (SRS) is a document that captures complete description about how the system is expected to perform. It is usually signed off at the end of requirements engineering phase. A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide. Software requirements specification establishes the basis for an agreement between customers and contractors or suppliers (in market-driven projects, these roles may be played by the marketing and development divisions) on what the software product is to do as well as what it is not expected to do. Software requirements specification permits a rigorous assessment of requirements before design can begin and reduces later redesign. It should also provide a realistic basis for estimating product costs, risks, and schedules. Used appropriately, software requirements specifications can help prevent software project failure.

The SRS may be one of a contract deliverable Data Item Descriptions or have other forms of organizationally-mandated content. Software requirements specification establishes the basis for an agreement between customers and contractors or suppliers (in market-driven projects, these roles may be played by the marketing and development divisions) on what the software product is to do as well as what it is not expected to do.

Types of Requirements:-

The below diagram depicts the various types of requirements that are captured during SRS. Requirements are categorized into several different types. Expert Roxanne Miller explains what these types are and which requirements levels they fit into.



Software System Attributes

- **Usability:**

The links are provided for each form. The user is facilitated to view and make entries in the forms. Validations are provided in each _eld to avoid inconsistent or invalid entry in the databases. Some forms consists Hyper Links, which provides further details. Reports screen contains text boxes and drop down lists, so that reports can be produced.

- **Security:**

Application will allow only valid users to access the system. Access to any application resource will depend upon users designation. There are three types of users namely Administrator, Event Poster and Organizer. Security is based upon the individual user ID and Password.

- **Maintainability:**

Installation and operation manual of Online Examination System will be provided to the user. Also functionality and help will be provided to the online users.

- **Availability**

System will be available around the clock except for the time required for the backup of data.

- **Portability:**

The application is developed in Java. It would be portable to other operating system provided java support is available for the OS.

User Requirements Definition

The user requirement for this system is to make the system fast, exible, less prone to error, reduce expenses and save the time.

- Time can be saved by scheduling the exams, if it is available a question bank to store questions for different subjects.
- A system can be given a mark by checking the students answers, and give the result as soon as students finish his exam.
- A facility to generate a result chart as pre required without manual interface.
- The system should have records of students and faculty that can be access to the system which can be used only for the authorized person.
- The system should be more secure for management user records and more reliable to work at any conditions.

Software Quality Attributes

The Quality of the System is maintained in such a way so that it can be very user friendly to all the users. The software quality attributes are assumed as under:

- Accurate and hence reliable.
- Secured.
- Fast speed.
- Compatibility.

Data Flow Diagram:-

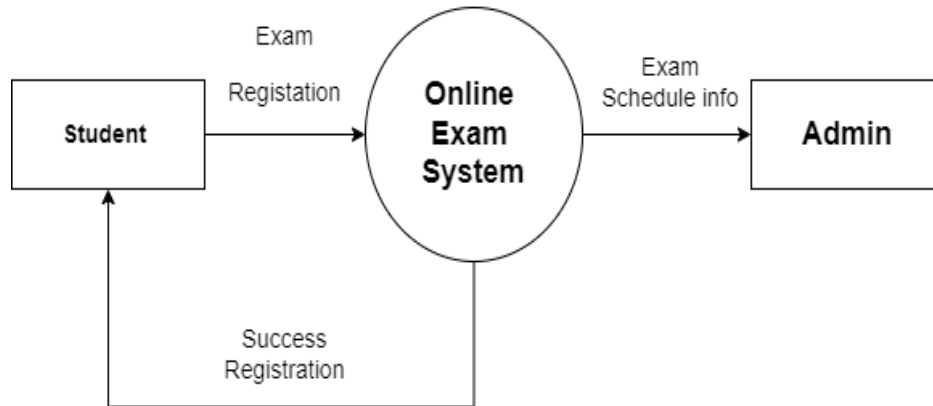


Fig. 0th Level Diagram

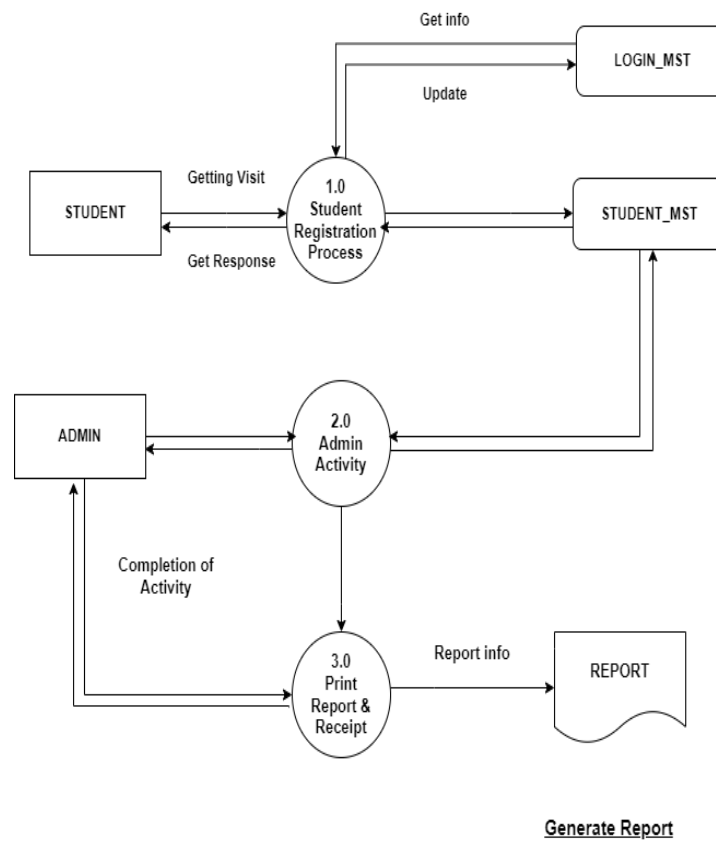


Fig. 1st Level Diagram

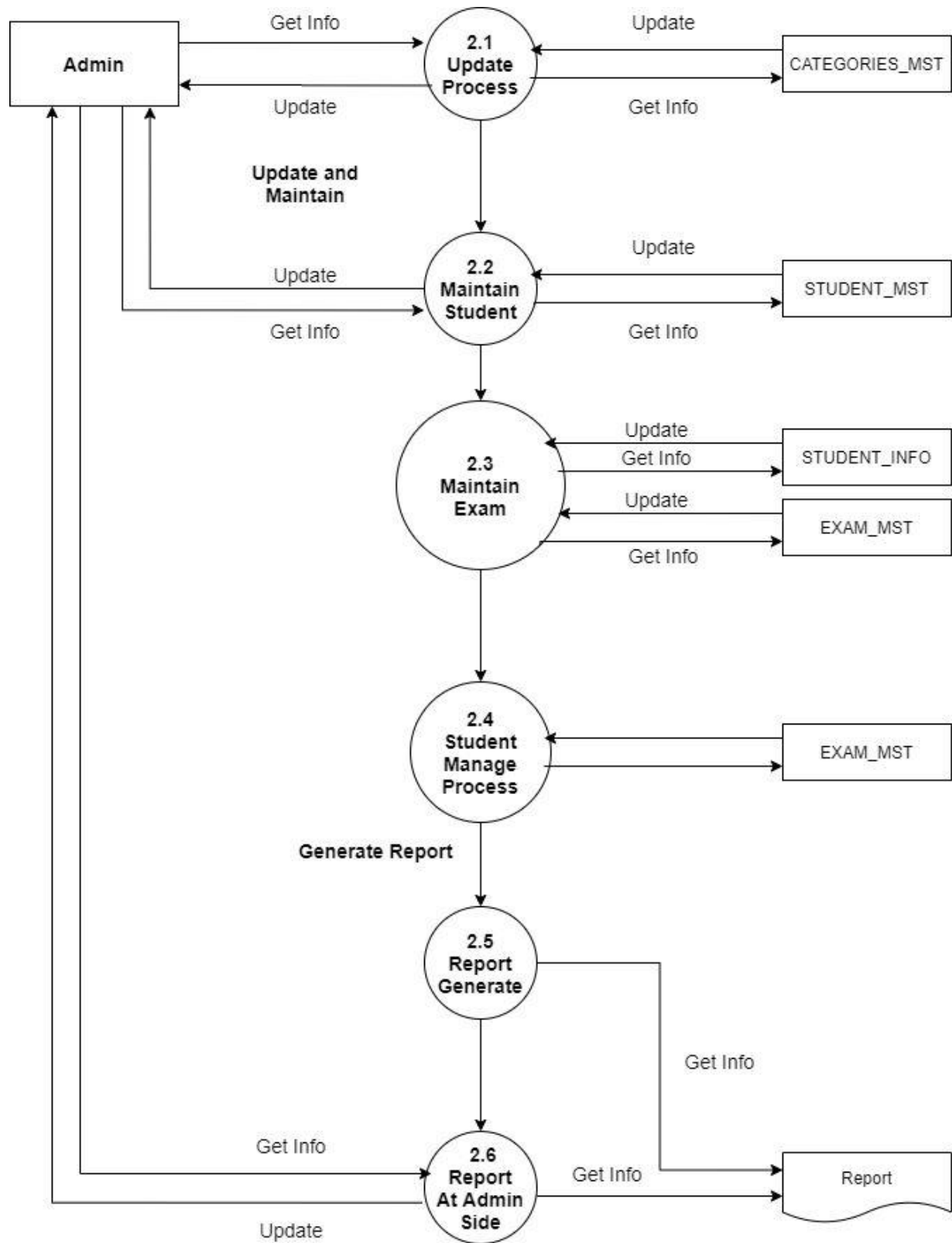


Fig. 2nd Level Diagram

UML Diagram:-

1) Use Case Diagram:-

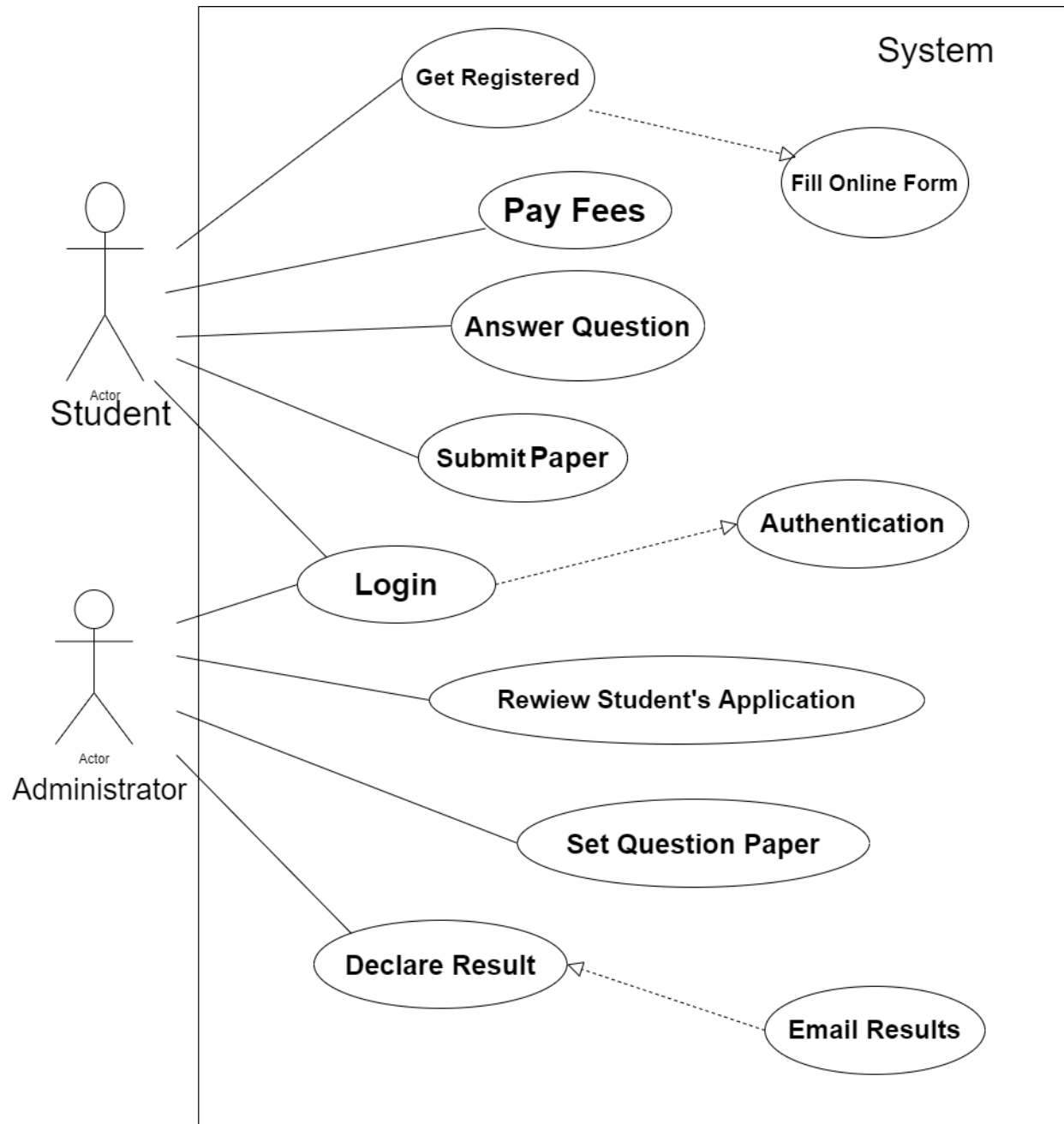


Fig. Use Case Diagram

2) Class Diagram:-

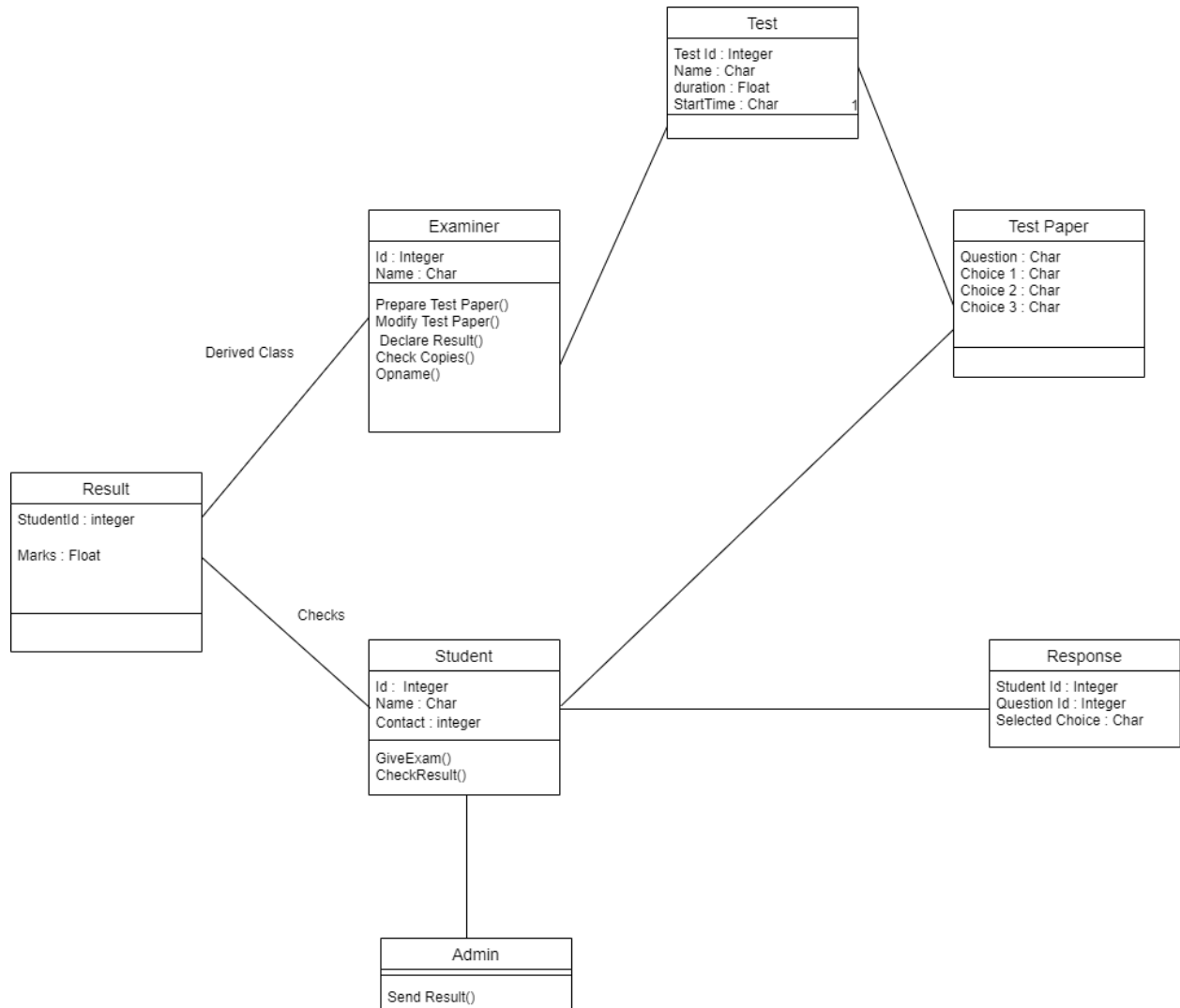


Fig. Class Diagram

3) Activity Diagram:-

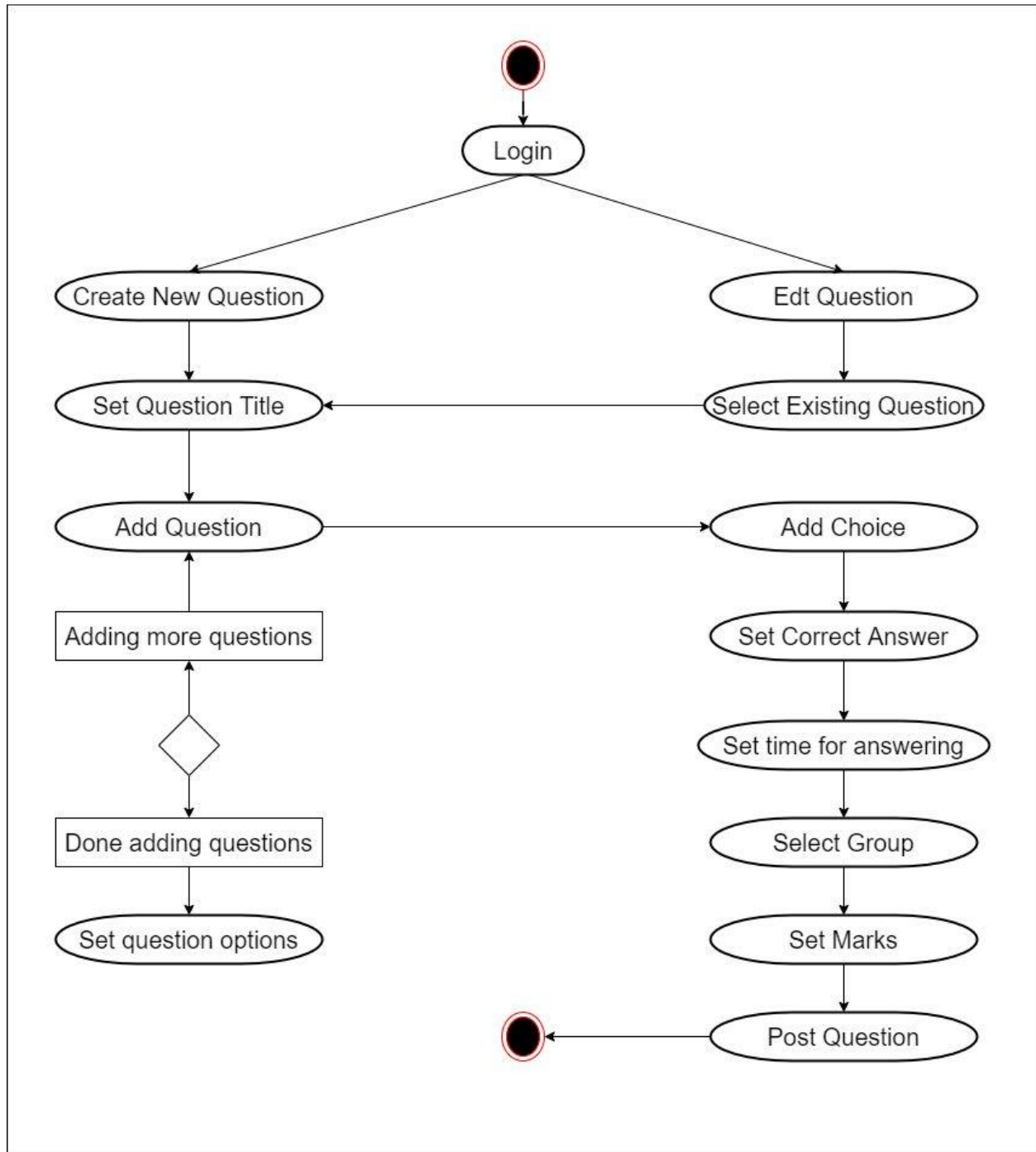


Fig. Activity Diagram

4) Component Diagram:-

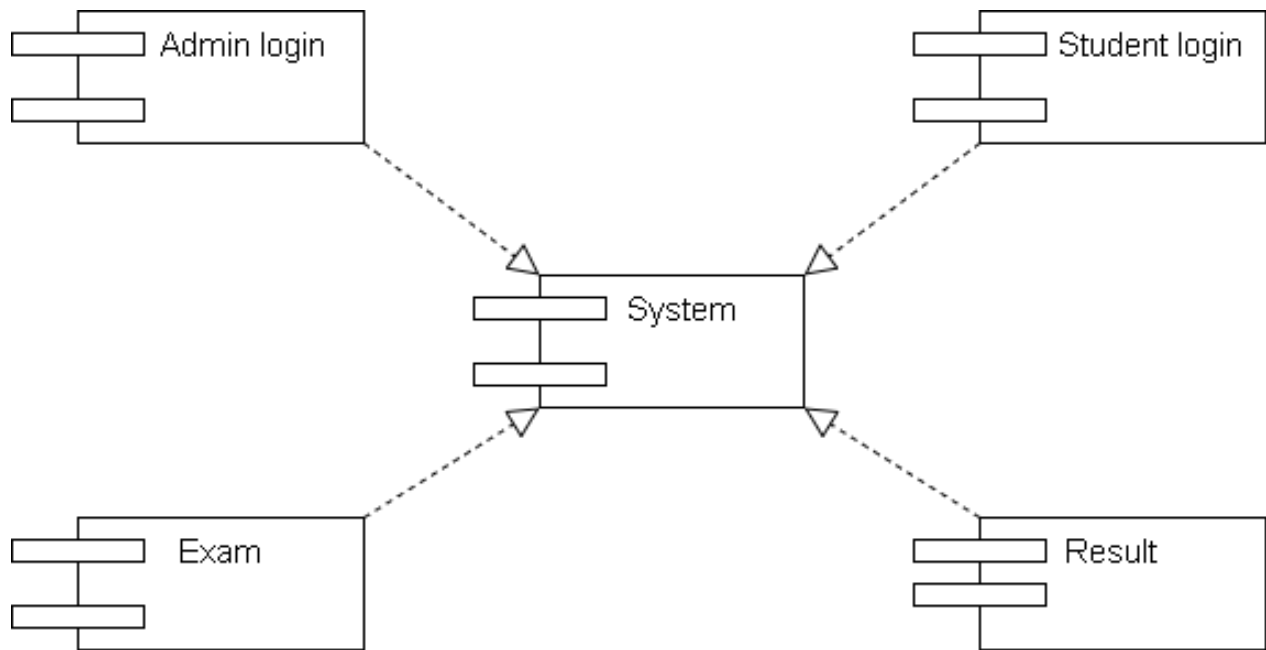


Fig. Component Diagram