Software Requirement Specification of Exam Registration System

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1.0 INTRODUCTION

Exam Registration System is an interface between the Student and the Exam Controller responsible for the Issue of Hall Ticket. It aims at improving the efficiency in the Issue of Hall ticket and reduces the complexities involved in it to the maximum possible extent.

1.1 PURPOSE

If the entire process of 'Issue of Hall ticket is done in a manual manner then it would take several days for the hall ticket to reach the student . Considering the fact that the number of students for hall ticket is increasing every year, an Automated System becomes essential to meet the demand. So this system uses several programming and database techniques to elucidate the work involved in this process. As this is a matter of National Security, the system has been carefully verified and validated in order to satisfy it.

1.2 SCOPE

- The System provides an online interface to the user where they can fill in their personal details and submit the necessary documents (may be by scanning).
- The controller concerned with the issue of hall ticket can use this system to reduce his workload and process the application i n a speedy manner.
- Provide a communication platform between the student and the controller.
- Students will come to know their status of application and the date in which they must subject themselves for manual document verification

1.3 DEFINITIONS, ACRONYMS AND THE ABBREVIATIONS

- **Exam Controller** - Refers to the super user who is the Central Authority who has been vested with the privilege to manage the entire system.
- **Student** - One who wishes to obtain the Hall Ticket .
- **ERS** - Refers to this Examin ation Registration System .
- **HTML** - Markup Language used for creating web pages.
- **J2EE** – Java 2 Enterprise Edition for developing and running distributed java applications.
- **HTTP** - Hyper Text Transfer Protocol.
- **TCP/IP** – Transmission Control Protocol/Internet Protocol is the communication protocol used to connect hosts on the Internet.

1.4 REFERENCES

IEEE Software Requirement Specification format.

1.5 TECHNOLOGIES TO BE USED

- HTML
- JSP
- Javascript
- Java

1. 6 TOOLS TO BE USED

- Eclipse IDE (Integrated Development Environment)
- Rational Rose tool (for developing UML Patterns)

2.0. DESCRIPTION

2.1 PRODUCT PERSPECTIVE

The ERS acts as an interface between the 'student ' and the 'exam controller'. This system tries to make the interface as simple as possible and at the same time not risking the security of data stored in. This minimizes the time duration in which the user receives the hall ticket .

2.2 SOFTWARE INTERFACE

- Front End Client - The exporter online in terface is built using JSP and HTML
- Web Server – Apache Tomcat Server (Oracle Corporation)
- Back End - Oracle 11g database

2.3 HARDWARE INTERFACE

The server is directly connected to the client systems. The client systems have access to the database in the server.

2.4 FUNCTIONAL REQUIREMENTS:

a) Login

The student enters his username and password to login and retrieve the information. Only the student of the institution can login here with their roll number and given password.

b) View Exam Details

The student view the details about the exam schedule which contains date,time,etc. Only the subjects for which the student has registered are shown here.

c) Register

The student should able to chose between the optional subjects provided in the course. Other than that the compusory subjects are also shown. Students have to confirm and submit the final selection of subjects.

d) Acknowledgement

The exam fees should be paid by the student to get the hall ticket from the exam controller.

e) Fee Processing

All the details should be viewed by both the student and the controller to verify whether all the entered details are correct. After registering for the subject, the student must pay the examination fee either by online payment or demand draft.

2.5 NONFUNCTIONAL REQUIREMENTS:-

a) *Performance Requirements*

Performance requirements define acceptable response times for system functionality.

1. The load time for user interface screens shall take no longer than two seconds.
2. The log in information shall be verified within two seconds.
3. Queries shall return results within five seconds.

b) *Security and Safety Requirements*

Security: The files in which the information regarding securities and portfolios should be secured against malicious deformations.

Fault Tolerance: Data should not become corrupted in case of system crash or power failure.

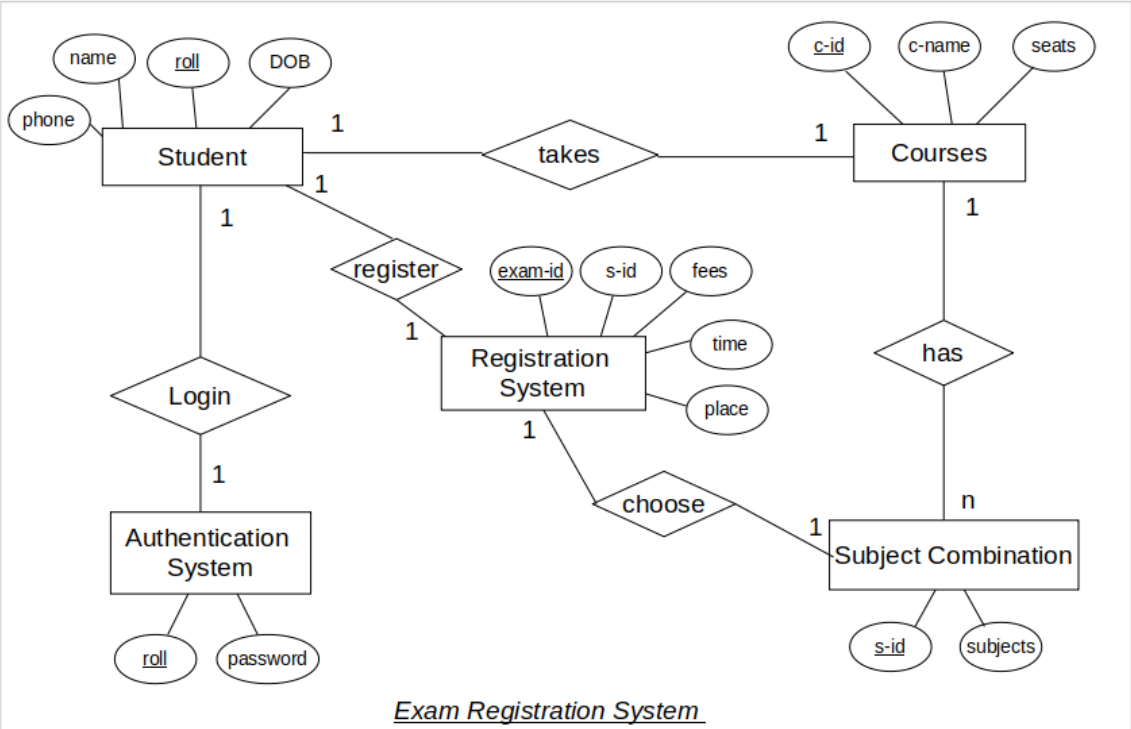
c) *Business Rules*

Server Administrator: under extreme circumstances the administrator has the privileges to back up the data's but can't modify the contents.

User: Once the list of subjects confirmed and submitted, the user can not modify the choices.

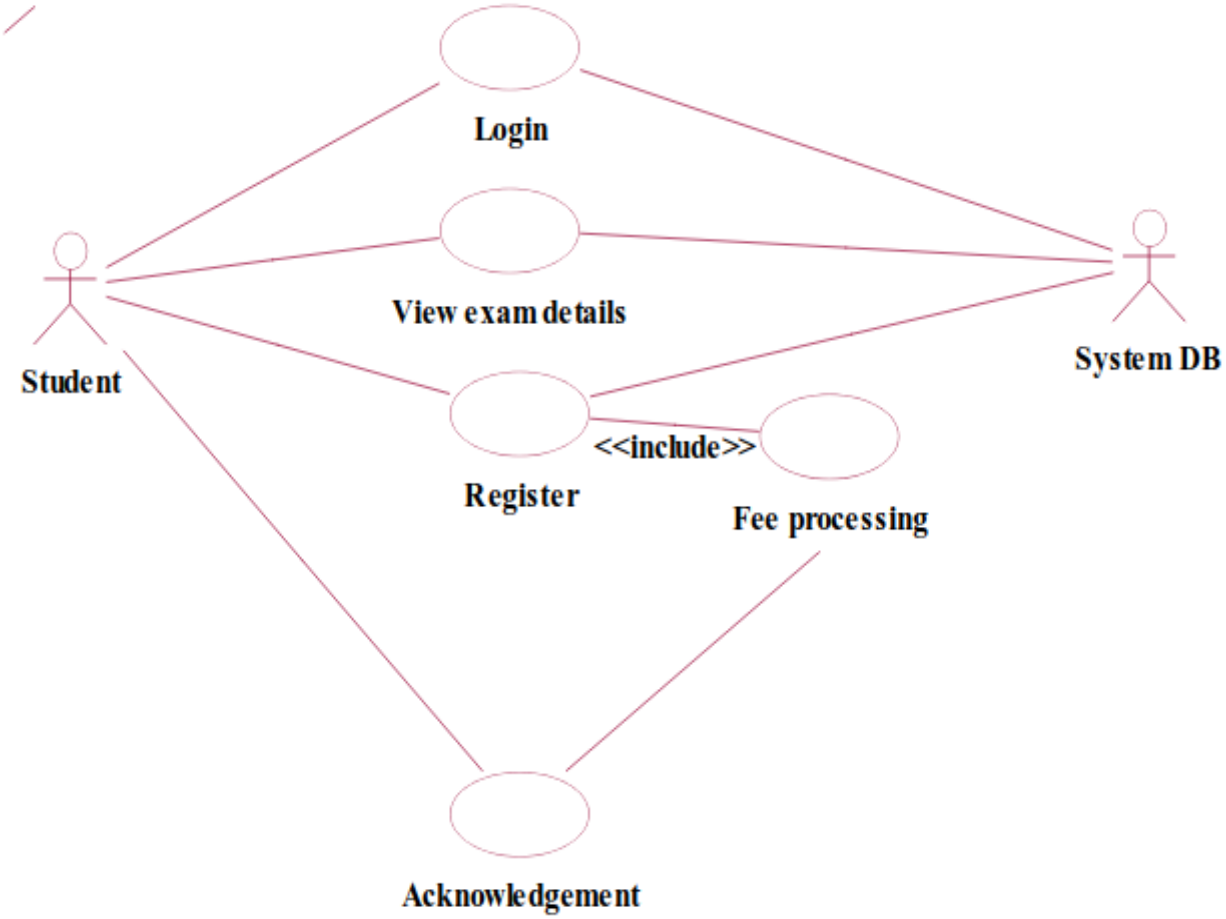
3.0 DIAGRAM

3.1 E-R DIAGRAM

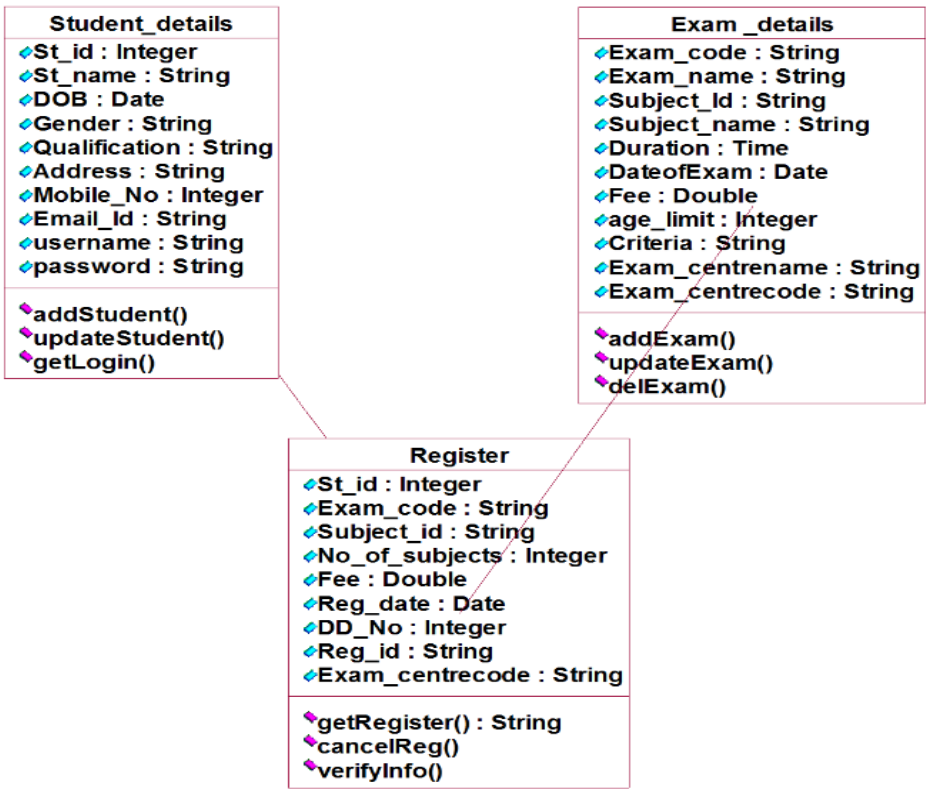


Exam Registration System
E-R Diagram

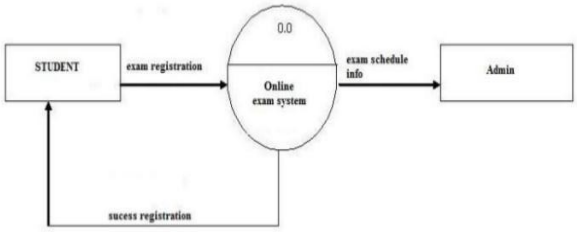
3.2 USE CASE DIAGRAM



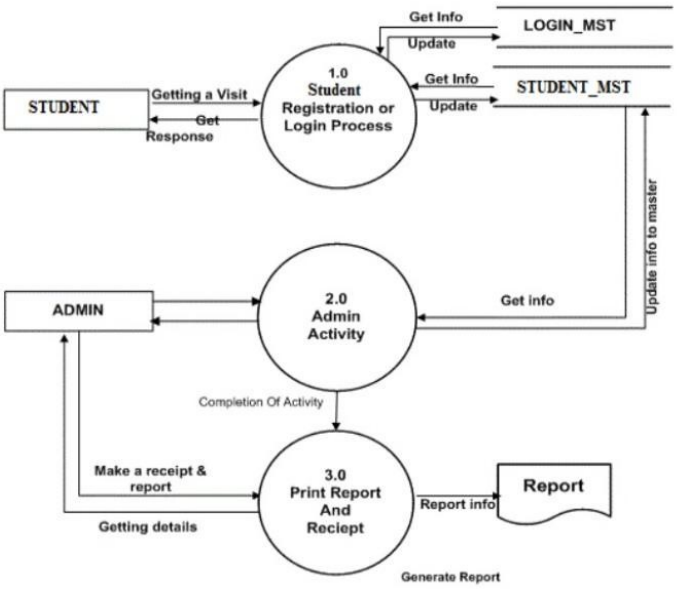
3.3 UML CLASS DIAGRAM



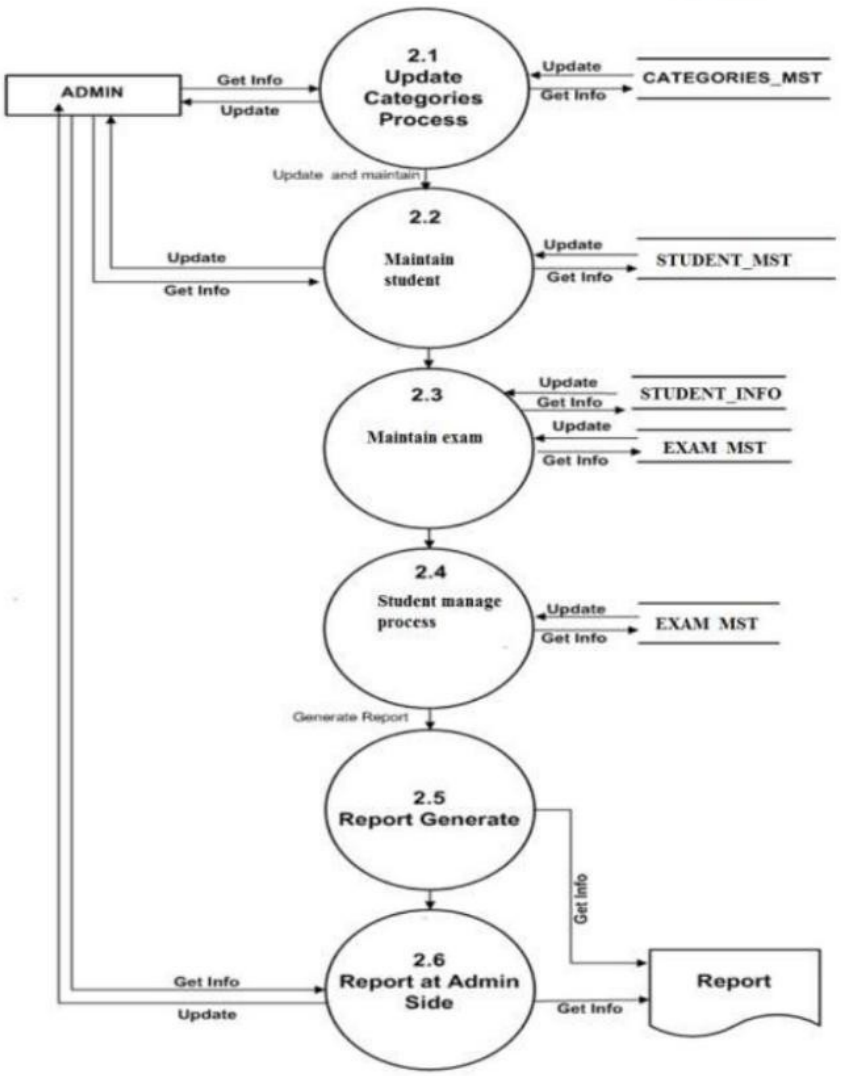
3.4 DATA FLOW DIAGRAM



Level 0



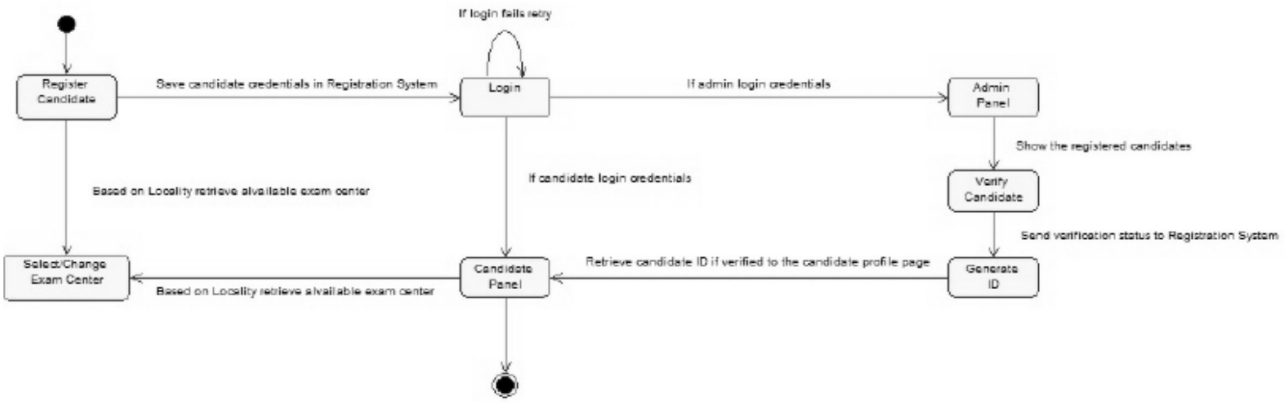
Level 1



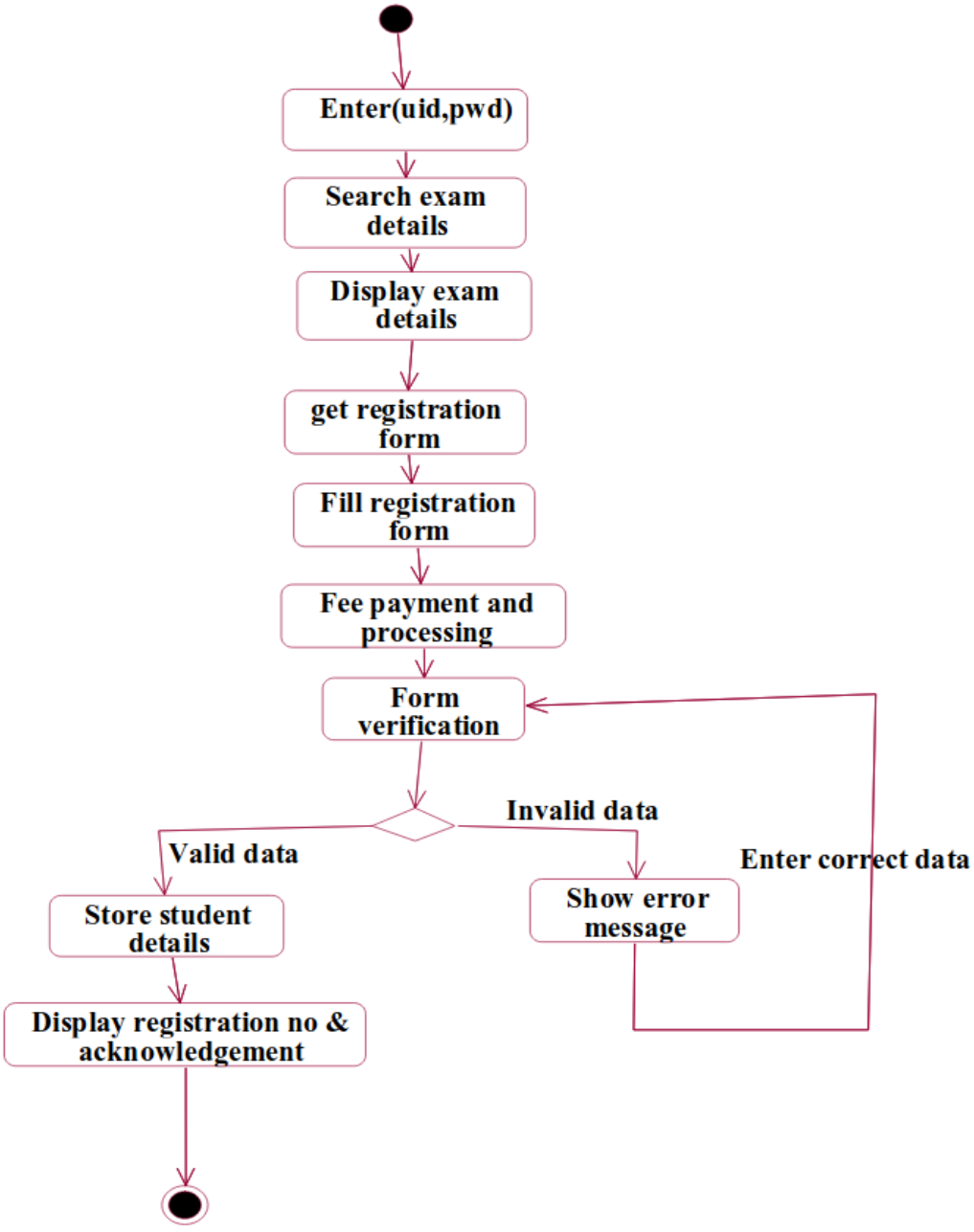
Level 2

3.5 *STATE-CHART AND ACTIVITY* DIAGRAM

- ***State-Chart Diagram***



- ***Activity Diagram***



3.6 *UML SEQUENCE* DIAGRAM