

Online Examination System Software
Project Report By

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Abstract

This report describes the project development of Online Examination System that was developed to manage and conduct the examination fairly. It can improve management of the exams in the test or examination centers.

This Online Examination Software system is mainly use by three people i.e. admin, faculty(examiner) and students(examinee). Examiner is able to manage and set the question paper for students. Our software has also a facility where admin can see the complete list of exams and student can take exam of his/her after logging in their accounts. Admin can add or delete the exam and can request the examiner to add new questions or update it.

Overall this project of ours is being developed to help the students as well as staff and exam conducting body to conduct the exam in the best way possible and also reduce the human efforts.

(1) INTRODUCTION

ONLINE TEST SYSTEM PURPOSE:

The purpose of on-line test simulator is to take online test in an efficient manner and no time wasting for checking the paper. 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. For students they give papers according to their convenience and time and there is no need of using extra thing like paper, pen etc.

SCOPE

Scope of this project is very broad in terms of other manually taking exams. Few of them are:- This can be used in educational institutions as well as in corporate world. Can be used anywhere any time as it is a web based application(user Location doesn't matter). No restriction that examiner has to be present when the candidate takes the test.

FEATURES:

- Secure
- Easy to use
- Reliable and accurate
- No need of examiner

OPERATIONS ENVIRONMENT

PROCESSOR PERFORMANCE	AMD A4 PROCESSOR OR BETTER
OPERATING SYSTEM	UBUNTU 16.04 , WINDOWS 10
MEMORY	1GB RAM OR MORE
DATABASE	MY SQL

(2) OVERVIEW:

The online test created for taking online test has following stages

- Login
- Test
- Result

LOGIN:

There is a quality login window because this is more secure than other login forms as in a normal login window there are multiple logins available so that more than one person can access to test with there individual login. But in this project there is only one login id i.e. administrator id and password by which a person enter the site. Hence it is more secure and reliable than previously used on-line test simulators.

TEST:

Test page is the most creative and important page in this project. It consists of 2 modules namely:

- Subject selection
- Utilities

Subject selection:-

From the given choices the candidate can select his field (like C, C++ and JAVA etc) for taking on with the test.

Utilities:-

It includes:-

Skip and come back to the question afterwards if needed.

Can either attempt or change the answer of the already attempted question.

(3) EXISTING SYSTEM

The whole process of assigning test and evaluating their scores after the test, was done manually till date. Processing the test paper i.e. checking and distributing respective scores used to take time when the software was not installed.

DISADVANTAGES OF CURRENT SYSTEM

- The current system is very time consuming.
- It is very difficult to analyze the exam manually.
- To take exam of more candidates more invigilators are required but no need of invigilator in case of on line exam.
- Results are not precise as calculation and evaluations are done manually.
- The chances of paper leakage are more in current system as compared to proposed system. Result processing takes more time as it is done manually

CHARACTERISTIC OF THE PROPOSED SYSTEM

- The online test created for taking online test has following features
- In comparison to the present system the proposed system will be less time consuming and is more efficient.
- Analysis will be very easy in proposed system as it is automated
- Result will be very precise and accurate and will be declared in very short span of time because calculation and evaluations are done by the simulator itself.
- The proposed system is very secure as no chances of leakage of question paper as it is dependent on the administrator only.
- The logs of appeared candidates and their marks are stored and can be backup for future us.

(4) Testing

The aim of the system testing process was to determine all defects in our project .The program was subjected to a set of test inputs and various observations were made and based on these observations it will be decided whether the program behaves as expected or not. Our Project went through two levels of testing

- Unit testing
- Integration testing

4.1 UNIT TESTING

Unit testing is undertaken when a module has been created and successfully reviewed .In order to test a single module we need to provide a complete environment ie besides the module we would require

- The procedures belonging to other modules that the module under test calls
- Non local data structures that module accesses
- A procedure to call the functions of the module under test with appropriate parameters.

4.2 INTEGRATION TESTING

In this type of testing we test various integration of the project module by providing the input. The primary objective is to test the module interfaces in order to ensure that no errors are occurring when one module invokes the other module.

(5) TABLES

5.1 EXAM TABLE

exam_id	Name	Department	Subject1	Subject2	Subject3	Total score

5.2 EXAMINER TABLE

Fac-id	Username	Password	Subject1	Subject2	email

5.3 QUESTION TABLE

ques_id	Marks	Question	Option1	Option2	Option3	Option4	right_op	Subject	quesBy

5.4 REPORT TABLE

student_id	exam_id	Total score

5.5 STUDENT TABLE

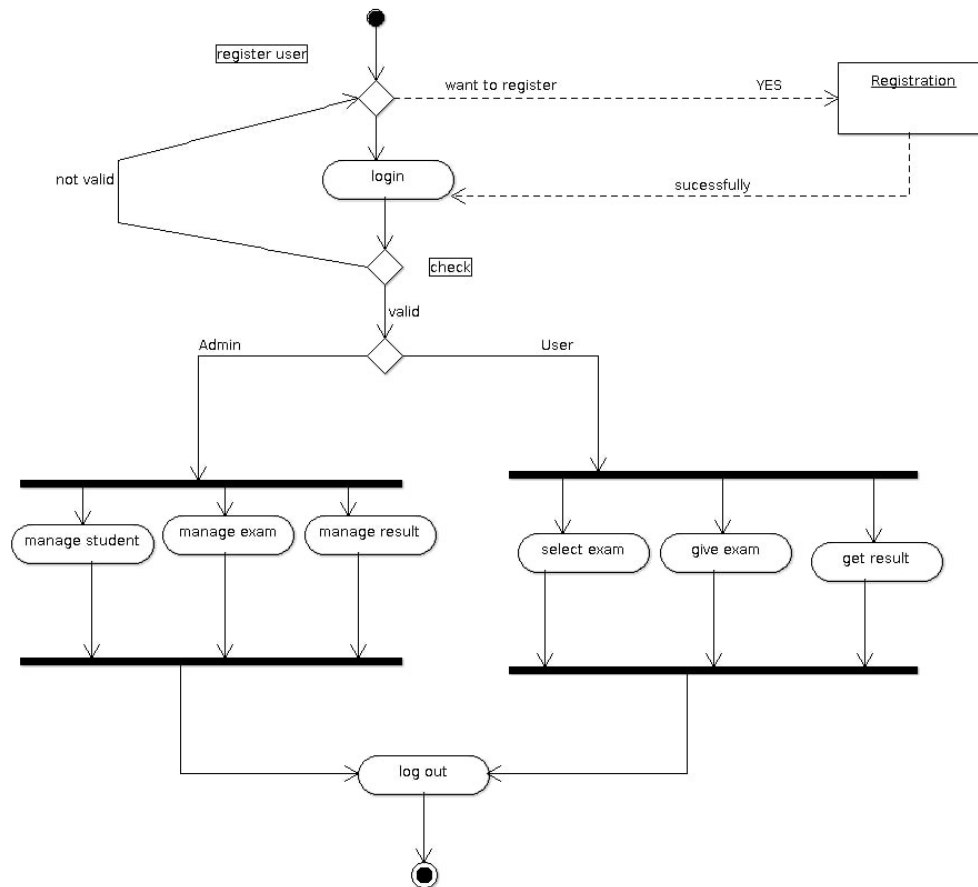
Id	Username	Password	first_name	last_name	email

(6) DIAGRAMS:

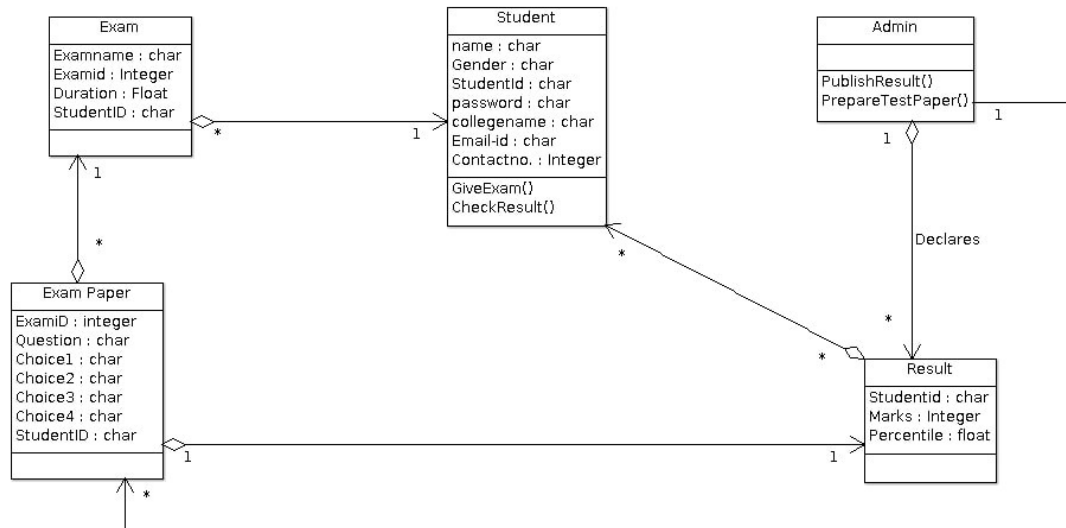
1) USE CASE DIAGRAM:



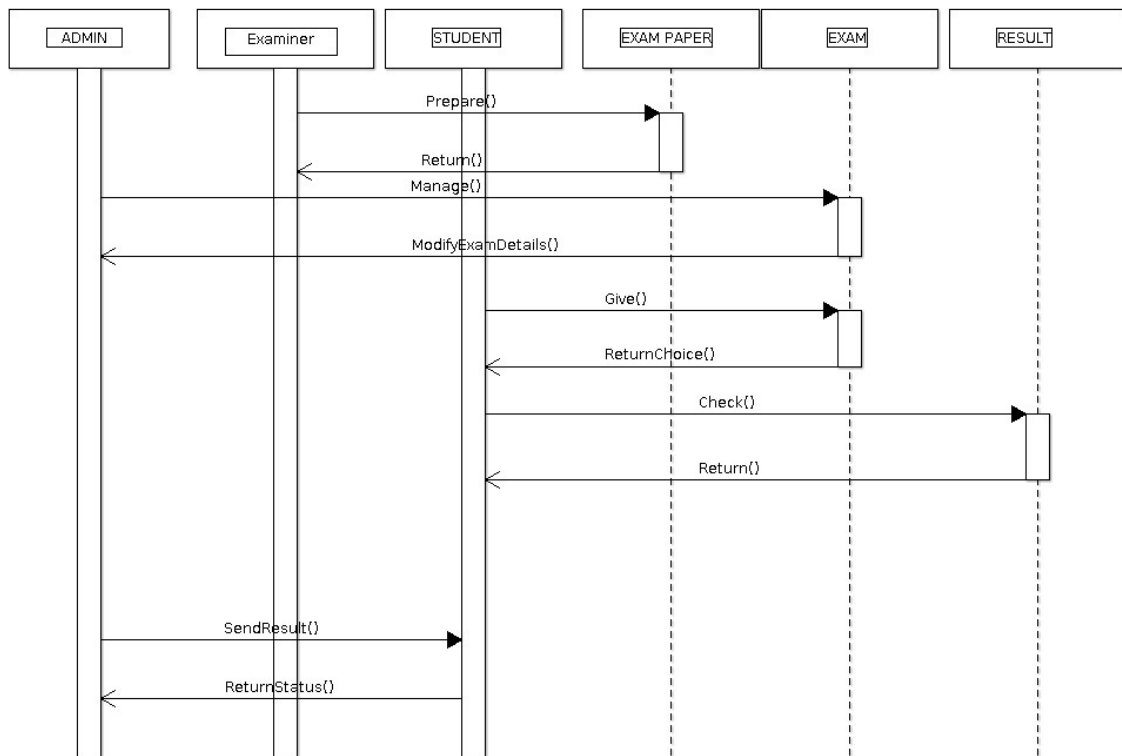
2) ACTIVITY DIAGRAM



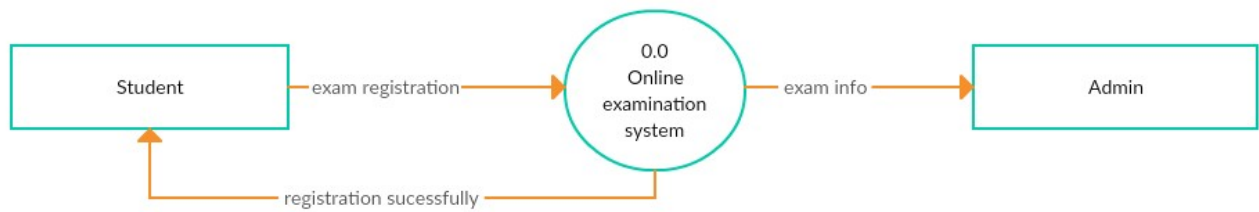
3) CLASS DIAGRAM



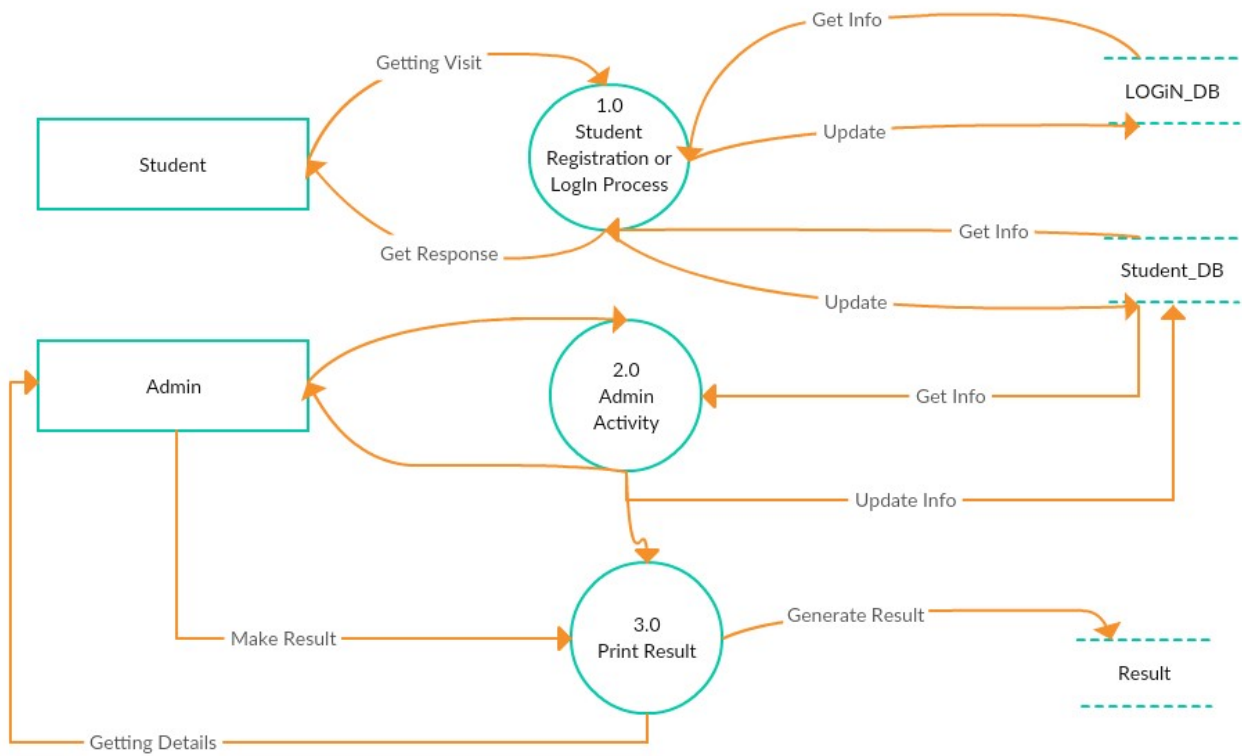
4) SEQUENCE DIAGRAM



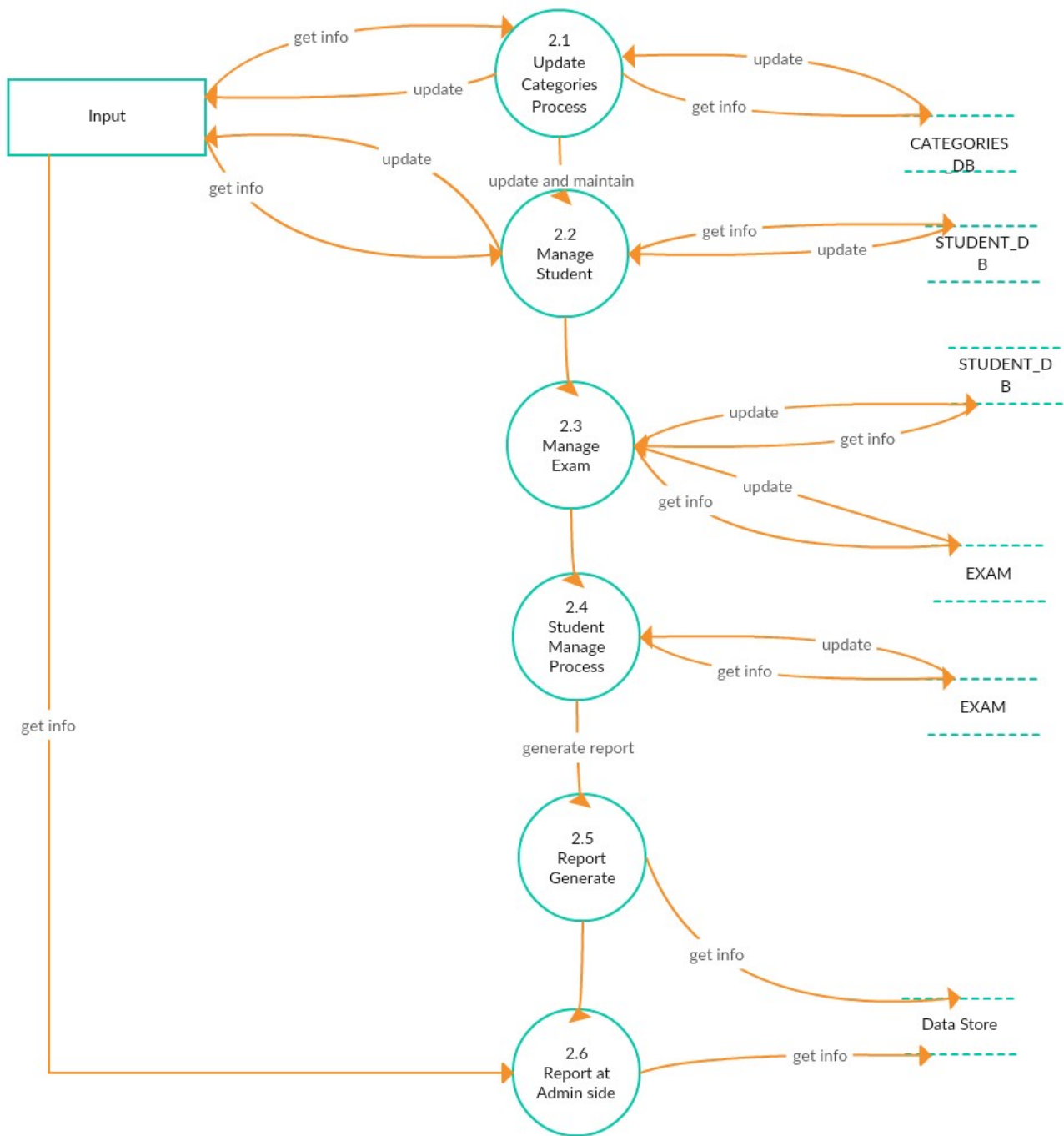
5) DATA FLOW DIAGRAM (LEVEL 0,1,2)



Online Examination System - Level 0

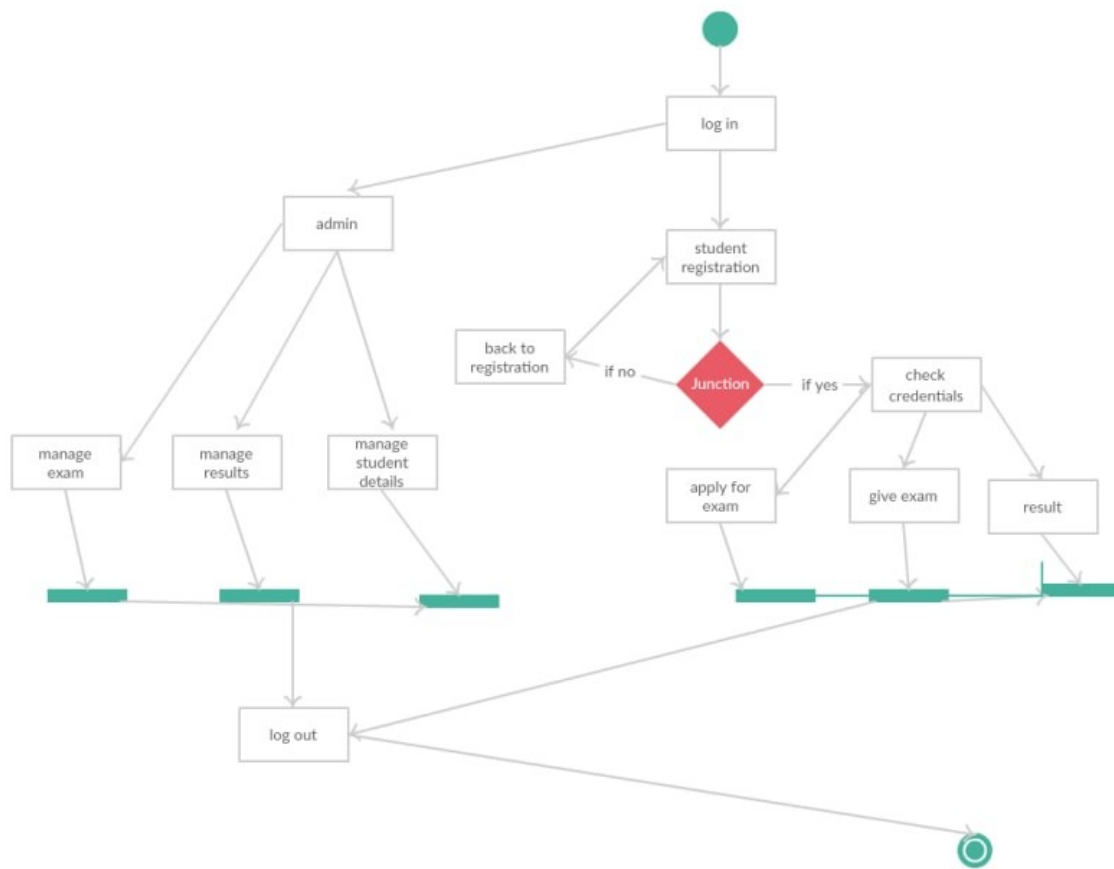


Online Examination System - Level 1

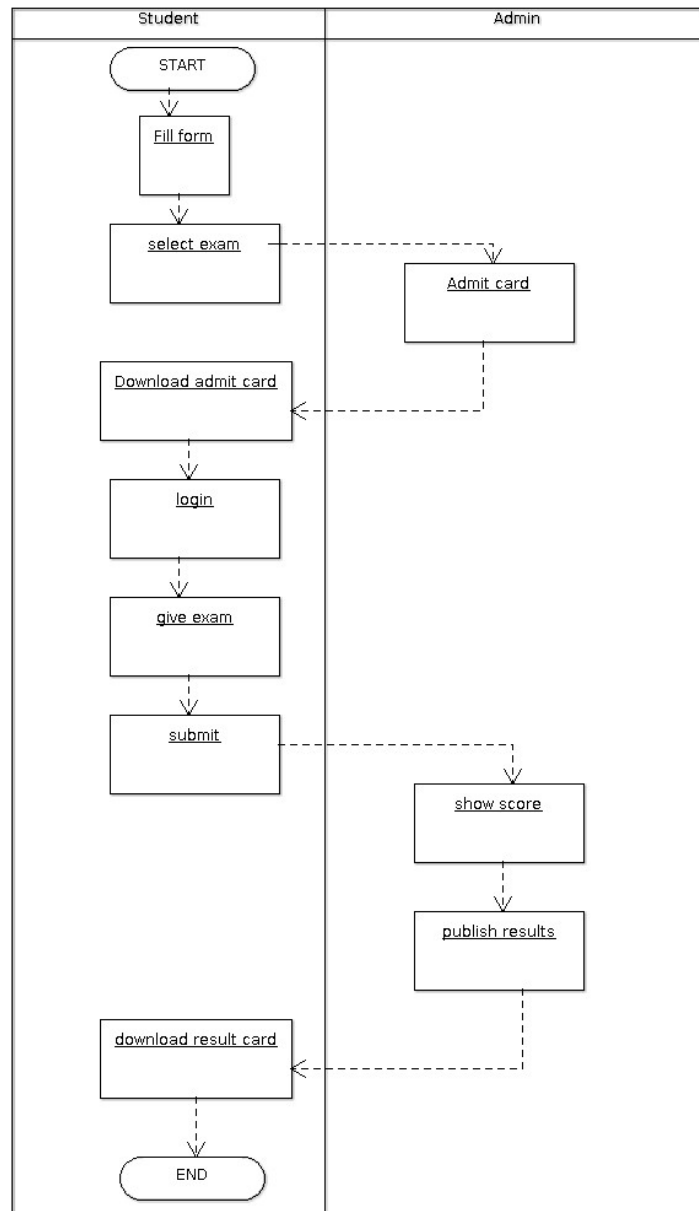


DFD Level 2

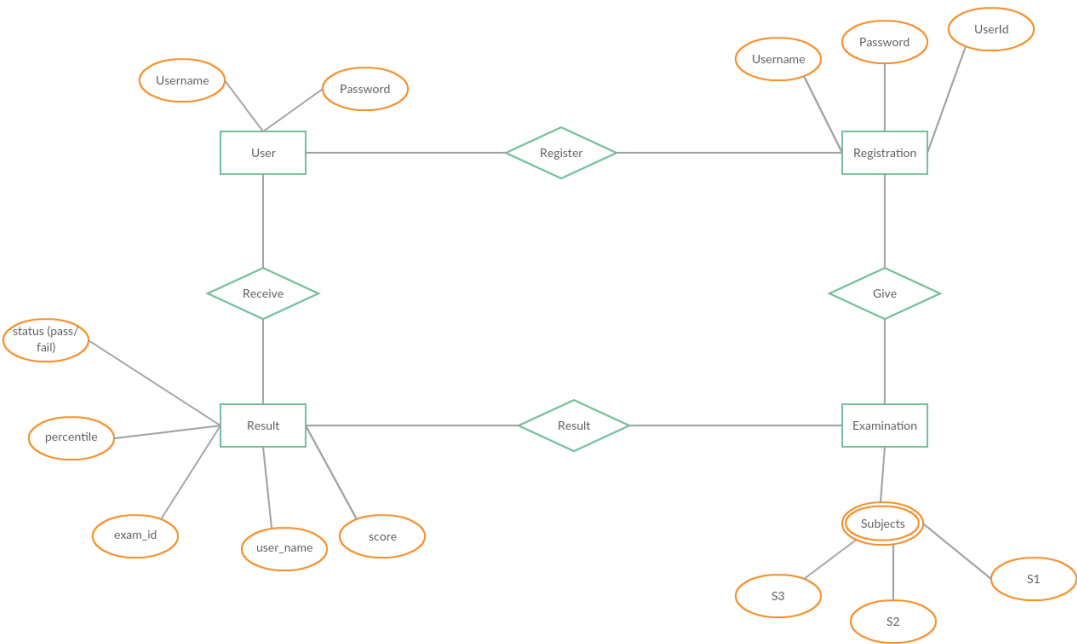
6) STATE DIAGRAM



7) SWIMLANE DIAGRAM

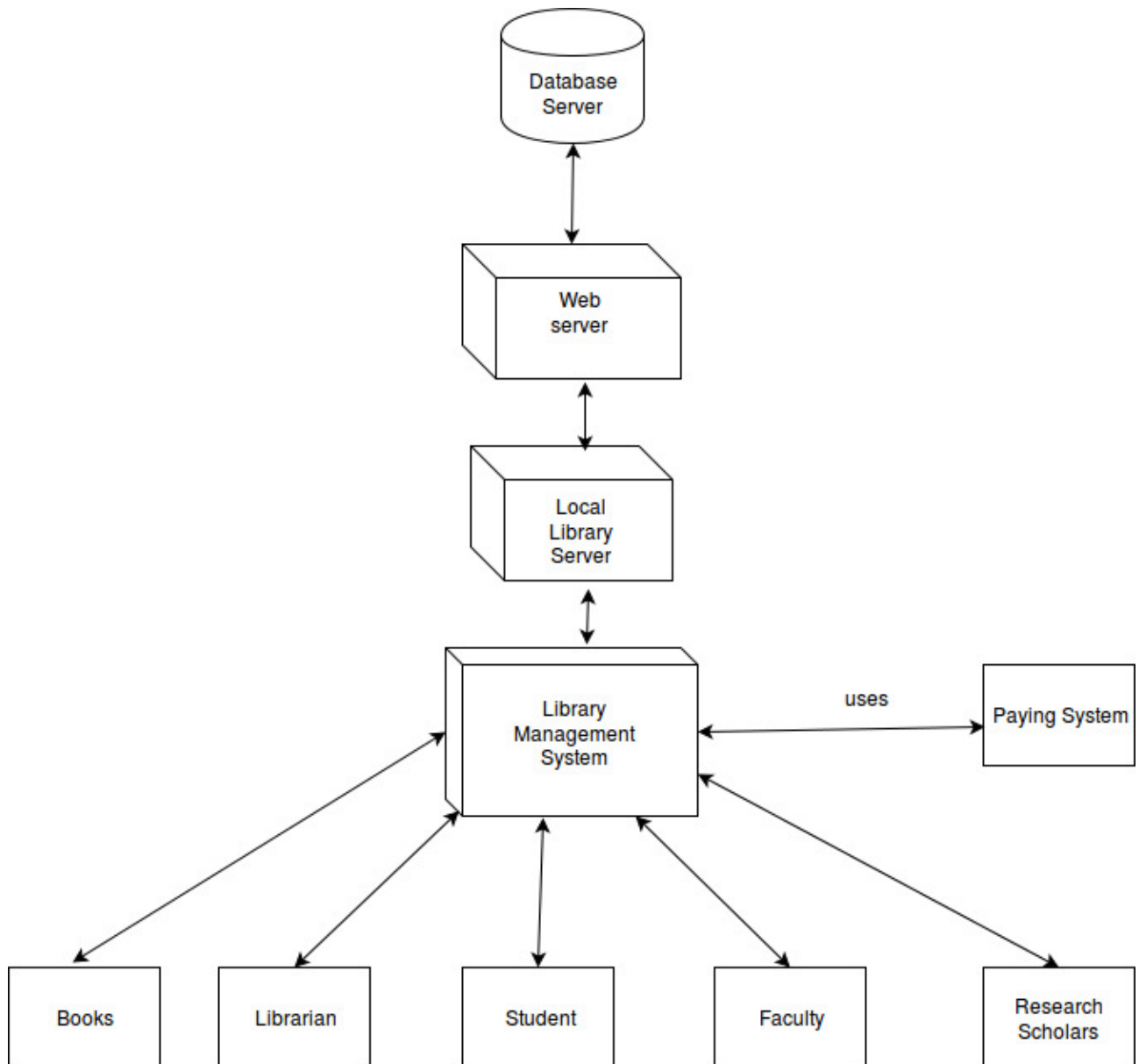


8) E-R DIAGRAM

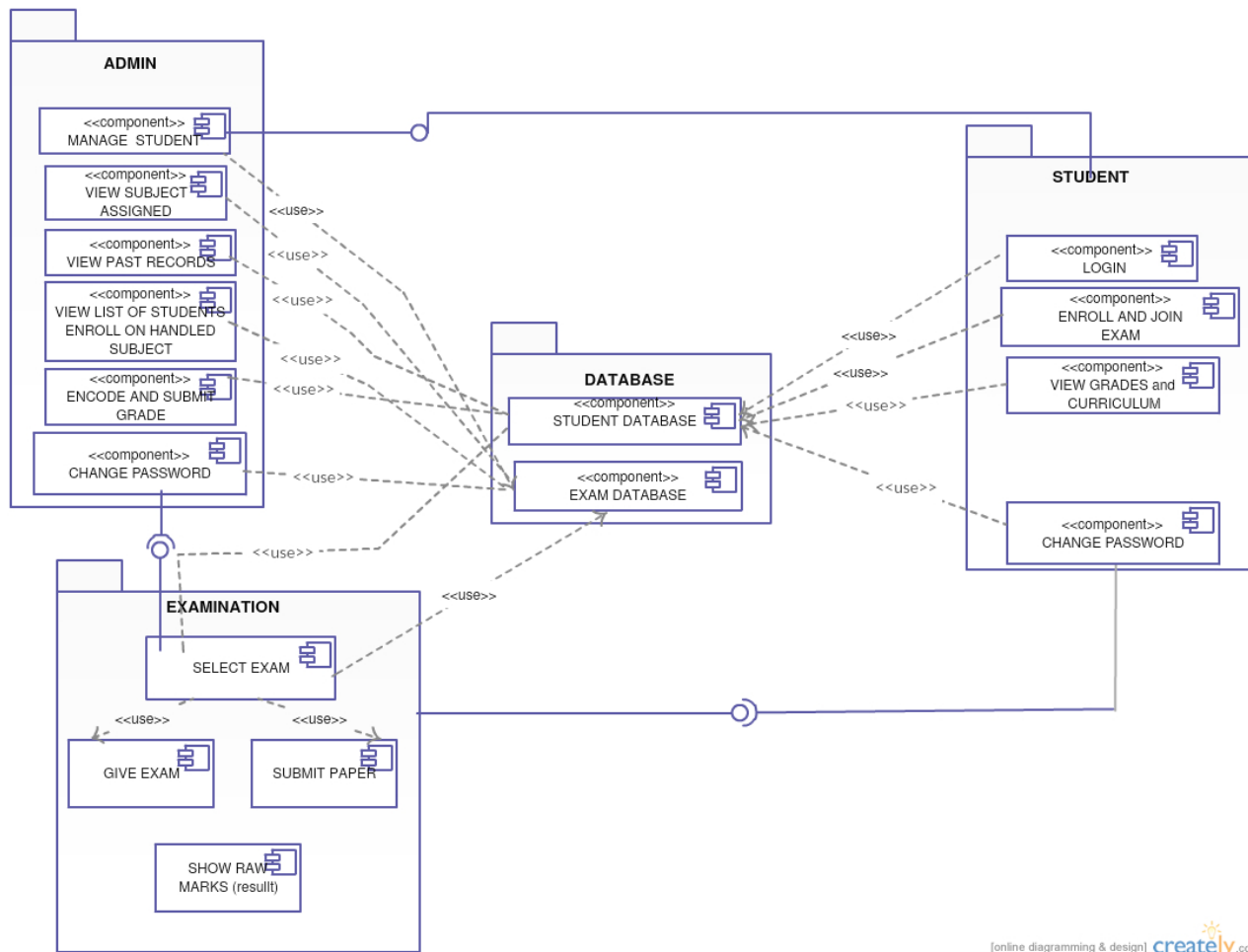


(7) SYSTEM DESIGN

1) ARCHITECTURE DESIGN



2) COMPONENT LEVEL DIAGRAM



(8) CONCLUSION

This Web Application provides facility to conduct online examination world wide. It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server.

Administrator has a privilege to create, modify and delete the test papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.