



**Daffodil**  
*International*  
**University**

## **Final Report**

**Software Engineering Project-II (Web Programming)**

**SWE-332**

**Project: Online Quiz Maker**

**Group: Error Squad**

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## **Abstract**

Online Quiz Maker is a web-based quiz system where quizzes are given online. Either through the internet or intranet using a computer system. The main goal of this online quiz maker is to effectively evaluate the student thoroughly through a totally automated system that not only reduces the required time but also obtains fast and accurate results. Also, it helps faculties to take quizzes easily any time with efficiency.

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## **Introduction**

Online Quiz Maker 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 quiz maker students can do the exam online, in their own time, with their own device, regardless of where they live. They only need a browser and an internet connection. Online Quiz Maker is a cost-effective, scalable way to convert traditional pen and paper-based exams to online and paperless mode. Candidates can appear for the exam using any desktop, laptop, or mobile device with a browser. Exam results can be generated instantly for the objective type of questions.

## **Purpose**

The purpose of an online quiz maker is to take online tests in an efficient manner and no time wasting for checking the paper. The main objective of an online quiz maker is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a 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 things 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 the corporate world.
- Can be used anywhere any time as it is a web based application (user location doesn't matter).
- No restriction that the examiner has to be present when the candidate takes the test.

## **Existing System**

The whole process of assigning quizzes 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.
- Results are not precise as calculation and evaluations are done manually.
- The chances of paper leakage are more in the current system as compared to the proposed system.
- Result processing takes more time as it is done manually.

## **Need for New System**

To solve these problems they required a computerized system to handle all the work. They required a web based application that will provide a working environment that will be flexible and will provide ease of work. Also, will reduce the time for report generation and other paper works.

The main purpose behind the proposed system is to take online tests in an efficient manner and no time wasting for checking the paper. The main objective of an online quiz maker is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a lot of time but also gives fast results.

## **Advantages**

- This Web Application provides facility to conduct online quizzes worldwide.

- It saves time as it allows a 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.

## **Technologies**

This project is a web application that is developed in Laravel 6.0 with MySQL Database.

Front-end: Blade template, HTML, CSS, Bootstrap, JavaScript

Back-end: PHP, JavaScript

Database: MySQL

Query language: Structured Query Language (SQL)

## **Hardware Interface**

- Processor: Minimum 1 GHz; Recommended 2GHz or more
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- Hard Drive: Minimum 32 GB; Recommended 64 GB or more
- Memory (RAM): Minimum 1 GB; Recommended 4 GB or above

## **Software Interface**

Supported Browsers: Firefox, Safari, Chrome, Internet Explorer etc.

## Constraints

- User interface is only in English i.e. no other language option is available.
- Users can login only with his assigned username and password i.e. no guest facility is available.
- Limited to HTTP/HTTPS.

## User Characteristics

The end user of the software can be divided into two categories:

Faculties: Access to making question sets, taking quizzes and generating reports.

Students: Access to his corresponding records and giving quizzes only.

## Features

Create Exam: Registered teachers can create quizzes after logging in to the system. The teacher has to enter teacher id, course code, number of questions and time limit for the exam. After that the teacher can create questions set for the exam.

Marks: In this option the teachers can see the marks of the students. Also, the teacher can search marks by using course code or exam code.

History: In this option the teacher can see previous records. Also they will be able to edit the question set. In this option teachers can see how many students attempted the quiz.

Give Exam: Students can attend the quiz by entering their student id and exam code which is provided by the teacher. They will have to complete the exam within the time limit. After limited time the exam set will be invalid.

Result: Students can see their result by entering their student id and exam code. With marks they will be able to see their given answer and correct answer.

Authentication: For authentication teachers need to register first and then they will be able to login to the system by using their user email and password.

## Data Tables

### Student Table

| Attribute Name | Data Type | Description          |
|----------------|-----------|----------------------|
| Student Id     | Int       | Student id           |
| Uniqueid       | varchar   | Exam code            |
| Score          | int       | Marks                |
| Created at     | timestamp | Create time and date |
| Updated at     | timestamp | Update time and date |

### Question Table

| Attribute Name | Data Type | Description            |
|----------------|-----------|------------------------|
| quiz_id        | integer   | ID of the quiz         |
| question       | string    | Question for the quiz  |
| choice1        | string    | Frist choice           |
| choice2        | string    | Second choice          |
| choice3        | string    | Third choice           |
| choice4        | string    | Fourth choice          |
| answer         | string    | Answer of the question |

### Answer Table

| Attribute Name | Data Type | Description |
|----------------|-----------|-------------|
|----------------|-----------|-------------|



|             |         |                                       |
|-------------|---------|---------------------------------------|
| Student Id  | int     | Give Student Id                       |
| Question    | Varchar | Students can read the question paper. |
| Given Exam  | Varchar | And also give the answer              |
| True Answer | Varchar | See the correct answer.               |

### Examinfo table

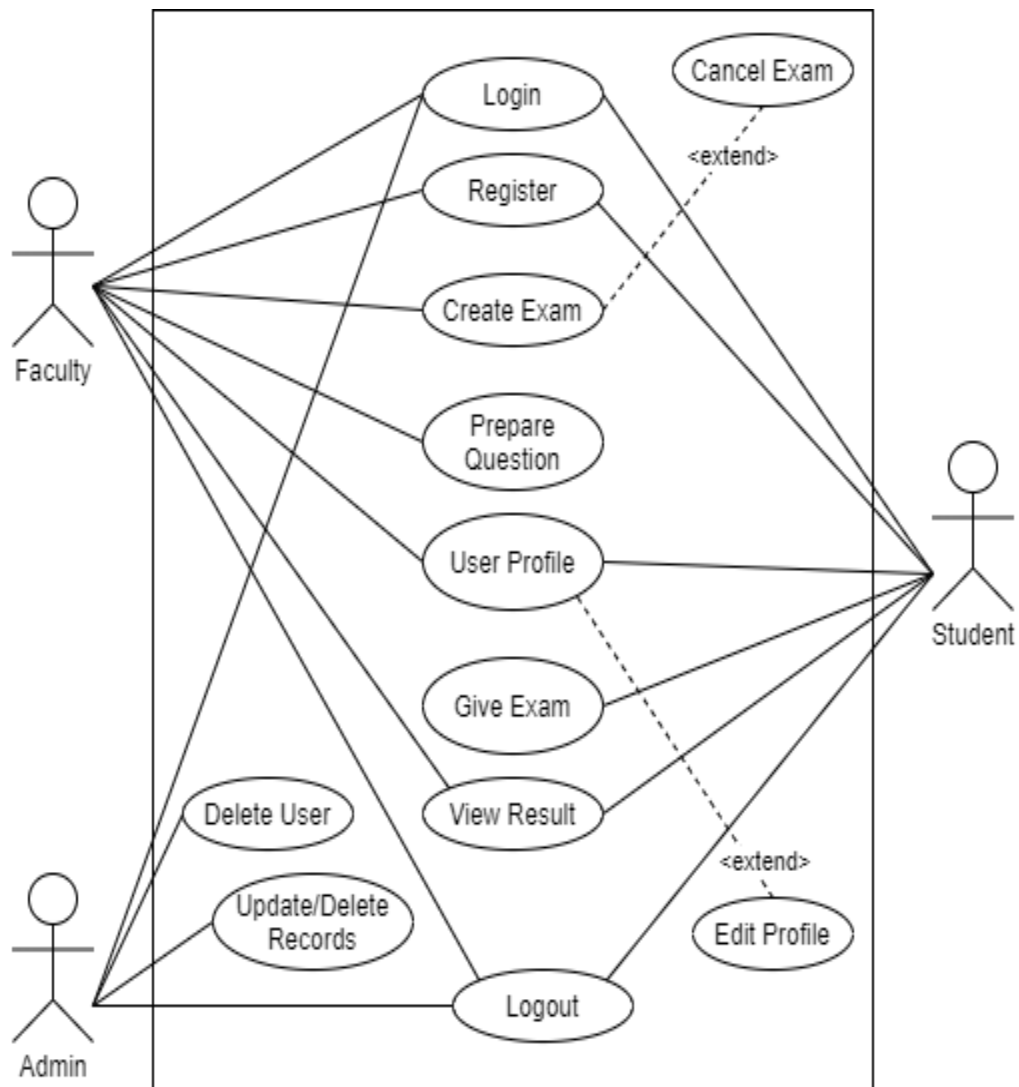
| Attribute Name  | Data Type | Description                          |
|-----------------|-----------|--------------------------------------|
| Id              | int       | Auto increment id                    |
| Teacher_id      | Varchar   | Given teacher ID                     |
| Course          | Varchar   | Course code                          |
| question_length | int       | Number of question in a question set |
| uniqueid        | Varchar   | Exam code                            |
| time            | Varchar   | Exam time                            |

### User Table

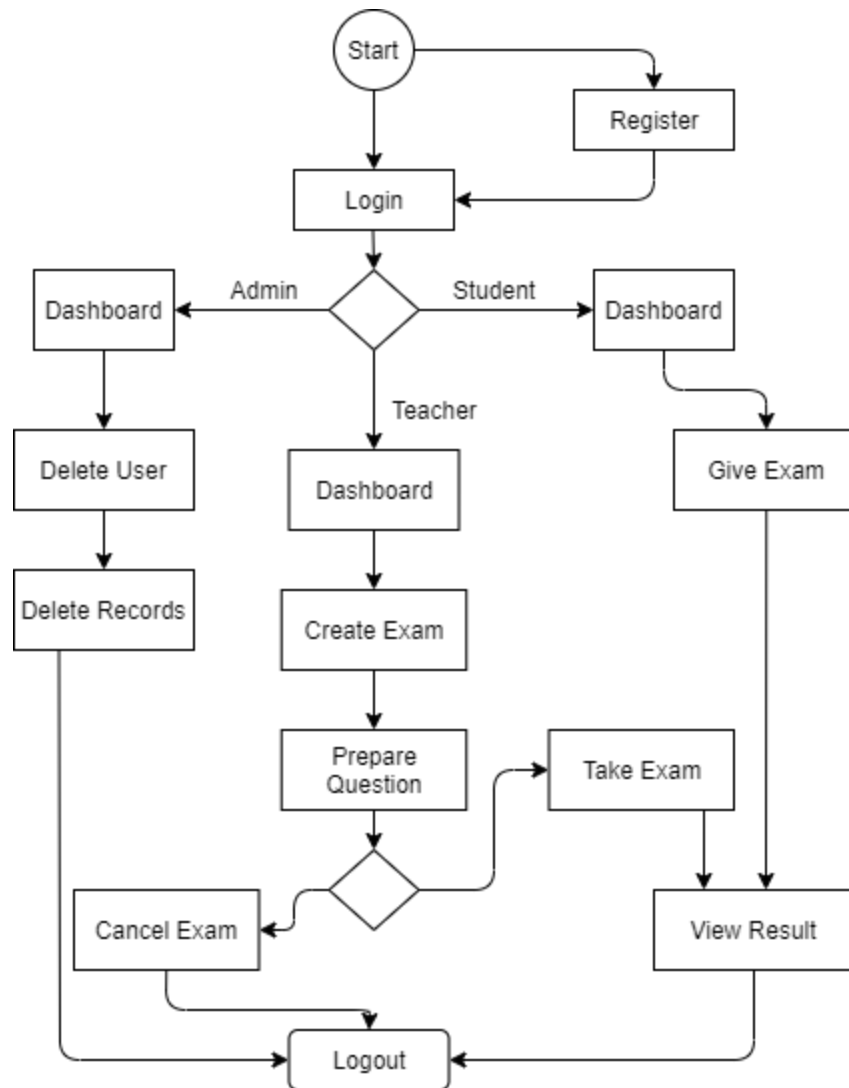
| Attribute Name | Data Type | Description      |
|----------------|-----------|------------------|
| Name           | Varchar   | Name of the user |
| Email          | Varchar   | User Email       |
| Password       | Varchar   | User password    |

## Diagrams

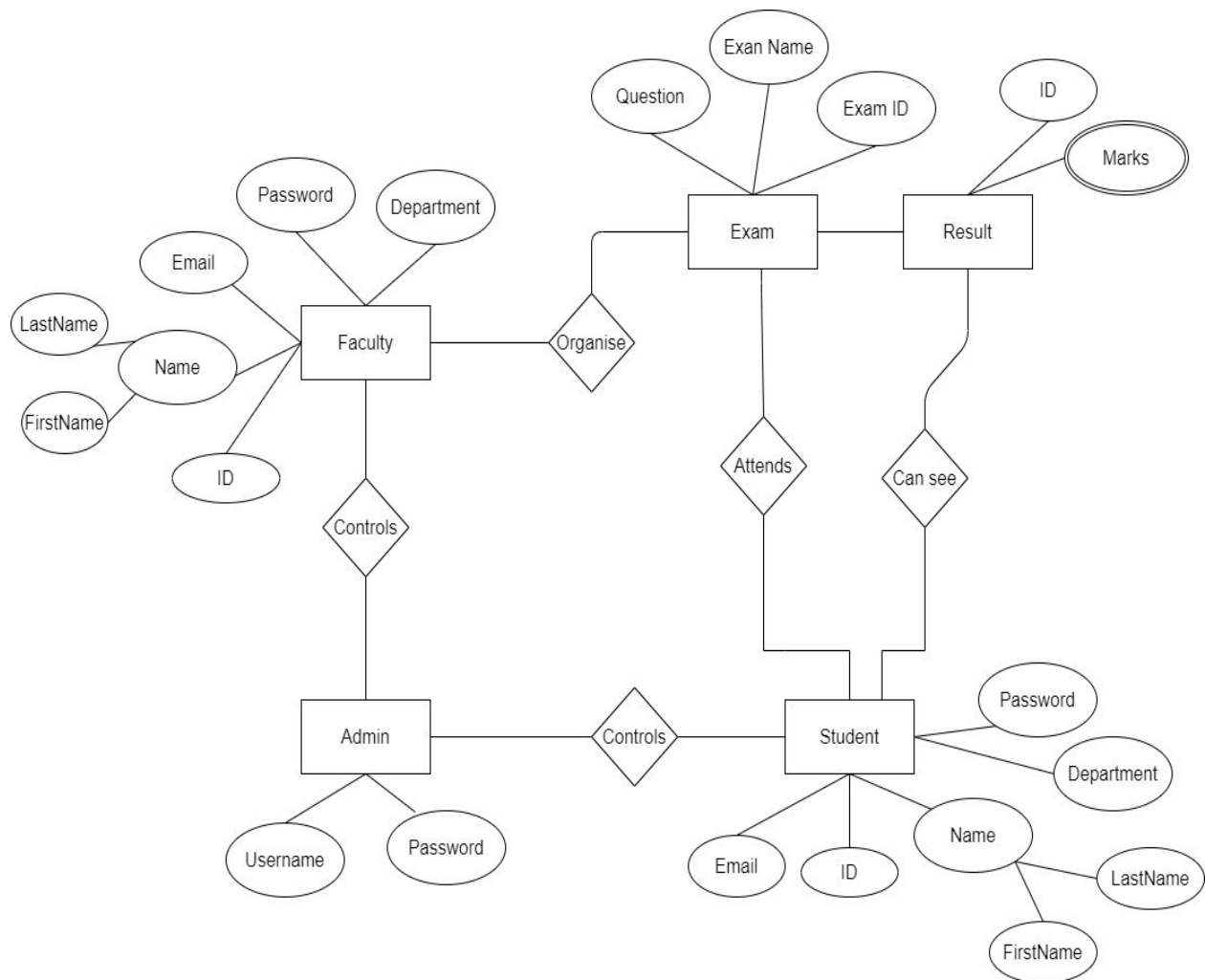
### Use Case Diagram:



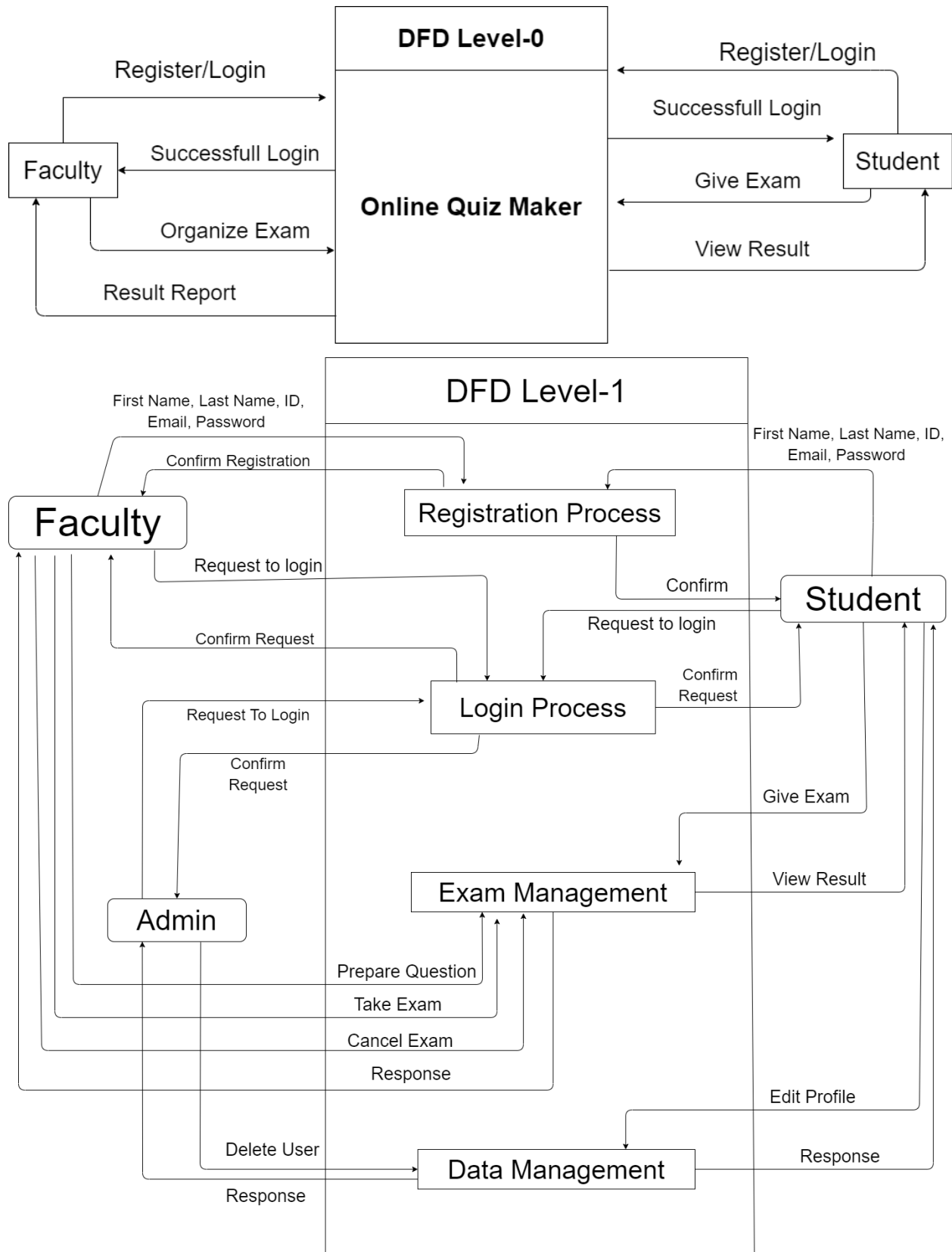
## Activity Diagram:



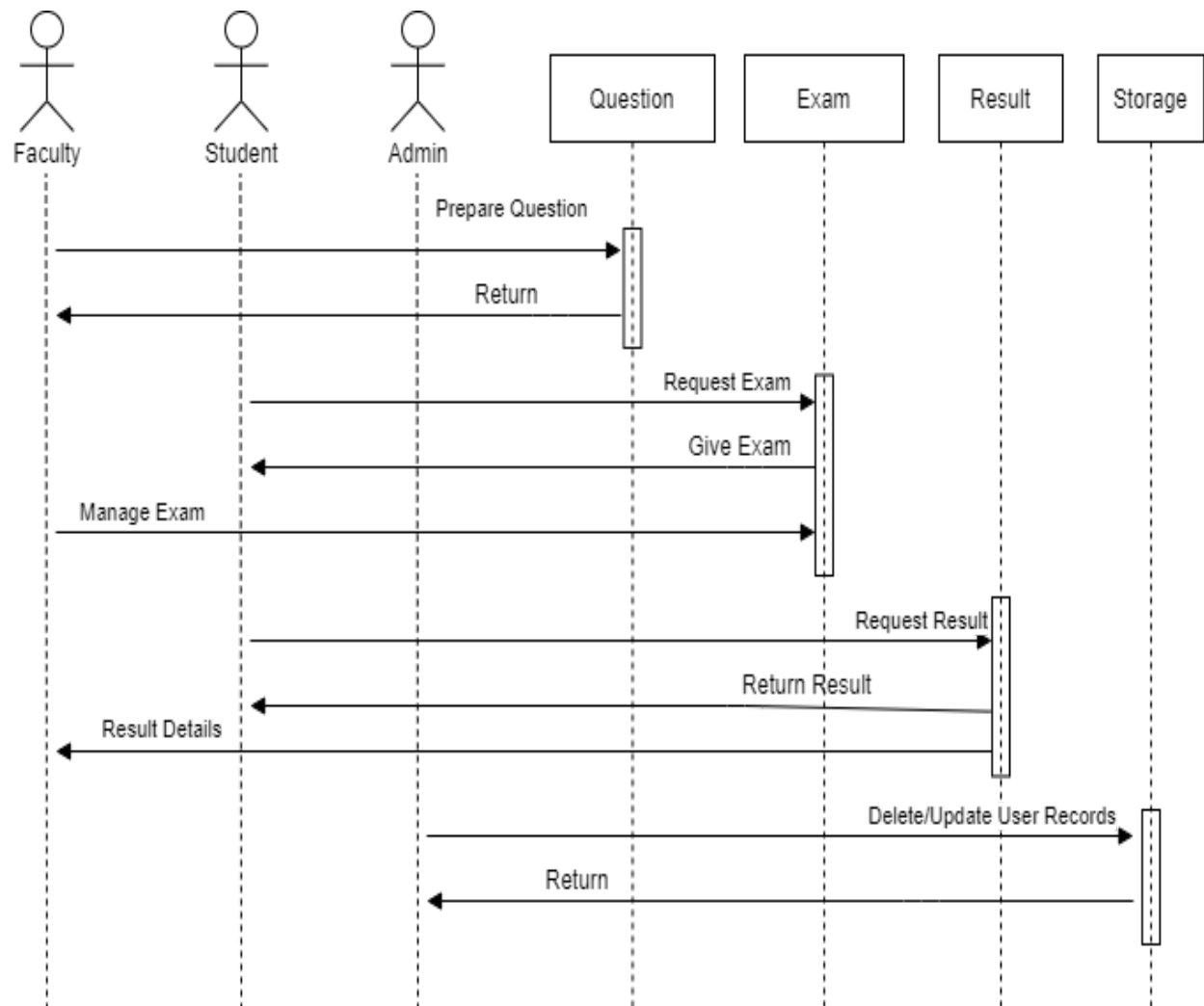
## ER Diagram:



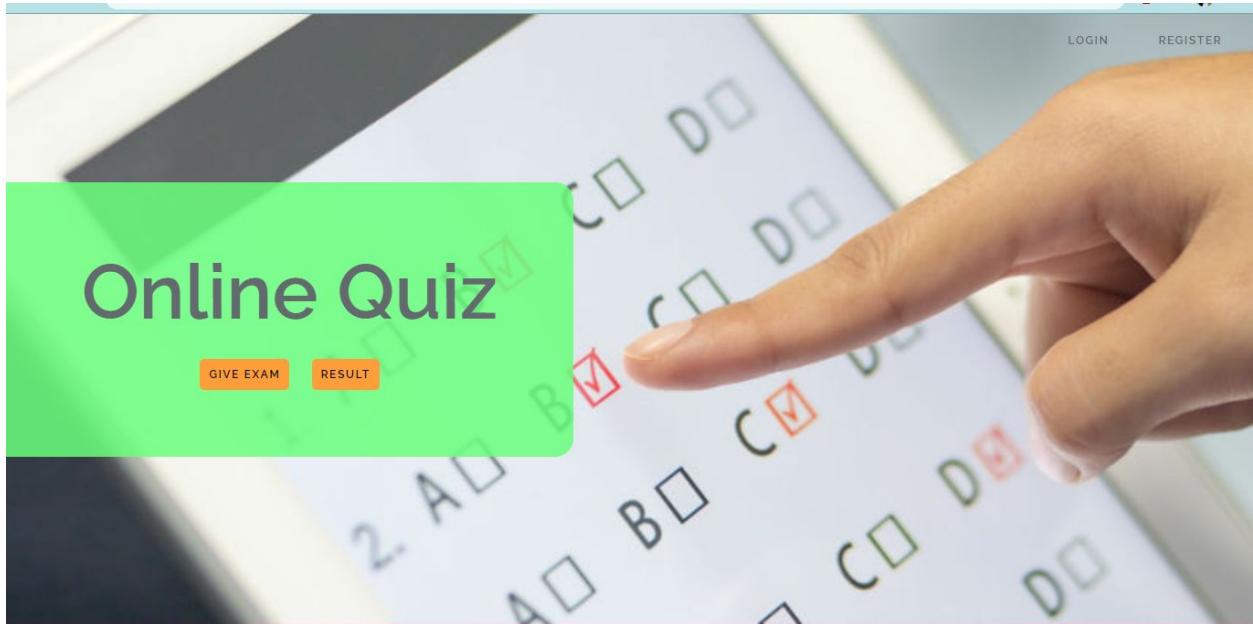
## DFD Diagram:



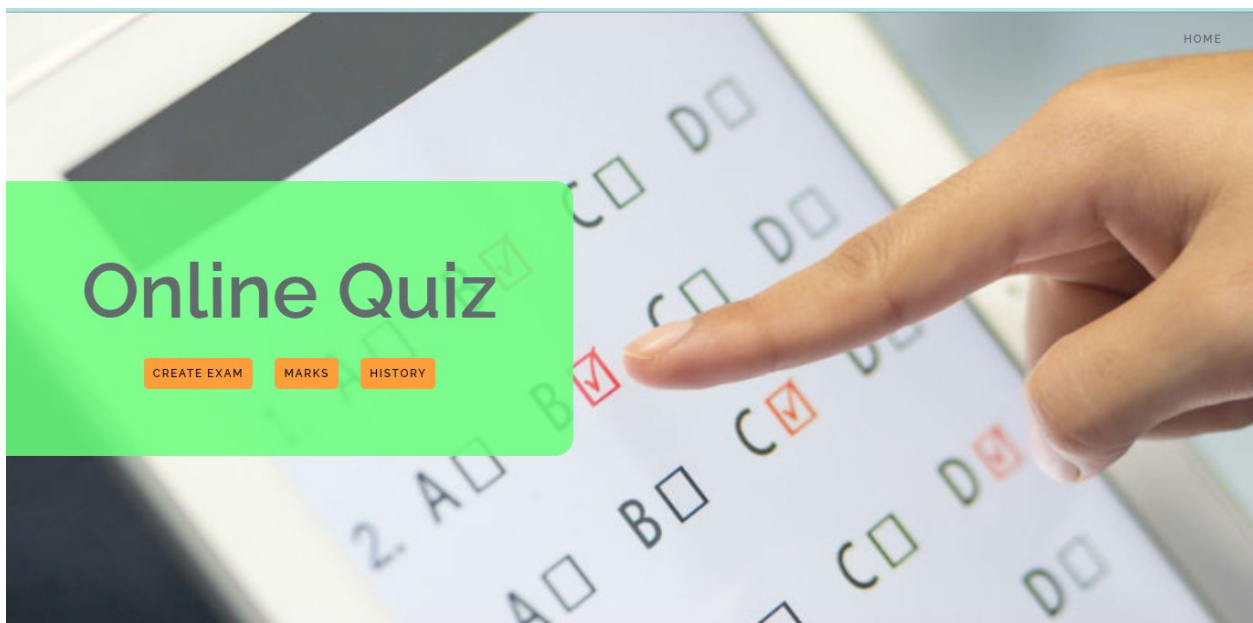
## Sequence Diagram:



## Screenshots of Project



Screenshot: Students Dashboard



Screenshot: Teachers Dashboard

Online Quiz

rafshan ▾

Teacher ID

example: someone123

Course Code

example: SWE123

Number Of Question

Eg 10

Set Time

Enter In Minute

Submit

Return

Screenshot: Creating Quiz

Online Quiz

rafshan ▾

Create Questions, System will redirect you when set is full

Question

What is SWE?

Option 1

Software Engineering

Option 2

Hardware Engineering

Option 3

Electronic Engineering

Option 4

Computer Engineering

Answer

Software Engineering

Quiz ID

Submit

Screenshot: Create Questions



Online Quiz Login Register

Student ID  
Eg 111222333

Exam Code  
Eg A6xgP

Submit

Return

\*\*\*Keep in mind that Question Set (next page) would be invalid after limited exam time. Try to give Answer in time.

Screenshot: Give Quiz

Online Quiz Login Register

Quiz on: SWE313

Time 4:50

Q: What is SWE? ?

- ☐ Software Engineering
- ☐ Hardware Engineering
- ☐ Electronic Engineering
- ☐ Computer Engineering

submit

Q: What is CSE? ?

- ☐ Electronic Engineering
- ☐ Food
- ☐ Computer Engineering
- ☐ Business

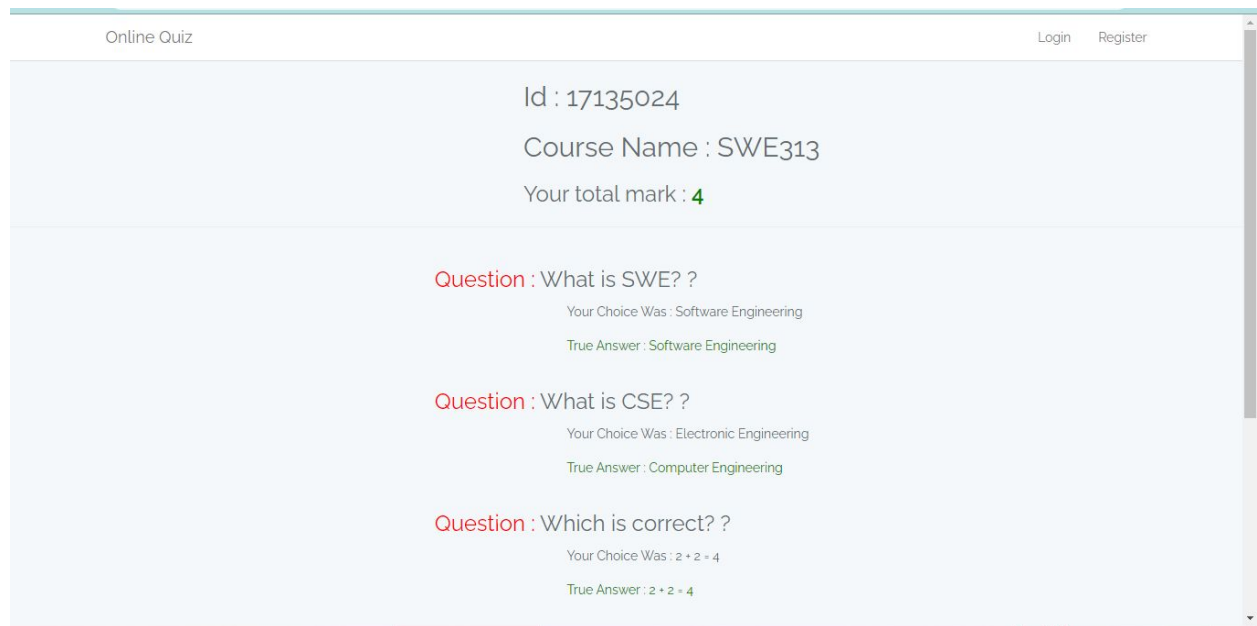
submit

Q: Which is correct? ?

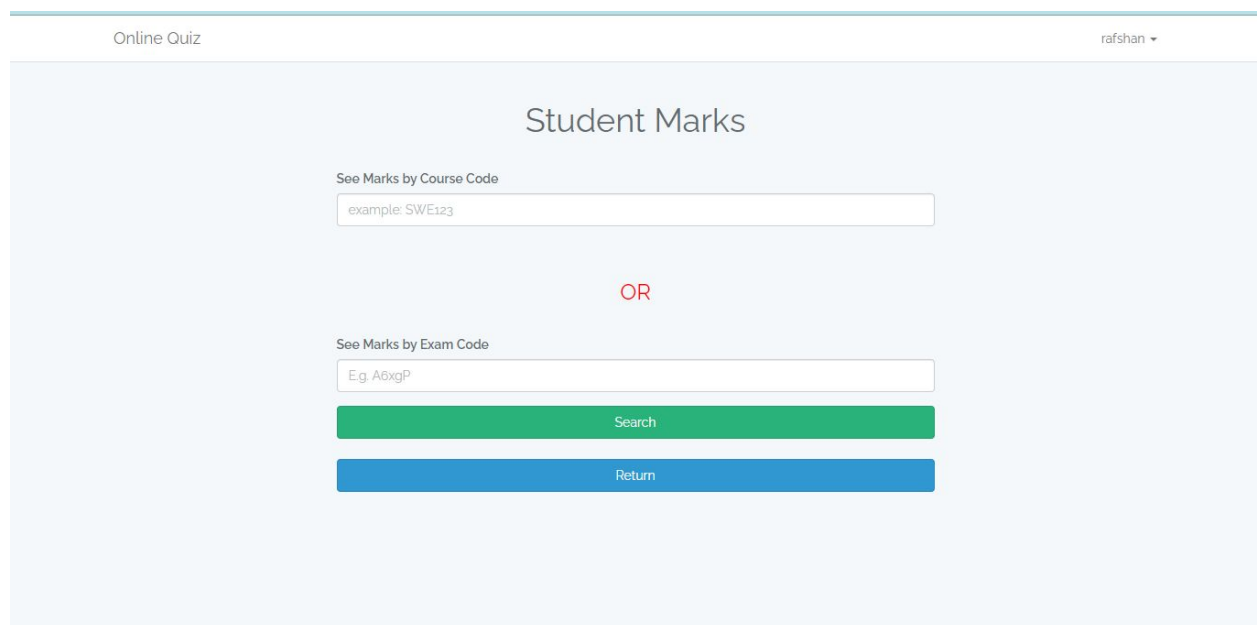
- ☐  $2 + 2 = 4$
- ☐  $2 * 2 = 6$
- ☐  $3 + 3 = 4$
- ☐  $3 * 3 = 6$

submit

Screenshot: Giving Quiz



Screenshot: Student result



Screenshot: Teacher mark search

Online Quiz

rafshan ▾

Showing Results

| Student ID | Mark |
|------------|------|
| 17135013   | 6    |
| 17135014   | 0    |
| 17135015   | 0    |
| 17135016   | 0    |
| 17135017   | 0    |
| 17135020   | 0    |
| 17135021   | 3    |

Return

Search Again

Screenshot: Teacher marks show

|                 |                        |           |  |  |  |
|-----------------|------------------------|-----------|--|--|--|
| Online Quiz     |                        | rafshan ▾ |  |  |  |
| Review Question |                        |           |  |  |  |
| Question :      | What is SWE?           |           |  |  |  |
| Choice 1 :      | Software Engineering   |           |  |  |  |
| Choice 2 :      | Hardware Engineering   |           |  |  |  |
| Choice 3 :      | Electronic Engineering |           |  |  |  |
| Choice 4 :      | Computer Engineering   |           |  |  |  |
| Answer :        | Software Engineering   |           |  |  |  |
| Edit            |                        |           |  |  |  |
| Question :      | What is CSE?           |           |  |  |  |
| Choice 1 :      | Electronic Engineering |           |  |  |  |

Screenshot: Question review

Online Quiz rafshan ▾

|            |   |
|------------|---|
| Question : | <input type="text" value="Laravel is a _____?"/>  |
| Choice 1 : | <input type="text" value="Programming language"/> |
| Choice 2 : | <input type="text" value="Query language"/>       |
| Choice 3 : | <input type="text" value="Database"/>             |
| Choice 4 : | <input type="text" value="Framework"/>            |
| Answer :   | <input type="text" value="Framework"/>            |

[update](#)

Screenshot: Update question

Online Quiz rafshan ▾

Your Question Set is Complete

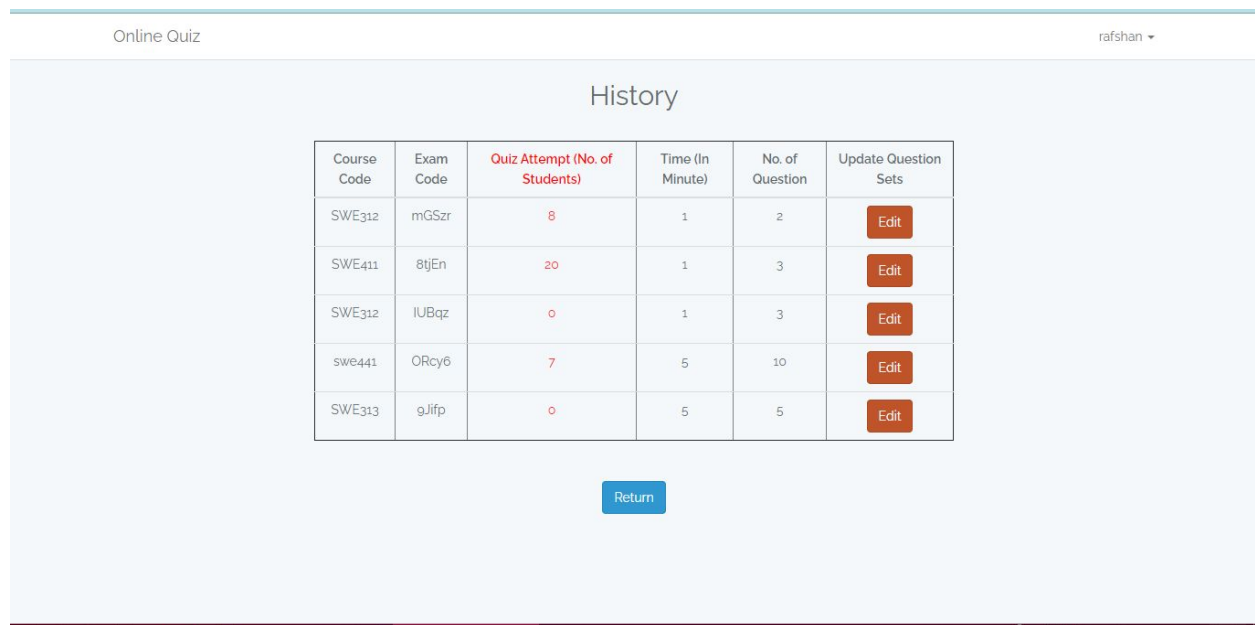
Please Remember your Exam Code :

**9Jifp**

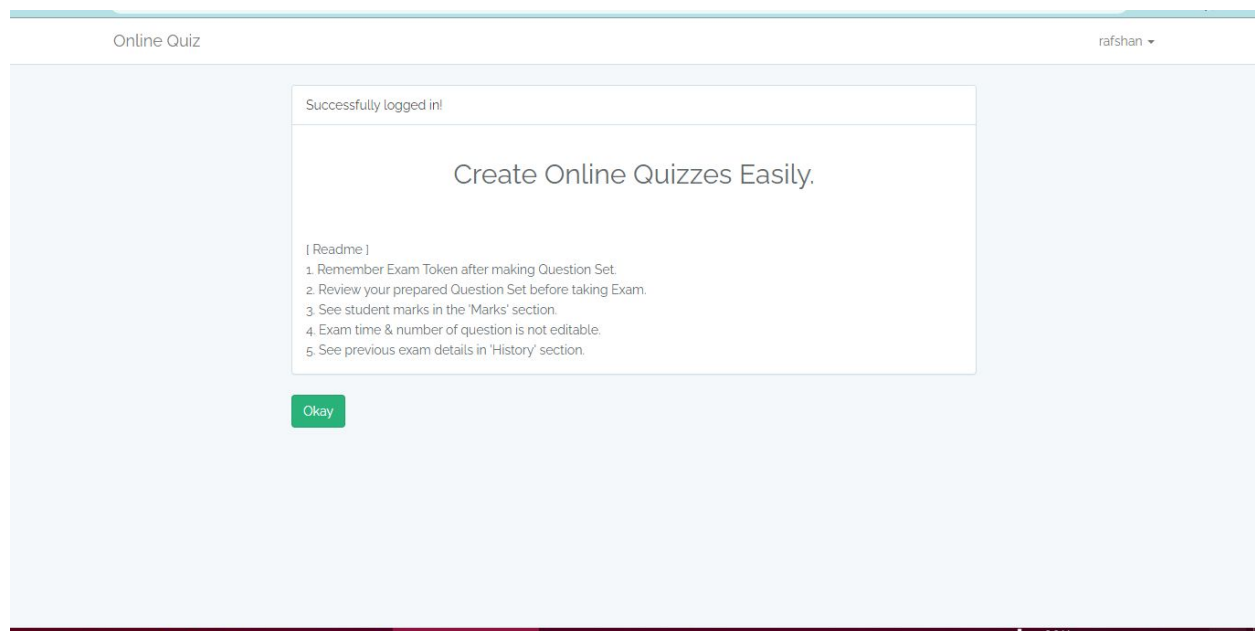
[Return Home](#)

[Review Questions](#)

Screenshot: Receive Exam Code



Screenshot: Previous records



Screenshot: Welcome screen after login / register

## Conclusion

Online Quiz Maker is a user friendly system, which is very easy and convenient to use. The system is complete in the sense that it is operational and it is tested by entering data and getting the reports in proper order. But there is always a scope for improvement and enhancement. During the development of this ,coding standards are followed for easy maintainability and extensibility

## References

- <https://laravel.com/> [The PHP Framework For Web Artisans]
- <https://www.apachefriends.org/> [XAMPP Apache + MariaDB + PHP + Perl]
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