

# Smart System for Dividing Students into Groups

## 1. Verbal Description of the System

The **Smart System for Dividing Students into Groups** is a web-based application designed to help teachers divide large classes into smaller, knowledge-level-based groups. The system enables teachers to create multiple-choice questionnaires, and students can log in to answer them.

The system calculates scores based on correct answers and automatically groups students according to percentage ranges (Fail, Average, Good, Excellent). This allows more effective and personalized teaching.

Teachers can also view detailed reports as Student distribution across groups

The system has **separate logins for teachers and students**, with a dedicated teacher dashboard for managing quizzes, students, and reports.

## 2. Technologies Used

### 2.1 System Architecture

Three-tier architecture:

- Presentation Layer – User Interface (Bootstrap + Blade Templates)
- Application Layer – Business logic in Laravel
- Data Layer – MySQL database

### 2.2 Front-End Technologies

- HTML5, CSS3, JavaScript
- Bootstrap (responsive design & styling)

### 2.3 Back-End Technologies

- PHP (Laravel Framework)


### 2.4 Database

- MySQL (Relational Database)

### 3. Screen Navigation / Screen Flow

#### 3.1 Teacher Side

##### a) Teacher (sign-up)

[HOME](#) [QUESTIONNAIRE SCHEDULE ▾](#) [NOTICE BOARD](#) [REGISTER ▾](#) [LOGIN ▾](#)

## TEACHER REGISTRATION

Name:

Email Address:

Confirm Email Address:

Your email will not be shared with anyone\*

Password:

Confirm Password:

Institution Name:

Department:

Designation:

Teacher ID:

Contact Number:

Gender:

must be valid\*

Your Image:


No file chosen


Size less than equal 3mp\*

Register

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## b) Teacher (login)

[HOME](#) [QUESTIONNAIRE SCHEDULE ▾](#) [NOTICE BOARD](#) [REGISTER ▾](#) [LOGIN ▾](#)



### TEACHER LOGIN

Email


Password

If already not account, then sign-up

Submit

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## c) Teacher Dashboard

[HOME](#) [Questionnaire List](#) [NOTICE BOARD](#) [TESTING TEACHER ▾](#)

[DASHBOARD](#)[QUESTIONNAIRES INFO ▾](#)[STUDENT INFO ▾](#)

[Home / Dashboard](#)

STUDENT INFORMATION

STUDENT LIST

STUDENT GROUP

QUESTIONNAIRES INFORMATION


QUESTIONNAIRE LIST


CREATE EXAM


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## c) Questionnaires

### Questionnaire, Create Exam

HOMEQuestionnaire ListNOTICE BOARDTESTING TEACHER ▾



DASHBOARD

Questionnaires INFO ▾

STUDENT INFO ▾

### Questionnaire Details Information


Questionnaire Title:

Questionnaire Code:  Questionnaire Date:   Questionnaire Time:  

Total Marks:  Total Time in Minutes:

CREATE

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HOMEQuestionnaire ListNOTICE BOARDTESTING TEACHER

DASHBOARD

Questionnaires INFO

STUDENT INFO

Home / Create Questionnaire

Add Questions

Question \*:

Give Options:  

A

B

C

D

Select Your Answer:  

A

FINISH


INSERT

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## d) Questionnaires Listing



HOMEQuestionnaire ListNOTICE BOARDTESTING TEACHER

DASHBOARD

Questionnaires INFO

STUDENT INFO

Home / Questionnaire List

Questionnaire Lists


No.	Questionnaire Title	Date	Time	Marks	Update Exam
1	First Questionnaire	2025-08-14	09:35:00	100	<a href="#">Update</a>
2	Test exam 2	2025-08-17	23:58:00	100	<a href="#">Update</a>


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## e) Update Questionnaire Screen

HOME   Questionnaire List   NOTICE BOARD   TESTING TEACHER ▾

 DASHBOARD

 Questionnaires INFO ▾

 STUDENT INFO ▾

Home / Create Questionnaire

QUESTIONNAIRE TITLE: FIRST QUESTIONNAIRE

Questionnaire Date: 2025-08-14   Total Time: 5 min   Full Marks: 100

Edit   Delete

1. Which of the following is an example of an operating system?  
A. Microsoft Word                      B. Windows 10  
C. Google Chrome                      D. Adobe Photoshop  
Answer: B

Edit   Delete

2. In computer networks, what does "IP" stand for in "IP Address"?  
A. Internet Process                      B. Internal Protocol  
C. Internet Protocol                      D. Interface Point  
Answer: C

Edit   Delete

3. Which data structure works on the principle of "First In, First Out" (FIFO)?  
A. Stack                                      B. Queue  
C. Tree                                        D. Graph  
Answer: B


Edit   Delete

4. What does HTML stand for?  
A. Hyperlinks and Text Markup Language                      B. Hyper Text Markup Language  
C. High Transfer Markup Language                      D. Home Tool Markup Language  
Answer: B

Edit   Delete

Add Question

f) Student Info (student list

HOME Questionnaire List NOTICE BOARD TESTING TEACHER ▾

[DASHBOARD](#)

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[Questionnaires INFO ▾](#)

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[STUDENT INFO ▾](#)


Home / Student List

### Select The Course

No.	Questionnaire Title	Questionnaire Date	Questionnaire Time	Student List
1	First Questionnaire	2025-08-14	09:35:00	<a href="#">view to details</a>
2	Test exam 2	2025-08-17	23:58:00	<a href="#">view to details</a>

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g) No of student's Listing

HOME Questionnaire List NOTICE BOARD TESTING TEACHER ▾

[DASHBOARD](#)

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[Questionnaires INFO ▾](#)

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[STUDENT INFO ▾](#)


Home / Student List

### Student Lists


No.	Student Name	Reg. No.	Dept.	Marks
1	Testing Student	3524	IT	2


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## h) Student Info(student group)



HOMEQuestionnaire ListNOTICE BOARDTESTING TEACHER ▾

 DASHBOARD

 Questionnaires INFO ▾

 STUDENT INFO ▾


Home / Questionnaire List

Questionnaire Lists


No.	Questionnaire Title	Date	Time	Marks	View
1	First Questionnaire	2025-08-14	09:35:00	100	<a href="#">View Groups</a>
2	Test exam 2	2025-08-17	23:58:00	100	<a href="#">View Groups</a>


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## i) View Groups based on questionnaires.



HOMEQuestionnaire ListNOTICE BOARDCONTACT US ▾TESTING TEACHER ▾

 DASHBOARD

 Questionnaires INFO ▾

 STUDENT INFO ▾

Home / Dashboard

Student Lists


Filter by GroupShow All ▾


No.	Name	Reg. No	Score	Percentage	Group
1	Testing Student	3524	2	2%	F


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## j) Grouping Filtration

HOME Questionnaire List NOTICE BOARD TESTING TEACHER ▾

 DASHBOARD

 Questionnaires INFO ▾

 STUDENT INFO ▾

[Home](#) / [Student List](#)

Student Lists

Filter by Group 


Show All ▾


A+


A


B+B  
C  
D  
F  
Show All

No.	Student Name	Reg. No.	Dept.	Marks
1	Testing Student	3524	IT	2

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## 3.2 Student Side

### a) Student (Sign-up)

HOME QUESTIONNAIRE SCHEDULE ▾ REGISTER ▾ LOGIN ▾

## STUDENT REGISTRATION

Name:

Email Address:

Confirm Email Address:

Your email will not be shared with anyone

Password:

Confirm Password:

Institution Name:

Department:

Registration Number:

Year:

Semester:

Contact Number:

Gender:



must be valid\*

Your Image:

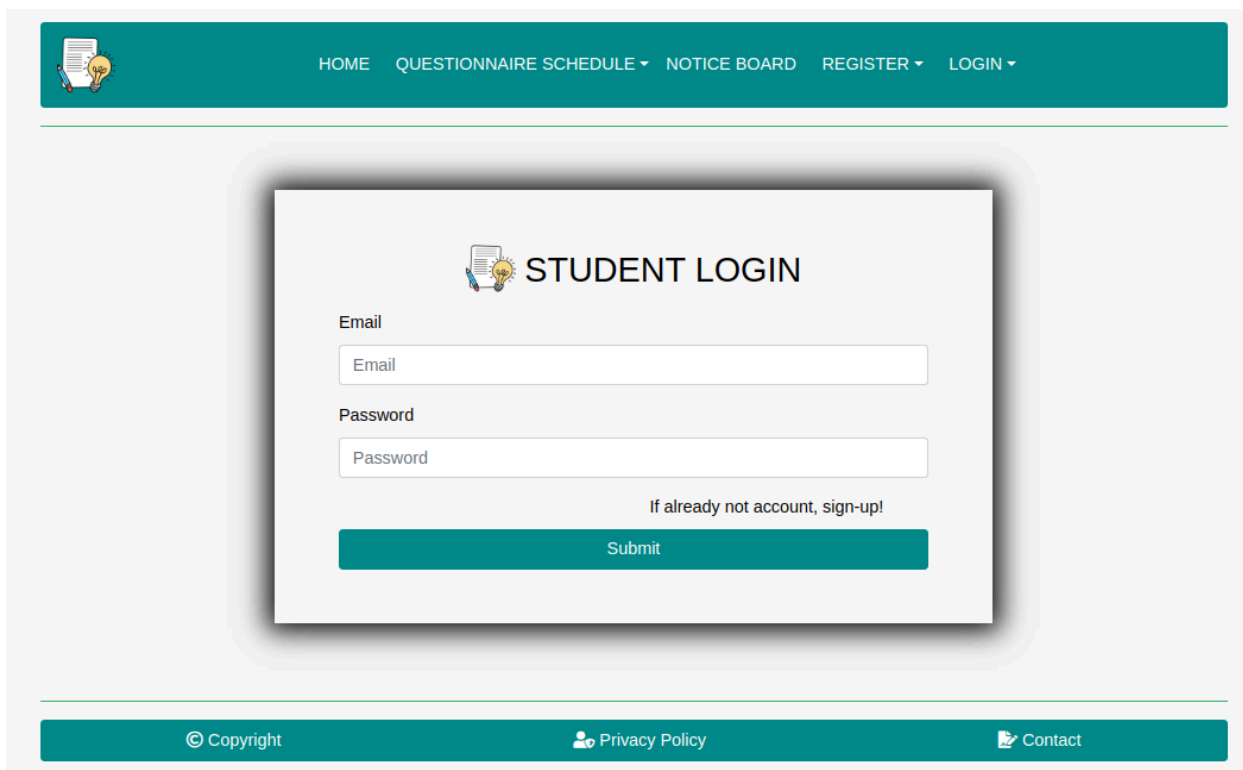
No file chosen

Size less than equal 3mp

Register

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## b) Student Login



The screenshot shows the 'STUDENT LOGIN' page. At the top is a teal navigation bar with a logo on the left and links for HOME, QUESTIONNAIRE SCHEDULE, NOTICE BOARD, REGISTER, and LOGIN. The main content area features a white login box with a light gray shadow. Inside the box, there's a title 'STUDENT LOGIN' with a small icon. Below the title are two input fields: 'Email' and 'Password'. A link 'If already not account, sign-up!' is positioned below the password field. A teal 'Submit' button is at the bottom of the login box. The footer is a teal bar containing '© Copyright', 'Privacy Policy', and 'Contact' links.

HOME QUESTIONNAIRE SCHEDULE NOTICE BOARD REGISTER LOGIN

### STUDENT LOGIN

Email

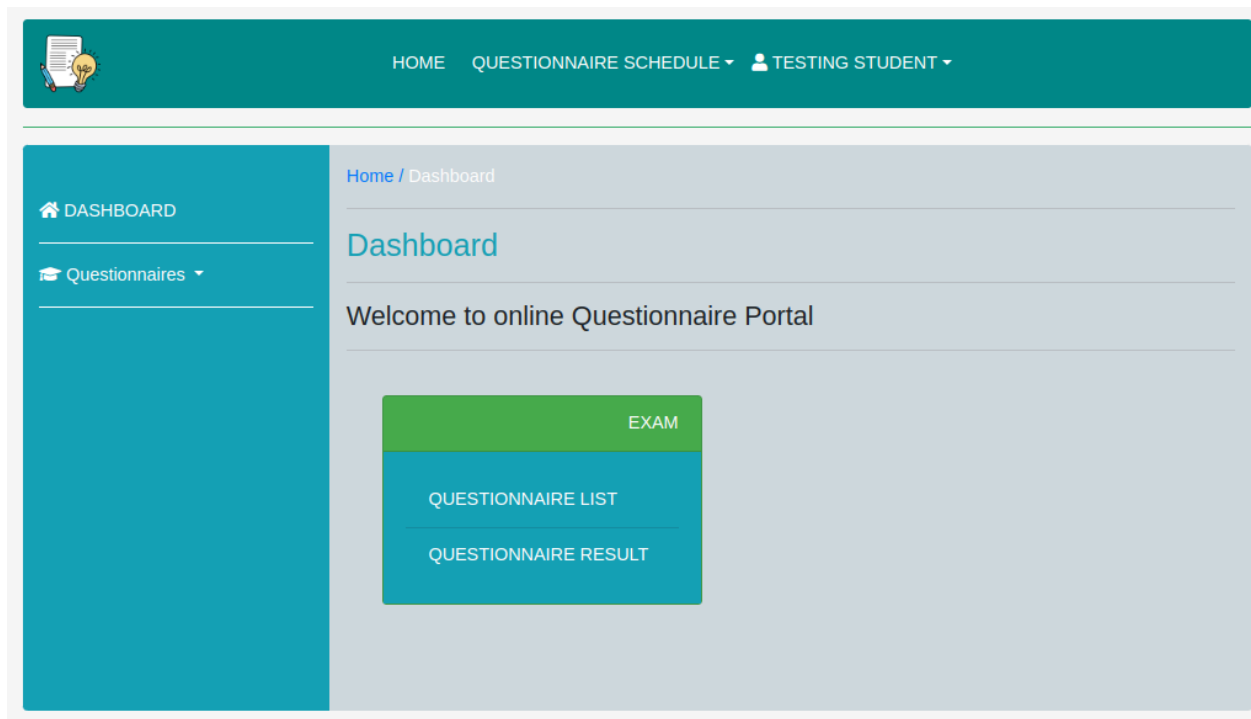
Password

[If already not account, sign-up!](#)

Submit

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## c) Student Dashboard



The screenshot displays the 'Student Dashboard'. The top teal navigation bar includes a logo and links for HOME, QUESTIONNAIRE SCHEDULE, and TESTING STUDENT. A left sidebar contains 'DASHBOARD' and 'Questionnaires'. The main content area has a breadcrumb 'Home / Dashboard', a title 'Dashboard', and a welcome message 'Welcome to online Questionnaire Portal'. A central teal box contains three buttons: 'EXAM' (green), 'QUESTIONNAIRE LIST', and 'QUESTIONNAIRE RESULT'.

HOME QUESTIONNAIRE SCHEDULE TESTING STUDENT

DASHBOARD

Questionnaires

Home / Dashboard

## Dashboard


Welcome to online Questionnaire Portal


EXAM


QUESTIONNAIRE LIST


QUESTIONNAIRE RESULT

d) Questionnaires Lists



HOME   QUESTIONNAIRE SCHEDULE ▾    TESTING STUDENT ▾

 DASHBOARD


 Questionnaires ▾

Home / Questionnaire List

Questionnaire Lists

No.	Questionnaire Title	Questionnaire Date	Questionnaire Time	Attend
1	First Questionnaire	2025-08-14	09:35:00	<a href="#">Attend</a>
2	Test exam 2	2025-08-17	23:58:00	<a href="#">Attend</a>

## e) Attend Questionnaire

[HOME](#) [QUESTIONNAIRE SCHEDULE](#) [TESTING STUDENT](#)

[DASHBOARD](#)  
[Questionnaires](#)

[Home / Exam](#)  

COUNTDOWN: **FINISHED**  
QUESTIONNAIRE TITLE: **FIRST QUESTIONNAIRE**  
Questionnaire Date: **2025-08-14**      Total Time: **5 min**      Full Marks: **100**  

1. Which of the following is an example of an operating system?  

☐ A. Microsoft Word

☐ B. Windows 10

☐ C. Google Chrome

☐ D. Adobe Photoshop

2. In computer networks, what does "IP" stand for in "IP Address"?  

☐ A. Internet Process

☐ B. Internal Protocol

☐ C. Internet Protocol

☐ D. Interface Point

3. Which data structure works on the principle of "First In, First Out" (FIFO)?  

☐ A. Stack

☐ B. Queue

☐ C. Tree

☐ D. Graph

4. What does HTML stand for?  

☐ A. Hyperlinks and Text Markup Language


☐ B. Hyper Text Markup Language


☐ C. High Transfer Markup Language

☐ D. Home Tool Markup Language


SUBMIT


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## f) Questionnaires Result

HOME   QUESTIONNAIRE SCHEDULE ▾   TESTING STUDENT ▾

 DASHBOARD


 Questionnaires ▾


[Home](#) / Questionnaire result


Questionnaire Result

No.	Questionnaire Title	Date	Questionnaire Time	Total Marks	Rank
1	First Questionnaire	2025-08-14	09:35:00	100	<a href="#">View</a>
2	Test exam 2	2025-08-17	23:58:00	100	<a href="#">View</a>

### g) View Score/Report

HOME   QUESTIONNAIRE SCHEDULE ▾   TESTING STUDENT ▾

 DASHBOARD

 Questionnaires ▾

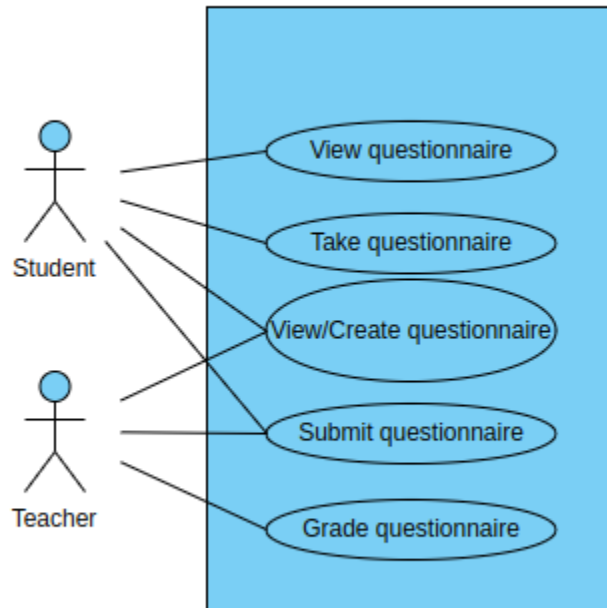
[Home](#) / Questionnaire Rank

Questionnaire Result

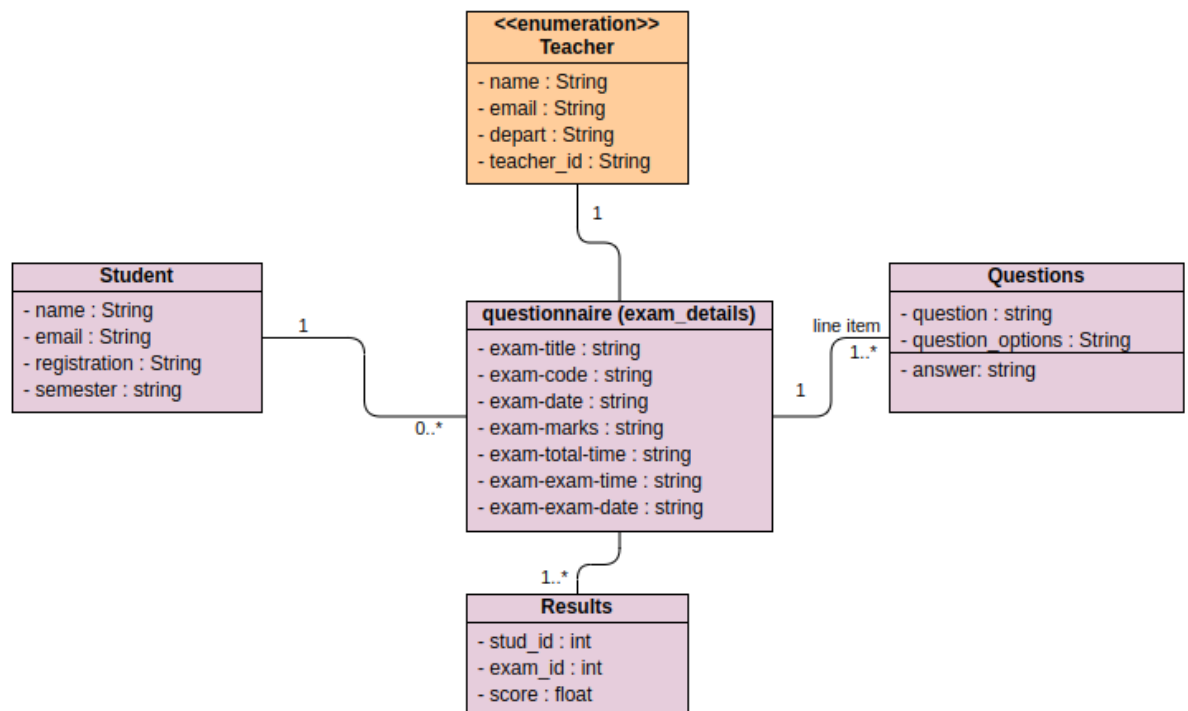
No.	Name	Reg. No	Dept.	Score
1	Testing Student	3524	IT	2

## 4 UML Diagrams

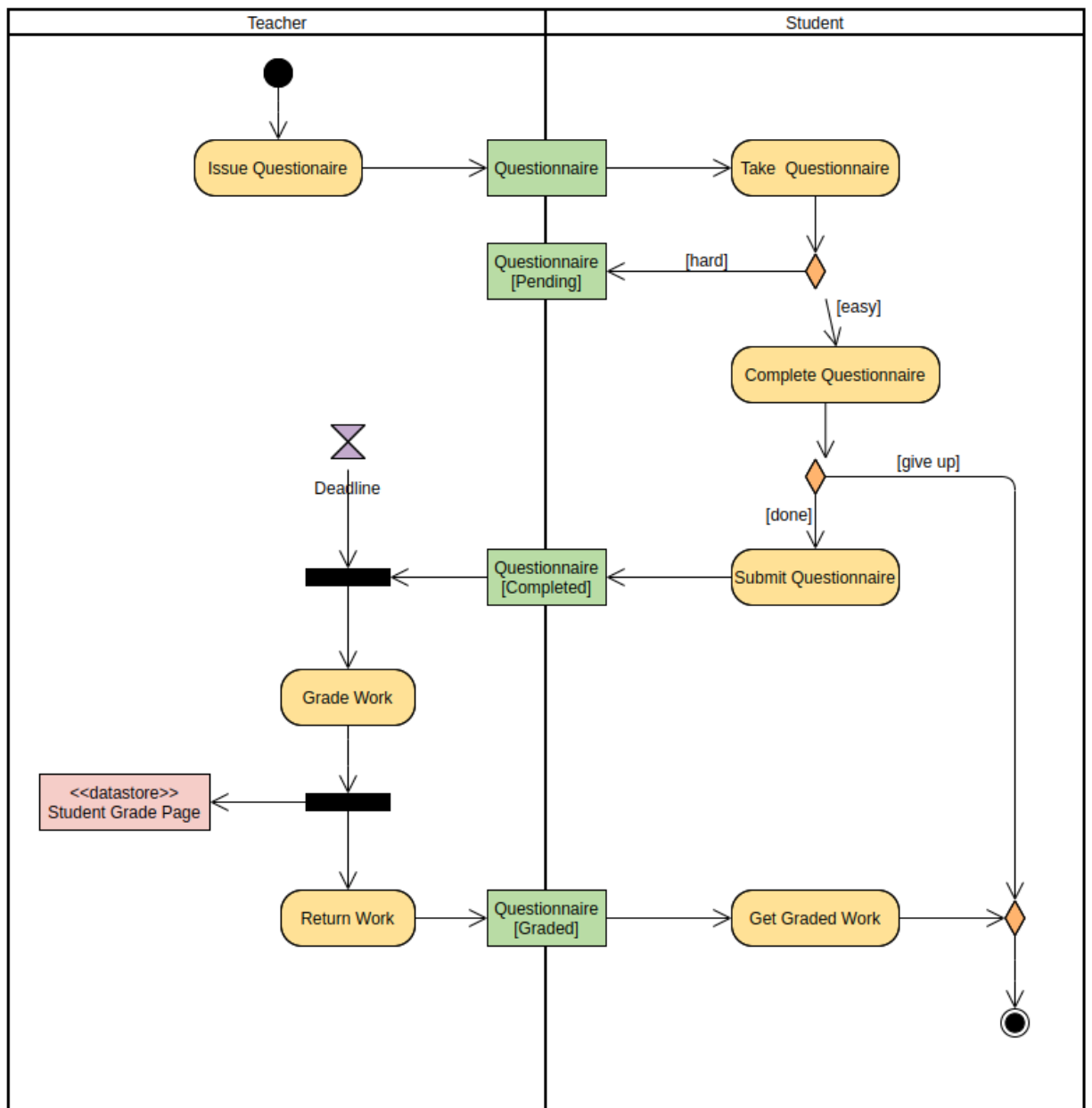
### 4.1 Use Case Diagram



### 4.2 Class Diagram



### 4.3 Activity Diagram





#### 4.4 State Machine Diagram

