



# E-EXAM ONLINE SYSTEM

## ABSTRACT

Requirements, Technologies used, Screenshots and some diagrams of e-exam system

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# E-Exam Requirements

## ❖ Introduction:

- ☒ This Web Application provides facility to manage online examination worldwide...
- ☒ It saves time and effort as it allows the number of students to give the exam at a time and displays the results after finishing the test, it is automatically generated by the server.
- ☒ professor has a privilege to create, modify and delete the test papers and its particular questions.
- ☒ Users can register, login, and give the test with his specific id and password, and can see the results as well.

## ❖ Overview

E-Exam is a System for students to get their exams online.

- **The admin** is responsible for adding and editing subjects and professors and make an approval for the professors.
- **Professors** prepare for their subjects' exams with adding and editing questions and identifying the correct answer and the level of difficulty for each question.
- **Students** take the exam with different random questions and the results are stored to be shown for the student.

## ❖ Types of Users

1. **Admin:** is basically a professor with Administrating Authentications.
2. **Professor:** is responsible for The Structure of the Exam and its content.
3. **Student:** takes the Exam and then directly notified with his own result.

### 1. Admin

1. Adding and Editing the Levels and Departments of the Faculty.
2. Adding and Editing the Subjects of each level and department.
3. View the List of The Professors, and Approve the Sign-up Requests.
4. Specifies the subjects for each professor.
5. All Privileges of the Professor.

### 2. Professor

1. Adding and Editing Chapters for each Subject that he teaches and detect the number of questions of each Chapter
2. Organizing the structure of the exam.
3. Determine the allowed time for finishing the exam.
4. Adding and Editing Questions and Identify the Correct answer, and those Questions should be published for the students as a Questions Bank.

### 3. Student

1. Sign-Up and Select his Level and Department.
2. Sign-in and Select the Subject to start his Exam
3. Finish the Exam, submit it and show the Result and the Previous Exams' Results.

## ❖ The Structure of the Exam

1. The types of Question are MCQ and True & False.
2. The Students Specifies type of Exam before start exam where:  
As there are 3 exam options available for the student to choose between
  - **Final:** Contain 60 questions mixed between MCQ and T&F in time **3** hour.
  - **Training:** Contain 10 questions mixed between MCQ and T&F in time **18** minutes.
  - **Quiz:** Contain 15 questions mixed between MCQ and T&F in time **30** minutes.
3. The Professor specifies how many questions included from each chapter that the Exam must have.
4. Each student gets random Questions According to the previous constraints that Professor set.

## ❖ Considerations: -

- Consider these points while developing the System:
  1. Sign Up and Sign in Pages. Sign up for Professors, who need Approval from The Admin, and for Students.
  2. The Student can see only his Result.
  3. The Professor can see The Results of the Students for only his Subjects
  4. The Professor can add or edit questions for only his Subjects.
  5. If Time of the Exam is finished, then the Exam is close automatically and redirect to result page.
  6. The Student is notified of his Rank among his Level.
  7. Student can access a training Exams as much as he wants without being added in his Final Result.
- Consider Basic Security Concepts:
  1. Data Validation for every input in the System, prevent SQL Injection and cannot get into Log in or Sign up pages.
  2. The Authentication of each page, ex... student cannot add questions, users.
- The Admin, and for Students:
  1. Sign Up and Sign in Pages. But Sign up for Professors, who need Approval from admin.

## Technologies used:

**HTML:** Page layout has been designed in HTML.

**CSS:** CSS has been used for all the designing part.

**JavaScript:** some function and animations has been developed by JavaScript.

**Bootstrap, Bootbox and jQuery:** Bootstrap Library used for design and Bootbox and jQuery Libraries implementation of some tasks

**ASP:** All the front-end logic and Validation task have been written in ASP.

**C#:** All the business logic has been written in C #.

**Microsoft SQL Server Management:** SQL Server database has been used as database for the project.

**Visual Studio:** Project will be run over the Visual Studio 2015 Server.

Σ-exam.

Turn ON Dark Mode

log-in Page

Log In
Registration

Welcome back now you can log-in to join us in the e-exam

UserName :
or E-mail :

Enter username or e-mail

Password :

Enter your password

LOG IN

Don't have an account?  
if you are a student [Click here](#) or if you are a Professor [Click here](#)

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Σ-exam.

Turn ON Dark Mode

Home Page

Log In
Registration

Welcome in E-exam

### "Definition"

E-exams fall into the category of eAssessment, where students demonstrate academic achievement using computers. Within this broad spectrum, eExams form a distinct use of technology where a 'bring your own device' (BYOD) computer is started up (booted) from a USB flash drive. Because each computer is booted from a USB flash drive, every candidate uses the same full operating system and application programs, irrespective of those installed on the internal hard drive. eExams optionally include networking connections, but these are usually restricted or eliminated to prevent collusion. Unlike most online quiz tools, the eExam is not restricted to a web-page, but makes the whole candidate computer available for the assessment. eExams are seen as having potential for curriculum transformation by changing the nature of assessment to fully incorporate computer technology. Autosave is a common feature of eExams, with intervals from 10 seconds to every 2 minutes. Some emerging models have been released into the public domain, and others are proprietary commercial material (with costs).

“ Now you can join us by Registering as : ”

Student

professor

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Σ-exam.
Turn ON Dark Mode
Student Registration Page
Log In
Registration



Hello dear , Now you can register to join us in the e-exam

First Name :

Last Name :

UserName :

E-mail :

Hint: password should contain at least 1 uppercase,1 lowercase,1 digit,1 special character with minimum 10 character length

Password :

confirm password :

Phone number :




Select Education Lv. :

Select Level :

[SIGNUP](#)



[Already a member? Log In](#)





Σ-exam.
Turn ON Dark Mode
Student Home Page
Hi sam74
Log out



Dear Student,






We hope you are in the best condition, we are glad to be our partner in our success. We are the E-exam community. We wish you all the best. All you know is that you study hard so that you can succeed in our exams and get the highest results.

 You can go to the exams page from here
  You can view your previous results from here

[Subjects](#)
[Statistics](#)



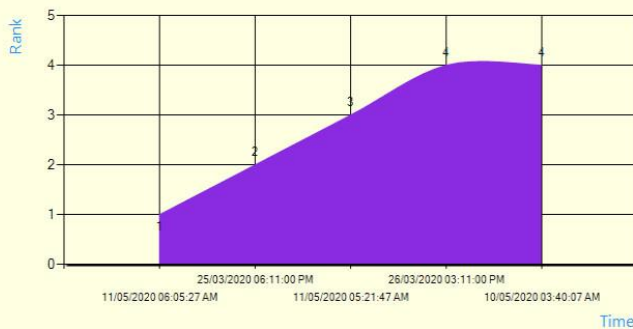
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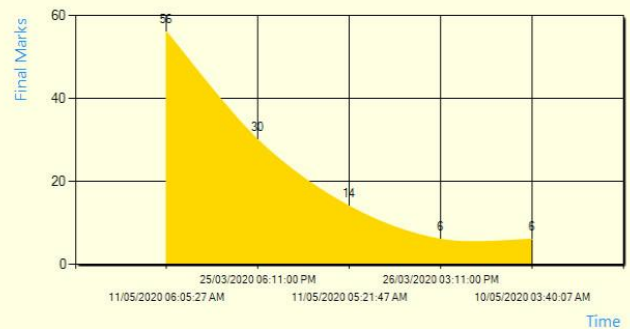




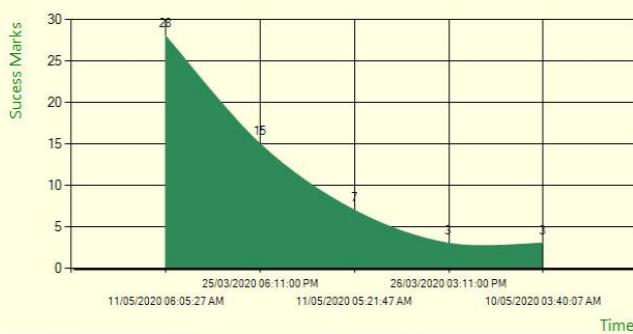
Statistic of rank so far



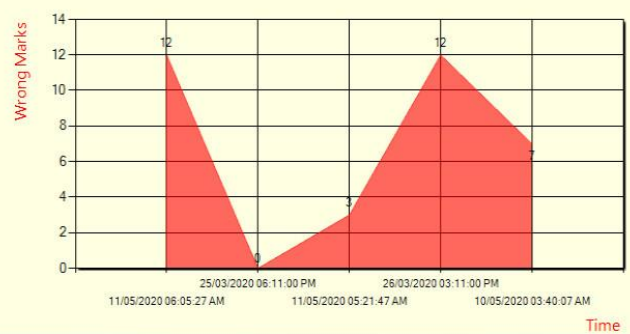
Score stats obtained



Statistics of the rate success marks so far



Statistics of the rate wrong marks so far




My Rate in last Exams

Mathematics
★ RANK ( 1 )
MARK ( 56 / 120 )
✓ SUCESED MARKS ( 28 )
✗ WRONG MARKS ( 12 )
NO. QUESTIONS ( 60 )

Mathematics
★ RANK ( 3 )
MARK ( 14 / 20 )
✓ SUCESED MARKS ( 7 )
✗ WRONG MARKS ( 3 )
NO. QUESTIONS ( 10 )

Open Source Software
★ RANK ( 4 )
MARK ( 6 / 30 )
✓ SUCESED MARKS ( 3 )
✗ WRONG MARKS ( 12 )
NO. QUESTIONS ( 15 )

Open Source Software
★ RANK ( 4 )
MARK ( 6 / 20 )
✓ SUCESED MARKS ( 3 )
✗ WRONG MARKS ( 7 )
NO. QUESTIONS ( 10 )


Hi sam74
Log out

These are the exams currently available for you.

Mathematics

### Select what you want ?

**⚠ATTENTION!!**

❗YOU SHOULDN'T TRY TO DO REFRESH WHILE YOU ARE ON THE EXAM PAGE BECAUSE YOU'LL LOSE YOUR MARKS.

❗TRY TO FINISH YOUR ANSWERS BEFORE THE TIME RUNS OUT BECAUSE YOU LOSE MARKS.

▶ Select Exam Mode






1.Click (Ok) to confirm to go entry the exam page.  
2.Click (Cancel) to cancel the entry.


- Final
- Quiz
- Training

CANCEL

Select Subject Page

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Turn ON Dark Mode
Exam Page
Hi sam74

Question (1)

$|x - 2| - 4| - 6| = ?$

☐  $x + 22$   
☐  $-x - 22$   
☐  $-x + 22$   
☐  $x - 22$

Question (2)

$(3)^{20} + (3)^{20} + (3)^{20} = (3)^{21}$

☐ True  
☐ False

Question (15)

$5 > 10$  or  $5 < 7$ .

☐ True  
☐ False

0 Hours

29 Minutes

42 Seconds

0 Hours

28 Minutes

58 Seconds

FINISH





## Result of Quiz

Rank

3

Sucessed Marks

13/15

Obtained Marks

26/30

Wrong Marks

2/15

Total Questions No.

15

Total Mark

30

Not Answered

0/15

BACK TO HOME

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Hello Professor , Now you can register to join us in the e-exam

First Name : Last Name : UserName : E-mail : 

Hint : Password must contain at least 1 uppercase,1 lowercase,1 digit,1 special character and have a length of at least of 10

Password : confirm password : Phone number : National ID : Educational Level : 

Select Subject :



SIGN-UP

Already a member ? Log In





► Dear Professor,

We hope you are in the best condition, and we are glad to be your partner in our success. We are an e-exam community. We wish you all the best in your work in helping us to build a successful, complete, and helpful community for our students to get an exclusive experience to take exams.

📌 You can go to exam questions page from here

📌 You can view your previous question and some statistics from here

[Create Question](#)[Statistics](#)

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Account Info.

[MAIN PROFILE](#)[EDIT MY DATA](#)[EDIT PASSWORD](#)

Name : Amr Hassan  
User Name : Amr72  
Email : Amr@gmail.com  
Phone : 01097347834  
User Type : professor  
National ID: 21332897438927

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Σ-exam.
Turn ON Dark Mode
Hi Amr72
Log out

MAIN PROFILE
EDIT MY DATA
EDIT PASSWORD

### Edit Personal Info

First Name :

Lat Name :

New Email :

Phone :

Password :

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Σ-exam.
Turn ON Dark Mode
Hi Amr72
Log out

MAIN PROFILE
EDIT MY DATA
EDIT PASSWORD

### Edit Password

Old Password :

New Password :

Confirm New Password :

Save Changes

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COUNT OF QUESTIONS

40

COUNT OF MCQ QUESTIONS

26

COUNT OF TRUE & FALSE QUESTIONS

14

#### QUESTIONS AND ANSWERS DETAILS

QuestionID	QuestionDesc	AnswerA	AnswerB	AnswerC	AnswerD	CorrectAnswer	QuestionType	QuestionLevel	Chapter	SubjectID	Delete	Update
26	$42 +  4  +  -4  - 42 = ?$	-4	0	4	8	8	MCQ	Easy	1	21	Delete	Edit
27	What is the value of x in the equation : $(X/2) + (X/3) = 10$	12	14	16	18	12	MCQ	Easy	2	21	Delete	Edit
28	$(3^5)/(3^3) = ?$	1	3	9	27	9	MCQ	Easy	2	21	Delete	Edit
29	$(3^2) * (3^3) * (1/3^4) = ?$	1	3	9	27	3	MCQ	Easy	2	21	Delete	Edit
30	What is the solution interval of the inequality : $6x - 2 \geq 3x + 10$	$(\infty, 4)$	$[-\infty, 4]$	$(-4, \infty)$	$[4, \infty)$	$[4, \infty)$	MCQ	Medium	3	21	Delete	Edit
31	8. The price (in cents) of one orange is 5c. What is the price (in dollars) of one dozen of oranges?	30c	60c	$(3/5)c$	$(5/12)c$	$(3/5)c$	MCQ	Difficult	1	21	Delete	Edit

1234567

#### DETAILS OF MY STUDENTS

FName	LName	Username	Email	Phone	EduLevel	Level	Students who took my exam
Salim	Fathy	sam74	sam74@gmail.com	01234567890	Faculty of Computer and Information	2	sam74
ameen	abd-elmenem	ameen	ammen@gmail.com	01254545676	Faculty of Computer and Information	3	ameen
Mohamed	Abdelgawad	Mohamed3699	Mohamed@gmail.com	01009314261	Faculty of Computer and Information	3	Mohamed3699



Professor : Amr Hassan

Subject : Mathematics

### Create a Question

Enter question text

Enter a Question here....

Enter Available Choices

Enter First Answer here....

Enter Second Answer here....

Enter Third Answer here....

Enter Fourth Answer here....

A

B

C

D

Choose the correct answer :

☒ A ☐ B ☐ C ☐ D

-- Question Level --


--Select Chapter--

MCQ

NEXT QUESTION

GO BACK




Turn ON Dark Mode

Admin log-in Page
Log In
Registration


Log In

this page is specific for only admins


User Name :

Password :

☐ Remember me next time.





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Σ-exam.


Turn ON Dark Mode

Admin Page

Hi root

Log out





USERS DETAILS

UserID	FName	LName	Username	Email	Password	Phone	UserType	NationalID	EduLevel	Level	Subject	Status	DateTime	Delete	Update
1	Salim	Fathy	sam74	sam74@gmail.com	Sam@01234567890	01234567890	student		Faculty of Computer and Information	2		0	25/03/2020 12:47:00 AM	Delete	Edit
18	ameen	abd-elmenem	ameen	ammen@gmail.com	Aa@1234567890	01254545676	student		Faculty of Computer and Information	3		0	20/02/2020 01:07:00 PM	Delete	Edit
20	Amr	Hassan	Amr72	Amr@gmail.com	Aa@1234567890	01097347834	professor	21332897438927	Faculty of Computer and Information		Mathematics	1	25/03/2020 12:47:00 PM	Delete	Edit
24	Ahmed	Hassan	Ahmed7	ahmed@gmail.com	Aa@1234567890	01134256111	professor	26454433432423	Faculty of Engineering		Architectural Engineering	1	25/03/2020 02:30:10 PM	Delete	Edit
34	Reda	Hussein	reda	reda@gmail.com	Rr@1234567890	01212321381	professor	20921212121222	Faculty of Computer and Information		Open Source Software	1	10/04/2020 11:45:00 AM	Delete	Edit

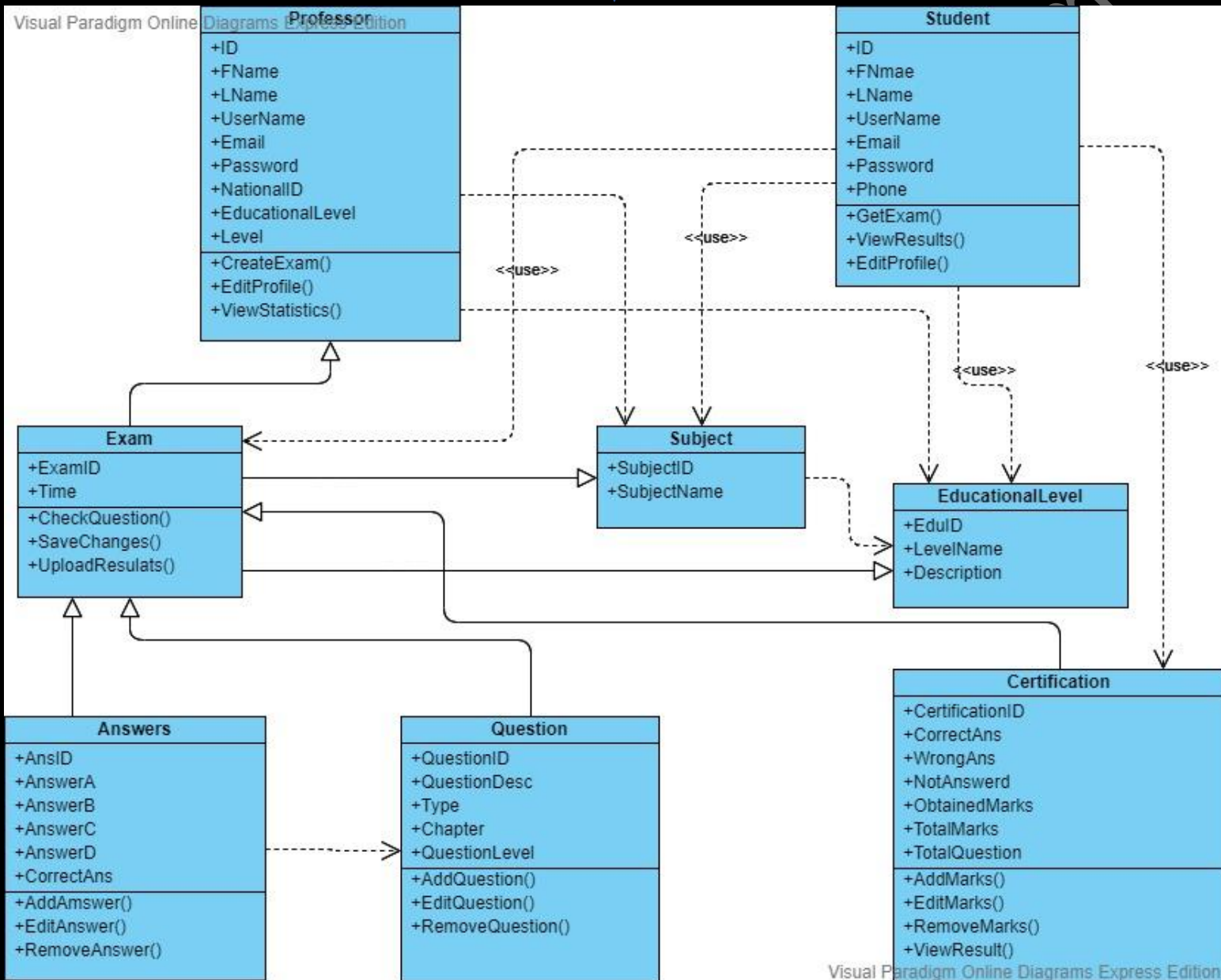
12

COLLAGE DETAILS

SubjectID	SubjectName	EduLevelID	EduLevelName	Delete	Update
1	Arabic	1	Primary Education	Delete	Edit
2	Arabic	2	Preparatory Education	Delete	Edit
3	Arabic	3	Secondary Education	Delete	Edit
4	English	1	Primary Education	Delete	Edit
5	English	2	Preparatory Education	Delete	Edit
6	English	3	Secondary Education	Delete	Edit

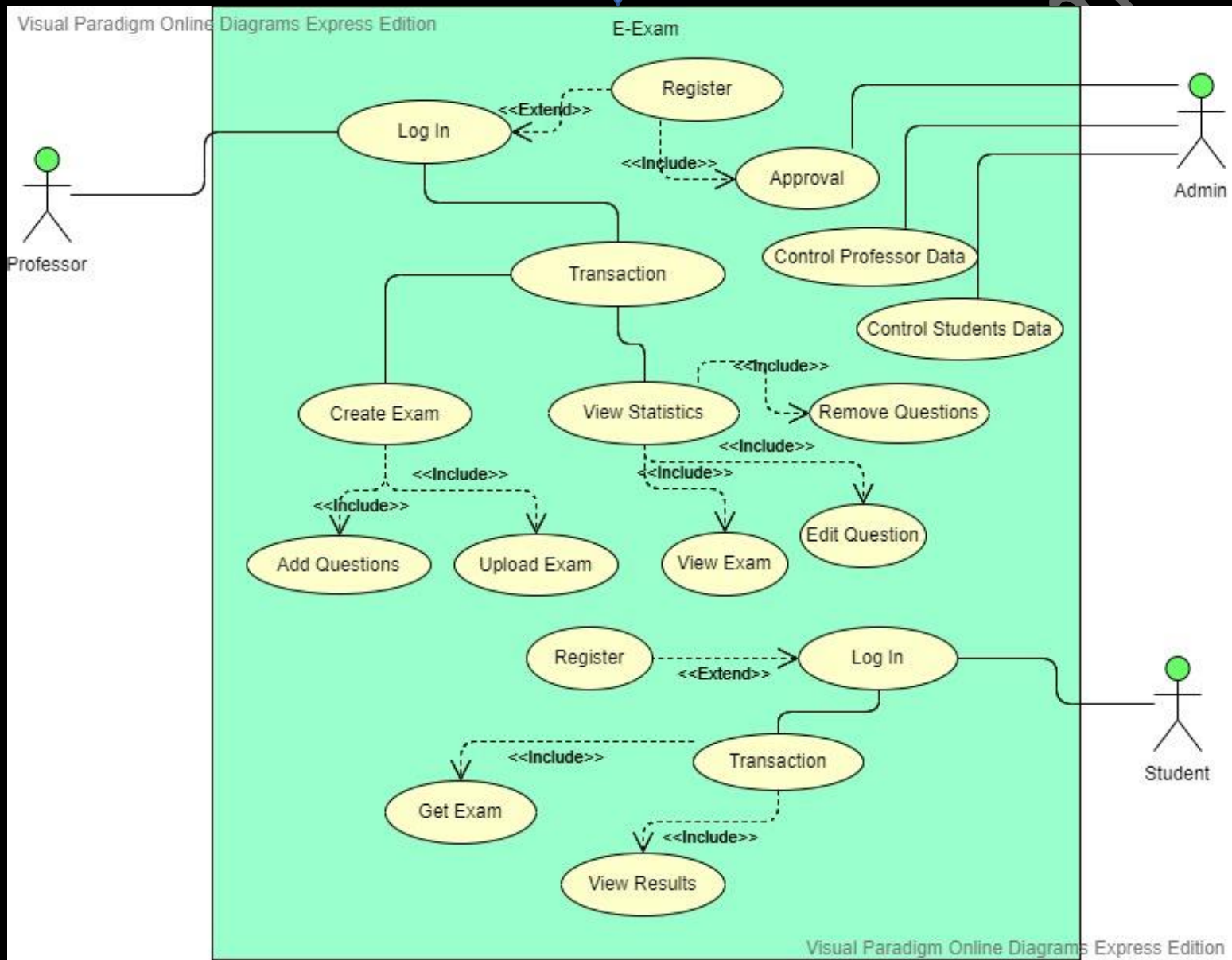
1234

# Class Diagram





# Use Case Diagram



# ERD

