# Course Management System

## Group Members:

| | |
|---|---|
| سكشن ١ | أحمد علي فهمي محمد |
| سكشن ١ | أحمد عبد الجليل سعيد عبد الجليل |
| سكشن ١ | أحمد حسين بدر رشاد |
| سكشن ١ | أحمد حمدي جاد الله |
| سكشن ١ | أحمد طارق عبد الستار أحمد |
| سكشن ٢ | عمر حمدي فتحي جعفر |
| سكشن ٢ | عبد الرحمن هلال صالح عبد العزيز |

**Group Name:** ezWay

**Group Number:** 7

**Course Title:** Advanced Programming.

**Submission date:** Thursday (16/6/2022), 11:30am.

**For:** Dr/ Hadeer Ahmed.

# ●Introduction:

A course management system (CMS) is a collection of a software tools providing an environment for course interactions.

# ●Purpose and Methods:

This system is designed to serve students and help them to know all the possible details about the courses available in it.

Each student can register for the course, and all the details of the course will be available to him.
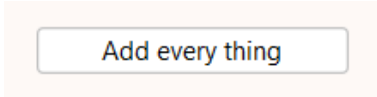
Student can also rate the course and instructor.

This system also serves the instructor who will teach the students.

Each instructor can modify the details of the course and know the students registered with him in the course and can make an exam for them.

Admin of the system can add new instructor, add new courses, remove instructor and remove courses.

# ●Very important note:

Add every thing

To start the program with initial data, kindly press this button.

This button adds a data for the program like student, instructor and courses.

## ●Teamwork and Project Management:

The project contains three basic choices

- **Admin:** أحمد حسين بدر
- **Instructor:** أحمد حسين بدر- عمر حمدي فتحي
- **Student:** عمر حمدي فتحي

**Intro page:** أحمد علي فهمي – أحمد عبد الجليل سعيد

**Registration page:** أحمد علي فهمي – أحمد عبد الجليل سعيد

**Course:** أحمد حسين بدر - عمر حمدي فتحي

**Connecting project parts:** أحمد علي فهمي – عمر حمدي فتحي – أحمد حسين بدر – أحمد عبدالجليل سعيد

**Design the project GUI:** أحمد عبدالجليل سعيد – أحمد حمدي جاد الله

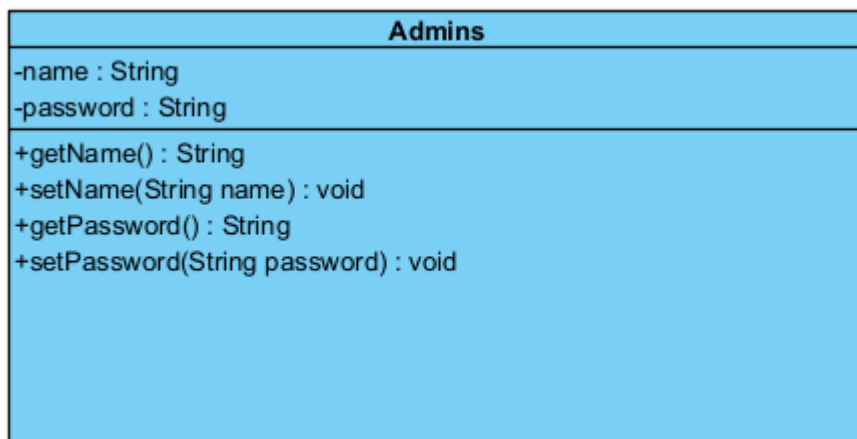**Test Cases:** أحمد حمدي جاد الله – عبدالرحمن هلال صالح

**Documentation:** أحمد علي فهمي

**UML:** عبدالرحمن هلال صالح – أحمد طارق عبد الستار

**Audio:** أحمد عبد الجليل سعيد

## ●UML:

Class Diagram:

| Admins |
| --- |
| -name : String<br>-password : String |
| +getName() : String<br>+setName(String name) : void<br>+getPassword() : String<br>+setPassword(String password) : void |

## Course

-courseName : String
-code : String
-coursePrice : double
-instructor : instructor
-listOfTasks : ArrayList<Task>
-listOfExams : ArrayList<Exam>
-language : String
-description : String
-numberOfStudent : int
-numberOfSection : int
-numberOfLecture : int
-totalHours : int
-nextlec : String
-date : String
-time : String
-note : Strimg
-Objective : ArrayList<String>
-contents : ArrayList<String>
-rates : ArrayList<Integrs>
-courseRating : double
-finalGrade : int
-state : boolean
-requirements : String
-index : int
-visibleExamButtonAndTitle : boolean
-totalNumberOfCourses : int
-image : ImageIcon
-totalResponse : int
-oneOutOfFive : int
-twoOutOfFive : int
-threeOutOfFive : int
-fourOutOfFive : int
-fiveOutOfFive : int
-flagStar1 : boolean
-flagStar2 : boolean
-flagStar3 : boolean
-flagStar4 : boolean
-flagStar5 : boolean
-visibiltyOfCourseFeadback : boolean

+Course(courseName : String, code : String, coursePrice : double, language : String, description : String, numberOfSturdent : int, numberOfSection : int, numberOfLecture : int, totalHours : int, state : boolean, requirements : String)
+isFlagStar1(): boolean
+setFlagStar1(flagStar1 : boolean) : void
+isFlagStar2(): boolean
+setFlagStar2(flagStar2 : boolean) : void
+isFlagStar3(): boolean
+setFlagStar33(flagStar3 : boolean) : void
+isFlagStar4(): boolean
+setFlagStar4(flagStar4 : boolean) : void
+isFlagStar5(): boolean
+setFlagStar5(flagStar5 : boolean) : void
+isVisibiltyOfCourseFeadback() : boolean
+setVisibilityOfCourseFeadback(visibiltyOfCourseFeadback : boolean) : void
+getTotalResponse() : int
+getOneOutOfFive() : int
+setOneOutOfFive() : void
+getTwoOutOfFive() : int
+setTwoOutOfFive() : void
+getThreeOutOfFive() : int
+setThreeOutOfFive() : void
+getFourOutOfFive() : int
+setFourOutOfFive() : void
+getFiveOutOfFive() : int
+setFiveOutOfFive() : void
+operation25()
+Course(list : ArrayList<Course>)
+setImageIcon(image : ImageIcon) : void
+getImageIcon() : ImageIcon
+setVisibleExamButtonAndTitle(x : void) : void
+getVisibleExamButtonAndTitle() : boolean
+getNote() : String
+setnote(note : String) : void
+getNextlec() : String
+setNextlec(nextlec : String) : void
+getDate() : String
+setDate(date : String) : void
+getTime() : String
+setTime(time : String) : void
+getIndex() : int
+setIndex(index : int) : int
+setObjective(objective : String) : void
+getRates() : ArrayList<Integer>
+setRates(rates : ArrayList<Integer>) : void
+isState() : boolean
+getObjective(index : int) : String
+getListOfTasks() : ArrayList<Task>
+setListOfTasks(listOfTasks : ArrayList<Task>) : void
+getListOfExams() : ArrayList<Exam>
+setListOfExams(exam : Exam) : void
+getCourseName() : String
+setCourseName(courseName : String) : void
+getCode() : String
+setCode(code : String) : void
+getCoursePrice() : double
+setCoursePrice(coursePrice : double) : void
+getInstructor() : Instructor
+setInstructor(instructor : Insctrucor) : void
+getLanguage() : String
+setLanguage(language : String) : void
+getDescription() : String
+setDescription(description : Sring) : void
+getNumberOfStudent() : Int
+setNumberOfStudent(numberOfStudent : int) : void
+getNumberOfSection() : :int
+setNumberOfSection(numberOfSection : int) : void
+getNumberOfLecture() : int
+setNumberOfLecture(numberOfLecture : int) : void
+getTotalHours() : int
+setTotalHours(totalHours : int) : void
+getRequirements() : String
+setRequirements(requirements : String) : void
+getContents(int index) : Stringg
+setContents(contents : String) : void
+getCourseRating() : double
+setCourseRating(courseRating : int) : void
+getFinalGrade() : int
+setFinalGrade(finalGrade : int) : void
+getState() : boolean
+setState(state : boolean) : void
+CalculateFinalGrade() : double
+getSizeOfObjective() : int
+getSizeOfContents() : int
+isCodeAvailable(code : String, list : ArrayList<Course>) : boolean
+getIndexFromCode(code : String, list : ArrayList<Course>) : int
+indicisMinusOne(indexOfDeletedCourse : int, list : ArrayList<Course>) : void
+isTitleAvailable(list : ArrayList<Exam>, title : String) : boolean
+isUniqueCourseCode(code : String, course : ArrayList<Course>) : boolean
+removeCourse(code : String, course : ArrayList<Course>) : boolean
+IncreaseNumberOfStudent() : void
+ErrorInCode() : String

## Instructor

-address : String
-age : int
-index : int
-totalNumberOfInstructors : int
-password : String
-salary : double
-name : String
-phone : String
-jopTitle : String
-email : String
-image : ImageIcon
-registeredCourses : ArrayList<Course>
-totalNumebrOfStudent : int
-totalResponse : int
-oneOutOfFive : int
-twoOutOfFive : int
-threeOutOfFive : int
-fourOutOfFive : int
-fiveOutOfFive : int
-flagStar1 : boolean
-flagStar2 : boolean
-flagStar3 : boolean
-flagStar4 : boolean
-flagStar5 : boolean
-InstructorRating : double
-visibiltyOfInstructorFeadback : boolean

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+isFlagStar1() : boolean
+setFlagStar1(flagStar1 : boolean) : void
+isFlagStar2() : booelan
+setFlagStar2(flagStar3 : boolean) : void
+isFlagStar3() : boolean
+setFlagStar3(flagStar3 : boolean) : void
+isFlagStar4() : boolean
+setFlagStar4(flagStar4 : boolean) : void
+isFlagStar5() : boolean
+setFlagStar5(flagStar5 : boolean) : void
+getTotalResponse() : int
+getOneOutOfFive() : int
+setOneOutOfFive() : void
+getTwoOutOfFive() : int
+setTwoOutOfFive() : void
+getThreeOutOfFive() : int
+setThreeOutOfFive() : void
+getFourOutOfFive() : int
+setFourOutOfFive() : void
+setFiveOutOfFive() : void
+getFiveOutOfFive() : int
+getTotalNumberOfInstructors() : int
+getTotalNumebrOfStudent() : int
+getRegisteredCourses() : ArrayList<Course>
+setRegisteredCourses(obj : course) : void
+getJopTitle() : String
+setJopTitle(jopTitle : String) : void
+getEmail() : String
+setEmail(email : String) : void
+setImageIcon(image : ImageIcon) : void
+getImageIcon() : ImageIcon
+setPhone(String phone) : void
+getPhone() : String
+Instructor(list : ArrayList<Instructor>)
+getName() : String
+getAddress() : String
+getAge() : String
+getPassword() : String
+setName(name : String) : void
+setAddress(address : String) : void
+setAge(age : String) : void
+setPassword(password : string) : void
+setSalary() : void
+toString() : String
+IsUniqueEmail(list : ArrayList<Instructor>, email : String) : boolean
+searsh(list : ArrayList<Instructor>, email : String) : boolean
+removeinstrucrore(list : ArrayList<Instructor>, email : String) : boolean
+indicisMinusOne(list : ArrayList<Instructor>, email : String) : void
+isEmailAvailable(list : ArrayList<Instructor>, email : String) : boolean
+getIndexFromEmail(list : ArrayList<Instructor>, email : String) : int
+calculateTotaNumberOfStudent() : void
+ErrorInEmail() : String
+ErrorInPassword() : String
+setInstructorRating(InstructorRating : double) : void
+getInstructorRating() : double

## student

-fristName : String
-lastName : String
-gender : String
-age : int
-id : int
-email : String
-faculty : String
-password : String
-index : int
-totalNumberOfStudent : int
-totalNumberOfRegisteredCourses : int
-listOfRegisteredCourse : ArrayList<course>

+student(firstName : String, lastName : String, gender : String, age : int, faculty : String, email : String, password : String)
+getIndex() : int
+setIndex(index : int) : void
+getId() : int
+getTotalNumberOfRegisteredCourses() : int
+Student(name : String)
+getTotalNumberOfStudent() : int
+getFtistName() : String
+setFirstName(FristName : String) : void
+getLastName() : String
+setLastName(lastName : String) : void
+getGender() : String
+setGender(Gender : String) : void
+getAge() : int
+setAge(age : int) : void
+getFaculty() : String
+setFaculty(faculty : String) : void
+getEmail() : String
+setEmail(email : String) : void
+getPassword() : String
+setPassword(password : String) : void
+getListOfRegisteredCourse() : ArrayList<Course>
+setListOfRegisteredCourse(obj : course) : void
+emailChecker(email : String) : boolean
+passwordChecker(password : String) : boolean
+errorInPassword() : String
+errorInEmail() : String
+Rank() : String
+errorInID() : String
+getCertainCourse(code : String) : String
+toString() : String
+isIDAvailable(id : int, list : ArrayList<Student>) : boolean
+indicisMinusOne(indexOfDeletedStudent : int, list : ArrayList<Student>) : void
+Student(list : ArrayList<Student>)
+getIndexFromID(list : ArrayList<Student>, id : int) : int

## Options

-optionStatment : String
-isCorrect : boolean

+getOptionStatment() : String
+setOptionStatment(optionStatment : String) : void
+IsIsCorrect() : boolean
+setIsCorrect(isCorrect : boolean) : void
+Options()
+Options(OptionStatment : String, isCorrect : boolean)

## quastion

-quastionStatment : String
-isCorrect : boolean
-isSolved : boolean
-pattrenOfQuastionOptions : int
-selectedAns : int
-listOfOptions : ArrayList<Options>
-index : int

+getPattrenOfQuastionOptions() : int
+setPattrenOfQuastionOptionsv(PattrenOfQuastionOptions : int) : void
+getIsCorrect() : boolean
+setIsCorrect(IsCorrect : boolean) : void
+getIsSolved() : boolean
+setIsSolved(IsSolved : boolean) : void
+getSelectedAns() : int
+setSelectedAns(selectedAns : int) : void
+getQuastionStatment() : String
+setQuastionStatment(quastionStatment : String) : void
+getListOfOptions() : ArrayList<Options>
+setListOfOptions(listOfOptions : ArrayList<Options>) : void
+getIndex() : int
+setIndex(int : index) : void
+getIndexOfOptionFromOptionStatment(statment : String) : int
+getisQuastionAnsCorrect(statment : String) : boolean

## Task

-diedline : String
-isCompleted : boolean
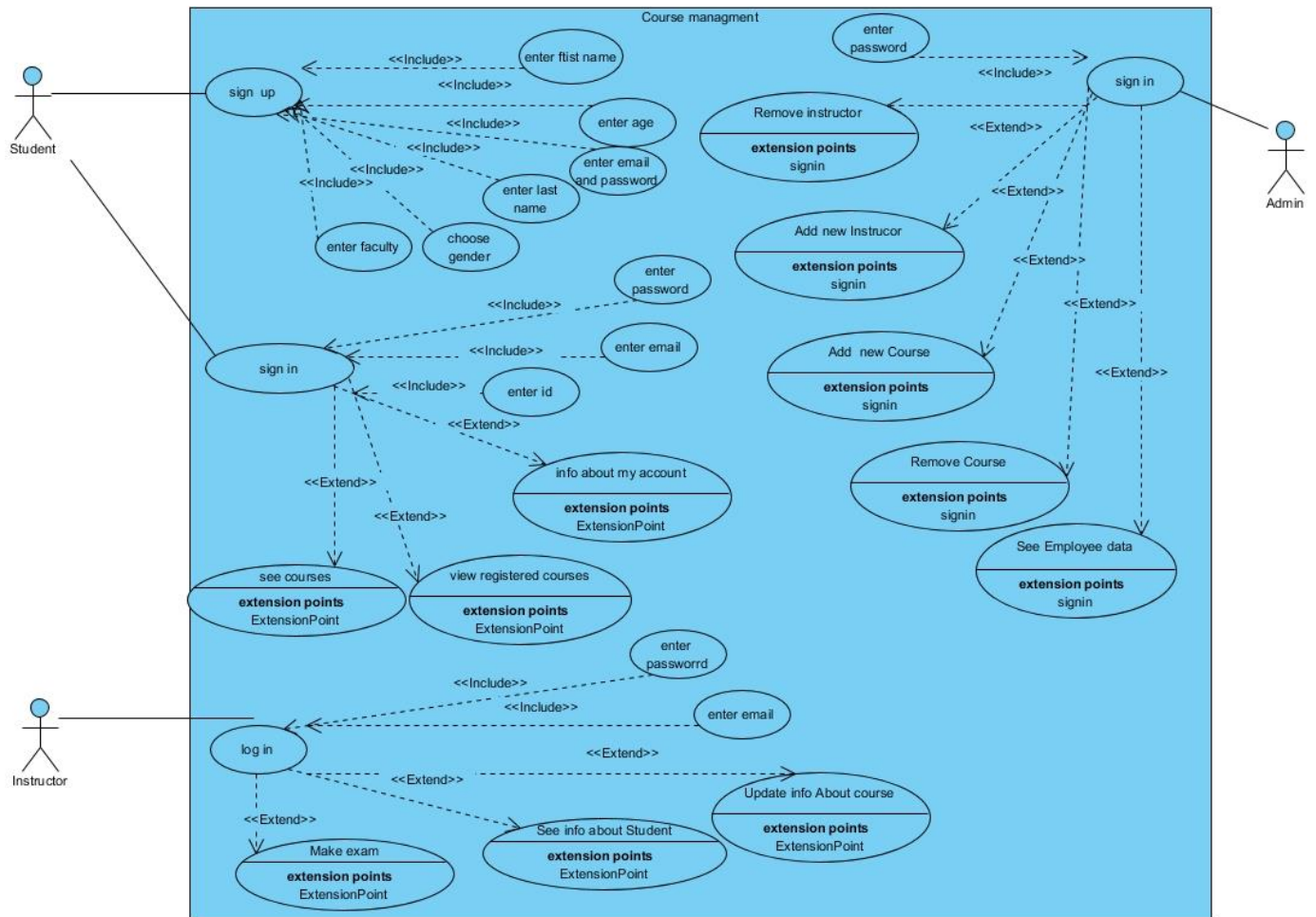-instruction : String
-points : int
-title : String

+getDiedline() : String
+setDiedline(diedline : String) : void
+getIsCompleted() : boolean
+setIsCompleted(isCompleted : boolean) : void
+getInstruction() : String
+setInstruction(instruction : String) : void
+getPoints() : int
+setPoints(points : int) : void
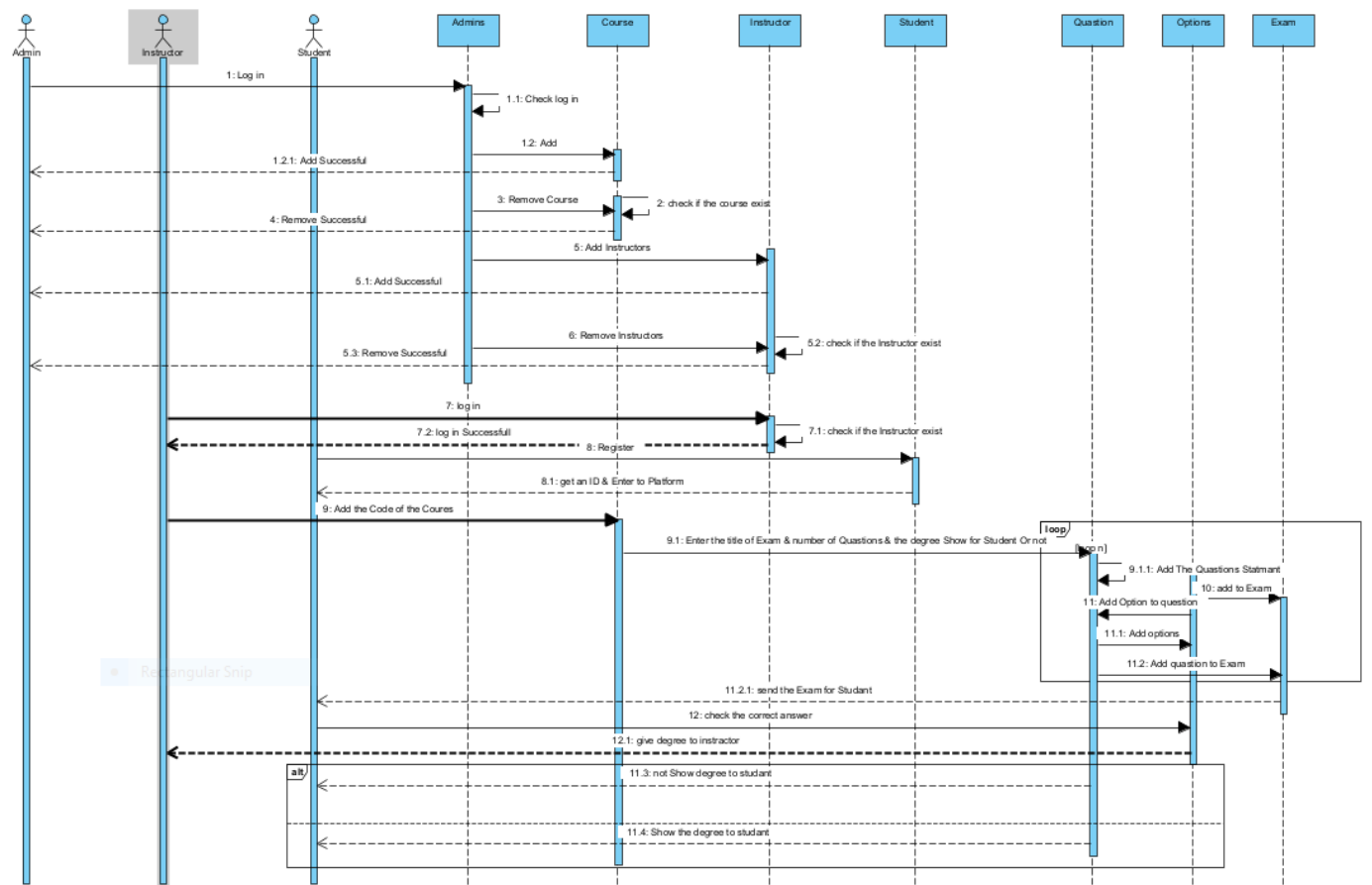+getTitle() : String
+setTitle(title : String) : void

## Exam

-fianlGrade : int
-gradesObtained : int
-isAttend : boolean
-date : String
-examDuration : int
-numeberOfQuastion : int
-Title : String
-dgreeVision : boolean
-index : int
-listOfQuastions : ArrayList<Quastion>
-ExamPattern : int

+isDgreeVision() : boolean
+setDgreeVision(dgreeVision : boolean) : void
+setFianlGrade(fianlGrade : int) : void
+getFianlGrade() : int
+getGradesObtaind() : int
+getOptionsPattern(randomNumber : int) : int
+getTitle() : String
+setTitle(title : String) : void
+Exam(numeberOfQuastion : int, Title : String, dgreeVision : boolean)
+getListOfQuastions() : ArrayList<Quastion>
+setListOfQuastions(listOfQuastions : ArrayList<Quastion>) : void
+getNumeberOfQuastion() : int
+isUniqueTitle(list : ArrayList<Exam>, title : String) : boolean
+ErrorInTitle() : String

# Use Case Diagram:



# Sequence Diagram:

# ●Snapshot:

**Welcome :)**

Add every thing

Instructor

Student

Admin

Register

Developed by

EZWAY

## Welcome to Our System

Enter your First Name

Enter Your Last Name

Enter your Age

Enter your Facualty

Choose Your Gender    ○ Male      ○ Female

Write your email address

Write your password

register

Already have an account?    back

# login

**Email**

**Password**

**Student ID**

Login

back

## Hello name

See courses

Rigstered Courses

Info about my account

back

# login

# nemeOfCourse

**CourseCode**

**Next lecture :**
**date :**
**Time :**
**Note :**

**Your fedback about the course in general** ☆ ☆ ☆ ☆ ☆

**Your fedback about the course's instructor** ☆ ☆ ☆ ☆ ☆

**Exam**                          **Exam title :**

| Back | | Next course |

*Questi... 1*                  **jLabelExamTitle**

| Option1 | Option2 |

| Option3 | Option4 |

| Submit | Next question |

| Back |

# My account

**Name :**

**Gender :**

**Age :**

**Facualty :**

**Email :**

**Password :**

**ID :**

[ back ]     [ Change Info... ]

# Change information

**First name**

[                    ]

**Last name**

[                    ]

**Age**

[                    ]

**Facualty**

[                    ]

gender        ○ Male        ○ Female

**Email**

[                    ]

**Password**

[                    ]     [ Save changes ]     [ back ]

Hello name

Update Info About Course

Make Exam

Info About Student

back

# Update Info About Course

Course co...

Next

back

**next lecture**

**Date**

**Time**

**Note**

**Exam**    Upload exam to student

back    Save updates

**Upload Exam To Student**

Exam title

back    Upload exam

**Title**

**Numebr of  quastion**

**Give the  final degree to students**   ● ...      ○ No

**Course code**

[ back ]          [ Next ]

## Question  1

Question statment

Option 1

Option 2

Option 3

Correct answer

[ Add question ]

[ Back ]

# Login

**Email**

**Password**

login

back

---

**Course code** [                    ]  [          ▼]

Show Info

Back

# welcome

Add new Instructor

Add new course

Add instructor to course

remove instructor

remove Course

Employee data

Back

## Please Enter you password

Ok

Back

## Enter Data for Instructor

**Name**

**Email**

**Password**

**Age**

**Address**

**Phone**

**Code of course**

**Salary**

**Jop title**

**Instructor image**

| Add to System | Add picture |
|---|---|
| Add Another One | Modifay |
| Back | |

---

### Enter Course Data

Course name

Course code

Course price

Course language

Number of sections    Number of Lictures    Total hours

Add picture

Description

Requirements

Content

Add Content

Objective

Add Objective

Course image

Add To System    modify    Add another one

Back