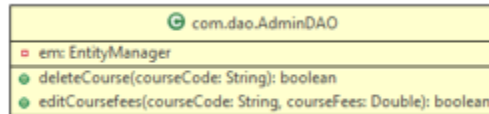## Course Management Service -Part 2

ABC Education Centre wants to add a new role as "**Admin**" in their existing Course Management Service application which is implemented in Part-1.  They need to add two functionalities for Admin- Edit and Delete course details.
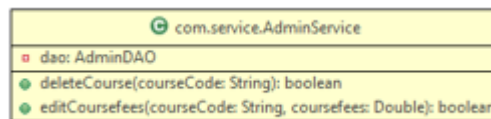
**DAO CLASS:**

- Create a class **AdminDAO** as per the class diagram given below:



```
                    ⓒ com.dao.AdminDAO
  ▫ em: EntityManager
  ● deleteCourse(courseCode: String): boolean
  ● editCoursefees(courseCode: String, courseFees: Double): boolean
```

| Method Name | Description |
|---|---|
| deleteCourse | • This method checks whether the course is already enrolled by any student or not. If it is not enrolled then it removes the course from course table and returns true, else it returns false |
| editCoursefees | • This method updates the course fees for the given course in the course table. |

**SERVICE CLASS:**

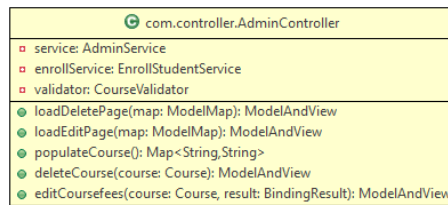- Create a class **AdminService** as per the class diagram given below:



```
                   ⓒ com.service.AdminService
  ▫ dao: AdminDAO
  ● deleteCourse(courseCode: String): boolean
  ● editCoursefees(courseCode: String, coursefees: Double): boolean
```

| Method Name | Description |
|---|---|
| deleteCourse | • This method performs business validations before deleting a course.<br>  o If the course is enrolled by a student then the system should throw an exception **CourseAlreadyAllocatedException** (Create a **CourseAlreadyAllocatedException** class in a package com. exception) and generate a message "**Enrolled Course cannot be deleted**"<br>• On successful validation invoke the appropriate DAO class method to delete the course |
| editCoursefees | • This method invokes appropriate DAO class method to update the course fees of the given course |

**VALIDATOR CLASS (Custom Validator)**

- Create a validator classes **CourseValidator**.
- The **CourseValidator** class is used to validate Course bean i.e. the **coursefees** field can have only digits.

**CONTROLLER CLASSES:**

Prepared by Sajal

- Create a class **AdminController** as per the class diagram given below:
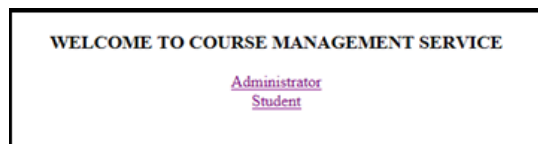


| Method Name | Description |
|---|---|
| loadDeletePage | • This method initializes the form bean(**Course**) and redirect to deletecourse.jsp page. |
| loadEditPage | • This method initializes the form bean(**Course**) and redirect to editcourse.jsp page. |
| populateCourse | • This method is used to populate the course name dynamically  Invoke appropriate method form part-1 implementation to get the details of available courses. |
| deleteCourse | • This method invokes the service method to delete the course |
| editcoursefees | • This invokes the custom validator C**ourseValidator** to validate the coursefee entered by the user<br>• On successful validation it invokes the appropriate service class method for editing the course fee. |

**JSP PAGES:**

# home.jsp

- Create a new hyperlink **Administrator** in home.jsp which is created in Part-1 as shown in the screen shot. On clicking, it should redirect to **admin.jsp** page



### admin.jsp

- Create a page **admin.jsp** to display a form given in the screen shot.
- While clicking on hyperlinks Delete Course and Edit Course, it should redirect to **deletecourse**.jsp and **editcoursefees.jsp** respectively.
- On clicking back hyperlink, it should redirect to **home.jsp** page.

**Welcome Administrator**

Delete Course
Edit Course

Back

**deletecourse.jsp**

- Create a page deletecourse.jsp to display a form given in the screen shot (The course name should be auto populated)

**Delete Course**

Course Name: Cloud

Delete Course

Back

- The course selected is enrolled by a student then the course cannot be deleted. The system will generate an error message as shown in the screen shot:

**Delete Course**

Course Name: Java

Delete Course

Enrolled Course cannot be deleted

Back

- The course selected is not enrolled by any student. Then the system should allow to delete the course. On deleting it will generate a success message as shown in the screen shot:

**Delete Course**

Course Name: .Net

Delete Course

The course has been successfully deleted

Back

- On clicking Back hyperlink, it should redirect to **admin.jsp** page.

**editcoursefees.jsp**

- Create a page editcourse.jsp to display a form as given in the screen shot (The course name is auto populated)

Prepared by Sajal

- The system should generate an error message if the fees is left blank as shown in the screen shot (use JavaScript alert box).



- The system should generate an error message if any character other than digit is provided in the course fees text box as given in the screen shot (Use Spring validator).



- The system should generate success message on editing the course fees as given in the screen shot.



- On clicking Back hyperlink, it should redirect to admin.jsp page.

Prepared by Sajal