Class Name: studentRepository

Parent Classes (if any): JpaRepository
Subclasses (if any): None

Responsibilities:

• Manages data in the Spring
Boot application

Collaborators:

• studentService
• studentServiceImpl
• student
• studentController

Class Name: student

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

Creates all of the variables for the database.
Creates all of the setter and
Collaborators:

studentService
studentServicelmpl
studentRepository

studentController

getter methods for these

variables

Class Name: studentService

Parent Classes (if any): None
Subclasses (if any): studentServiceImpl

Responsibilities:

It is an interface
Creates a method to save students into the database
Creates a method to get a list of students from the database

Class Name: studentServiceImpl
student
student
student
studentController

Class Name: studentServiceImpl

Subclasses (if any): None

repository

Responsibilities:

Parent Classes (if any): studentService

• Implements the methods in the

class by overriding them

· Saves the results from these

methods into the student

created in the studentService

Collaborators:

studentService

studentServiceImpl

studentRepository

studentController

Class Name: studentController

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

• Allows access of data to local host
• Can add to database through local host
• Can view database through local host
• Can view database through local host

Class Name: professor

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

Creates all of the variables for the database.
Creates all of the setter and getter methods for these variables

Class Name: professor

Collaborators:

professorService
professorServiceImpl
professorRepository
professorController

Class Name: professorRepository

Parent Classes (if any): JpaRepository
Subclasses (if any): None

Collaborators:

• professorService
• professorServicelmpl
• professor
• professor
• professorController

Class Name: professorService

Parent Classes (if any): None
Subclasses (if any): professorServiceImpl

Responsibilities:

It is an interface
Creates a method to save professors into the database
Creates a method to get a list of professors from the database

Classes (if any): None

Collaborators:

professor
professor
professorServiceImpl
professorRepository
professorController

Class Name: professorServiceImpl

Parent Classes (if any): professorService Subclasses (if any): None

#### Responsibilities:

- Implements the methods in the created in the professorService class by overriding them
- Saves the results from these methods into the advisor repository

#### Collaborators:

- professorService
- professorServiceImpl
- professorRepository
- professorController

Class Name: advisorService

Parent Classes (if any): None
Subclasses (if any): advisorServiceImpl

Responsibilities:

It is an interface
Creates a method to save advisors into the database
Creates a method to get a list of advisor from the database
of advisor from the database

Class Name: advisorRepository

Parent Classes (if any): JpaRepository
Subclasses (if any): None

Collaborators:

• advisorService
• advisorServicelmpl
• advisor
• advisorController

Class Name: advisor

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

Creates all of the variables for the database.
Creates all of the setter and getter methods for these variables

Class Name: advisorService
advisorService
advisorServicelmpl
advisorRepository
advisorController

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

• Allows access of data to local host
• Can add to database through local host
• Can view database through local host

Class Name: advisorServiceImpl

Parent Classes (if any): advisorService Subclasses (if any): None

## Responsibilities:

- Implements the methods in the created in the advisorService class by overriding them
- Saves the results from these methods into the advisor repository

### Collaborators:

- advisorService
- advisorServiceImpl
- advisorRepository
- advisorController

Class Name: courseRepository

Parent Classes (if any): JpaRepository
Subclasses (if any): None

Collaborators:

• courseService
• courseServiceImpl
• course
• courseController

Parent Classes (if any): None
Subclasses (if any): None

Responsibilities:

Creates all of the variables for the database.
Creates all of the setter and getter methods for these variables

Collaborators:

courseService
courseServicelmpl
courseRepository
courseController

Class Name: courseService

Parent Classes (if any): None
Subclasses (if any): courseServiceImpl

Responsibilities:

It is an interface
Creates a method to save course into the database
Creates a method to get a list of course from the database

Class Name: courseServiceImpl
course courseRepository
courseController

Collaborators:

course

courseServicecourseServiceImpl

courseRepository

Class Name: courseController

Parent Classes (if any): None Subclasses (if any): None

· Allows access of data to local

Can add to database through

· Can view database through local

Responsibilities:

local host

host

Parent Classes (if any): courseServ
Subclasses (if any): None

Responsibilities:

Implements the methods in the created in the courseService class by overriding them
Saves the results from these methods into the course repository

Class Name: courseServiceImpl

Parent Classes (if any): courseService
Subclasses (if any): None

Responsibilities:

• Implements the methods in the created in the courseService class by overriding them

• courseService
• courseServiceImpl

courseRepository

courseController

Class Name: DropCourse	
Parent Classes (if any): None Subclasses (if any): None	
Responsibilities:	Collaborators:
<ul> <li>Allows students to drop courses from their current course selection.</li> <li>Once 'Drop' is clicked, the course is no longer visible on the page.</li> </ul>	Drop courses is linked to the sidebar menu. Iinked to App.js React router handles link connections.

## ClassName: Sidebar Parent Class (if any): None Subclasses (if any): None Collaborators: Responsibilites: The Sidebar links to the Search Provides a navigation menu with links such as "Search Courses, "Drop

Displays user's profile with an avatar, name, student number. Also has a button to view personal profile.

Schedule".

Courses", "Your Progress", " View

Has a functional sign out button.

Courses page, redirecting the user React Router to handle navigation

links

ClassName: Search Courses	
Parent Class (if any): none Subclasses (if any): none	
Responsibilites:	Collaborators:
Provides a page with dropdown menus to filter sessions and departments     Provides a search bar to further filter through courses based on the	MUI for styling, dropdown, search bar, and table components     Backend API for course data

selected departmentDisplays the list of courses

dynamically

Parent Class (if any): None Subclasses (if any): None	
Responsibilites:	Collaborators:
<ul> <li>Provides personal profile of the student</li> <li>Allows navigation to the personal profile page</li> </ul>	Backend API for student details

# **System Design Architecture**

