

**FPT Education**

**Learning Materials (FLM)**

**Software Design Specification**

– Hanoi, May 2023 –

**Record of changes**

| Date | A\*  M, D | In charge | Change Description |
| --- | --- | --- | --- |
| 27/5/2023 | A | Phương Lan | Add Code Package  Package Description: subject, session, plo, user, plo\_clo, elective\_subject, pre\_requisite. |
| 28/5/2023 | A | Trúc Hà | Add package description for table: submit, setting, assessment\_type, po\_plo, page, plo\_subject, assessment\_category |
| 28/05/2023 | A | Thượng | - Add package description for table: permission, user\_role, clo, assessment, asessment\_lo, session\_lo  -Add code design: login, reset password, new curriculum |
| 27/5/2023 | A | Dũng | Add package description for table: elective, question, decision, curriculum, syllabus, discussion  Add code design: settingList, settingDetails, subjectList |
| 27/5/2023 | A | Trình | Add package description for table: avatar, curriculum\_subject, material, po, subject\_group.  Add code design : userprofile, change password, curriculum edit. |
| 28/5/2023 | A | Trúc Hà | Add code design: Account List, Account Details, Curriculum List |
| 28/05/2023 | A | Phương Lan | Add Code Design: Home Page, User Register, Curriculum Overview. |
| 30/05/2023 | M | Trúc Hà | Modify class diagram & sequence diagram of Account List, Account Details, Curriculum List |
| 07/06/2023 | A | Trúc Hà | Add Code Design: Elective List |
| 10/06/2023 | A | Trúc Hà | Add Code Design: Content Group List, Content Group Details |
| 09/06/2023 | A | Dũng | Add Code Design:New Subject, Subject PLO-mapping |
| 10/06/2023 | A | Dũng | Add Code Design:Subject Detail |
| 10/06/2023 | A | Thượng | Add Code Design:Subject Predecessor |
| 11/06/2023 | A | Thượng | Add Code Design:Subject Successor , Subject Import |
| 11/6/2023 | A | Phương Lan | Add Code Design: PO List, PO Details, PO Import |
| 20/06/2023 | A | Trúc Hà | Add SDS for Elective Details, Syllabus List, Syllabus Details |
| 24/06/2023 | A | Thượng | Decision List, Decision Detail, Add Decision |
| 25/06/2023 | A | Dũng | CLO List, CLO Details, CLO Import |
| 25/06/2023 | A | Trình | Session List,Session Details, Session Import |
| 05/07/2023 | A | Trúc Hà | Add SDS for New Syllabus, Syllabus Import, Syllabus Edit |
| 22/07/2023 | M | Trúc Hà | Modify Package diagram |
| 22/07/2023 | A | Dũng | Add Code Design: New Curriculum Subject, Curriculum Subject Details |
| 22/07/2023 | M | Dũng | Modify Code Designs of New Subject, Subject Details |
| 22/07/2023 | A | Thượng | Decision Overview, Combo List, Combo Details, New Combo |

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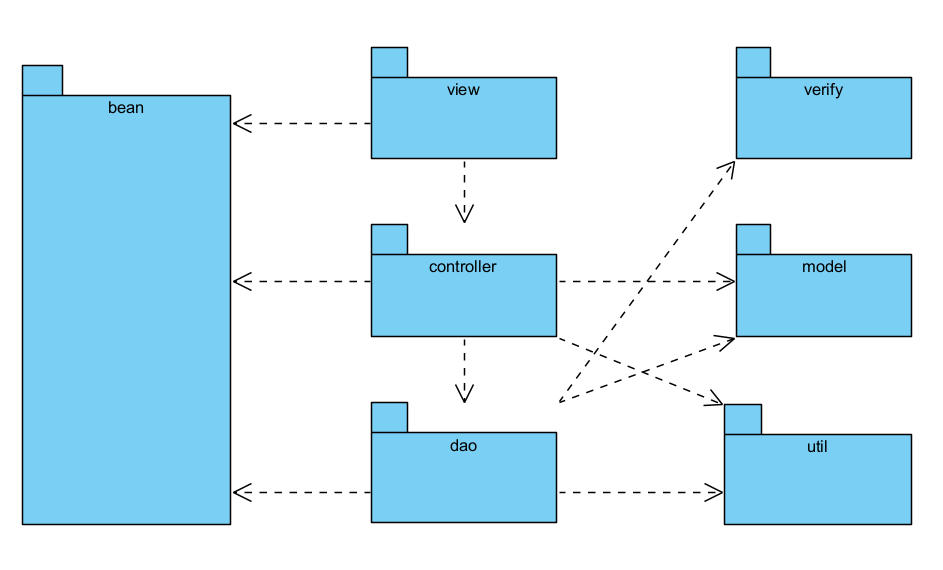
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# **I. Overview**

## **1. Code Packages**

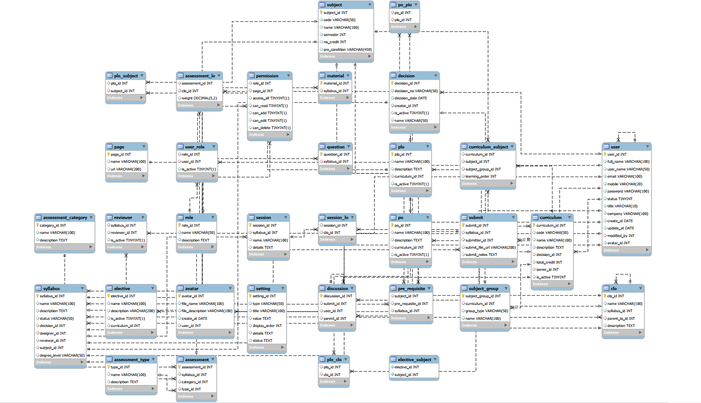


***Package descriptions***

| **No** | **Package** | **Description** |
| --- | --- | --- |
| 01 | Verify | The verify package serves as a dedicated space for verification-related functionalities in the application. It encapsulates the logic required for generating random codes and sending verification emails, promoting code modularity and reusability. By grouping these functionalities within a distinct package, it becomes easier to manage and maintain the verification-related codebase separately. |
| 02 | Util | The util package serves as a repository for reusable utility classes and constants, simplifying development and promoting consistency across the codebase. It enhances code organisation, encapsulation, and maintainability by separating commonly used functionalities and values from the rest of the application's logic. |
| 03 | Model | The model package serves as a container for the application's data models or entities, defining their attributes, relationships, and behaviours. These classes encapsulate the essential data structures and functionality necessary to represent and manipulate core entities within the application. Separating the data models into a dedicated package promotes organisation, modularity, and maintainability of the application's data layer. |
| 04 | Controller  <Controller and Controller.Authentication > | The controller package and its subpackage controller.authentication house the classes responsible for handling user interactions, processing requests, and managing authentication-related functionality. These classes act as the bridge between the UI and the underlying application logic, ensuring smooth communication and facilitating the execution of user-specific actions and operations. |
| 05 | Dao | The DAO package serves as a crucial component in the data layer of the application. It abstracts the interaction with the database, providing methods and interfaces for accessing, manipulating, and persisting data entities. The DAO classes ensure separation of concerns and promote code reusability by centralising database-related operations in a dedicated package. |

## **2. Database Design**

### **2.1 Database Schema**

**

### **2.2 Table Descriptions**

**Permission**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *role\_id* |  | *X* |  | *X* | *primary key of the role table describing id of each user* |
| *02* | *page\_id* |  | *X* |  | *X* | *primary key of the page table describing id of each page* |
| *03* | *Access\_all* |  |  | *X* |  | *accept all or no access* |
| *04* | *can\_read* |  |  | *X* |  | *can only read* |
| *05* | *can\_add* |  |  | *X* |  | *can only add* |
| *06* | *Can\_edit* |  |  | *X* |  | *can only edit* |
| *07* | *Can\_delete* |  |  | *X* |  | *can only delete* |

#### **User\_role**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *role\_id* |  | *X* |  | *X* | *primary key of the role table describing each user* |
| *02* | *use\_id* |  | *X* |  | *X* | *primary key of the user table describing each user* |
| *03* | *Is\_active* |  |  |  | *X* | *is it working or not* |

#### **Role**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *role\_id* | *X* |  | *X* |  | *primary key of the role table describing id each role* |
| *02* | *Name* |  | *X* |  | *X* | *used to store the name of the role.* |
| *03* | *Description* |  |  |  | *X* | *used to store a detailed description of the role.* |

#### **Clo**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *Clo\_id* | *X* |  | *X* |  | *A unique identifier for each learning outcome* |
| *02* | *Name* |  |  |  | *X* | *the name of the learning outcome.* |
| *03* | *Syllabus\_id* |  | *X* |  | *X* | *the identifier of the syllabus (to be referenced to the syllabus table* |
| *04* | *Parent\_lo\_id* |  | *X* |  | *X* | *the identifier of the parent learning outcome* |
| *05* | *Description* |  |  |  | *X* | *a detailed description of the learning outcome.* |

#### **Assessment**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *asessment\_id* | *X* |  | *X* |  | *primary key of the assessment table describing id each assessment* |
| *02* | *Category\_id* |  | *X* |  | *X* | *primary key of the assessment\_category table describing id each category* |
| *03* | *Syllabus\_id* |  | *X* |  | *X* | *primary key of the syllabus table describing id each syllabus* |
| *04* | *type\_id* |  | *X* |  | *X* | *primary key of the assessment\_type table describing id each type of assessment* |

#### **Assessment\_lo**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *assessment\_id* |  | *X* |  | *X* | *primary key of the assessment table describing id each assessment* |
| *02* | *Clo\_id* |  | *X* |  | *X* | *primary key of the clo table describing id each clo* |
| *03* | *Weight* |  |  |  | *X* | *the weight of each CLO as a percentage (%) of the total marks for the assessment* |

#### **Session\_lo**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *session\_id* |  | *X* |  | *X* | *primary key of the session table describing id each session* |
| *02* | *Clo\_id* |  | *X* |  | *X* | *primary key of the clo table describing id each clo* |

**Subject**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *subject\_id* | *X* |  | *X* |  | *Primary key of the subject table describing of each id subject* |
| *02* | *code* |  |  |  | *X* | *The code of subject* |
| *03* | *name* |  |  |  | *X* | *The name of the subject* |
| *04* | *semester* |  | *X* |  | *X* | *The semester in which the subject is offered* |
| *05* | *no\_credit* |  |  |  | *X* | *The number of credits assigned to the subject* |
| *06* | *pre\_condition* |  | *X* |  |  | *Pre-requisite conditions for the subject (if any)* |

**Session**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *session\_id* | *X* |  | *X* |  | *Unique identifier for each session.* |
| *02* | *syllabus\_id* |  | *X* |  | *X* | *Identifier linking to a syllabus table.* |
| *03* | *name* |  |  |  | *X* | *The name of the session* |
| *04* | *details* |  |  |  | *X* | *Additional details or description of the session.* |

**PLO**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *plo\_id* | *X* |  | *X* |  | *Unique identifier for each PLO.* |
| *02* | *name* |  |  |  | *X* | *Name of the PLO.* |
| *03* | *description* |  |  |  | *X* | *Description or details of the PLO.* |
| *04* | *curriculum\_id* |  | *X* |  | *X* | *Identifier linking to a curriculum table.* |
| *05* | *is\_active* |  |  |  | *X* | *Indicates whether the PLO is currently active or not.* |

**elective\_subject**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *elective\_id* | *X* |  | *X* |  | *Unique identifier for each elective subject.* |
| *02* | *subject\_id* |  | *X* |  | *X* | *Identifier linking to a subject table.* |

**User**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *user\_id* | *X* |  | *X* |  | *Unique identifier for each user.* |
| *02* | *full\_name* |  |  |  | *X* | *Full name of the user.* |
| *03* | *user\_name* |  |  | *X* |  | *Username of the user.* |
| *04* | *email* |  |  | *X* | *X* | *Email address of the user.* |
| *05* | *mobile* |  |  |  | *X* | *Mobile number of the user.* |
| *06* | *password* |  | *X* |  | *X* | *Password for the user's account.* |
| *07* | *status* |  |  |  | *X* | *Status of the user's account (e.g., active, inactive).* |
| *08* | *title* |  |  |  | *X* | *Title or job position of the user.* |
| *09* | *company* |  |  |  | *X* | *Name of the user's company.* |
| *10* | *create\_at* |  |  |  | *X* | *Timestamp indicating the creation date of the user record.* |
| *11* | *update\_at* |  |  |  | *X* | *Timestamp indicating the last update of the user record.* |
| *12* | *modified\_by* |  | *X* |  | *X* | *Identifier of the user who last modified the record.* |
| *13* | *avatar\_id* |  | *X* |  | *X* | *Identifier linking to an avatar table.*  *In this description, the primary key constraint is applied to the user* |

**pre\_requisite**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *subject\_id* |  | *X* |  | *X* | *Identifier linking to a subject table.* |
| *02* | *pre\_requisite\_id* |  | *X* |  | *X* | *Identifier linking to a subject table representing the pre-requisite subject.* |
| *03* | *syllabus\_id* |  | *X* |  | *X* | *Identifier linking to a syllabus table.* |

**plo\_clo**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *plo\_id* |  | *X* |  | *X* | *Identifier linking to a CLO (Course Learning Outcome) table.* |
| *02* | *clo\_id* |  | *X* |  | *X* | *Identifier linking to a CLO (Course Learning Outcome) table.* |

**Question**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *question\_id* | *X* |  | *X* |  | *Primary key of the role table describing id each question* |
| *02* | *syllabus\_id* |  | *X* |  | *X* | *The identifier of the syllabus (to be referenced to the syllabus table)* |

**Elective**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *elective\_id* | *X* |  | *X* |  | *Unique identifier for each elective subject* |
| *02* | *name* |  |  |  | *X* | *The name of the elective subject.* |
| *03* | *description* |  |  |  | *X* | *Description of the elective subject.* |
| *04* | *is\_active* |  |  |  | *X* | *Indicates if the elective subject is active or not.* |
| *05* | *curriculum\_id* |  | *X* |  | *X* | *Foreign key referencing the curriculum the elective is associated with.* |

**Decision**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *decision\_id* | *X* |  | *X* |  | *Unique identifier for each decision.* |
| *02* | *decision\_no* |  |  |  |  | *The number associated with the decision.* |
| *03* | *decision\_date* |  |  |  |  | *The date when the decision was made.* |
| *04* | *creator\_id* |  | *X* |  |  | *Foreign key referencing the creator or author of the decision.* |
| *05* | *is\_active* |  |  |  | *X* | *Indicates if the decision is currently active or not.* |
| *06* | *name* |  |  |  | *X* | *The name or title associated with the decision.* |

**Curriculum**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *curriculum\_id* | *X* |  | *X* |  | *Unique identifier for each curriculum.* |
| *02* | *code* |  |  | *X* |  | *The code or identifier associated with the curriculum.* |
| *03* | *name* |  |  |  |  | *The name of the curriculum.* |
| *04* | *description* |  |  |  | *X* | *Description or additional information about the curriculum.* |
| *05* | *decision* |  | *X* |  |  | *Foreign key referencing the decision associated with the curriculum.* |
| *06* | *total\_credit* |  |  |  |  | *The total credit or unit requirement for the curriculum.* |
| *07* | *owner\_id* |  | *X* |  |  | *Foreign key referencing the owner or creator of the curriculum.* |
| *08* | *is\_active* |  |  |  | *X* | *Indicates if the curriculum is currently active or not.* |

**Syllabus**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *syllabus\_id* | *X* |  | *X* |  | *Unique identifier for each syllabus.* |
| *02* | *name* |  |  |  | *X* | *The name or title associated with the syllabus.* |
| *03* | *description* |  |  |  | *X* | *Description or additional information about the syllabus.* |
| *04* | *status* |  |  |  | *X* | *The status of the syllabus (e.g., draft, in review, approved).* |
| *05* | *decision\_id* |  | *X* |  | *X* | *Foreign key referencing the decision associated with the syllabus.* |
| *06* | *designer\_id* |  | *X* |  | *X* | *Foreign key referencing the designer or creator of the syllabus.* |
| *07* | *reviewer\_id* |  | *X* |  | *X* | *Foreign key referencing the reviewer of the syllabus.* |
| *08* | *subject\_id* |  | *X* |  |  | *Foreign key referencing the subject associated with the syllabus.* |
| *09* | *degree\_level* |  |  |  | *X* | *The degree level to which the syllabus belongs (e.g., undergraduate, graduate).* |

**Discussion**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *discussion\_id* | *X* |  | *X* |  | *Unique identifier for each discussion entry.* |
| *02* | *submit\_id* |  | *X* |  |  | *Foreign key referencing the submission or topic to which the discussion* |
| *03* | *user\_id* |  | *X* |  |  | *Foreign key referencing the user who made the discussion entry.* |
| *04* | *parent\_id* |  | *X* |  | *X* | *Foreign key referencing the parent discussion entry, if any, indicating the hierarchical structure of discussions (e.g., replies to a comment).* |

#### 

**submit**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *submit\_id* | *X* |  | *X* |  | *Unique identifier for each discussion entry.* |
| *02* | *syllabus\_id* |  | *X* |  |  | *Foreign key referencing the syllabus of submit* |
| *03* | *submitter\_id* |  | *X* |  |  | *Foreign key referencing the person who made the submission.* |
| *04* | *submit\_file\_url* |  |  |  | *X* | *Shows the url of the submit* |
| *05* | *submit\_notes* |  |  |  | *X* | *Indicates the note of submit* |

**setting**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *setting\_id* | *X* |  | *X* |  | *Unique identifier for each discussion entry.* |
| *02* | *type* |  |  |  | *X* | *Indicates the category of the setting* |
| *03* | *title* |  |  |  | *X* | *Indicates the title of the setting* |
| *04* | *value* |  |  |  | *X* | *Indicates the value of the setting* |
| *05* | *display\_order* |  |  |  | *X* | *Indicates the display order of the setting* |
| *06* | *details* |  |  |  | *X* | *Indicates the detail of the setting* |
| *07* | *status* |  |  |  | *X* | *Indicates whether the setting is active or not* |

#### 

**assessment\_type**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *type\_id* | *X* |  |  |  | *Unique identifier for each discussion entry.* |
| *02* | *name* |  |  |  | *X* | *Indicates the name of the assessment type* |
| *03* | *description* |  |  |  | *X* | *Indicates the description of the assessment type* |

#### 

**po\_plo**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *po\_id* | *X* | *X* |  |  | *Indicates the po mapping to corresponding plo* |
| *02* | *plo\_id* | *X* | *X* |  |  | *Indicates the plo mapping to corresponding po* |

#### 

**page**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *page\_id* | *X* |  |  |  | *Unique identifier for each discussion entry.* |
| *02* | *name* |  |  |  | *X* | *Indicates the name of web page* |
| *03* | *url* |  |  |  | *X* | *Indicates the url of web page* |

#### 

**plo\_subject**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *plo\_id* | *X* | *X* |  |  | *Indicates the plo of the subject* |
| *02* | *subject\_id* | *X* | *X* |  | *X* | *Indicates subject included in plo* |

#### 

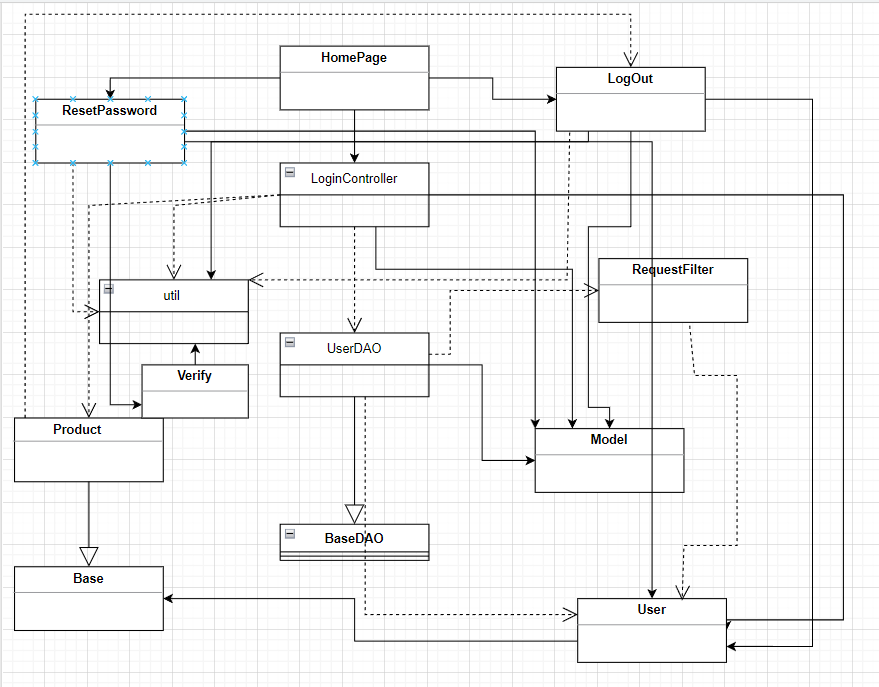
**assessment\_category**

| **No** | **Field name** | **PK?** | **FK?** | **UN?** | **Null?** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| *01* | *category\_id* | *X* |  |  |  | *Unique identifier for each discussion entry.* |
| *02* | *name* |  |  |  | *X* | *Indicates name of category* |
| *03* | *description* |  |  |  | *X* | *Indicates description of category* |

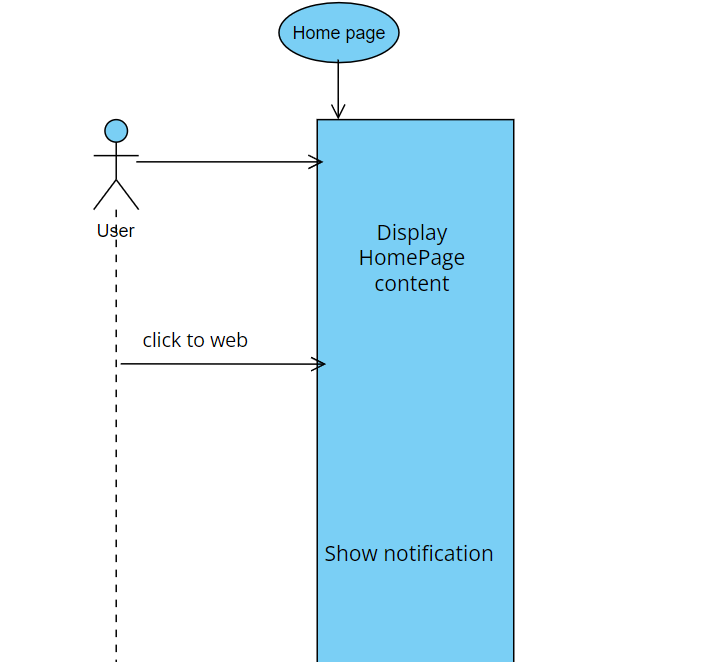
# **II. Code Designs**

**1. Common/User Access/Home Page**

**a. Class Diagram**

****

**b. Sequence Diagram**

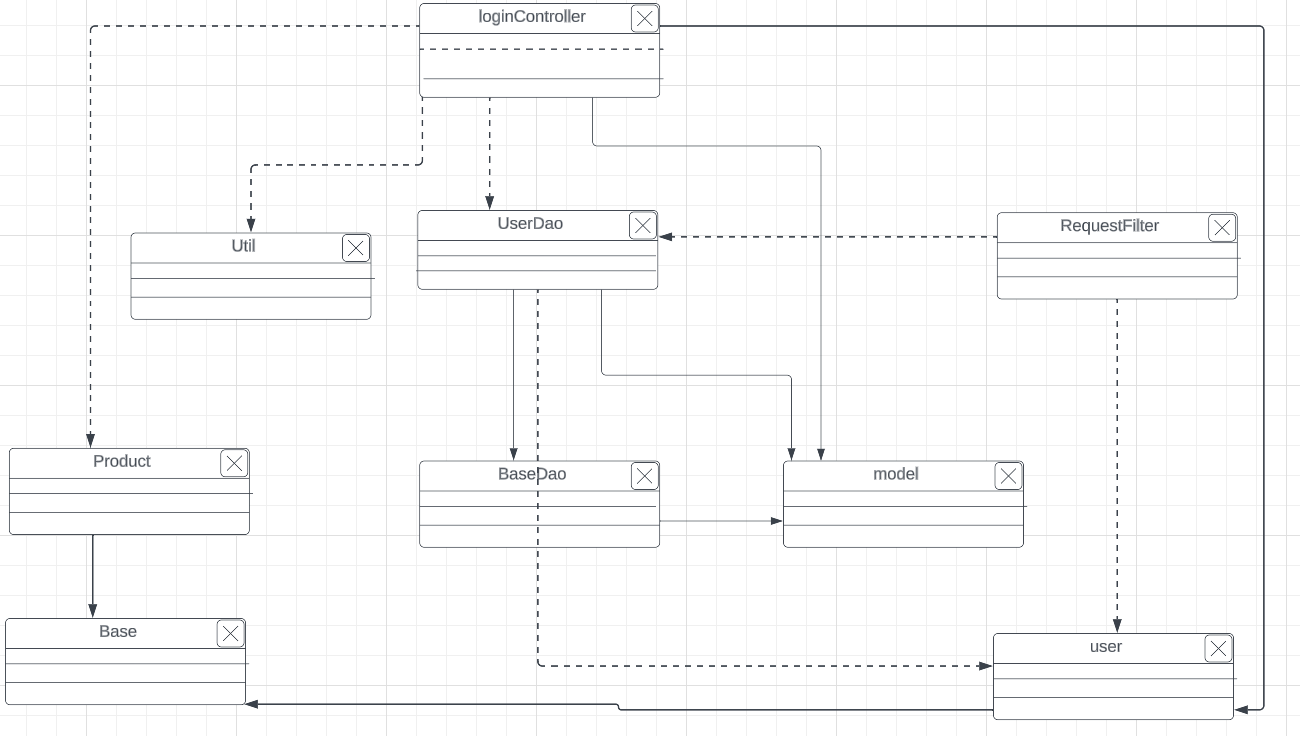
****

**c. Database Queries**

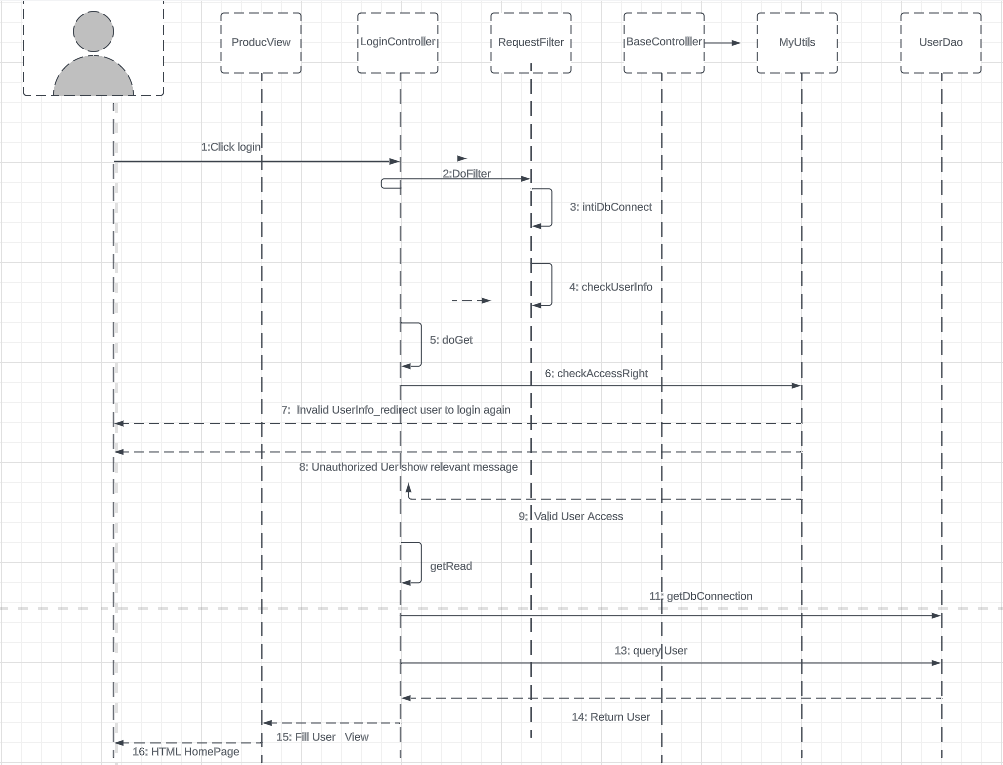
* INSERT INTO user (`full\_name` , `user\_name` , `email` , `password`) VALUES (?, ?, ?, ?);
* UPDATE `flmbl5`.`user` SET password = ? WHERE email = ?;
* select \* from user where user\_name = ? and password = ? or mobile = ? and password = ? or email = ? and password = ?
* select \* from user where email = ?
* SELECT sub.name as "subject\_name" ,sub.code as "subject\_code",pre.subject\_id as "subject\_id",pre.pre\_requisite\_id as "pre\_id",subpre.code as "pre\_code",subpre.name as "pre\_name" FROM pre\_requisite pre JOIN subject sub ON pre.subject\_id = sub.subject\_id JOIN subject subpre ON pre.pre\_requisite\_id = subpre.subject\_id where subpre.subject\_id =?
* INSERT INTO flmbl5.user (full\_name , user\_name , email , password,status) VALUES (?, ?, ?, ?, 1)
* UPDATE user SET password = ? WHERE email = ?

## **2. Common/User Access/ User Login**

#### **a. Class Diagram**

****

#### **b. Sequence Diagram(s)**

****

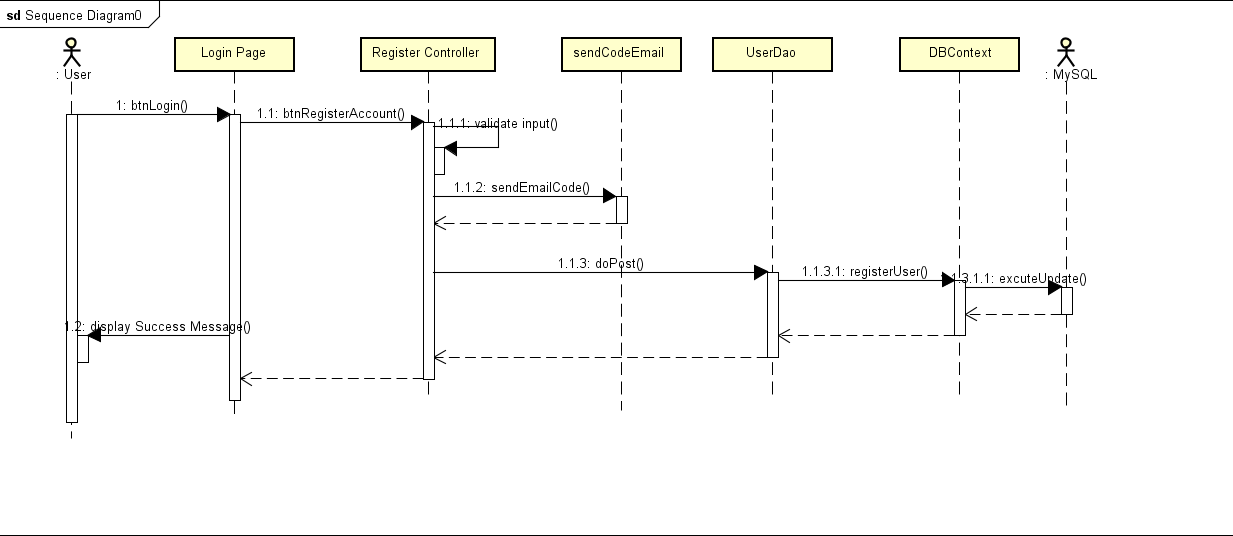
#### **c. Database Queries**

* select \* from user where user\_name = ? and password = ? or mobile = ? and password = ? or email = ? and password = ?

**3. Common/User Access/User Register**

**a. Class Diagram**

**b. Sequence Diagram**

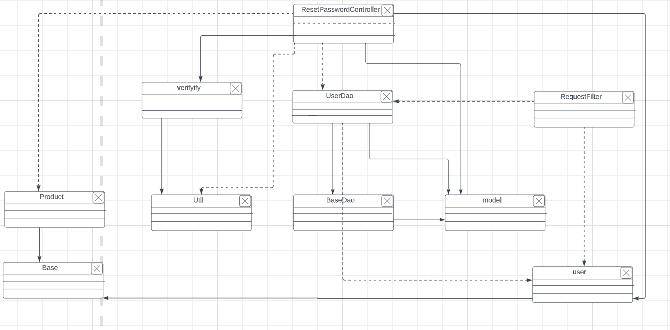


**c. Database Queries**

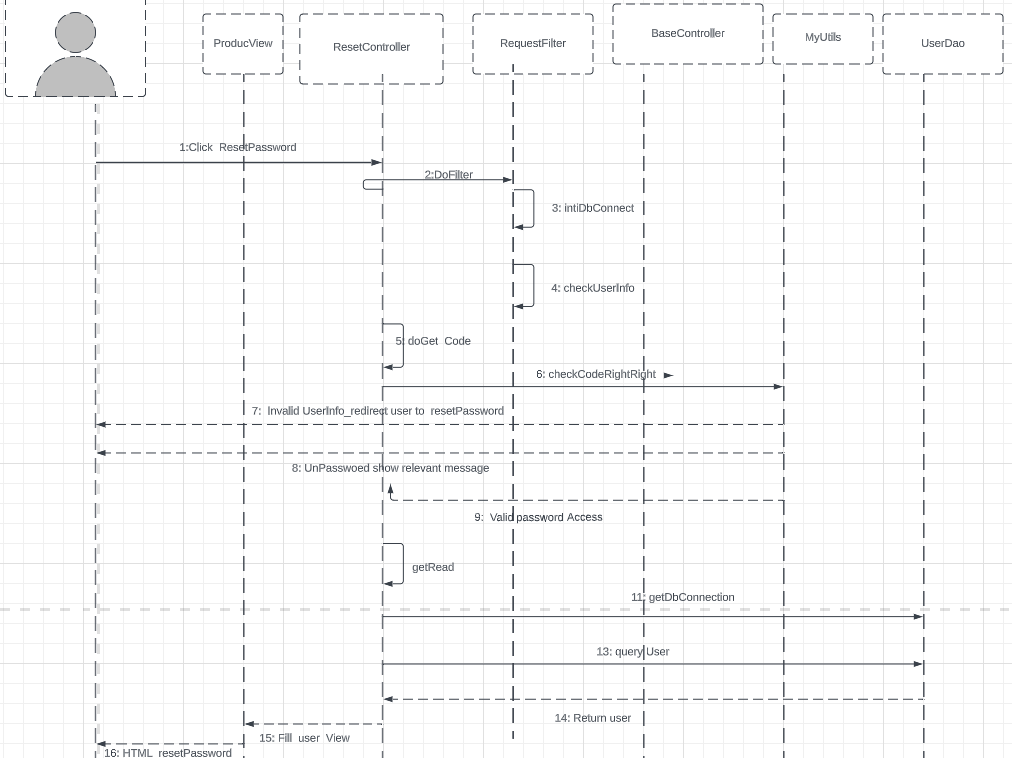
* INSERT INTO user (`full\_name` , `user\_name` , `email` , `password`) VALUES (?, ?, ?, ?);
* UPDATE `flmbl5`.`user` SET password = ? WHERE email = ?;
* select \* from user where user\_name = ? and password = ? or mobile = ? and password = ? or email = ? and password = ?

## **4. Common/User Access/ Reset Password**

#### **a. Class Diagram**



#### **b. Sequence Diagram(s)**

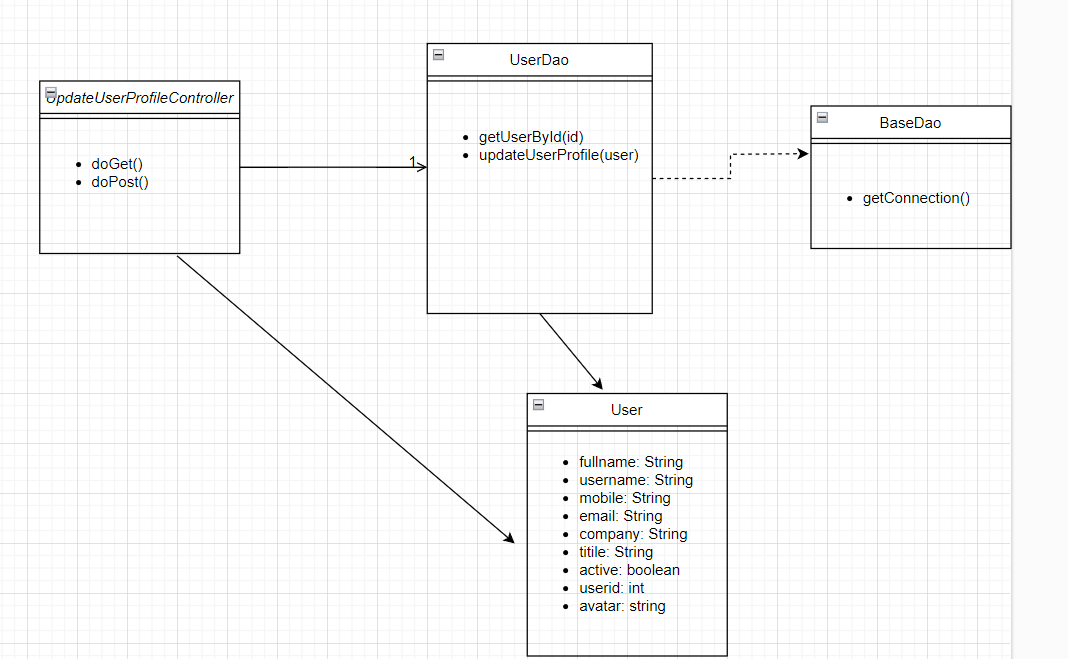


#### **c. Database Queries**

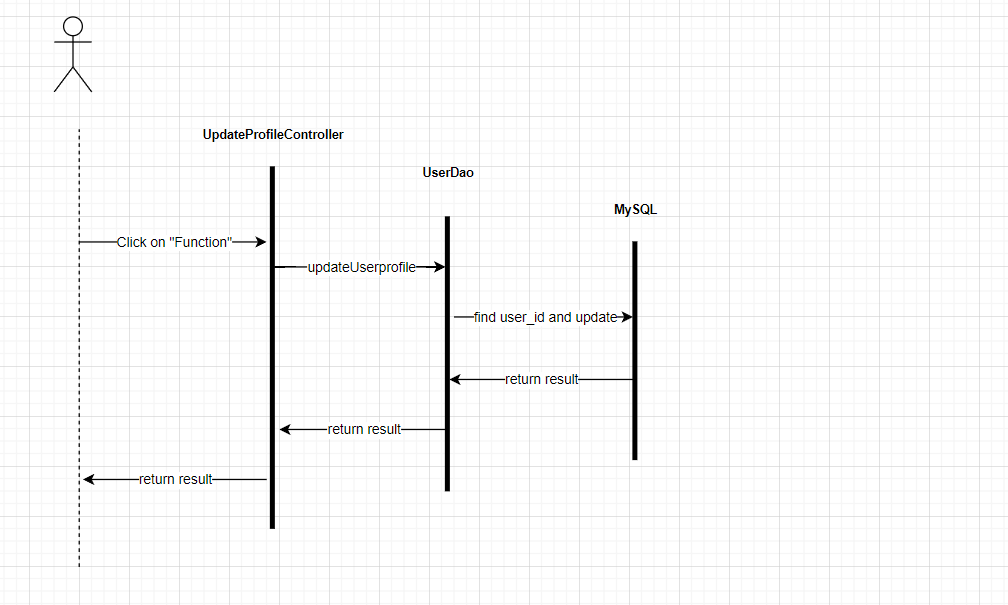
* select \* from user where email = ?
* UPDATE g5\_flm.user SET password = ? WHERE user\_id = ?;
* select \* from user where mobile = ?

## **5. Common/User Access/User Profile**

1. **Class Diagram**



#### **b. Sequence Diagram(s)**

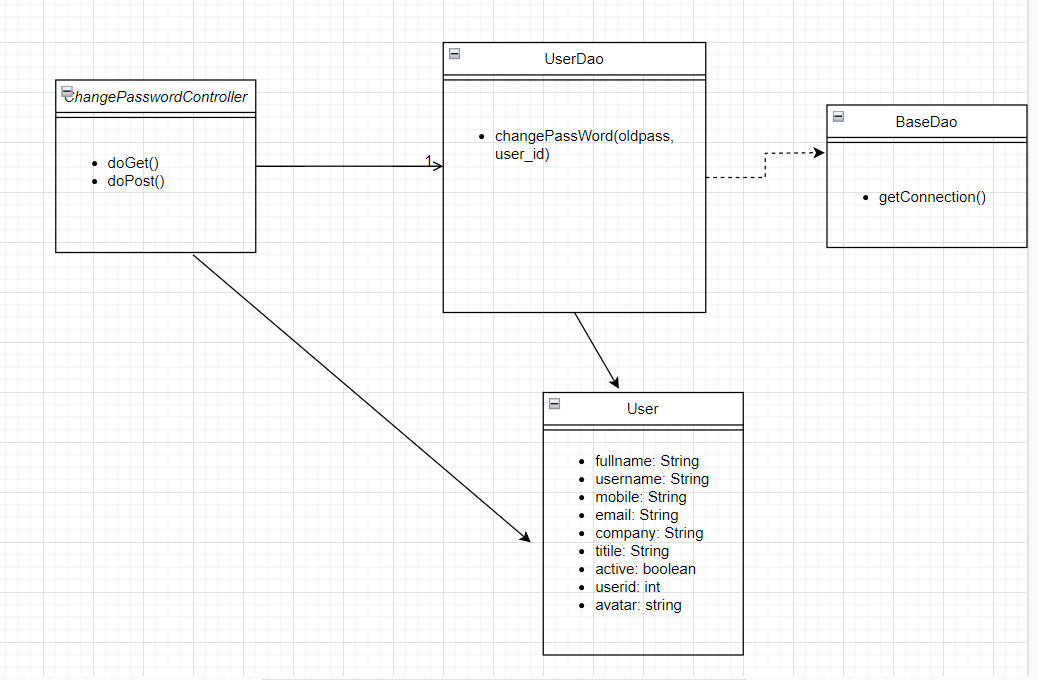


#### **c. Database Queries**

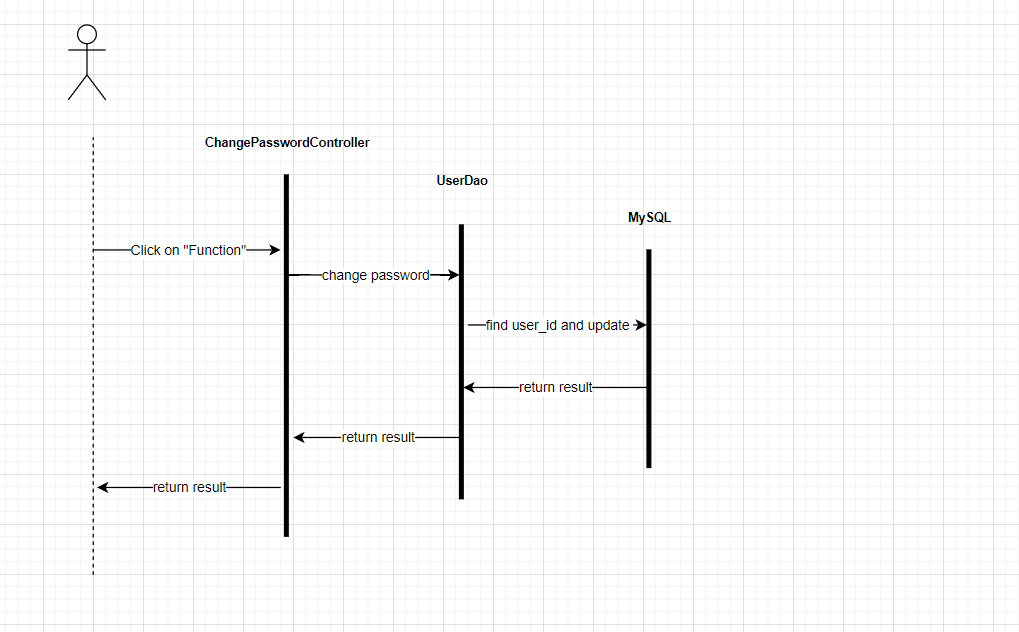
* update user set full\_name = ?, user\_name = ?, email = ?, mobile = ?, title = ?, company = ? where user\_id = ?

## **6. Common/User Access/Change Password**

1. **Class Diagram**

****

**b. Sequence Diagram**

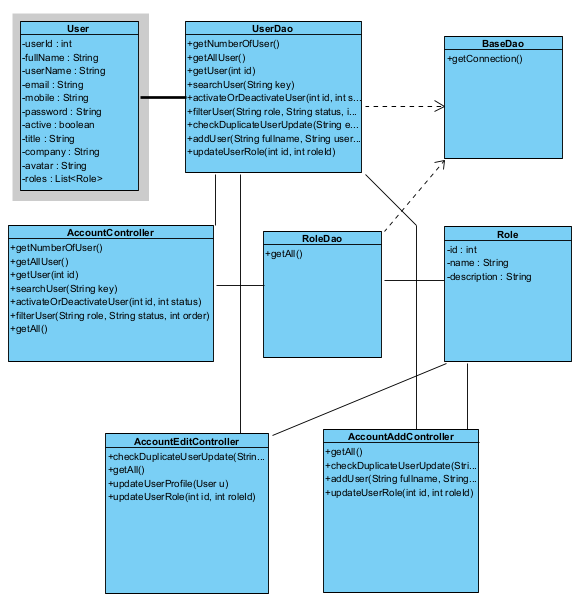
****

**c. Database Queries**

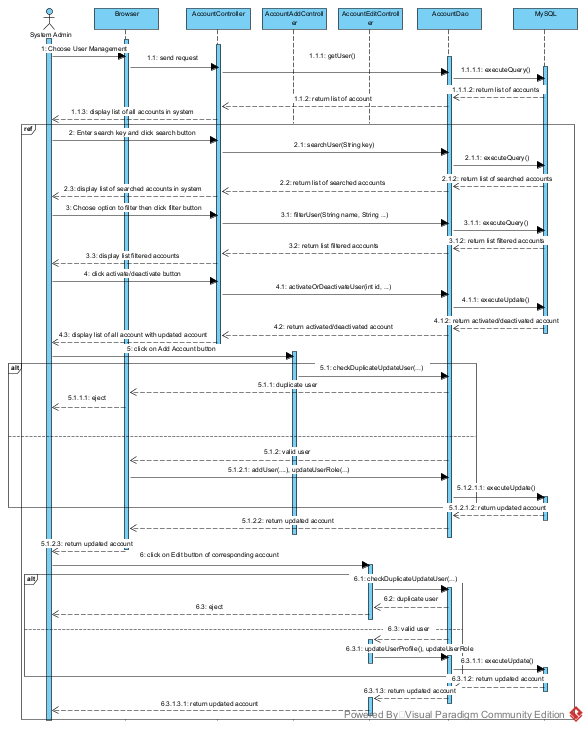
* update user set password = ? where user\_id= ?

## **7. Common/System Admin/Account List**

**a. Class Diagram**

****

**b. Sequence Diagram**

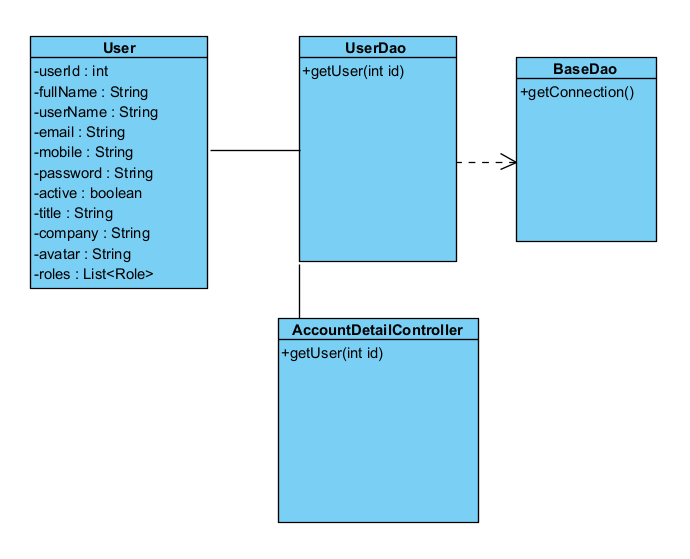
****

**c. Database Queries**

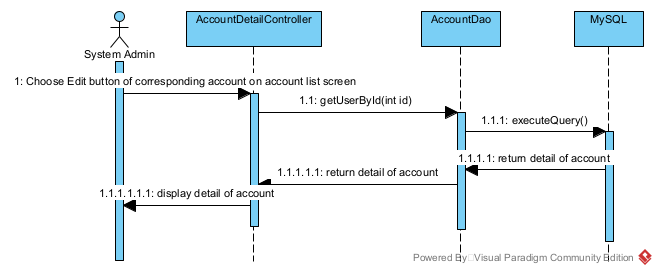
* select count(\*) from user;
* select user.\*, file\_name from user left join avatar on user.avatar\_id = avatar.avatar\_id;
* select distinct user.\*, file\_name from user left join avatar on user.avatar\_id = avatar.avatar\_id join user\_role on user.user\_id = user\_role.user\_id join role on role.role\_id = user\_role.role\_id where name like ? or user\_name like ? or full\_name like ? or email like ? or mobile like ?
* select distinct user.\*, file\_name from user left join avatar on user.avatar\_id = avatar.avatar\_id join user\_role on user.user\_id = user\_role.user\_id join role on role.role\_id = user\_role.role\_id where name like ? or user\_name like ? or full\_name like ? or email like ? or mobile like ? or status = ?
* select distinct user.\*, file\_name from user left join avatar on user.avatar\_id = avatar.avatar\_id join user\_role on user.user\_id = user\_role.user\_id where role\_id = ? and status = ? order by user\_id
* update user set status = ? where user\_id = ?
* INSERT INTO user (full\_name , user\_name , email , password, mobile, title, company) VALUES (?, ?, ?, ?, ?, ?, ?)
* insert into user\_role values (?, ?, 1);
* SELECT \* FROM role
* select r.role\_id, r.name, r.description from user\_role u JOIN role r ON u.role\_id = r.role\_id where u.user\_id = ? and u.is\_active = true
* select \* from user where email = ? and user\_id != ?
* update user set full\_name = ?, user\_name = ?, email = ?, mobile = ?, title = ?, company = ? where user\_id = ?
* delete from user\_role where user\_id = ?;
* insert into user\_role values (?, ?, 1);

## **8. Common/System Admin/Account Details**

**a. Class Diagram**

****

**b. Sequence Diagram**

****

**c. Database Queries**

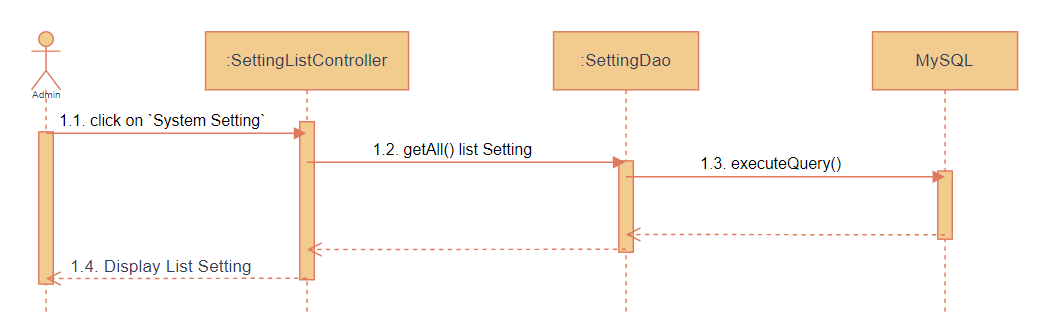
* select \* from user where user\_id = ?

## **9. Common/System Admin/Setting List**

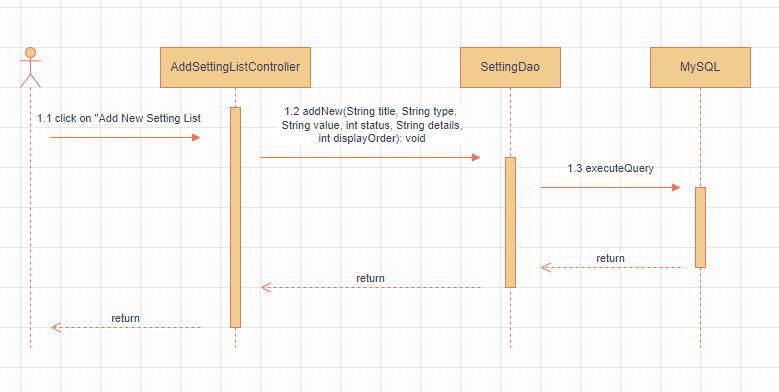
#### **a. Class Diagram**



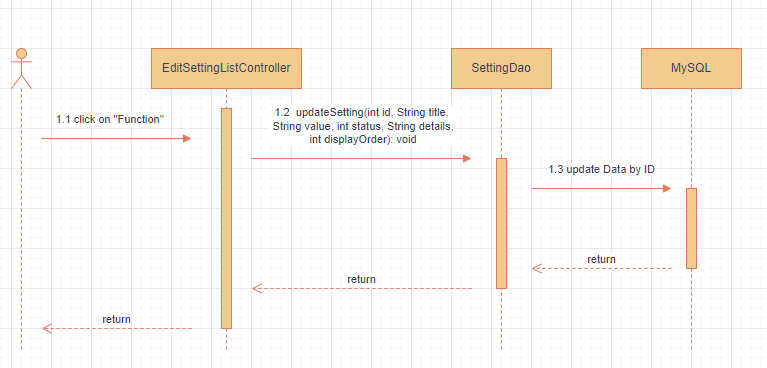
#### **b. Sequence Diagram(s)**



**Add**



**Edit**

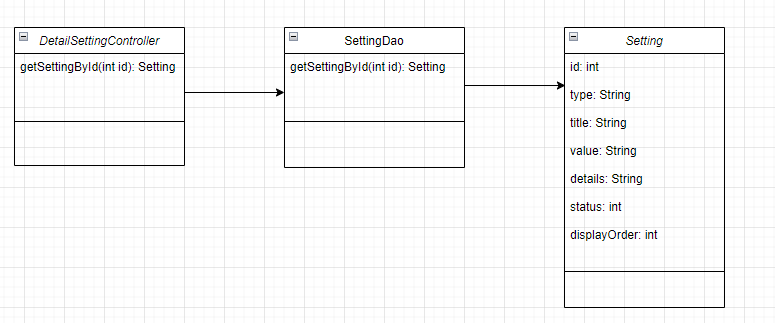
****

#### **c. Database Queries**

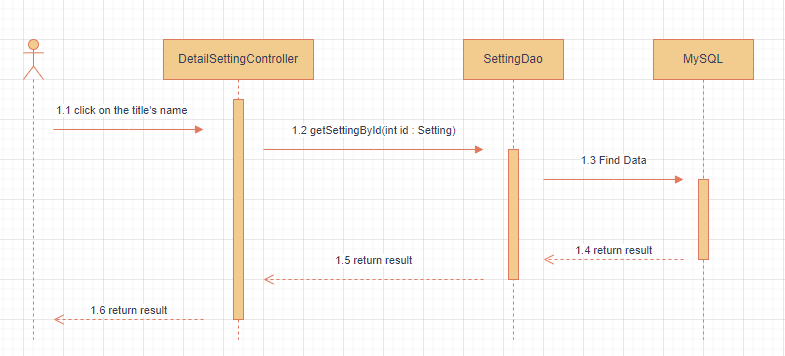
* select \* from setting where title LIKE '%" + title + "%'
* INSERT INTO `setting`(`type`, `title`, `value`, `details`, `status` , `display\_order`) VALUES (?, ?, ?, ?, ?, ?)
* UPDATE `setting` SET title = ? , value = ?, status = ? , details = ? , type = ? , display\_order = ? WHERE setting\_id = ?

## **10. Common/System Admin/Setting Details**

#### **a. Class Diagram**



#### **b. Sequence Diagram(s)**

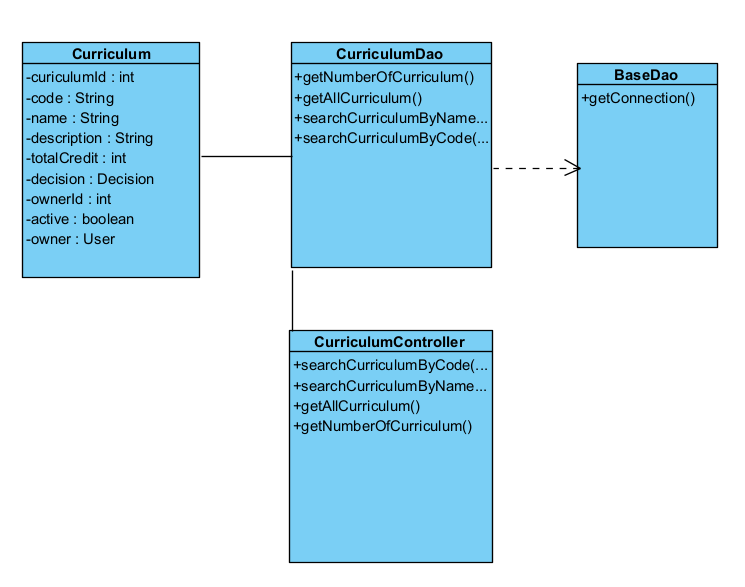


#### **c. Database Queries**

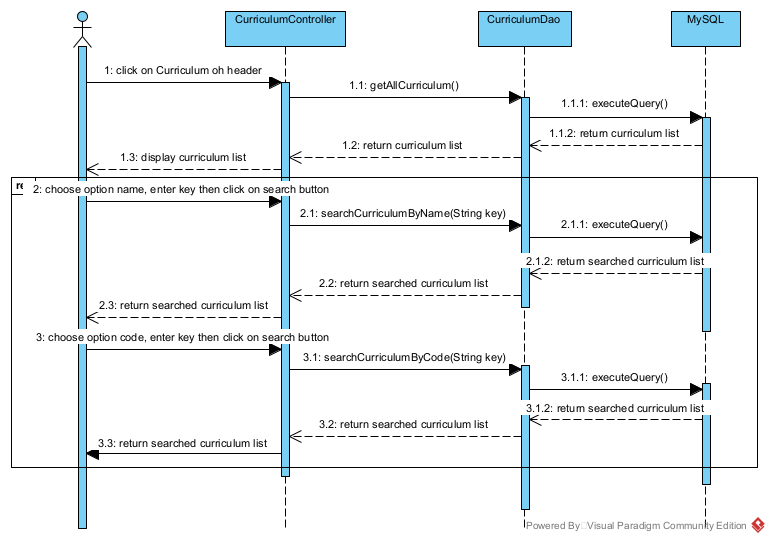
* select \* from setting where setting\_id = ?

## **11. Curriculums & Subjects/ Curriculum Management/Curriculum List**

**a. Class Diagram**

****

**b. Sequence Diagram**

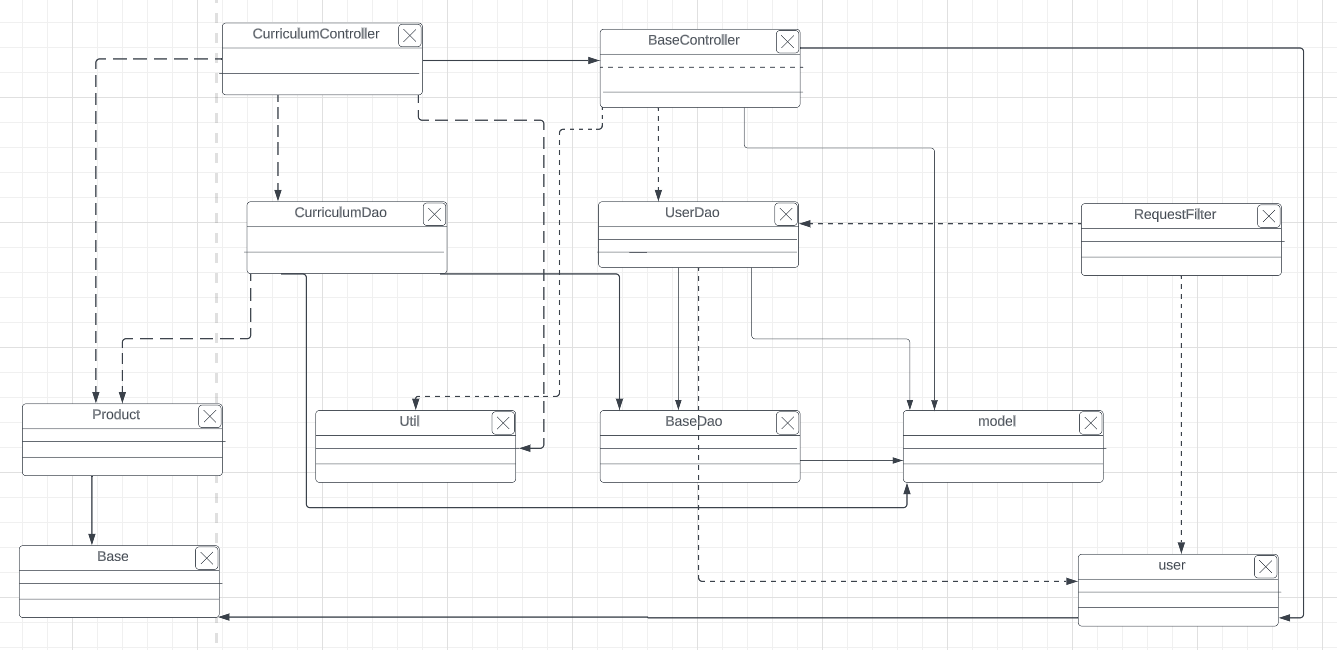
****

**c. Database Queries**

* select count(\*) from curriculum;
* select curriculum.\*, decision\_no, decision\_date from curriculum left join decision on curriculum.decision\_id = decision.decision\_id where code like ?
* select curriculum.\*, decision\_no, decision\_date from curriculum left join decision on curriculum.decision\_id = decision.decision\_id where curriculum.name like ?

## **12. Curriculum & Subjects/ Curriculum Management/ New Curriculum**

#### **a. Class Diagram**



#### **b. Sequence Diagram(s)**

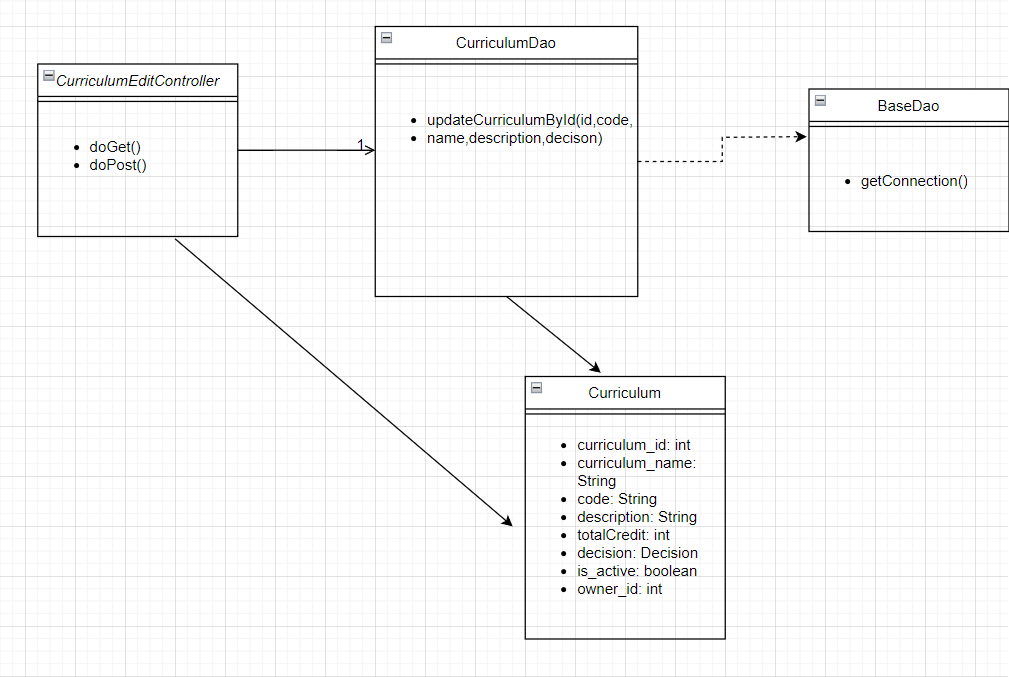


#### **c. Database Queries**

* SELECT curriculum\_id FROM g5\_flm.curriculum ORDER BY curriculum\_id DESC LIMIT 1";
* INSERT INTO `g5\_flm`.`curriculum` (`curriculum\_id`, `code`, `name`, `description`, `decision\_id`, `total\_credit`, `is\_active`) + "VALUES (?, ?, ?, ?, ?, ?, ?);

## **13. Curriculum & Subjects/ Curriculum Management/Curriculum Edit**

**a. Class Diagram**

****

**b. Sequence Diagram**

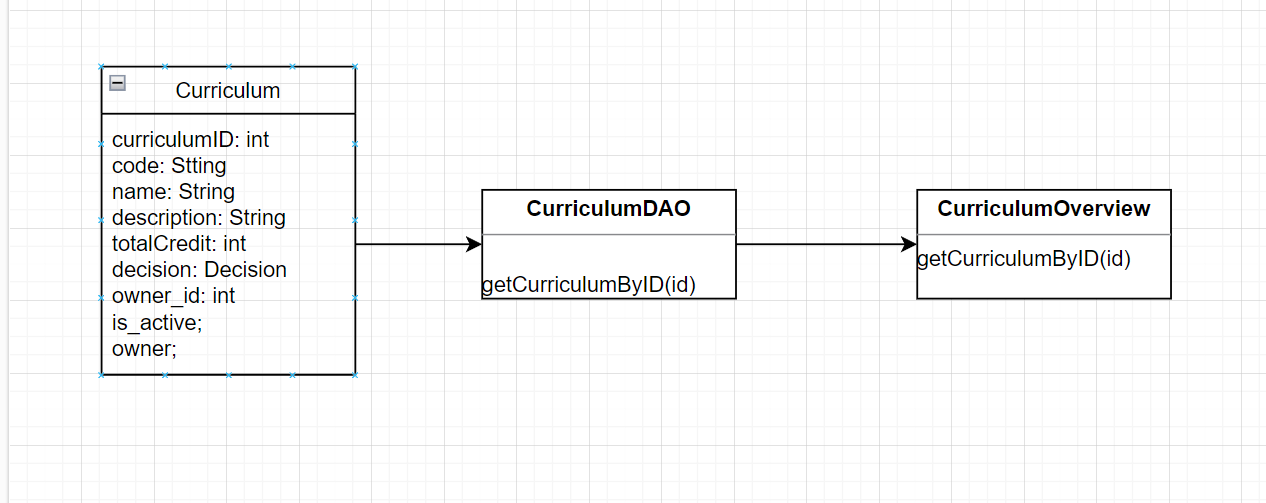
****

**c. Database Queries**

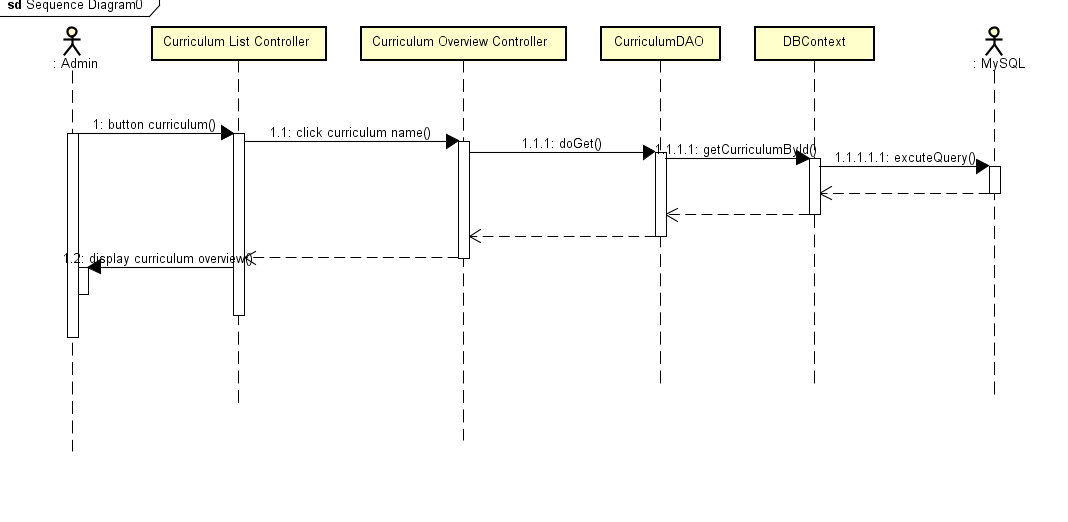
* update Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id set c.code = ?, c.name = ?, c.description = ?, d.decision\_no = ? where curriculum\_id = ?

## **14. Curriculum & Subjects/ Curriculum Management/Curriculum Overview**

**a. Class Diagram**

****

**b. Sequence Diagram**

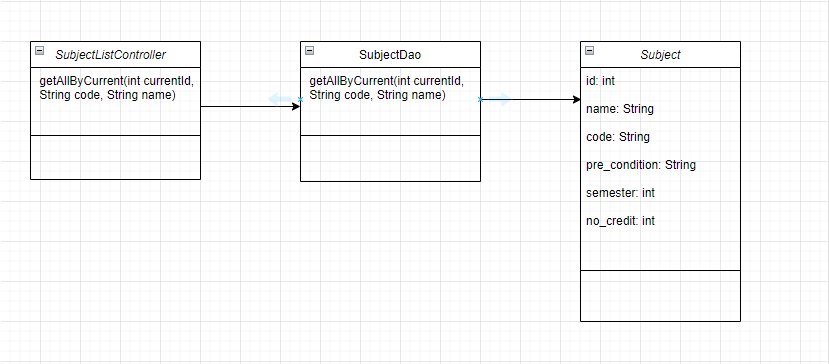


**c. Database Queries**

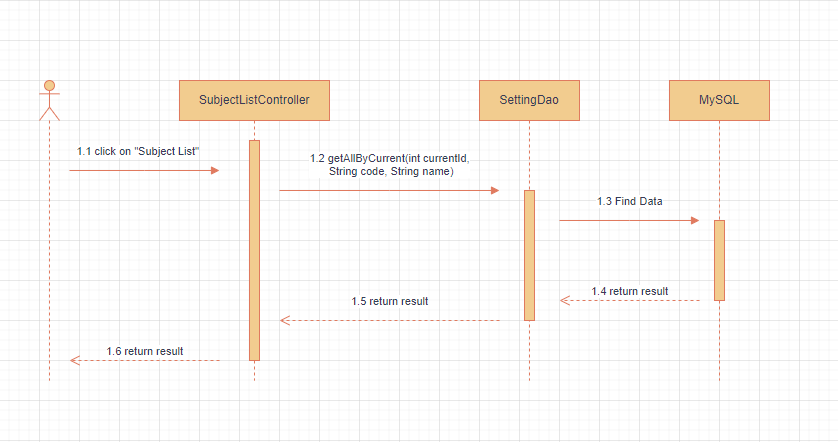
* SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id WHERE code like ? or name like ?

## **15. Curriculums & Subjects/ Subject Management/Subject List**

#### **a. Class Diagram**



#### **b. Sequence Diagram(s)**



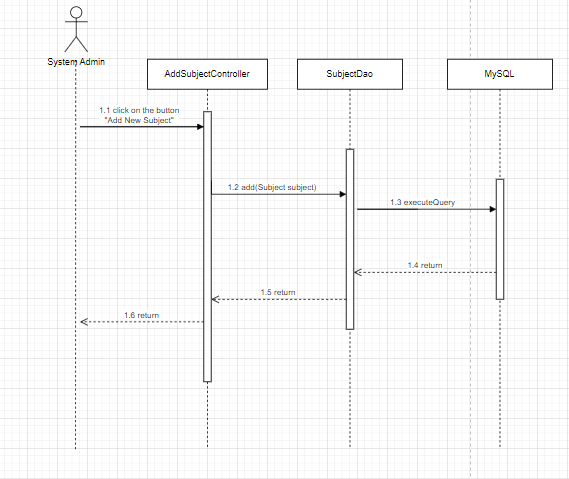
#### **c. Database Queries**

* SELECT sub.subject\_id, sub.code, sub.name, sub.semester, sub.no\_credit , sub.pre\_condition FROM subject sub JOIN curriculum\_subject cuSub ON sub.subject\_id = cuSub.subject\_id WHERE cuSub.curriculum\_id = ? AND sub.code LIKE ? AND sub.name LIKE ?

## **16. Curriculums & Subjects/ Subject Management/New Subject**

### a. Class Diagram

### b. Sequence Diagram

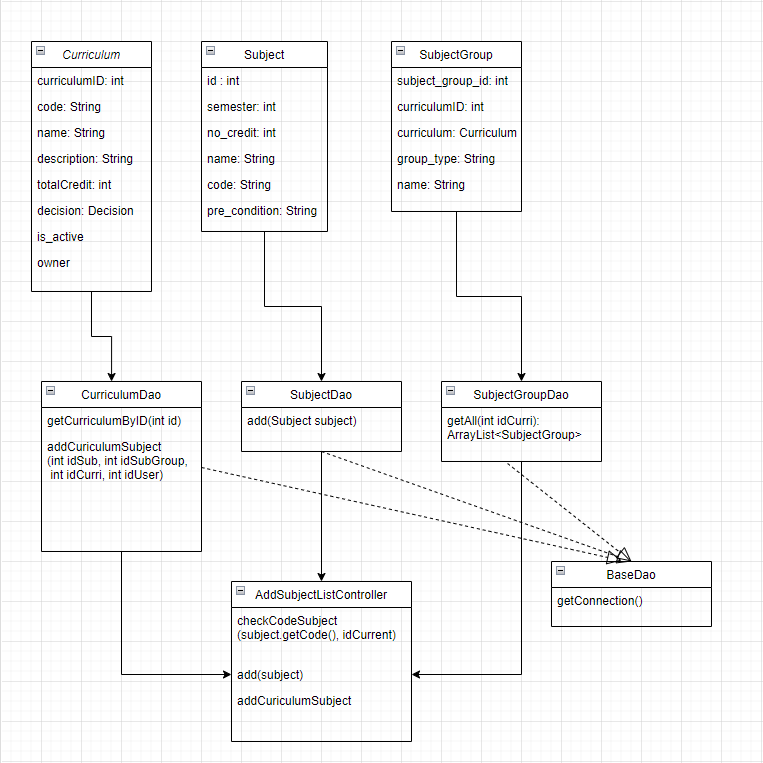


### c. Database Queries

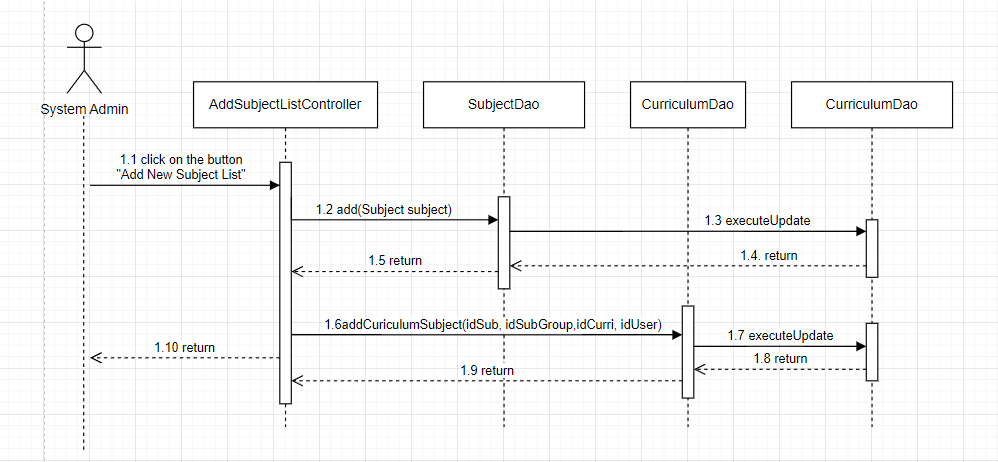
* SELECT \* FROM subject where code = ?
* INSERT INTO subject ( code, name, semester, no\_credit, pre\_condition) VALUES ( ?, ?, ?, ? , ?);

## 17. Curriculums & Subjects/ Subject Management/New Curriculum Subject

### a. Class Diagram



### b. Sequence Diagram

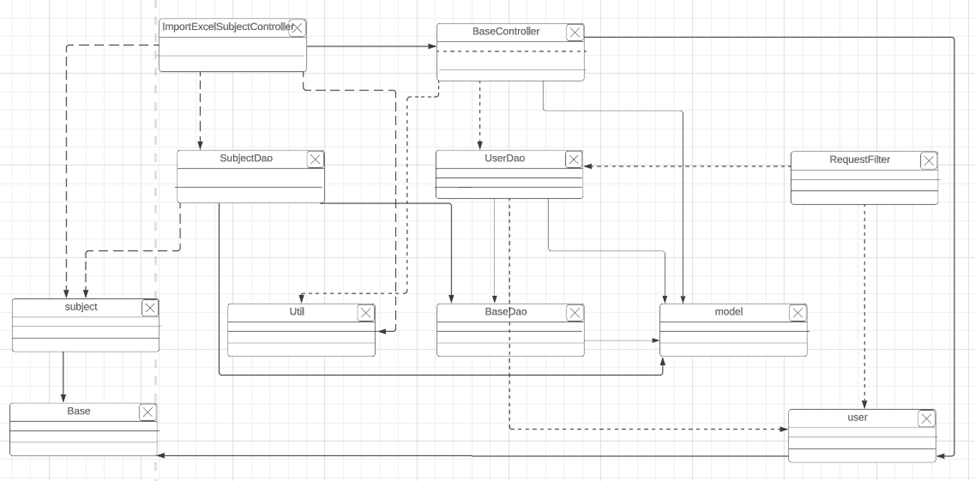


### c. Database Queries

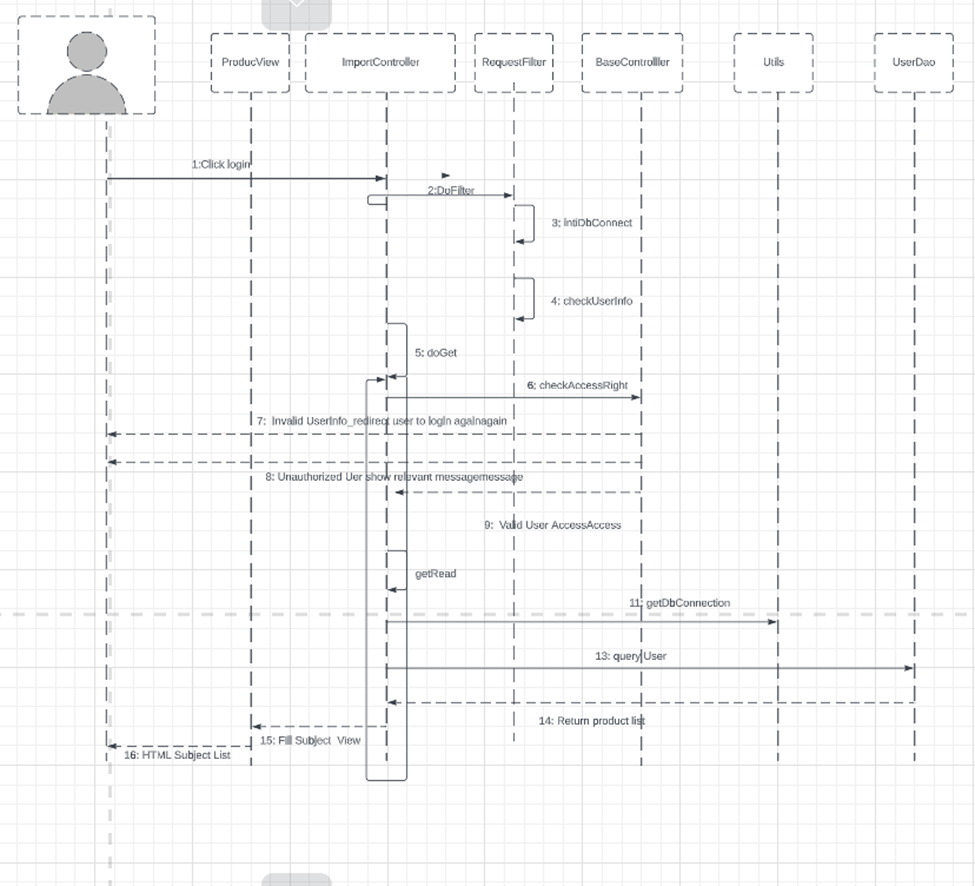
* SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?
* SELECT \* FROM subject\_group where curriculum\_id = ?
* INSERT INTO `curriculum\_subject` (`curriculum\_id`, `subject\_id`, `subject\_group\_id`, `learning\_order`) VALUES ( ? , ? , ? , ? );
* INSERT INTO subject ( code, name, semester, no\_credit, pre\_condition) VALUES ( ?, ?, ?, ? , ?);

## 18. Curriculums & Subjects/ Subject Management/Subject Import

a. Class Diagram



b. Sequence Diagram

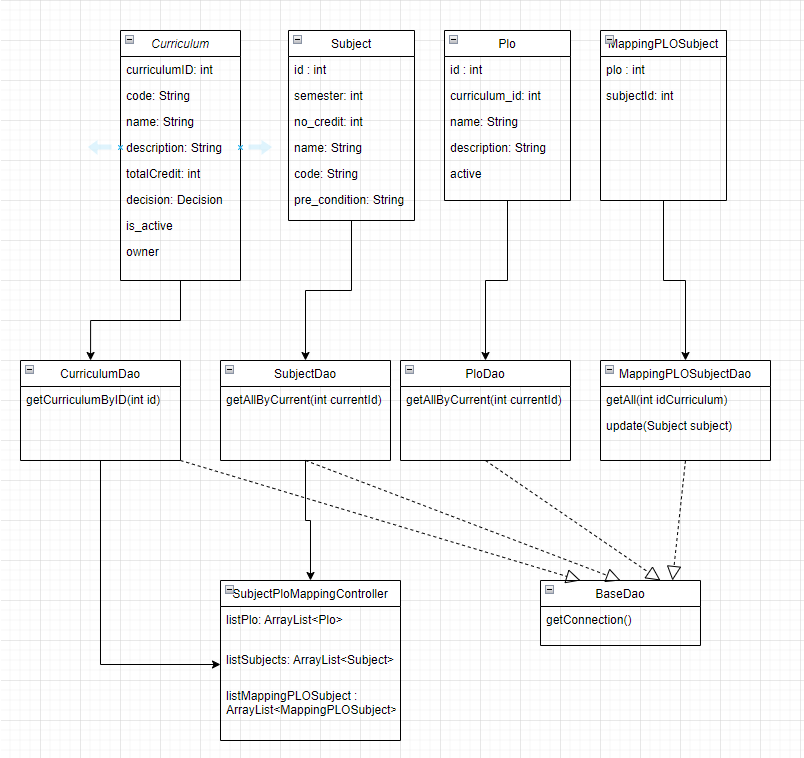


c. Database Queries

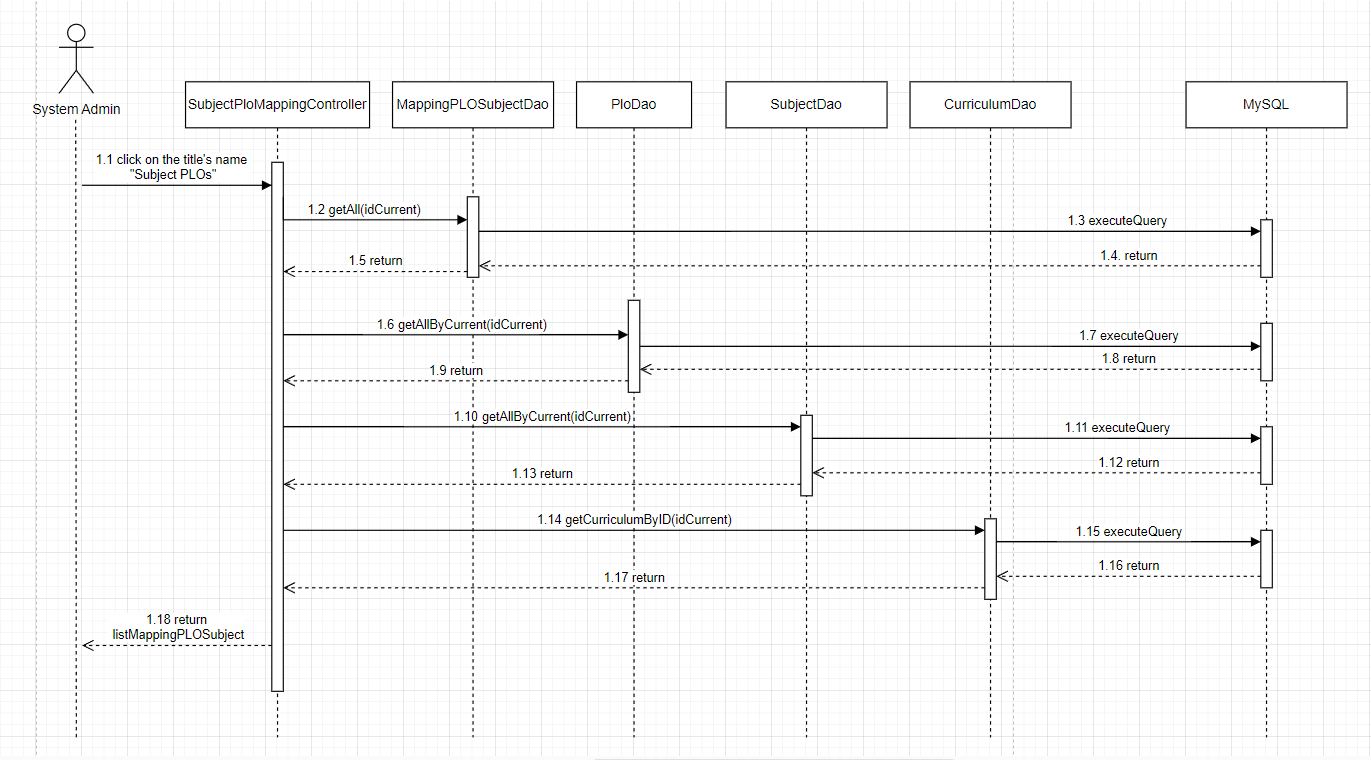
INSERT INTO `g5\_flm`.`subject` (`subject\_id`, `code`, `name`, `semester`, `no\_credit`, `pre\_condition`) VALUES (?, ?, ?, ?, ?, ?)

## **19. Curriculums & Subjects/ Subject Management/Subject-PLO Mapping**

### a. Class Diagram



### b. Sequence Diagram



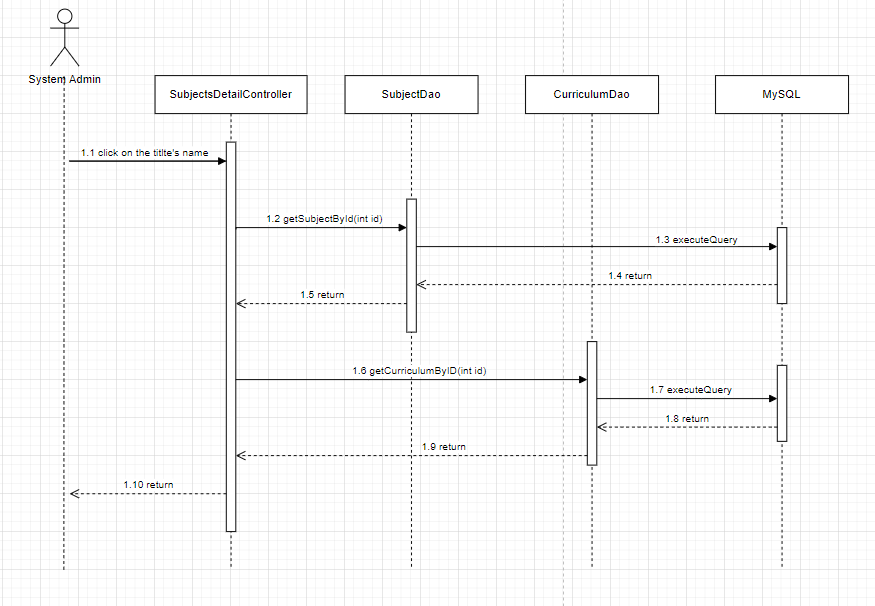
### c. Database Queries

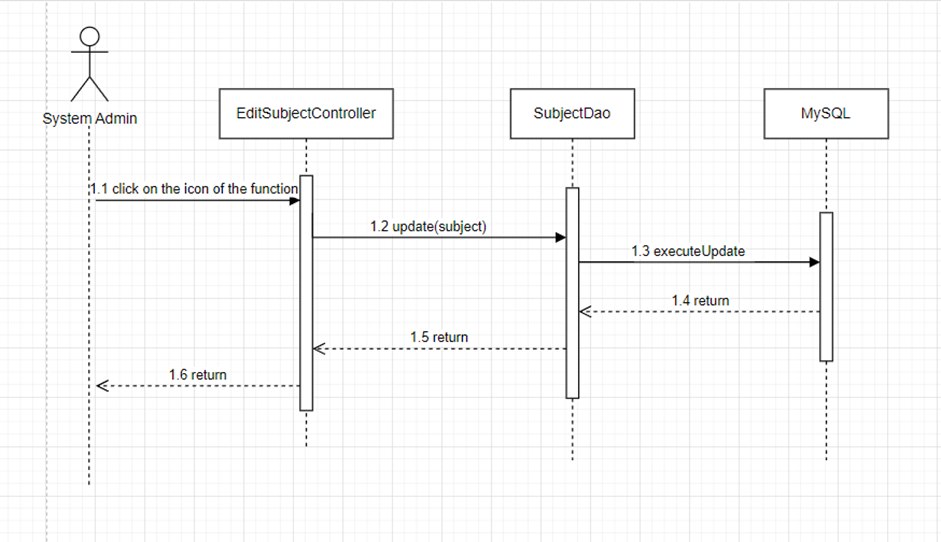
* SELECT \* FROM plo where curriculum\_id = ?
* SELECT sub.subject\_id, sub.code, sub.name, sub.semester, sub.no\_credit , sub.pre\_condition FROM subject sub JOIN curriculum\_subject cuSub ON sub.subject\_id = cuSub.subject\_id WHERE cuSub.curriculum\_id = ?
* SELECT cs.subject\_id, ps.plo\_id FROM plo\_subject ps JOIN curriculum\_subject cs ON ps.subject\_id = cs.subject\_id WHERE cs.curriculum\_id = ?
* SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?

## 20. Curriculums & Subjects/ Subject Management/Curriculum Subject Details

### a. Class Diagram

### b. Sequence Diagram

**Details **

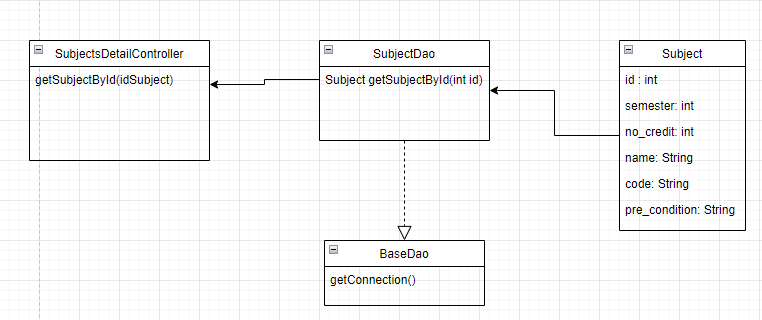
**Edit**

### c. Database Queries

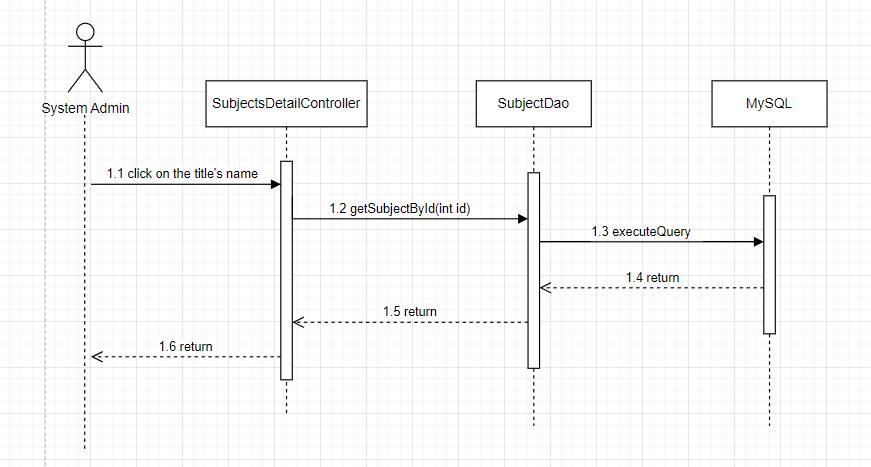
* SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?
* SELECT sub.subject\_id, sub.code, sub.name, sub.semester, sub.no\_credit, sub.pre\_condition FROM subject sub where sub.subject\_id = ?
* UPDATE `subject` SET `code` = ?, `name` = ?, `semester` = ?, `no\_credit` = ?, `pre\_condition` = ? WHERE `subject\_id` = ?

## **21. Curriculums & Subjects/ Subject Management/Subject Details**

### a. Class Diagram



### b. Sequence Diagram

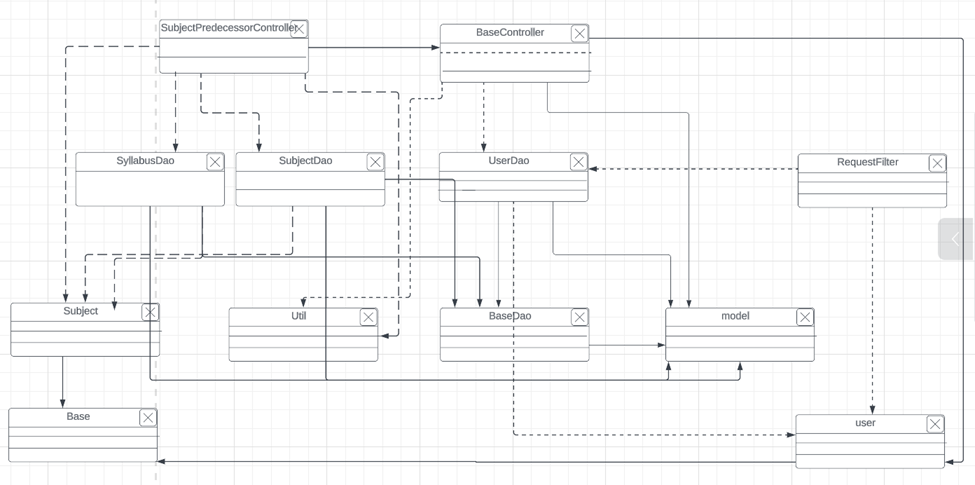
****

### c. Database Queries

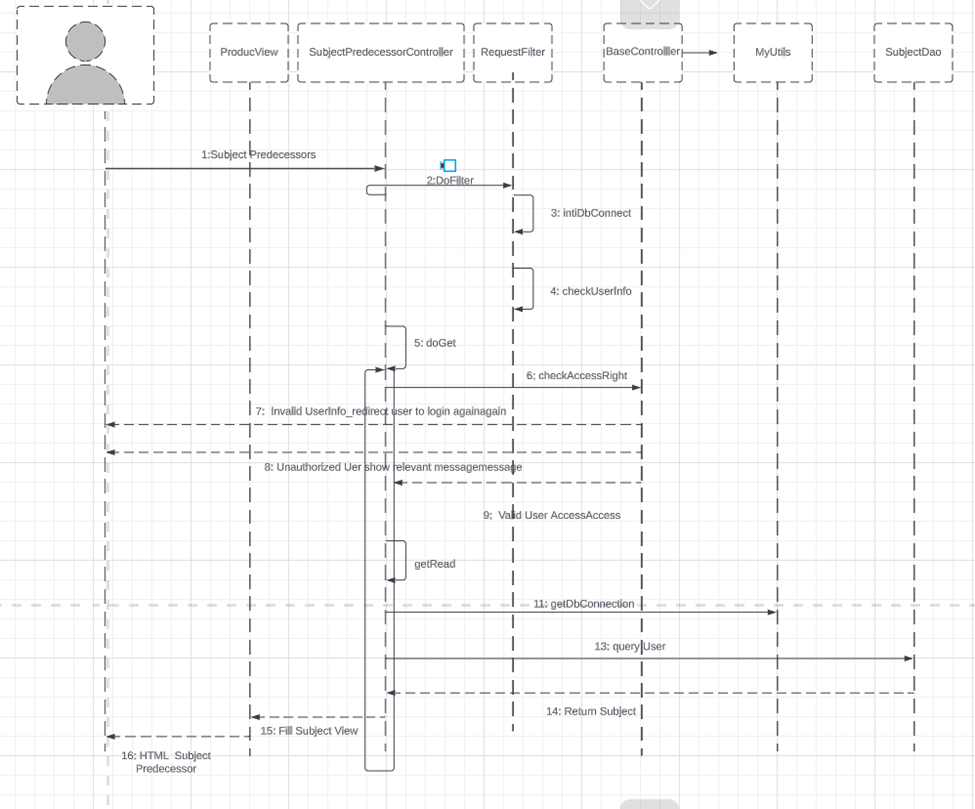
* SELECT sub.subject\_id, sub.code, sub.name, sub.semester, sub.no\_credit, sub.pre\_condition FROM subject sub where sub.subject\_id = ?

## **22. Curriculums & Subjects/Curriculum Subjects/Subject Predecessors**

a. Class Diagram



b. Sequence Diagram

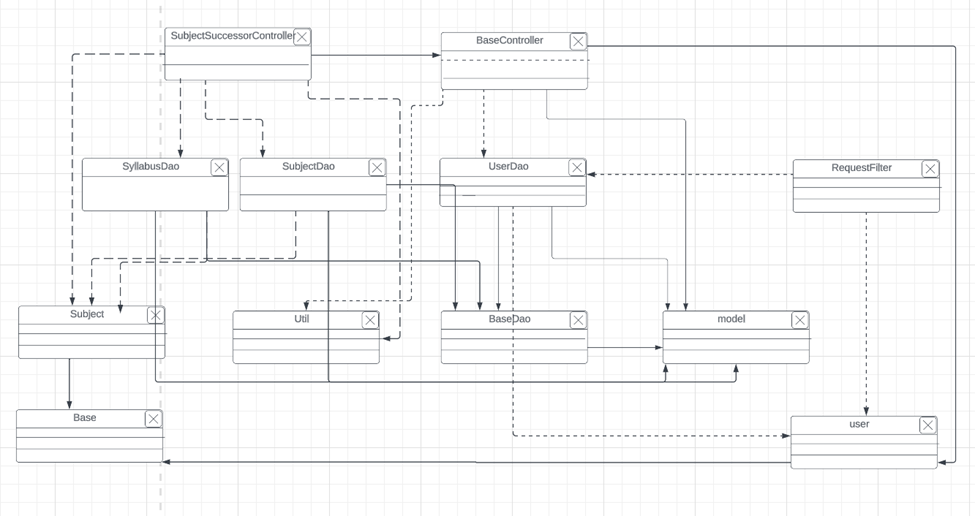


c. Database Queries

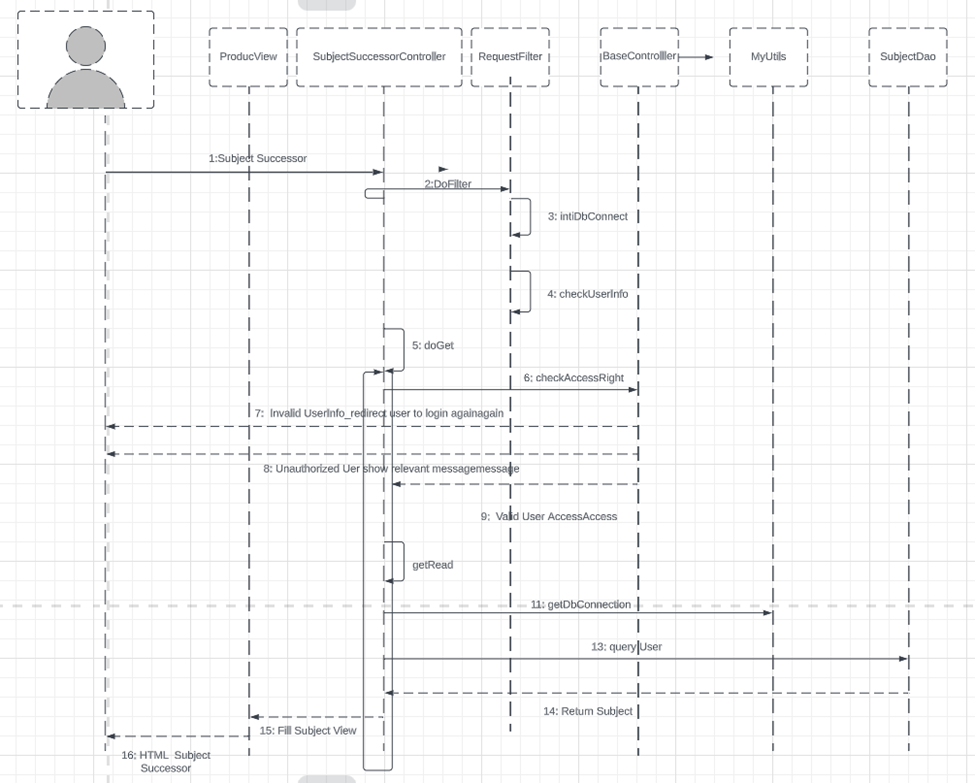
* SELECT `subject`.`subject\_id`, `subject`.`code`, `subject`.`name`, `subject`.`semester`,`subject`.`no\_credit`, `subject`.`pre\_condition` FROM `g5\_flm`.`subject` WHERE `subject`.`code` LIKE ? OR `subject`.`subject\_id` = ?
* SELECT s.subject\_id,p.pre\_requisite\_id, (SELECT s2.code FROM g5\_flm.subject s2 WHERE s2.subject\_id = p.pre\_requisite\_id) AS code FROM g5\_flm.subject s JOIN g5\_flm.pre\_requisite p ON p.subject\_id = s.subject\_id WHERE 1=1; and s.subject\_id = ? or s.code like ?
* SELECT g5\_flm.syllabus.syllabus\_id,g5\_flm.subject.code,g5\_flm.subject.subject\_id, g5\_flm.subject.name , g5\_flm.syllabus.name, g5\_flm.decision.decision\_no, g5\_flm.decision.decision\_date From g5\_flm.syllabus join g5\_flm.decision on g5\_flm.syllabus.decision\_id = g5\_flm.decision.decision\_id join g5\_flm.subject on g5\_flm.syllabus.subject\_id = g5\_flm.subject.subject\_id WHERE 1=1;and g5\_flm.subject.subject\_id = ? OR g5\_flm.subject.code like ?

## **23. Curriculums & Subjects/Curriculum Subjects/Subject Successors**

a. Class Diagram



b. Sequence Diagram



c. Database Queries

- SELECT `subject`.`subject\_id`,

`subject`.`code`,

`subject`.`name`,

`subject`.`semester`,

`subject`.`no\_credit`,

`subject`.`pre\_condition`

FROM `g5\_flm`.`subject` WHERE `subject`.`code` LIKE ? OR `subject`.`subject\_id` = ?

- SELECT

s.subject\_id,

p.pre\_requisite\_id,

(SELECT s2.code FROM g5\_flm.subject s2 WHERE s2.subject\_id = p.subject\_id) AS cod

FROM

g5\_flm.subject s

JOIN g5\_flm.pre\_requisite p ON p.subject\_id = s.subject\_id

WHERE 1=1;

and p.pre\_requisite\_id = ? OR p.pre\_requisite\_id=(SELECT subject\_id FROM g5\_flm.subject WHERE code like ?)

* SELECT g5\_flm.syllabus.syllabus\_id,g5\_flm.subject.code,g5\_flm.subject.subject\_id, g5\_flm.subject.name , g5\_flm.syllabus.name, g5\_flm.decision.decision\_no,

g5\_flm.decision.decision\_date From g5\_flm.syllabus

join g5\_flm.decision on g5\_flm.syllabus.decision\_id = g5\_flm.decision.decision\_id

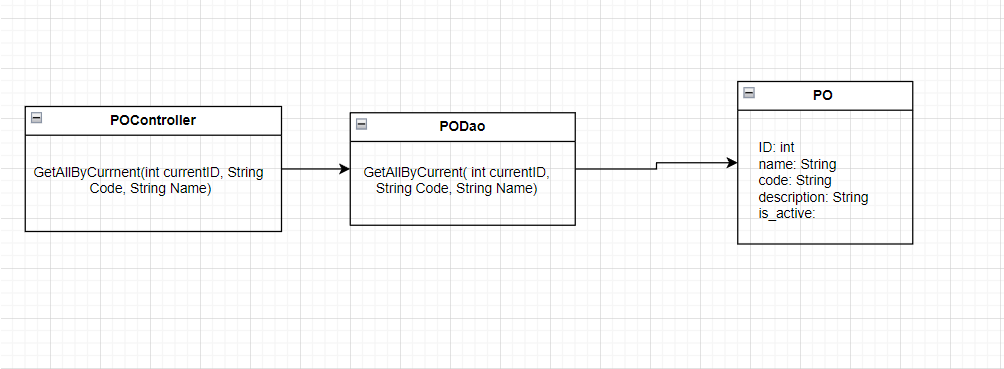
join g5\_flm.subject on g5\_flm.syllabus.subject\_id = g5\_flm.subject.subject\_id

WHERE 1=1\n"

and g5\_flm.subject.subject\_id = ? or g5\_flm.subject.code like ?

## 24. Curriculums Details/PO Management/PO List

a. Class Diagram



b. Sequence Diagram

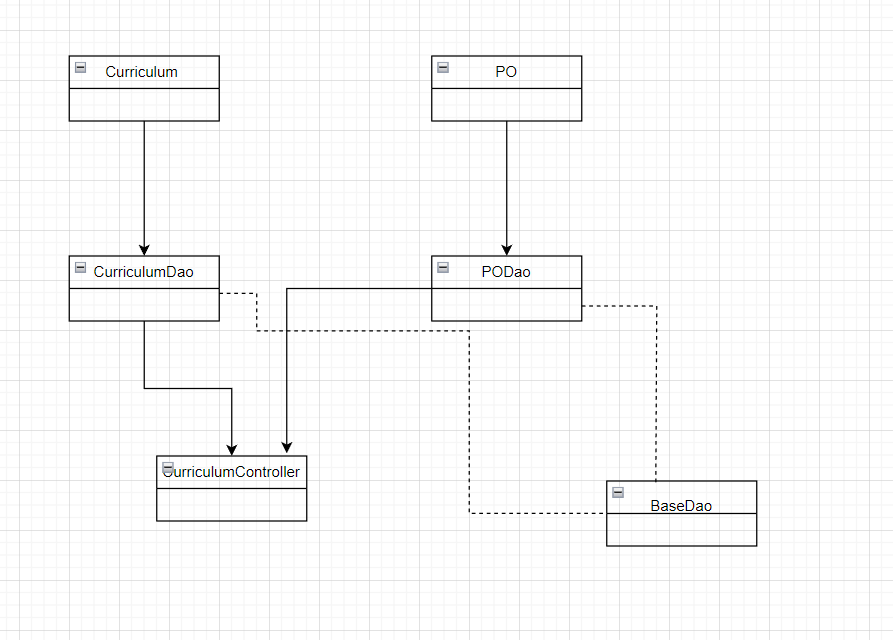


c. Database Queries

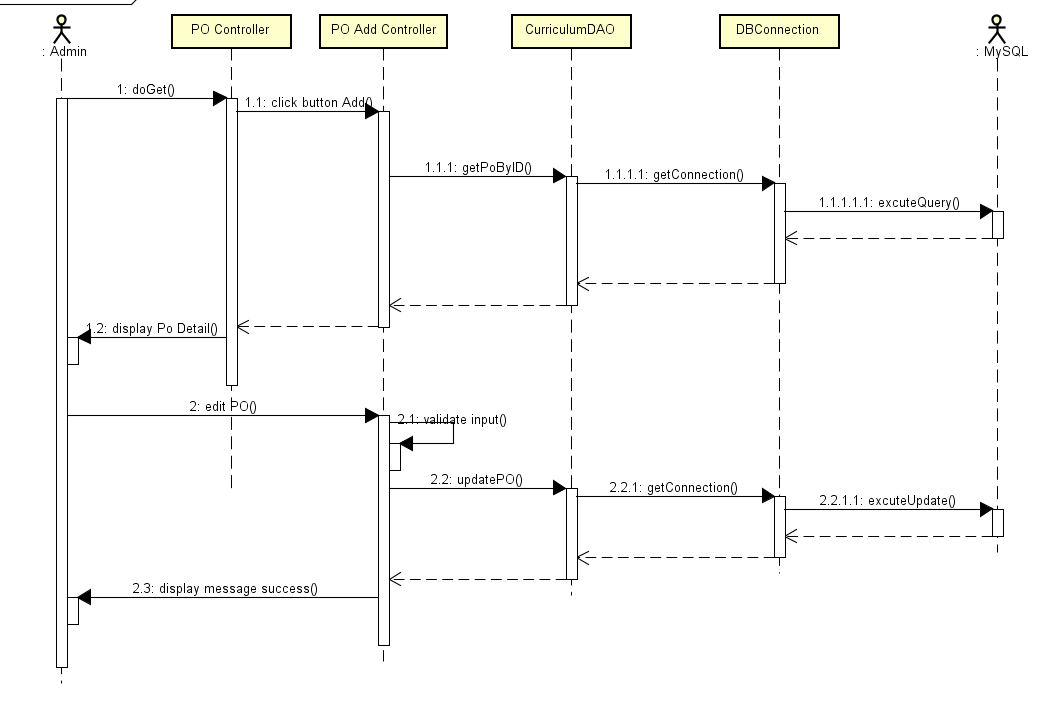
* SELECT p.po\_id, p.name, p.curriculum\_id, p.description, p.is\_active FROM po p JOIN curriculum c ON c.curriculum\_id = p.curriculum\_id WHERE p.curriculum\_id = ? AND p.name LIKE ?

**25. Curriculums Details/PO Management/PO Details**

a. Class Diagram



b. Sequence Diagram

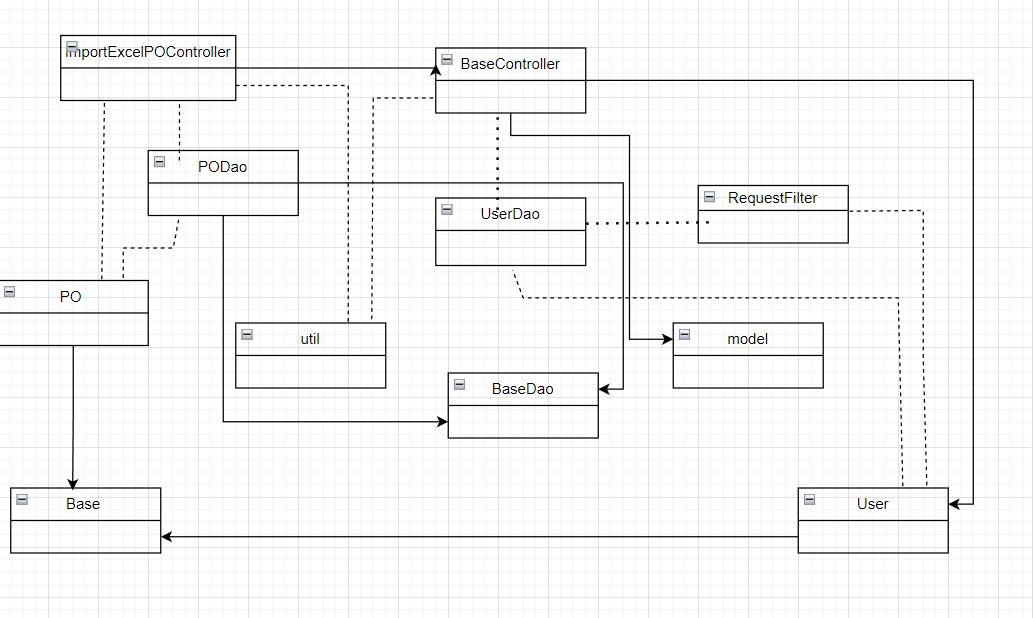


c. Database Queries

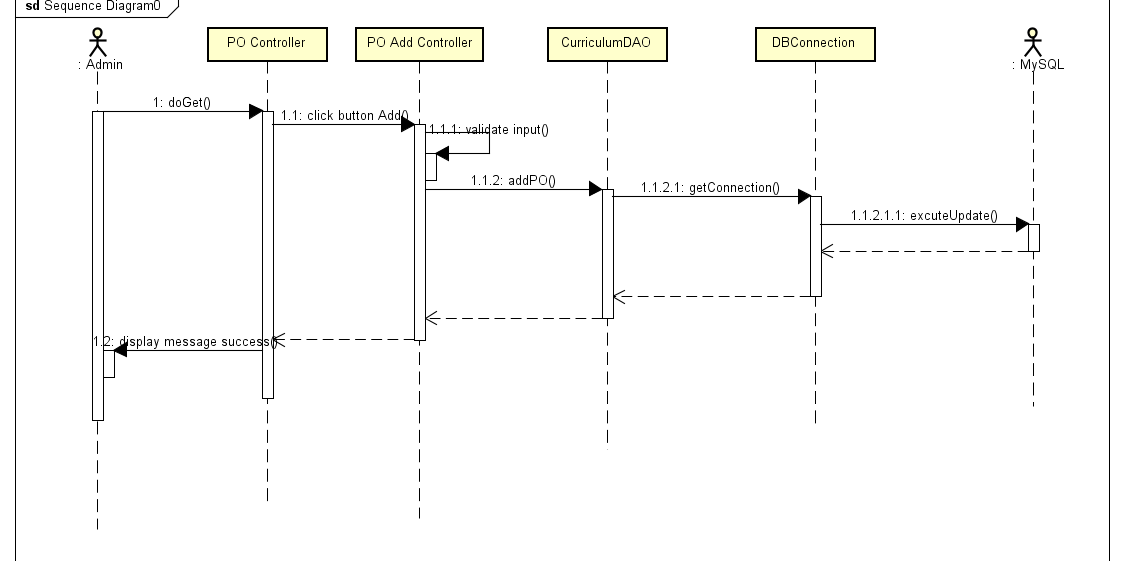
* SELECT \* FROM po p INNER JOIN curriculum ON p.curriculum\_id = c.curriculum\_id where curriculum\_id = ?
* SELECT sub.po\_id, sub.name, sub.description, sub.curriculum\_id, sub.is\_active FROM po sub where sub.po\_id = ?
* UPDATE `po` SET `id` = ?, `name` = ?, `curriculum\_id` = ?, `description` = ?, `is\_active` = ? WHERE `subject\_id` = ?

**26. Curriculums Details/PO Management/PO Import**

a. Class Diagram



b. Sequence Diagram

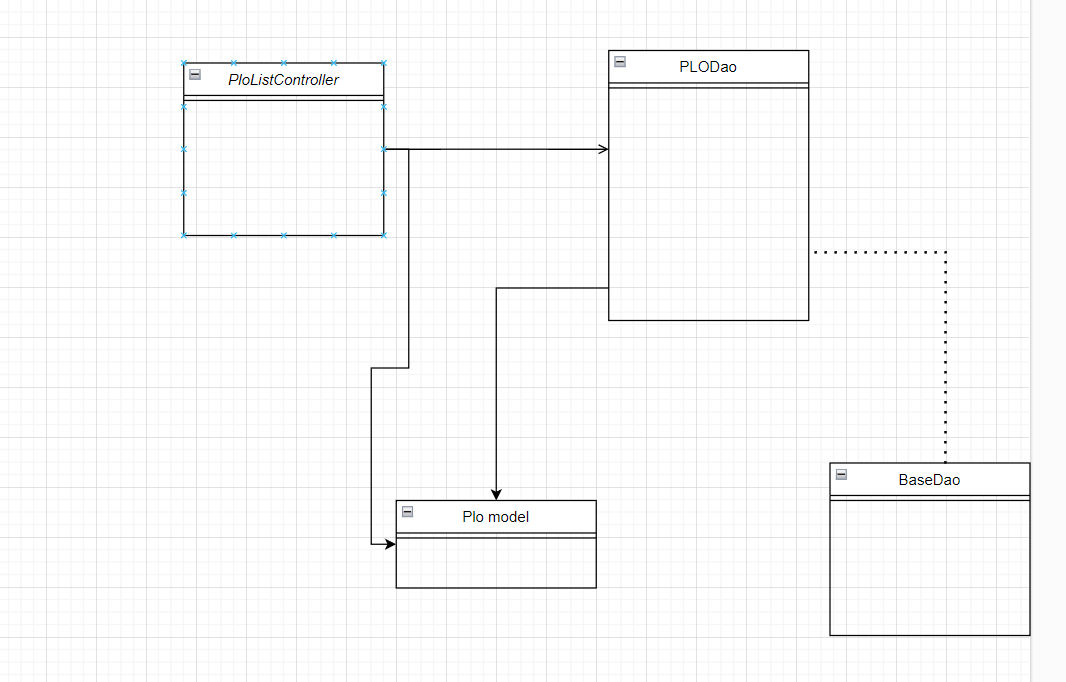


c. Database Queries

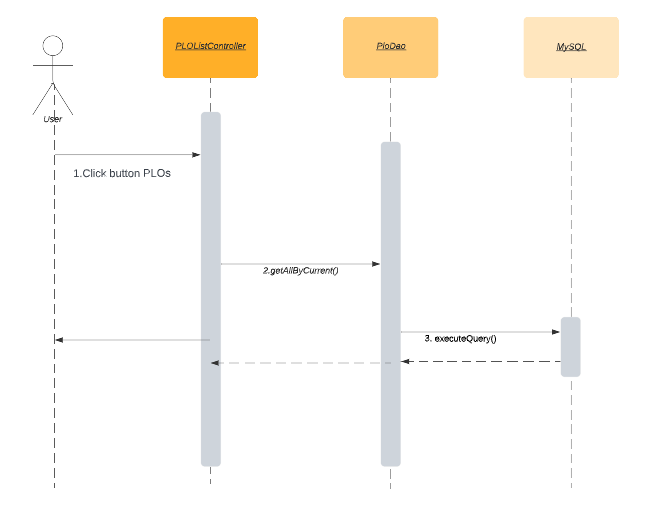
INSERT INTO `g5\_flm`.`po` (po\_id, name, description, curriculum\_id, is\_active) VALUES (?, ?, ?, ?, ?)

**27. Curriculums Details/PLO Management/PLO List**

a. Class Diagram



b. Sequence Diagram

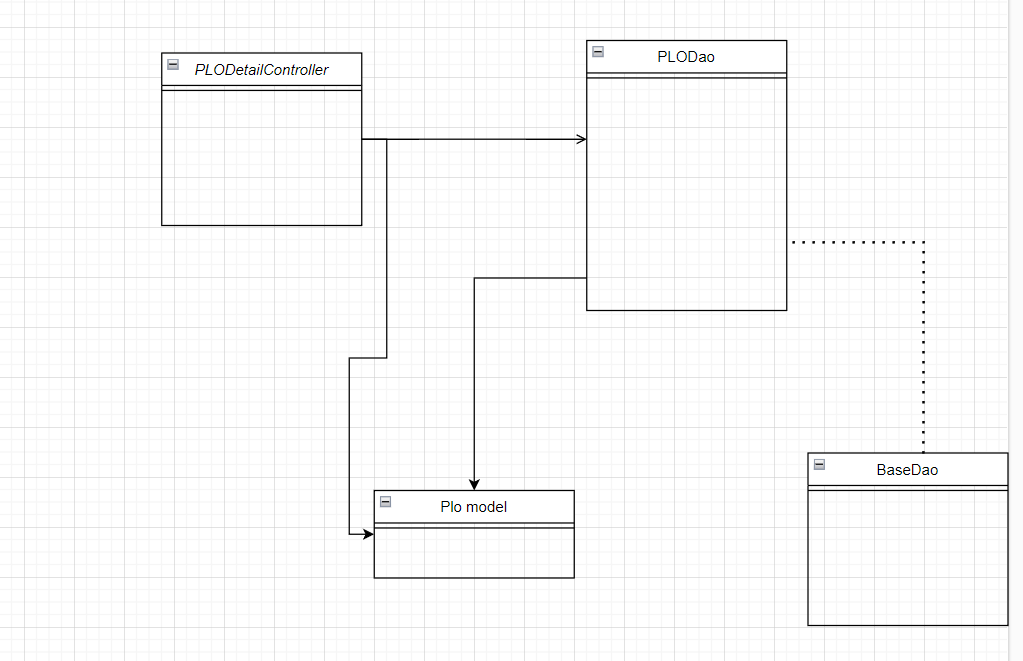


c. Database Queries

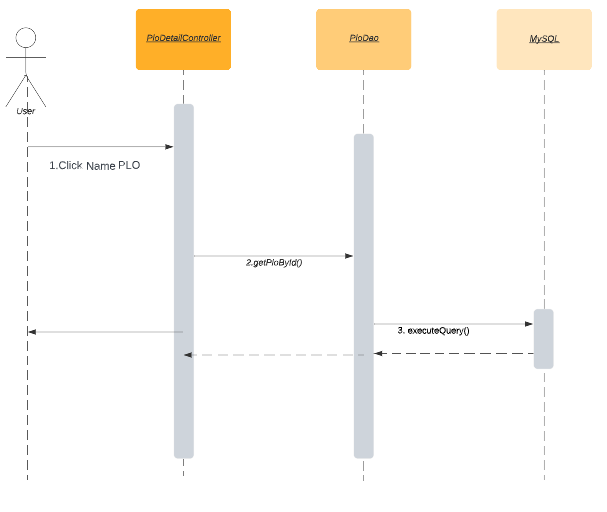
SELECT \* FROM plo where curriculum\_id = ? AND name like ?

28. Curriculums Details/PLO Management/PLO Details

a. Class Diagram



b. Sequence Diagram



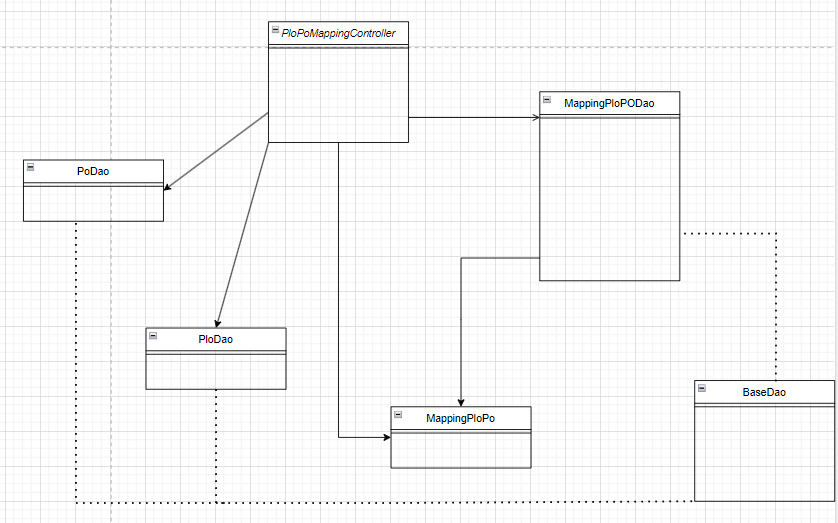
c. Database Queries

SELECT \* FROM plo where plo\_id = ?

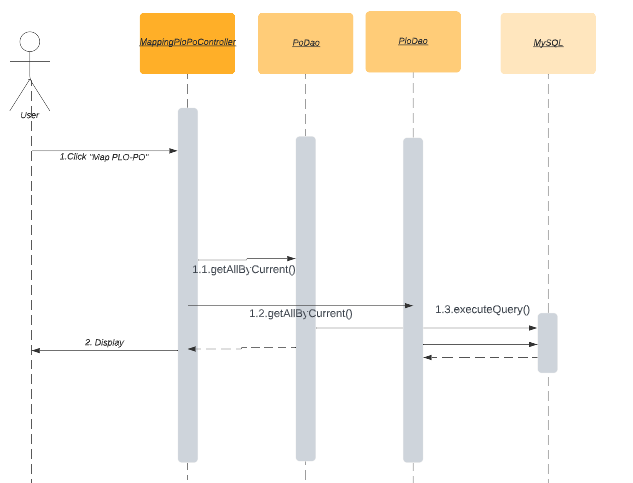
SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?

**30. Curriculums Details/PLO Management/PLO-PO Mapping**

a. Class Diagram



b. Sequence Diagram



c. Database Queries

SELECT p.po\_id, po.plo\_id\n" +

" FROM plo po \n" +

" JOIN po\_plo pl ON po.plo\_id = pl.plo\_id\n" +

" Join po p On pl.po\_id = p.po\_id\n" +

" WHERE po.curriculum\_id = ? and p.curriculum\_id = ?

SELECT \* FROM plo "

+ "where curriculum\_id = ?

SELECT \* FROM po where curriculum\_id = ?

SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?

DELETE FROM po\_plo\n"

+ "WHERE plo\_id = ? AND po\_id =?

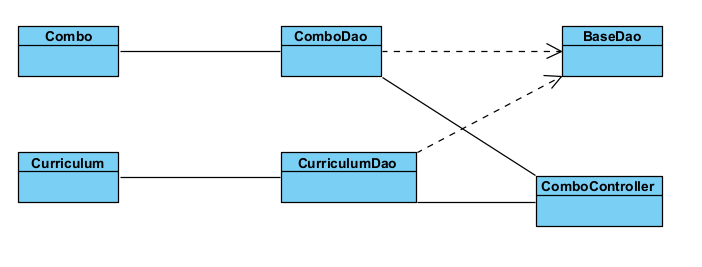
INSERT INTO po\_plo\n"

+ "(`plo\_id`, `po\_id`)\n"

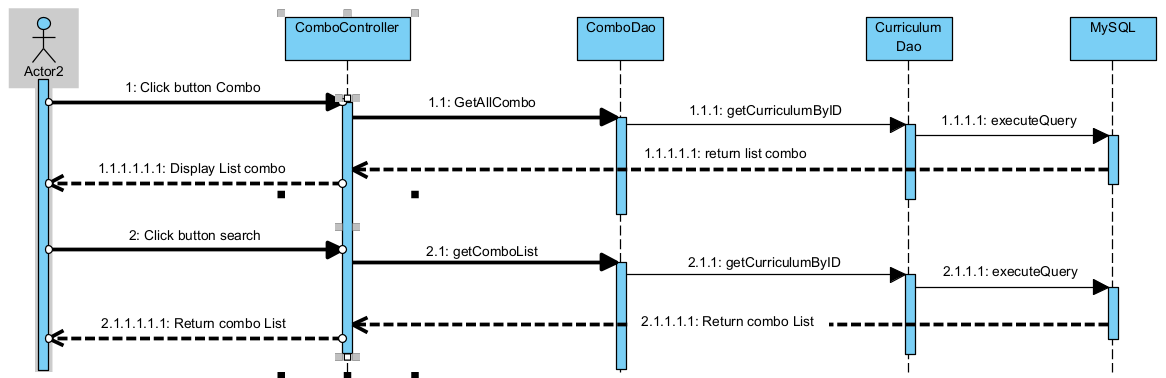
+ "VALUES (?, ?);

## **31. Curriculums Details/Subject Groups/Combo List**

**a. Class Diagram**

****

**b. Sequence Diagram**

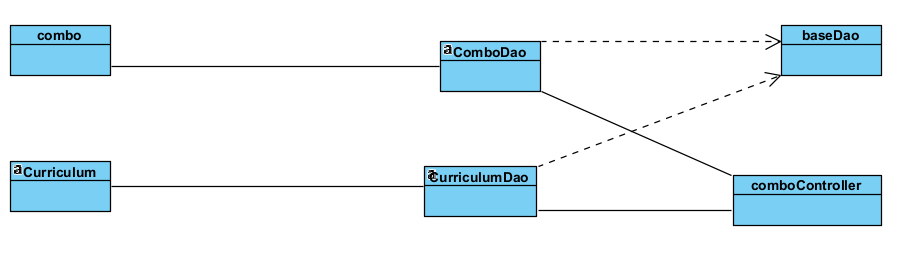
****

**c. Database Queries**

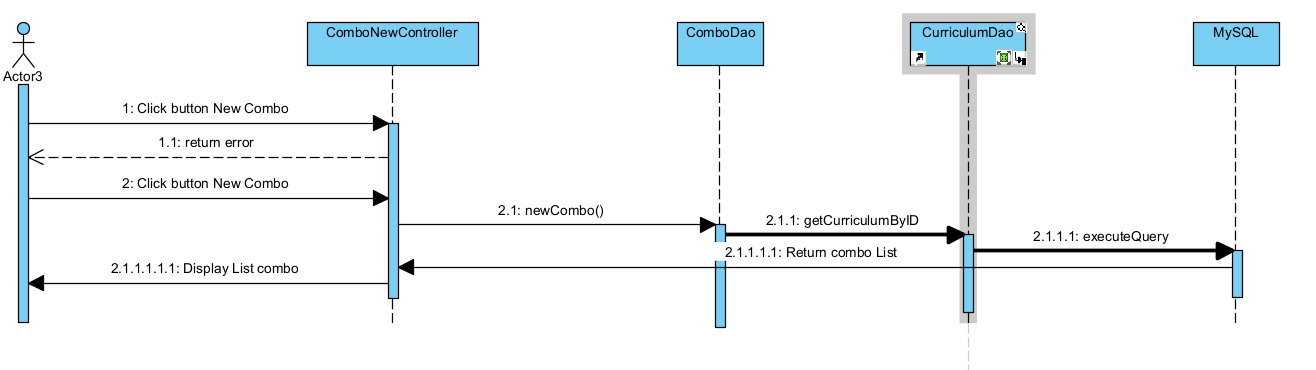
* **SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?**
* **select \* from subject\_group WHERE curriculum\_id = ? AND group\_type LIKE 'combo' AND( subject\_group\_id = ? OR name LIKE ? LIMIT ?,5**
* **select \* from subject\_group WHERE curriculum\_id = ? AND group\_type LIKE 'combo'**

## **31.1 Curriculums Details/Subject Groups/New Combo**

**a. Class Diagram**

****

**b. Sequence Diagram**

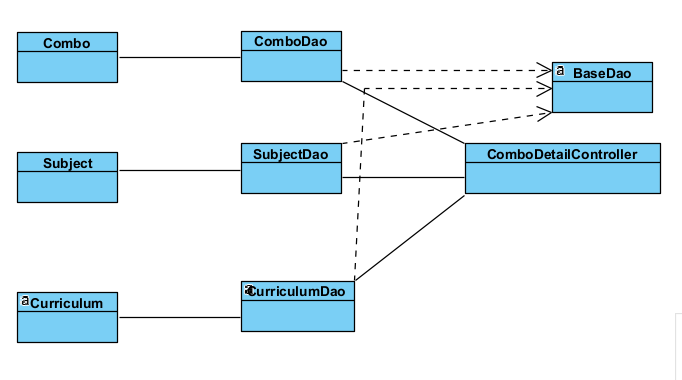
****

**c. Database Queries**

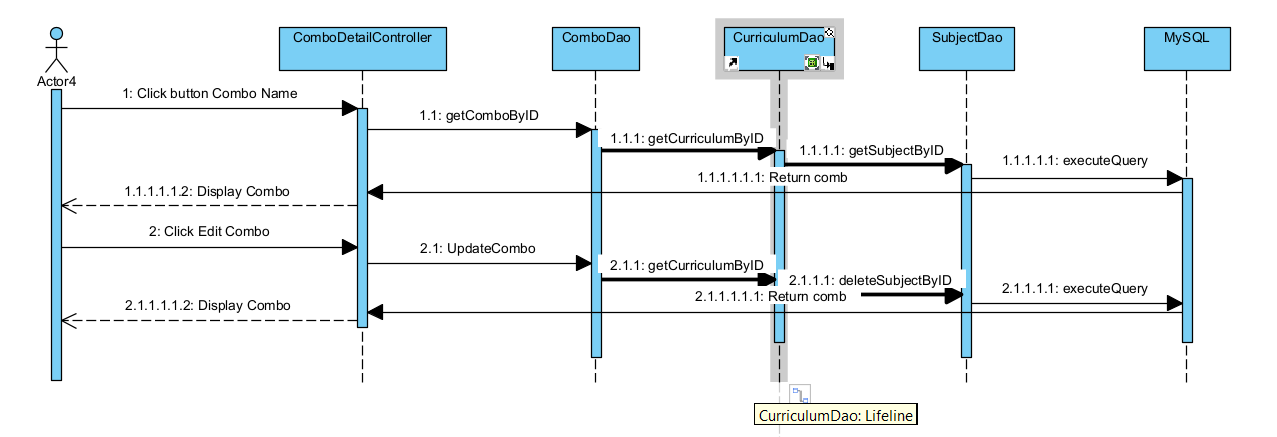
* **SELECT \* FROM decision where decision\_no = ?**
* **INSERT INTO g5\_flm.decision (decision\_no,decision\_date,creator\_id,is\_active,name) VALUES (?, ?, ?, ?, ?)**

## **32. Curriculums Details/Subject Groups/Combo Details**

**a. Class Diagram**

****

**b. Sequence Diagram**

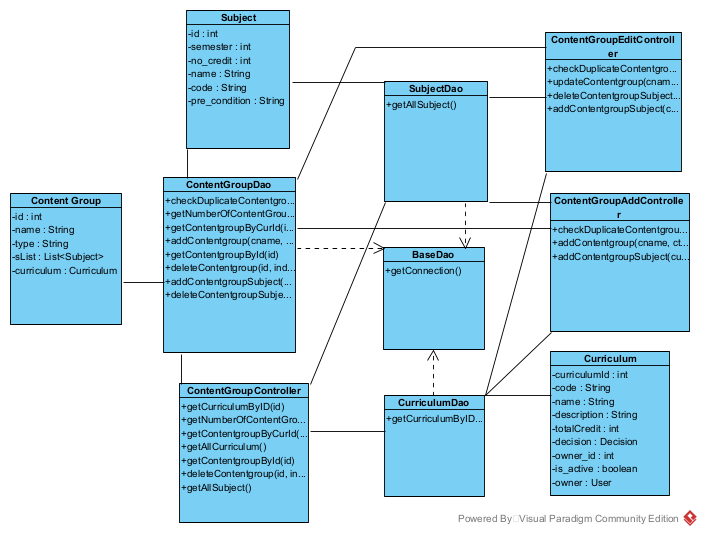
****

**c. Database Queries**

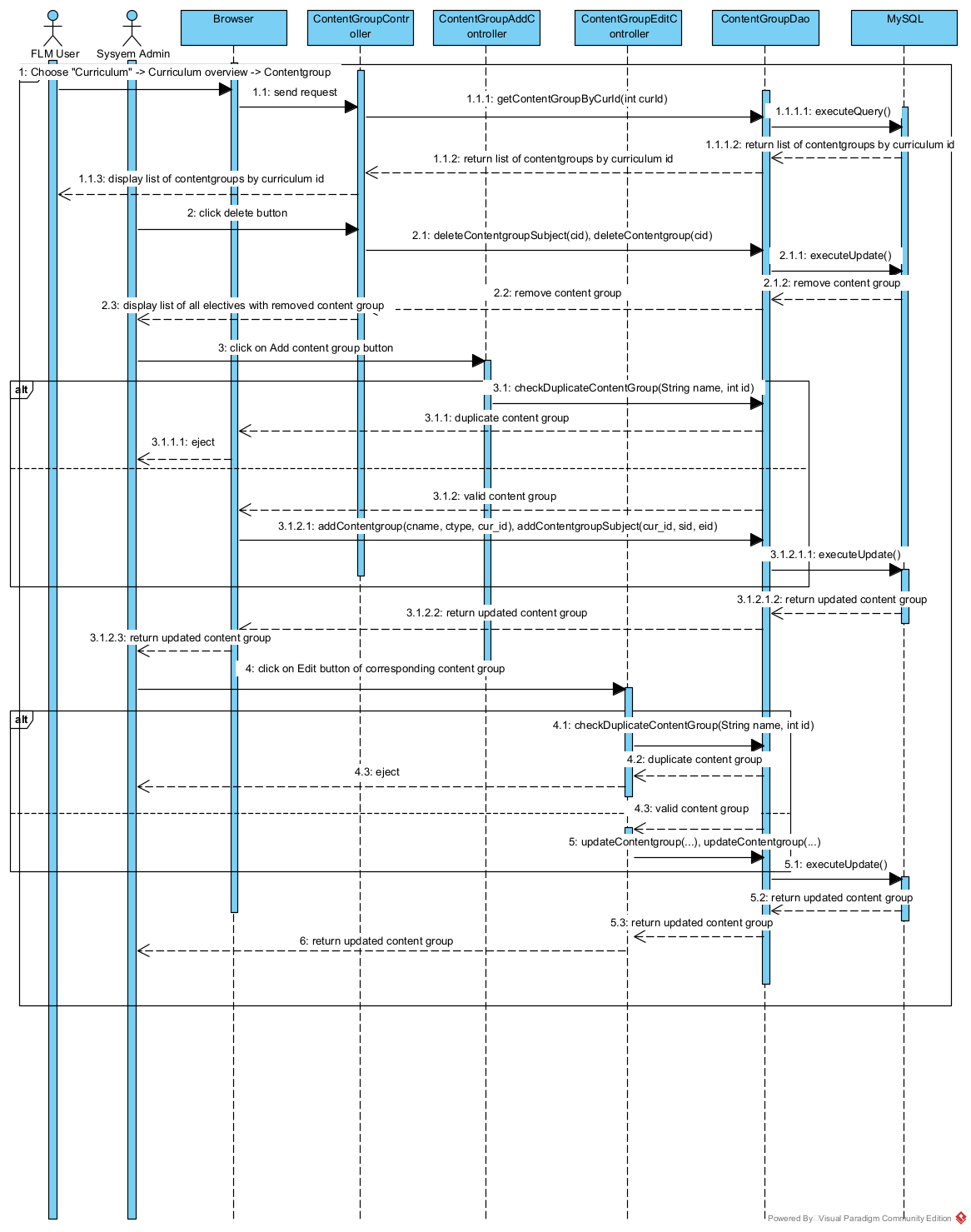
* **SELECT \* FROM Curriculum c INNER JOIN Decision d ON c.decision\_id = d.decision\_id where curriculum\_id = ?**
* **SELECT sub.subject\_id, sub.code, sub.name, sub.semester, sub.no\_credit , sub.pre\_condition FROM subject sub JOIN curriculum\_subject cuSub ON sub.subject\_id = cuSub.subject\_id WHERE cuSub.curriculum\_id = ? AND subject\_group\_id = ?**
* **DELETE FROM `g5\_flm`.`curriculum\_subject` WHERE subject\_group\_id = ? AND subject\_id = ?**
* **UPDATE `subject\_group` SET `group\_type` = ?,`name` = ?,`english\_name` = ? WHERE `subject\_group\_id` = ?**

## **33. Curriculums Details/Subject Groups/Content Group List**

**a. Class Diagram**

****

**b. Sequence Diagram**

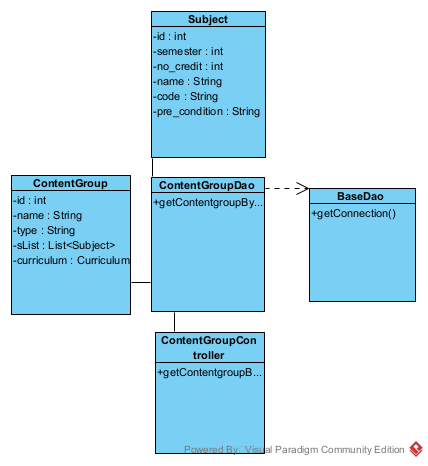
****

**c. Database Queries**

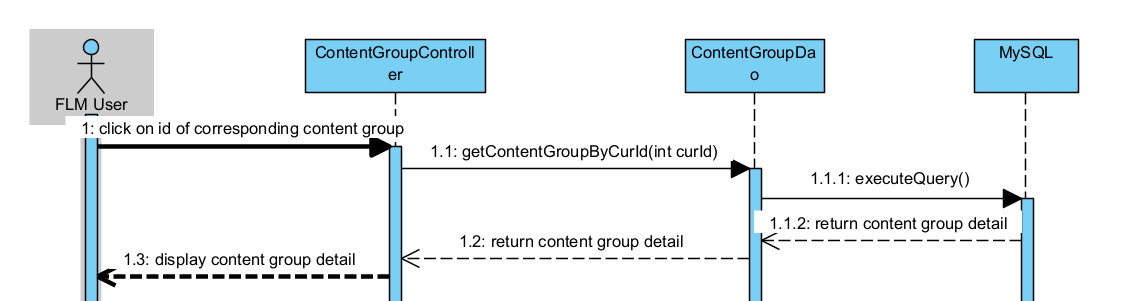
* update curriculum\_subject set curriculum\_id = ? where subject\_group\_id = ?
* delete from curriculum\_subject where subject\_group\_id = ? and curriculum\_id = ?
* update subject\_group set name = ?, group\_type = ?, curriculum\_id = ? where subject\_group\_id = ?
* select \* from subject\_group where name = ? and subject\_group\_id != ? and curriculum\_id = ?
* select \* from subject\_group where subject\_group\_id = ?
* insert into curriculum\_subject (curriculum\_id, subject\_id, subject\_group\_id) values (?, ?, ?)
* insert into subject\_group (curriculum\_id, group\_type, name) values (?, ?, ?)
* select \* from subject\_group where name = ? and curriculum\_id = ?
* select \* from subject\_group where curriculum\_id = ? limit ?, 5
* select count(\*) from subject\_group where curriculum\_id = ?

## **34. Curriculums Details/Subject Groups/Content Group Details**

**a. Class Diagram**

**s**

**b. Sequence Diagram**

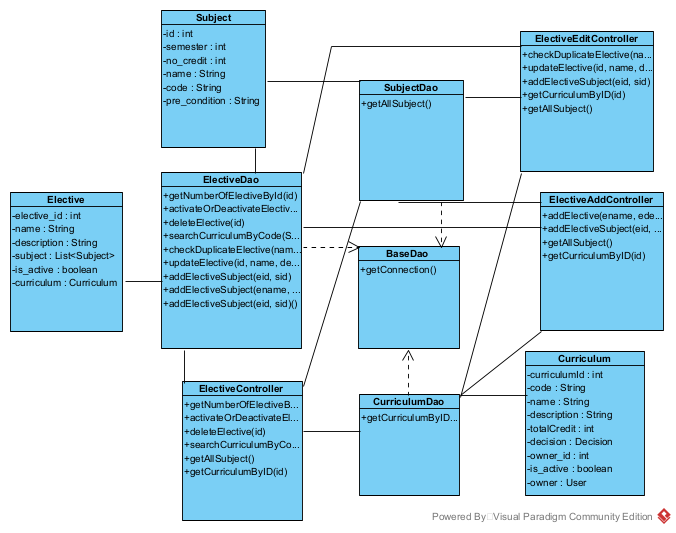
****

**c. Database Queries**

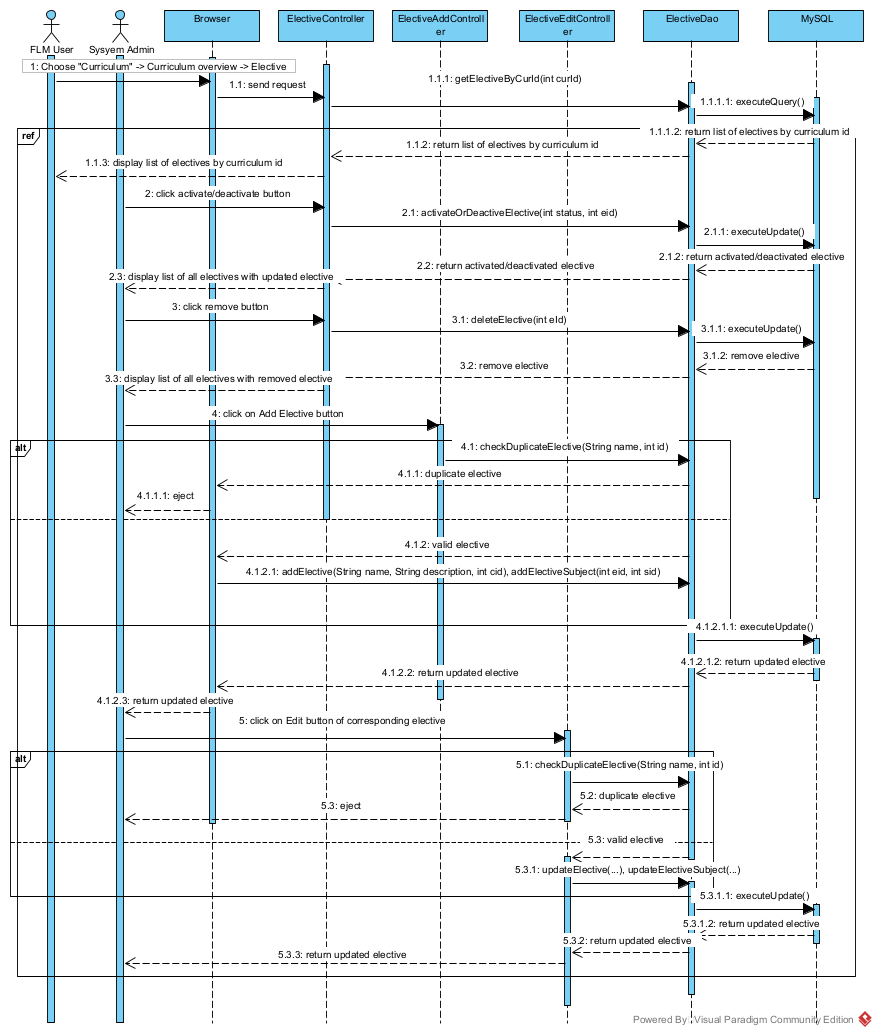
* select \* from subject\_group where subject\_group\_id = ?

## **35. Curriculums Details/Subject Groups/Elective List**

**a. Class Diagram**

****

**b. Sequence Diagram**

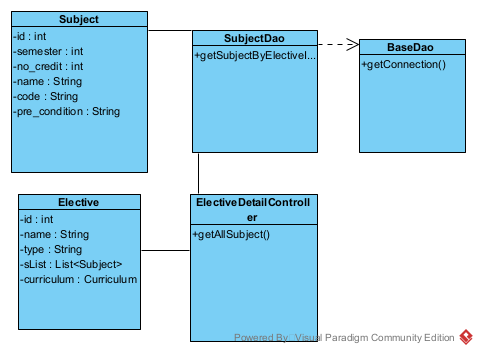
****

**c. Database Queries**

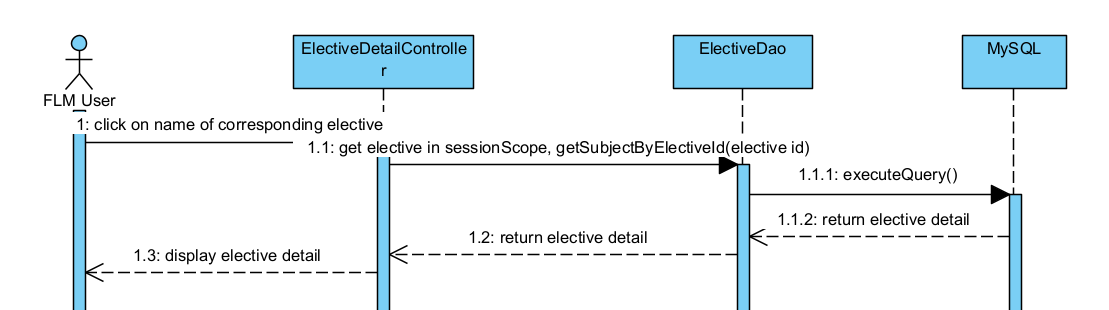
* select elective.\* from elective join elective\_subject on elective.elective\_id = elective\_subject.elective\_id join subject on subject.subject\_id = elective\_subject.subject\_id where elective.name like ? or code like ?;
* select \* from elective where curriculum\_id = ? limit ?, 5
* select count(\*) from elective where curriculum\_id = ?
* update elective set is\_active = ? where elective\_id = ?
* insert into elective (name, description, is\_active, curriculum\_id) values (?, ?, 1, ?)
* insert into elective\_subject values (?, ?)
* delete from elective where elective\_id = ?
* select subject.\* from elective join elective\_subject on elective.elective\_id = elective\_subject.elective\_id join subject on subject.subject\_id = elective\_subject.subject\_id where elective\_subject.elective\_id = ?
* select \* from elective where name = ? and curriculum\_id = ? and elective\_id != ?
* update elective set name = ?, description = ?, is\_active = ? where elective\_id = ?
* delete from elective\_subject where elective\_id = ?
* select \* from elective where elective\_id = ?

## **35. Curriculums Details/Subject Groups/Elective Details**

**a. Class Diagram**

****

**b. Sequence Diagram**

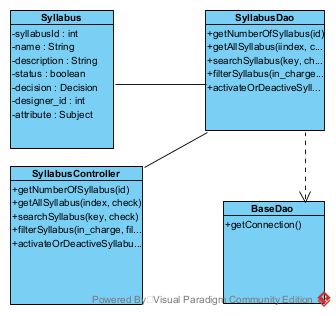
****

**c. Database Queries**

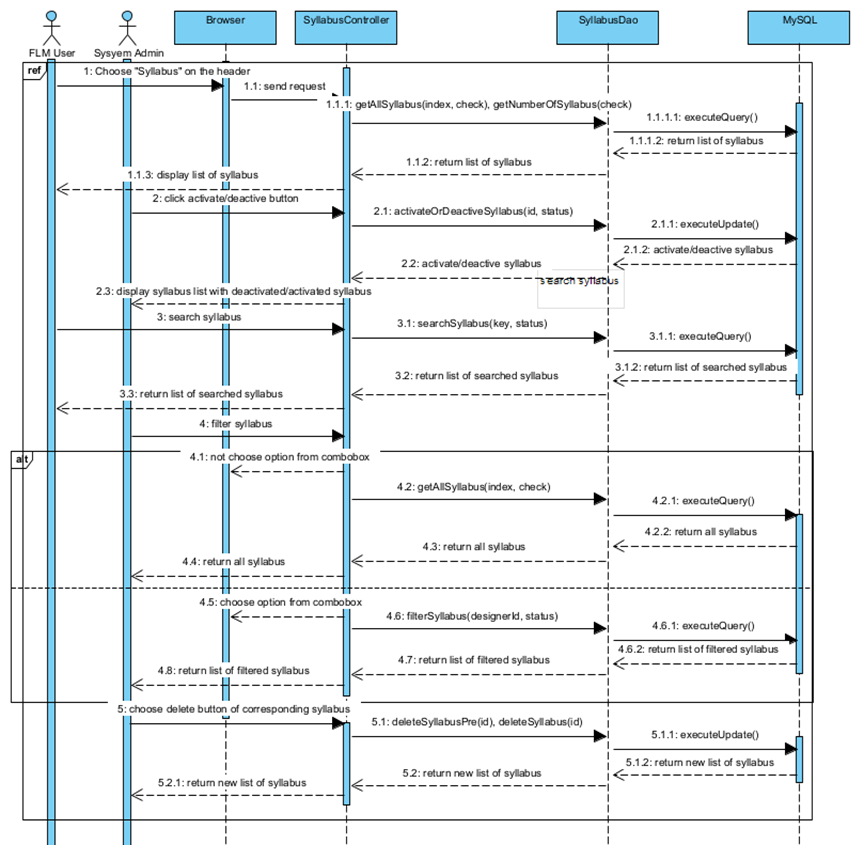
* select subject.\* from elective join elective\_subject on elective.elective\_id elective\_subject.elective\_id join subject on subject.subject\_id elective\_subject.subject\_id where elective\_subject.elective\_id = ?;

## **37. Syllabus Management/Syllabus Management/Syllabus List**

**a. Class Diagram**

****

**b. Sequence Diagram**

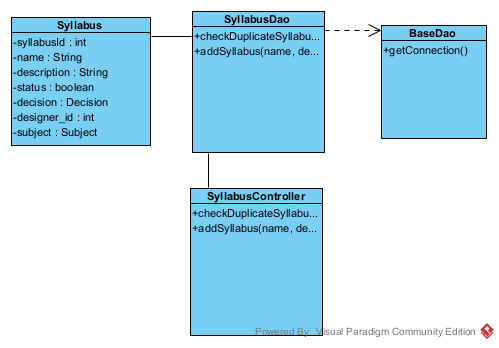
****

**c. Database Queries**

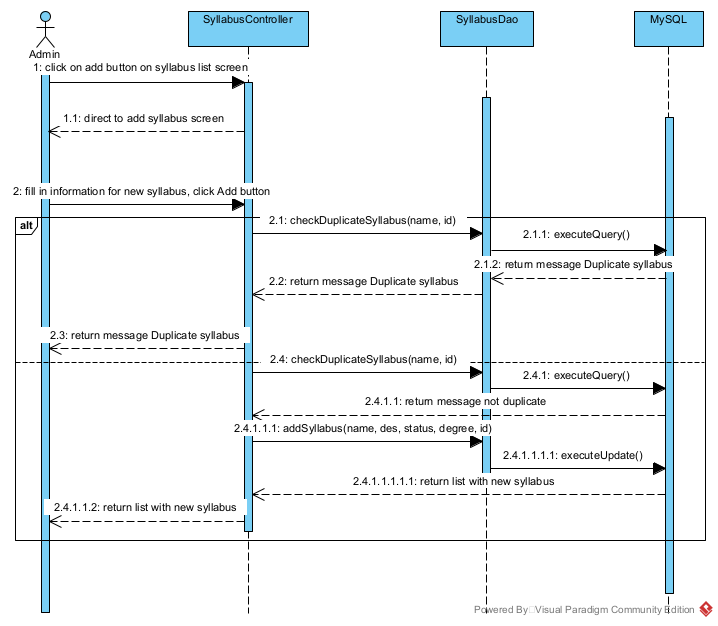
* select count(\*) from syllabus where syllabus.is\_active = 1
* select syllabus.\*, decision\_no, decision\_date from syllabus left join decision on syllabus.decision\_id = decision.decision\_id where syllabus.is\_active = 1 limit ?, 8
* select \* from syllabus where designer\_id = ? and is\_active = ?
* select \* from syllabus where name like ? or description like ? or syllabus\_id = ? and is\_active = 1
* update syllabus set is\_active = ? where syllabus\_id = ?
* delete from pre\_requisite where syllabus\_id = ?
* delete from syllabus where syllabus\_id = ?

## **38. Syllabus Management/Syllabus Management/New Syllabus**

**a. Class Diagram**



**b. Sequence Diagram**

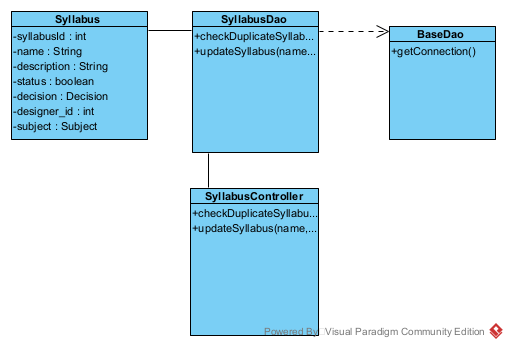


**c. Database Queries**

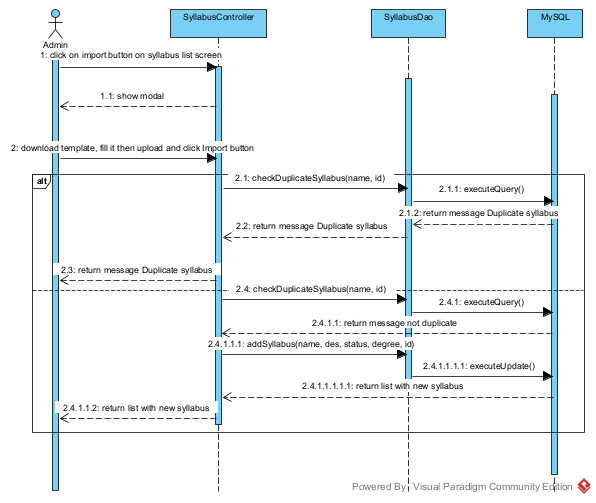
* select \* from syllabus where name = ? and syllabus\_id != ?
* insert into syllabus(name, description, is\_active, degree\_level, designer\_id) values (?, ?, ?, ?, ?)

## **39. Syllabus Management/Syllabus Management/Syllabus Import**

**a. Class Diagram**



**b. Sequence Diagram**

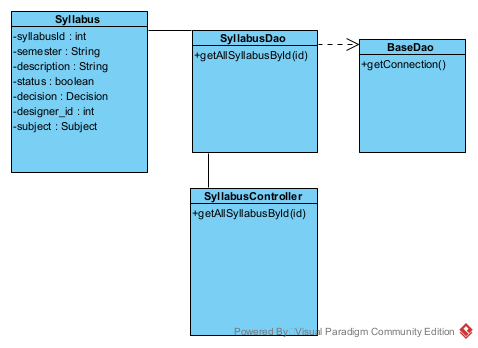


**c. Database Queries**

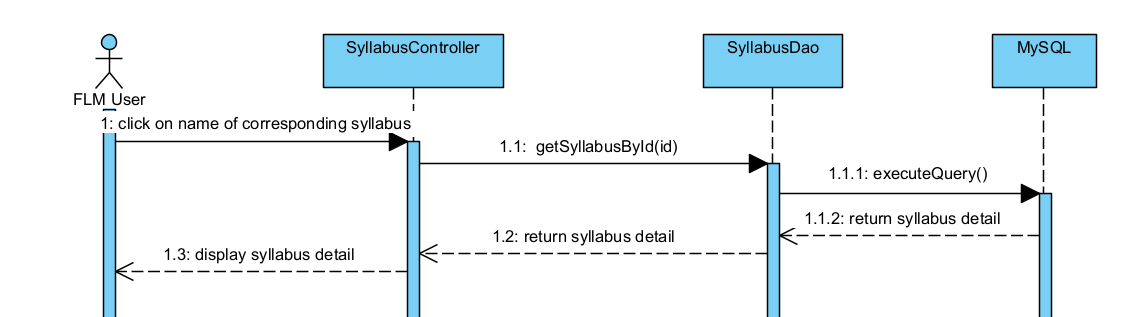
* select \* from syllabus where name = ? and syllabus\_id != ?
* update syllabus set name = ?, description = ?, is\_active = ?, degree\_level = ? where syllabus\_id = ?

## **40. Syllabus Management/Syllabus Management/Syllabus Overview**

**a. Class Diagram**

****

**b. Sequence Diagram**

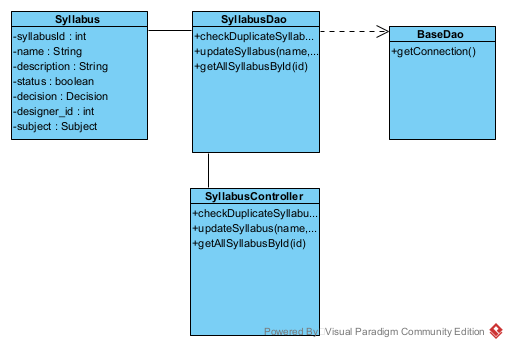
****

**c. Database Queries**

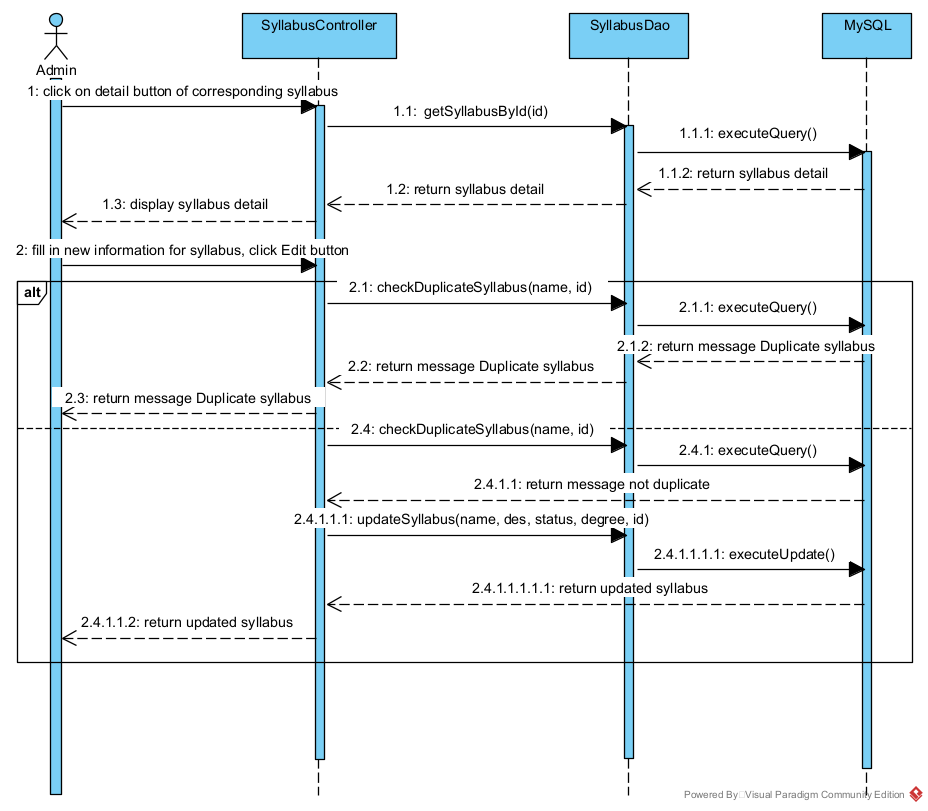
* select \* from syllabus where syllabus\_id = ?

## **41. Syllabus Management/Syllabus Management/Syllabus Edit**

**a. Class Diagram**



**b. Sequence Diagram**

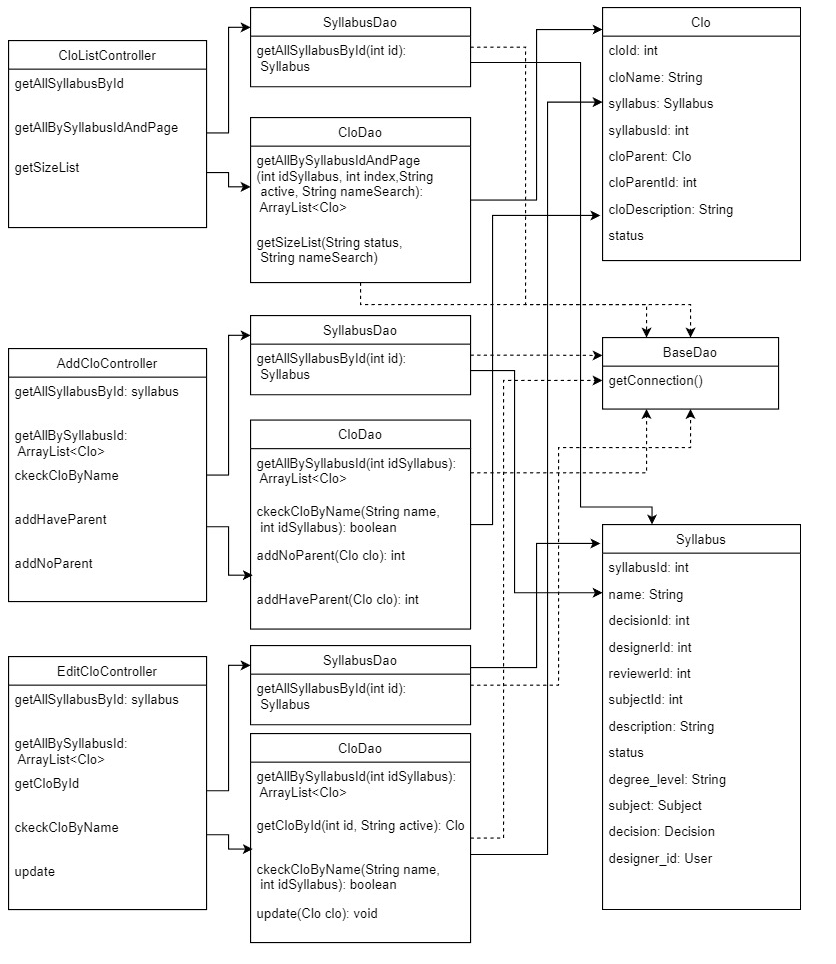


**c. Database Queries**

* select \* from syllabus where syllabus\_id = ?
* select \* from syllabus where name = ? and syllabus\_id != ?
* update syllabus set name = ?, description = ?, is\_active = ?, degree\_level = ? where syllabus\_id = ?

## 42. Syllabus Management/CLO Management/CLO List

### a. Class Diagram

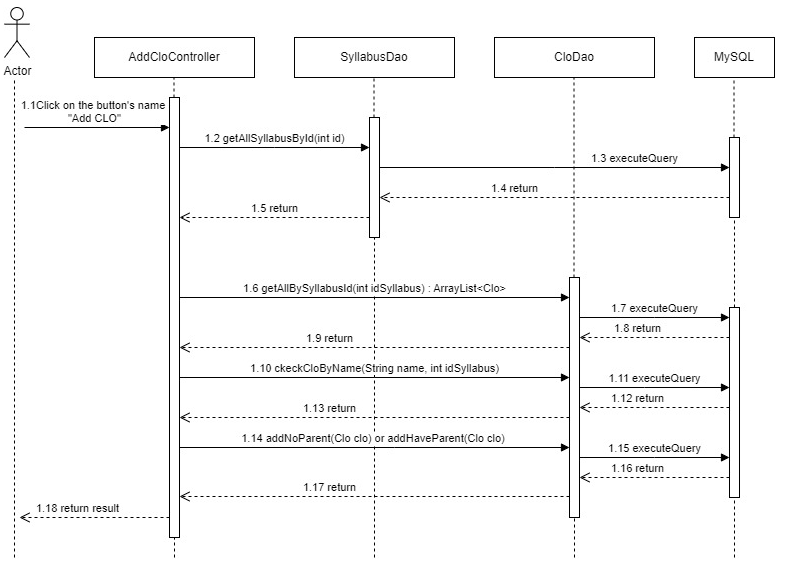


### b. Sequence Diagram

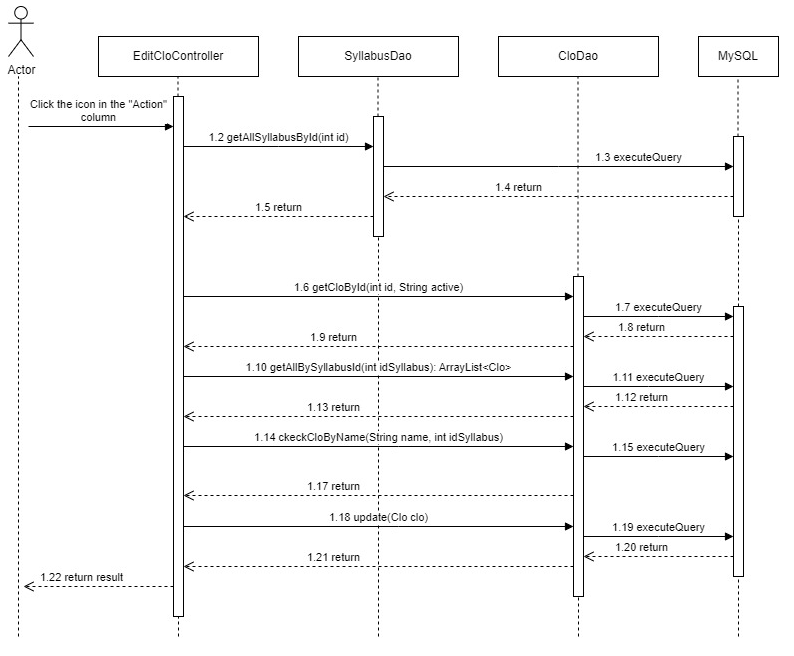
b.1/ CLO List



b.2/ Add CLO



b.3/ Edit CLO

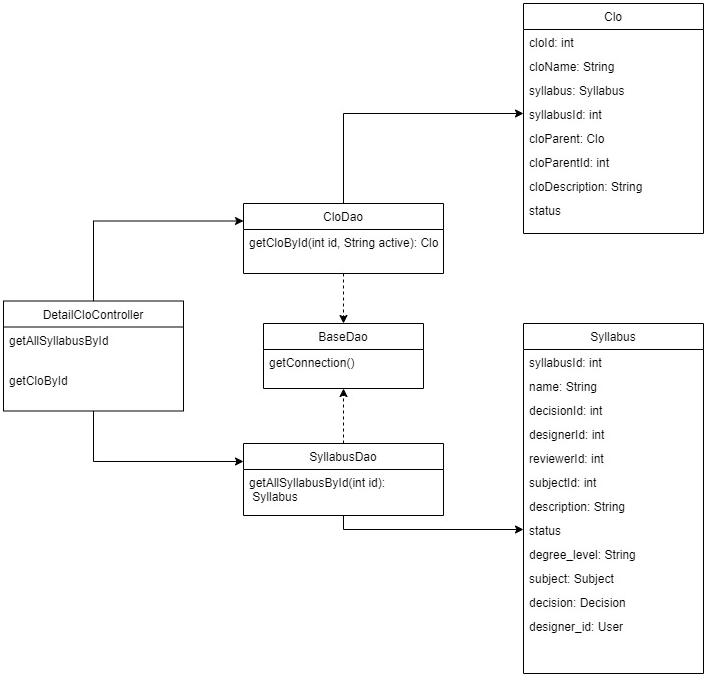


### c. Database Queries

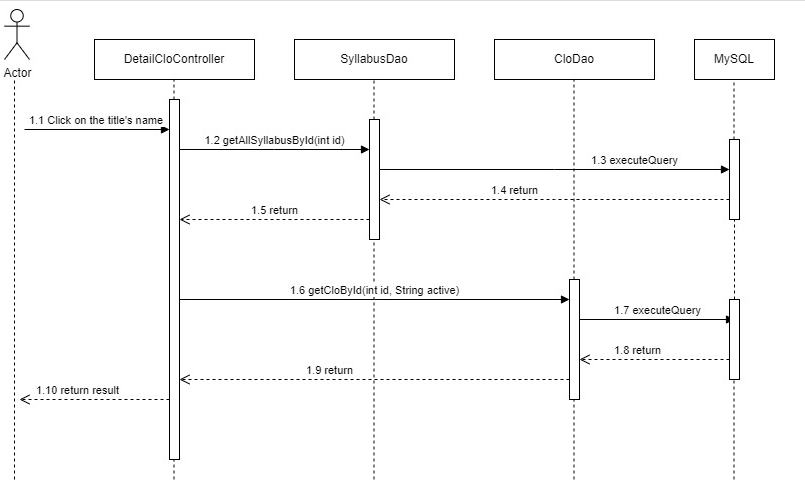
* SELECT \* from syllabus where syllabus\_id = ?
* SELECT count(\*) as co FROM clo WHERE status like ? AND name like ?
* SELECT \* FROM clo WHERE syllabus\_id = ? AND status like ? AND name like ? limit ?,?
* SELECT \* FROM clo WHERE syllabus\_id = ?
* SELECT \* FROM clo WHERE name = ? AND syllabus\_id = ?
* INSERT INTO `clo` (`name`,`syllabus\_id`,`description`) VALUES (?, ?, ?);
* INSERT INTO `clo` (`name`,`syllabus\_id`,`parent\_lo\_id`,`description`) VALUES (?, ?, ?, ?);
* UPDATE `clo` SET `name` = ?, `syllabus\_id` = ?, `parent\_lo\_id` = "+idParent+", `description` = ? WHERE `clo\_id` = ?

## **43. Syllabus Management/CLO Management/CLO Details**

### a. Class Diagram



### b. Sequence Diagram

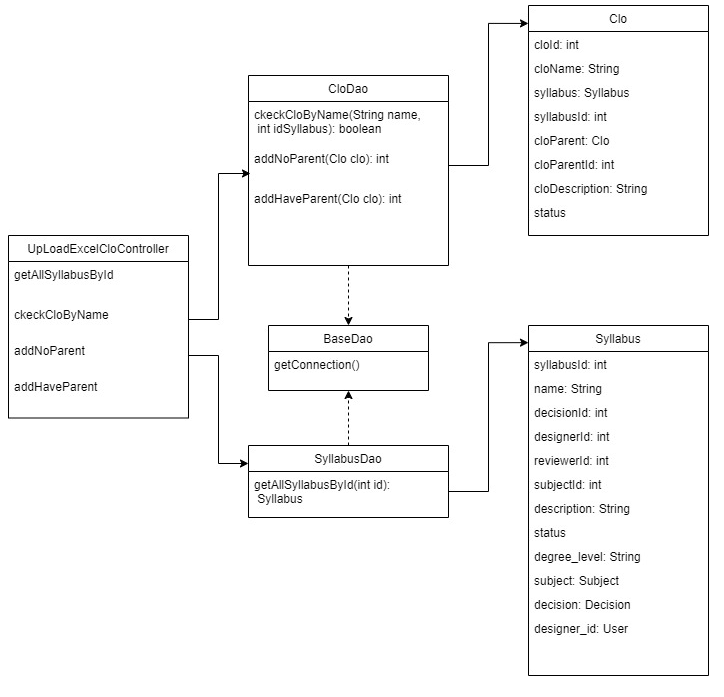


### c. Database Queries

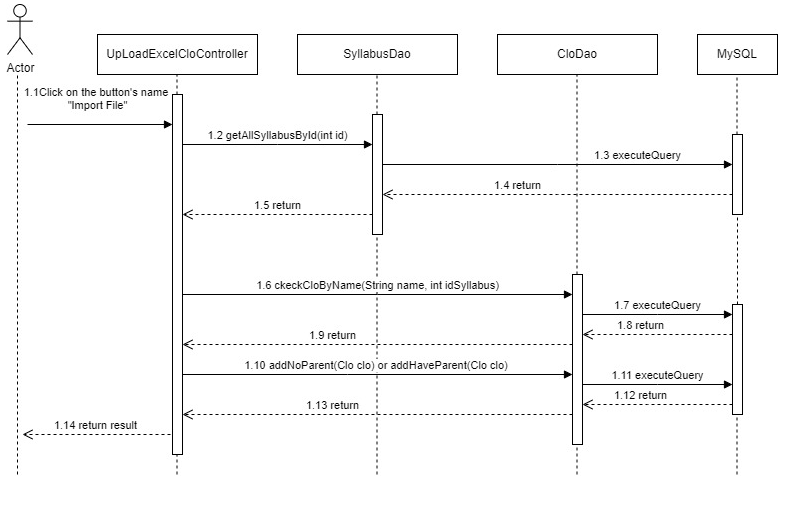
* SELECT \* FROM clo WHERE clo\_id = ? AND status like ?
* select \* from syllabus where syllabus\_id = ?

## 44. Syllabus Management/CLO Management/CLO Import

### a. Class Diagram



### b. Sequence Diagram

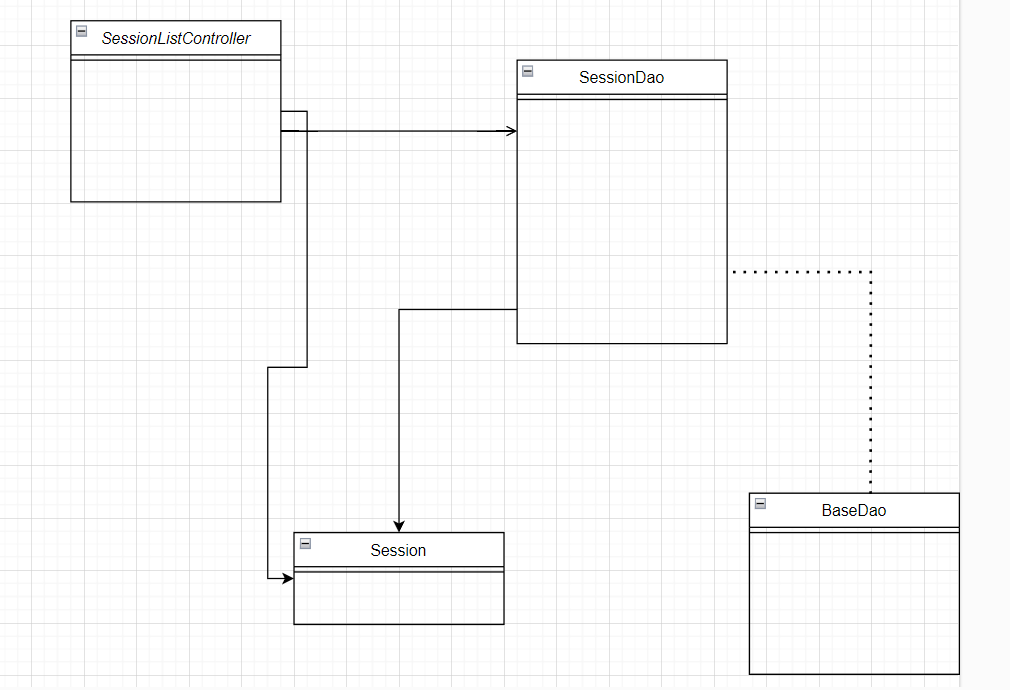


### c. Database Querie

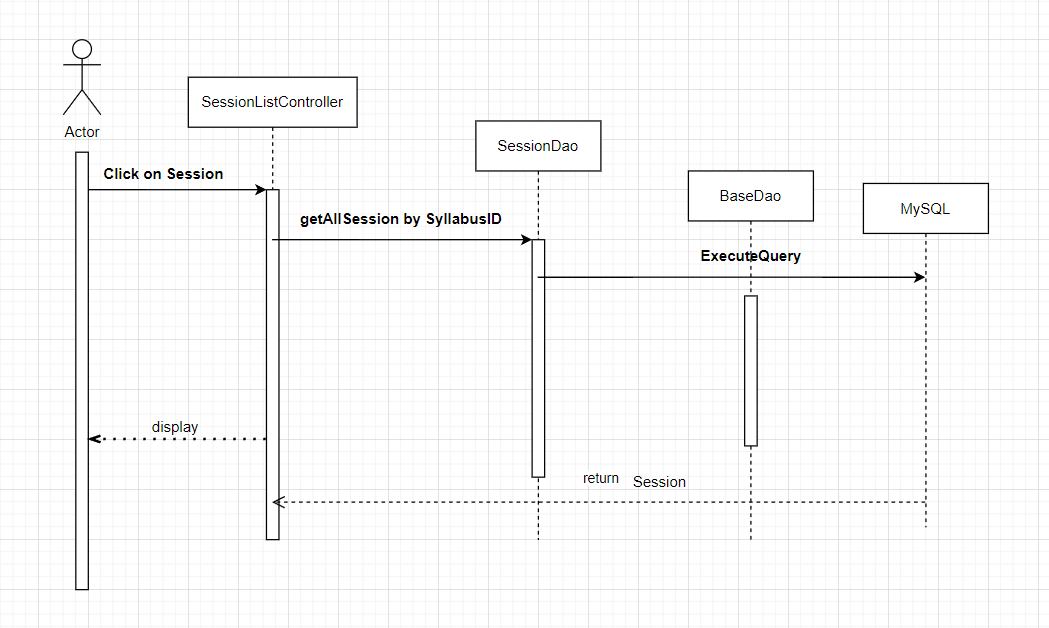
* SELECT \* from syllabus where syllabus\_id = ?
* SELECT \* FROM clo WHERE clo\_id = ? AND status like ?
* SELECT \* from syllabus where syllabus\_id = ?
* SELECT \* FROM clo WHERE name = ? AND syllabus\_id = ?

## 45. Syllabus Management/Session Management/Session List

**a. Class Diagram**



**b. Sequence Diagram**

****

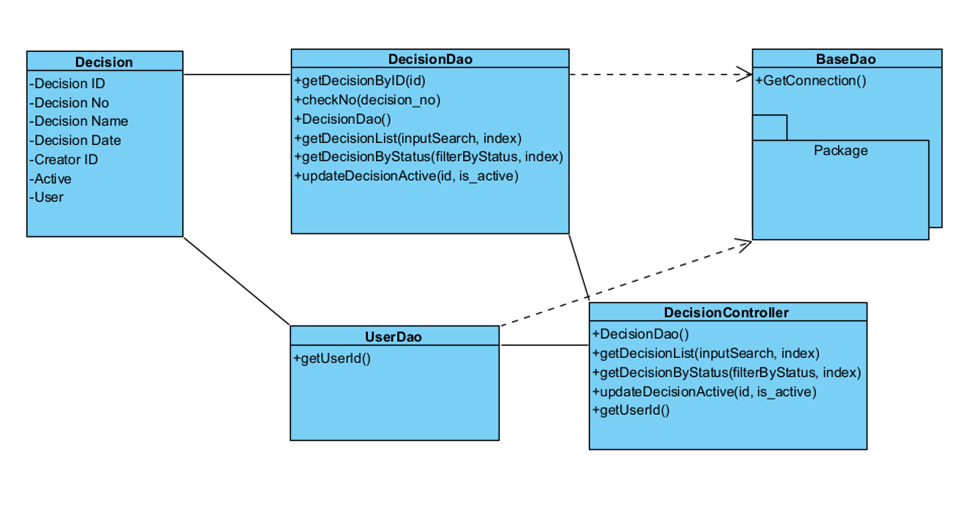
**c. Database Queries**

SELECT \* FROM session \n"

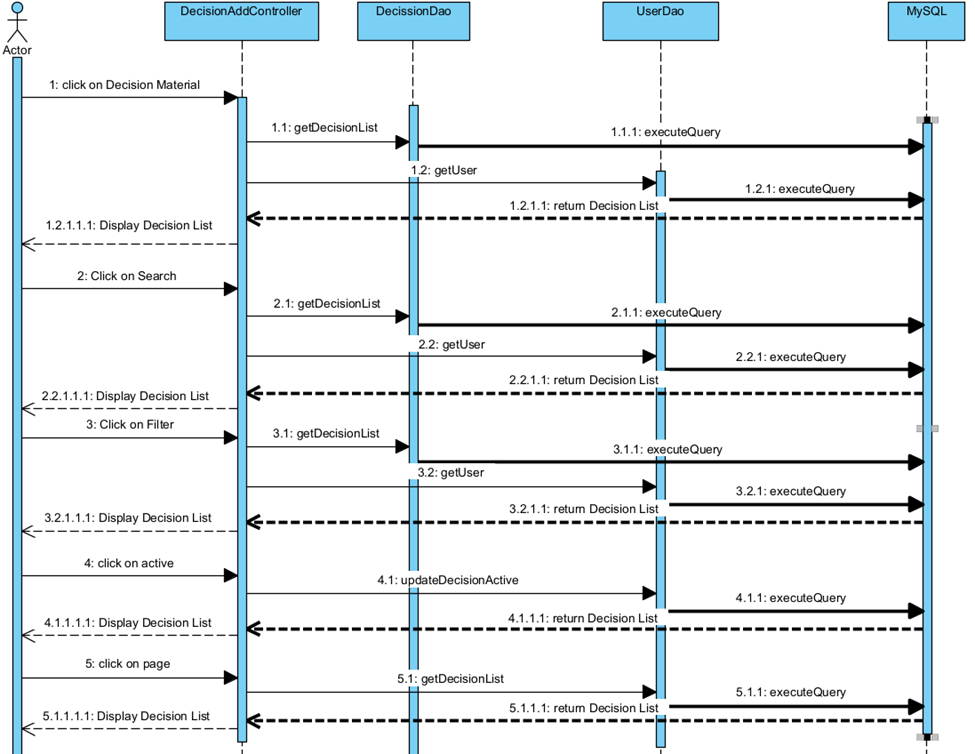
+ " where syllabus\_id = ? AND session\_id LIKE ? " + "limit ?,3

## 59. Decision Management/Syllabus Submits/Decision List

**a. Class Diagram**

****

**b. Sequence Diagram**

****

**c. Database Queries**

-SELECT \* FROM g5\_flm.decision WHERE decision\_no LIKE ? OR decision\_id = ? LIMIT ?,5

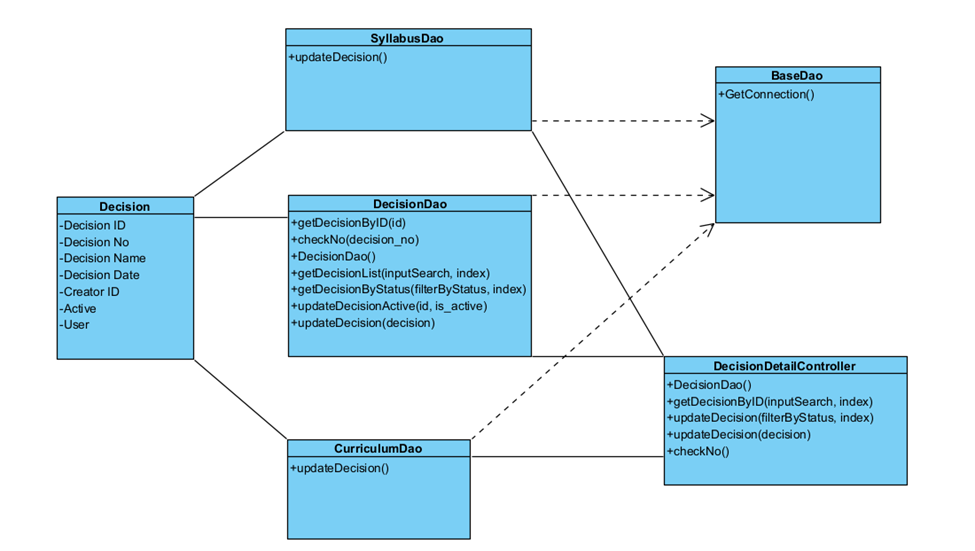
-SELECT \* FROM g5\_flm.decision WHERE is\_active = ? LIMIT ?,5

-UPDATE g5\_flm.decision SET is\_active = ? WHERE decision\_id = ?

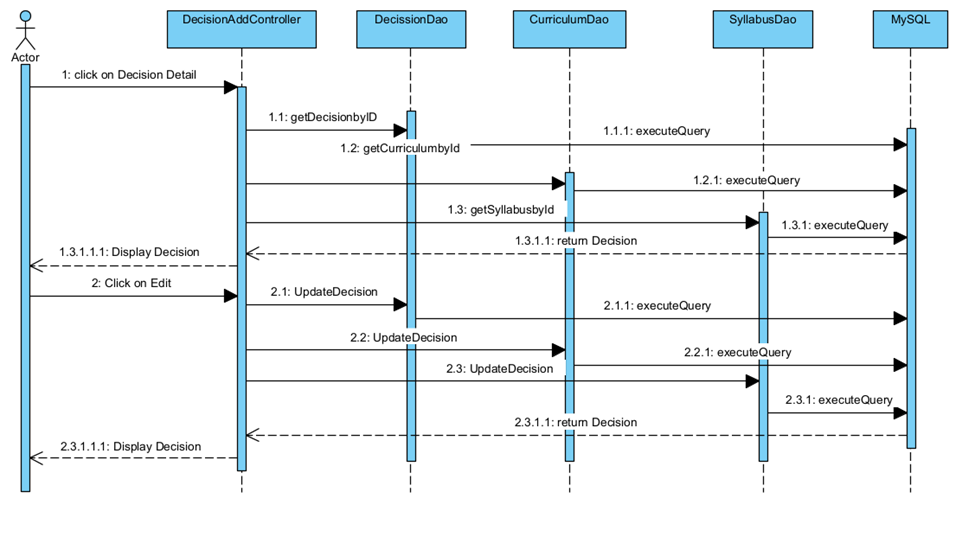
select \* from user where user\_id = ?

## 60. Decision Management/Syllabus Submits/Decision Details

**a. Class Diagram**

****

**b. Sequence Diagram**

****

**c. Database Queries**

**SELECT \* FROM decision where decision\_no = ?**

**select \* from user where user\_id = ?**

UPDATE g5\_flm.decision SET decision\_no = ?, name = ?, decision\_date = ?, is\_active = ? WHERE decision\_id = ?

SELECT \* FROM g5\_flm.curriculum WHERE decision\_id = ?

SELECT \* FROM g5\_flm.syllabus WHERE decision\_id = ?

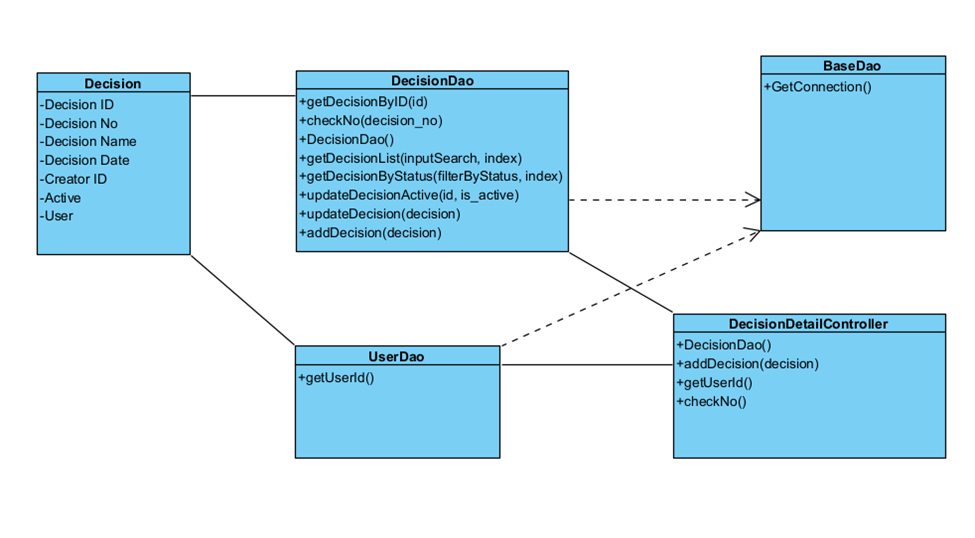
SELECT \* FROM g5\_flm.decision WHERE decision\_id = ?

UPDATE g5\_flm.curriculum SET decision\_id = null WHERE curriculum\_id = ?

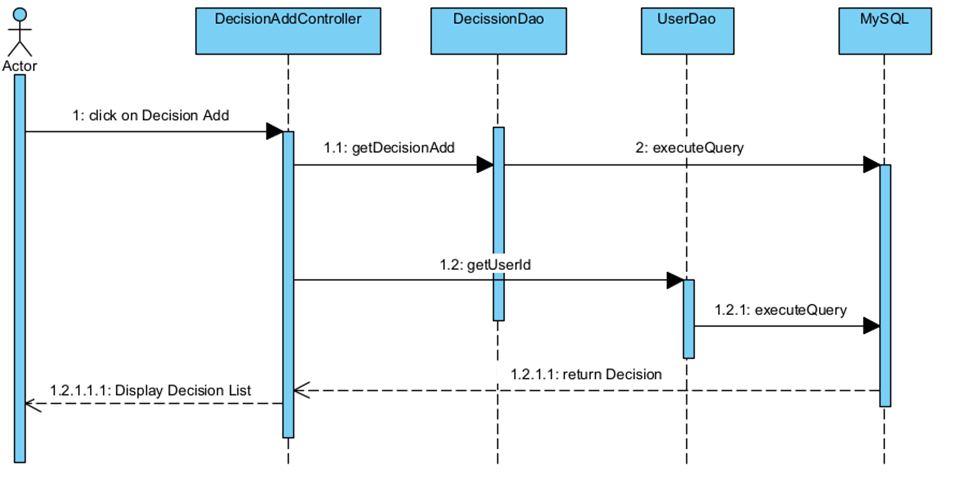
UPDATE g5\_flm.syllabus SET decision\_id = null WHERE syllabus\_id = ?

## 61. Decision Management/Syllabus Submits/New Decision

**a. Class Diagram**

****

**b. Sequence Diagram**

****

**c. Database Queries**

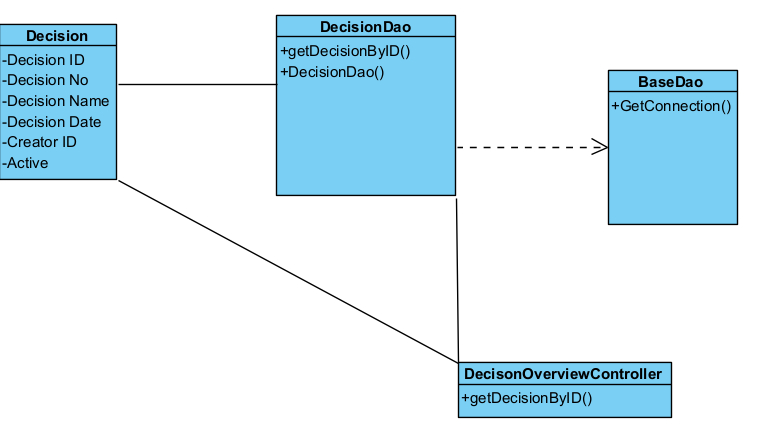
SELECT \* FROM decision where decision\_no = ?

select \* from user where user\_id = ?

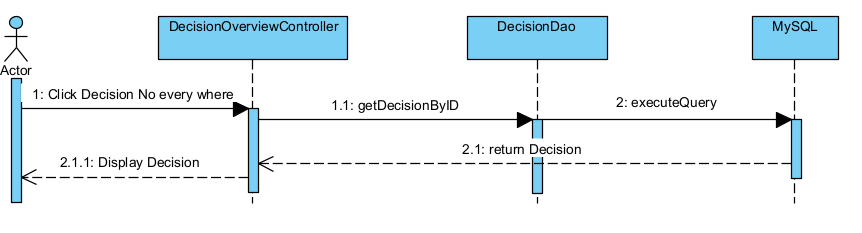
INSERT INTO g5\_flm.decision decision\_no,decision\_date, creator\_id, is\_active,name) VALUES (?, ?, ?, ?)

## 62. Decision Management/Syllabus Submits/Decision Overview

**a. Class Diagram**

****

**b. Sequence Diagram**

****

**c. Database Queries**

* select \* from decision where decision\_id = ?