Documentation of the program code
[Uni Compass]

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Data: [13/12/2024]

History of technical documentation

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Version History

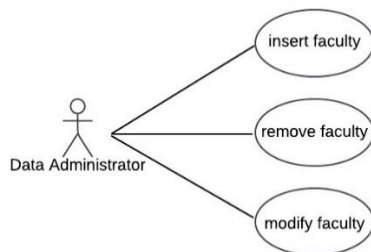| Version	Data	Author	Description
1.0	05/12/2024	Yana	-Intro -class diagram
2.0	06/12/2024	Yana	-Sequence Diagram
3.0	07/12/2024	Yana	-testing
4.0	09/12/2024	Yana	-Sample user interface
4.1	10/12/2024	Yana	-Minor edits on all sections

Content

1   Introduction

The queries I've chosen involve Adding, Removing, and Modifying information involving faculties.
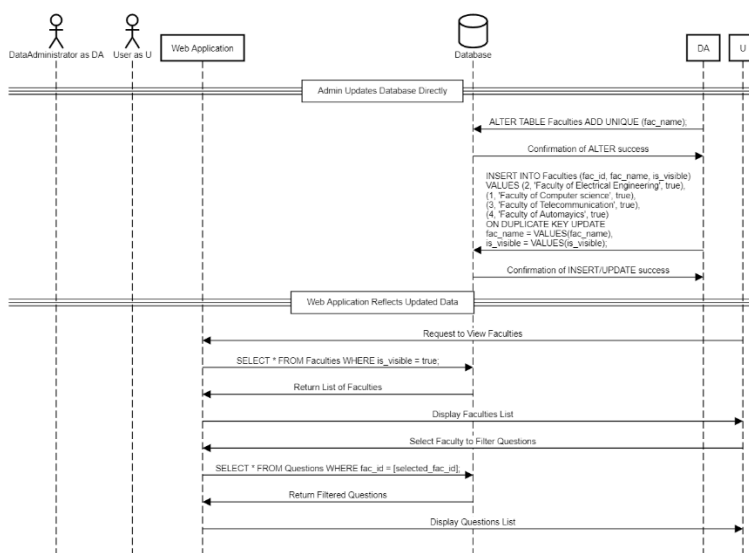The user stories I've chosen include **US4.11, US4.12, US4.13**
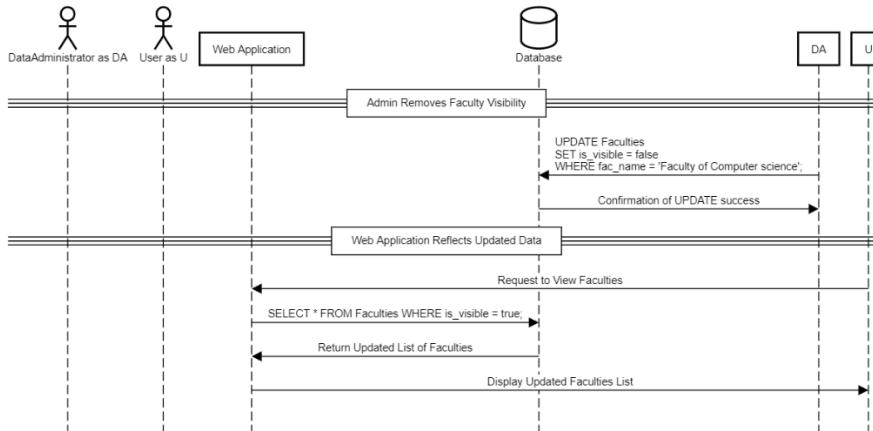
2   Detailed design

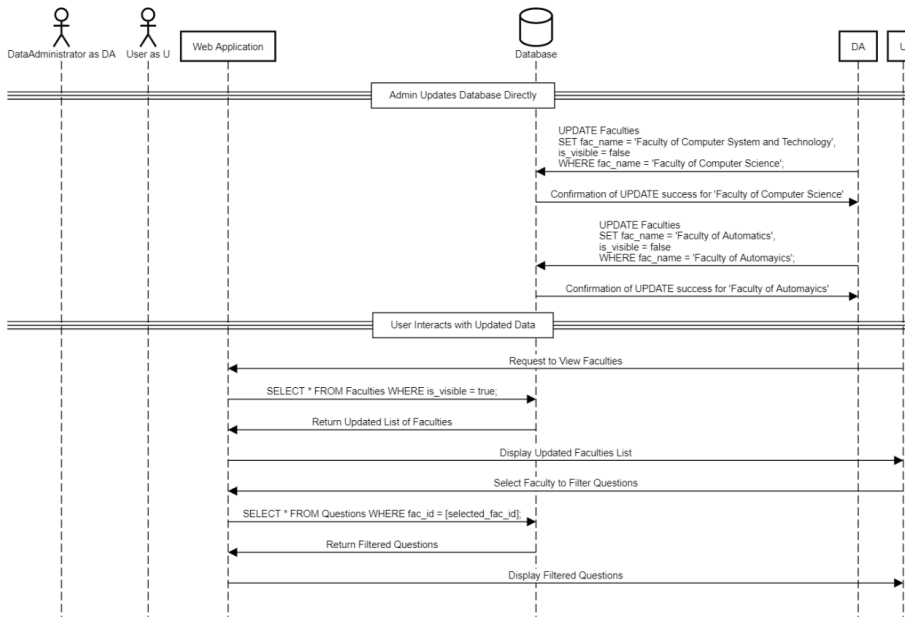## 2.1   Class diagram
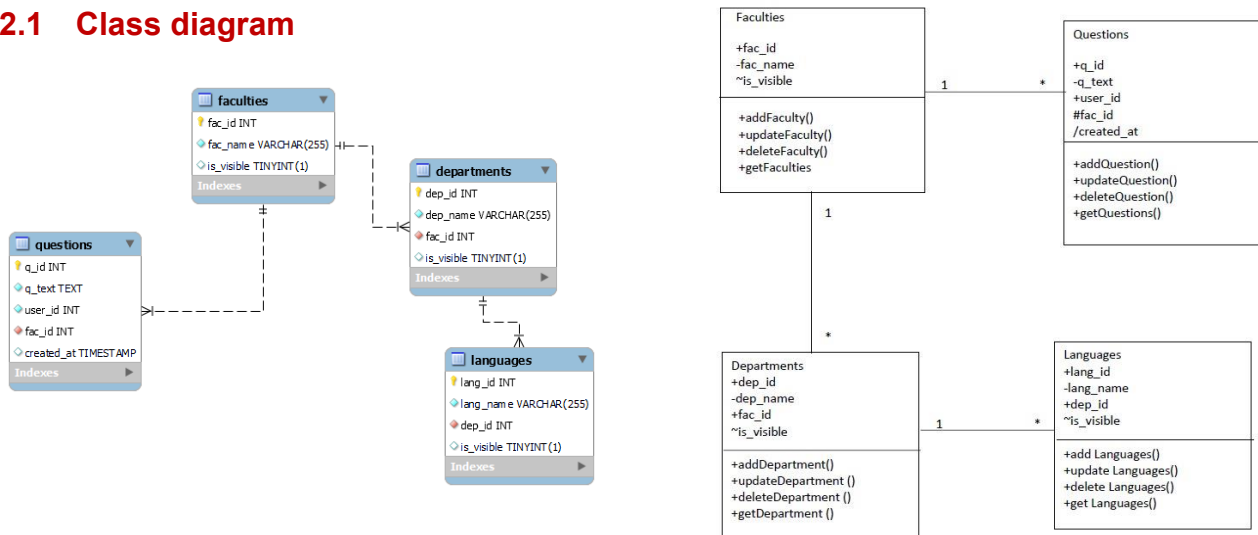
2.2   Sequence diagram

For US4.11

For US4.12

Sequence diagram for US4.12:
- Actors: DataAdministrator as DA, User as U, Web Application, Database, DA, U
- **Admin Removes Faculty Visibility**
  - UPDATE Faculties SET is_visible = false WHERE fac_name = 'Faculty of Computer science';
  - Confirmation of UPDATE success
- **Web Application Reflects Updated Data**
  - Request to View Faculties
  - SELECT * FROM Faculties WHERE is_visible = true;
  - Return Updated List of Faculties
  - Display Updated Faculties List

For US4.13

Sequence diagram for US4.13:
- Actors: DataAdministrator as DA, User as U, Web Application, Database, DA, U
- **Admin Updates Database Directly**
  - UPDATE Faculties SET fac_name = 'Faculty of Computer System and Technology', is_visible = false WHERE fac_name = 'Faculty of Computer Science';
  - Confirmation of UPDATE success for 'Faculty of Computer Science'
  - UPDATE Faculties SET fac_name = 'Faculty of Automatics', is_visible = false WHERE fac_name = 'Faculty of Automayics';
  - Confirmation of UPDATE success for 'Faculty of Automayics'
- **User Interacts with Updated Data**
  - Request to View Faculties
  - SELECT * FROM Faculties WHERE is_visible = true;
  - Return Updated List of Faculties
  - Display Updated Faculties List
  - Select Faculty to Filter Questions
  - SELECT * FROM Questions WHERE fac_id = [selected_fac_id];
  - Return Filtered Questions
  - Display Filtered Questions

2.3   Sample user interface

3   Testing

For US4.11

This is the query for the first user story:

```
• ALTER TABLE Faculties ADD UNIQUE (fac_name);

• INSERT INTO Faculties (fac_id, fac_name, is_visible)
  VALUES (2, 'Faculty of Electrical Engineering', true),
  (1, 'Faculty of Computer science', true),
  (3, 'Faculty of Telecommunication', true),
  (4, 'Faculty of Automayics', true)
  ON DUPLICATE KEY UPDATE
      fac_name = VALUES(fac_name),
      is_visible = VALUES(is_visible);
```

Which reveals that the administrator can add faculties into the database.

It runs smoothly as shown

For US4.12

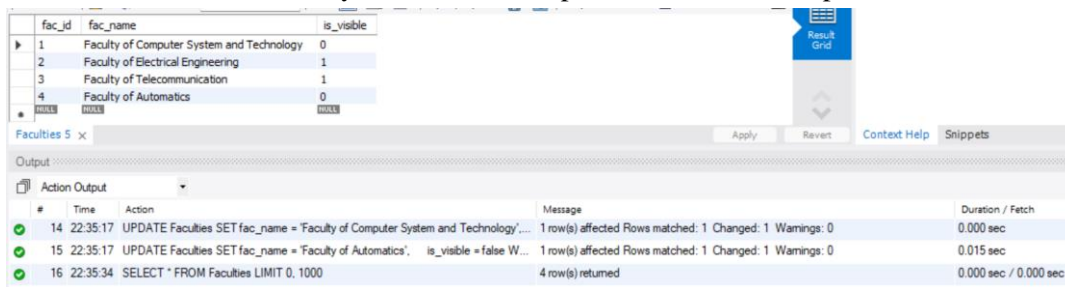This is the query for the second user story:

It reveals that the administrator can remove the faculty from the user's view. It doesn't delete it from the database completely but softly deletes it from the web system.

For US4.13

This is the query for the third user story:

```
•   UPDATE Faculties
    SET fac_name = 'Faculty of Computer System and Technology',
        is_visible = false
    WHERE fac_name = 'Faculty of Computer Science';


•   UPDATE Faculties
    SET fac_name = 'Faculty of Automatics',
        is_visible = false
    WHERE fac_name = 'Faculty of Automayics';
```

The administrator can modify the faculties, keep all the information up to date and reliable.

fac_id	fac_name	is_visible
1	Faculty of Computer System and Technology	0
2	Faculty of Electrical Engineering	1
3	Faculty of Telecommunication	1
4	Faculty of Automatics	0
NULL	NULL	NULL

Faculties S ✕   Apply   Revert   Context Help   Snippets

Output

Action Output   ▼

#	Time	Action	Message	Duration / Fetch
⊘	14 22:35:17	UPDATE Faculties SET fac_name = 'Faculty of Computer System and Technology',...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
⊘	15 22:35:17	UPDATE Faculties SET fac_name = 'Faculty of Automatics', is_visible = false W...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
⊘	16 22:35:34	SELECT * FROM Faculties LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec