Project Analysis and Design Document

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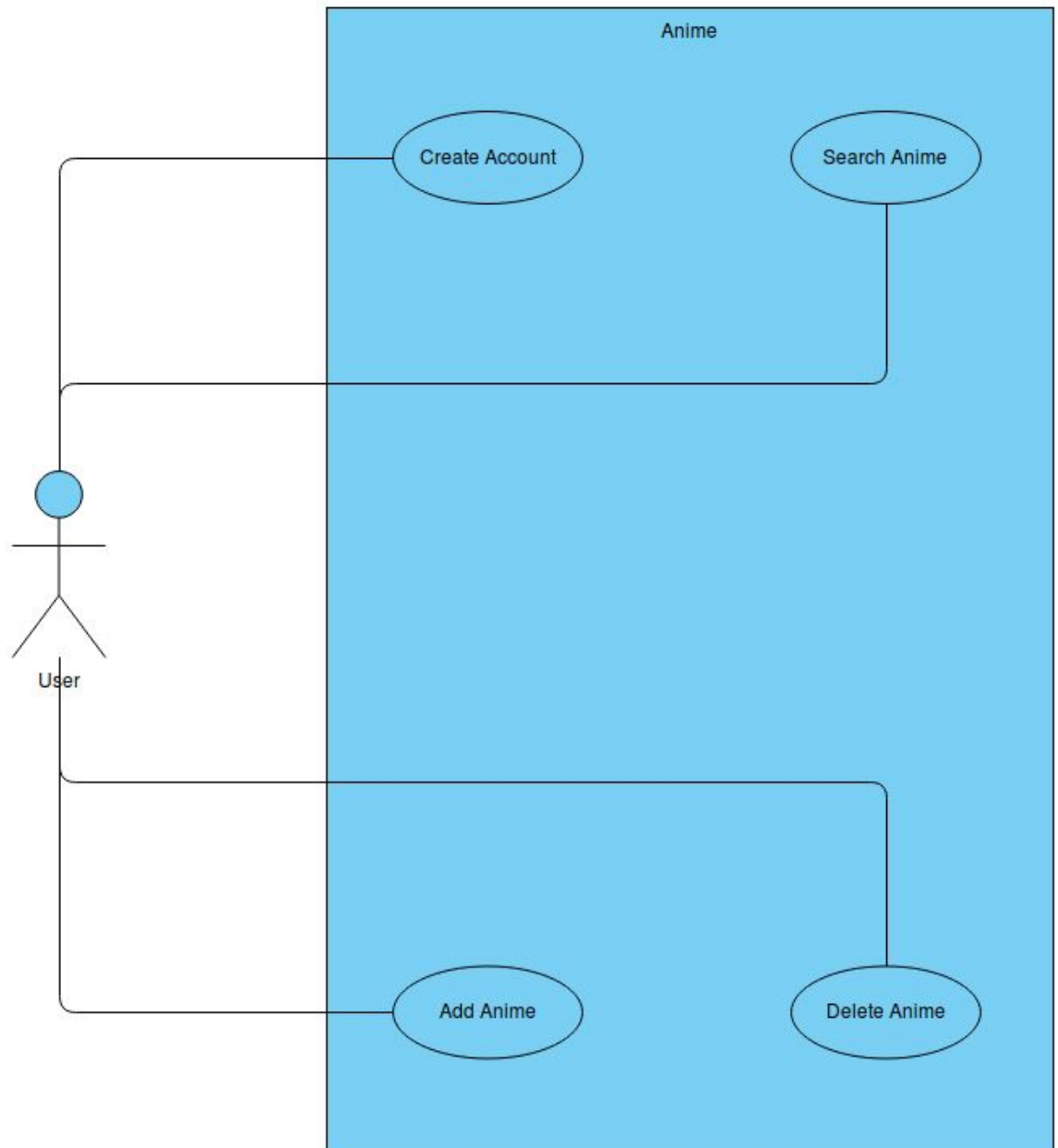**Roll number: IMT2017033**

I. Project Title and Description

Title: Anime Database

Description:
This database project simulates an environment similar to a website called 'www.myanimelist.net' which is a site where a user can create an account and add anime from a pre-existing catalog of anime into his/her personal "favourites" list. This project contains the functionality to create an account, login, and add/delete anime to/from the user's personal list.

II. Use Case Diagram
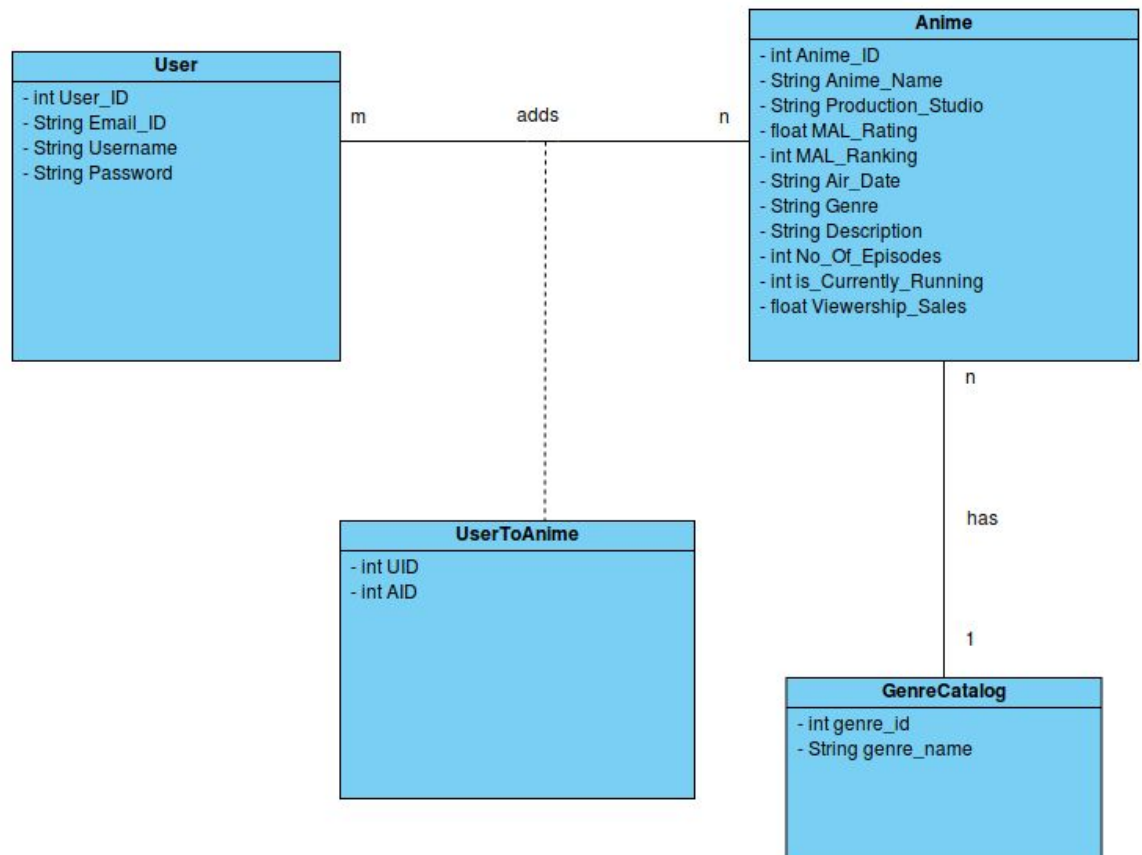
III. Use Case Descriptions

Use Case ID	01
Use Case Name	Create Account
Use Case Description	Create an account for the user.
Actors	User, Administrator
Flow	i) Normal Flow: ● User enters email id, username and password. ● Administrator registers the account by sending a confirmation link by email. ii) Alternate Flow: ● User enters email id, username, and password. ● Administrator sends an OTP to the email id and registers account. iii) Exceptional Flow: ● The email id given by the user is invalid. ● The user is asked to reenter their email id.

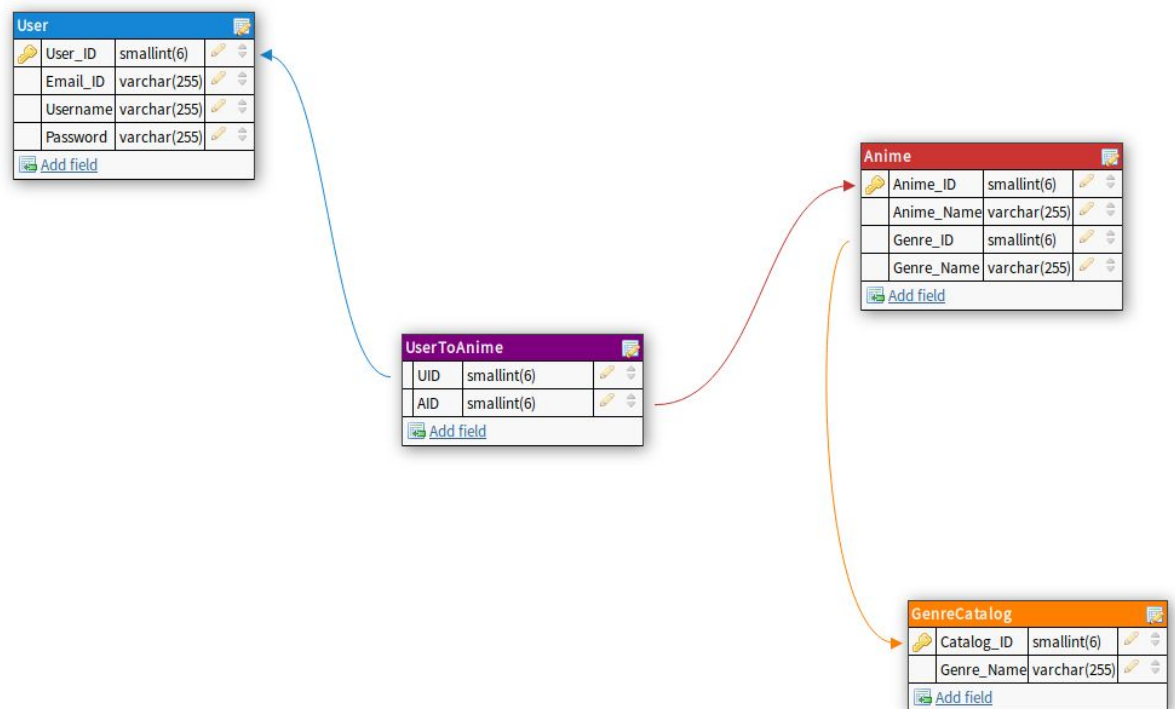| Use Case ID	02
Use Case Name	Add Anime
Use Case Description	Add an anime to the user's personal database
Actors	User

Flow	i) Normal Flow:
	   • User enters name of the anime.
	   • Suggestions appear on the screen, of which the user picks one.
	   • User adds the anime to his personal "favourites" database.
	ii) Exceptional Flow:
	   • User enters name of anime.
	   • No suggestions match the anime that the user wants.
	   • User is asked to re-enter the name of the anime and an error message is displayed.

Use Case ID	03
Use Case Name	Search Anime
Use Case Description	Search for an existing anime in the user's personal database
Actors	User
Flow	i) Normal Flow: • User enters name of the anime present in his personal database. • Suggestions appear on the screen, of which the user views one. ii) Alternate Flow: • User enters another attribute (say Genre or Production Studio). • List of anime corresponding to that attribute appear on the screen. iii) Exceptional Flow: • User enters name of anime that he wants to search for. • No suggestions match the anime that the user wants. • The user is asked to re-enter the name or to add anime from the main database if present.

Use Case ID	04
Use Case Name	Delete Anime
Use Case Description	Delete an anime from the user's personal database
Actors	User
Flow	i) Normal Flow: • User enters name of the anime. • Suggestions appear on the screen, of which the user picks one. • User deletes the anime from his personal "favourites" database. ii) Exceptional Flow: • User enters name of anime. • No suggestions match the anime that the user wants. • User is asked to re-enter the name of the anime and an error message is displayed.

IV. Class Diagram

User

- int User_ID
- String Email_ID
- String Username
- String Password

m   adds   n

Anime

- int Anime_ID
- String Anime_Name
- String Production_Studio
- float MAL_Rating
- int MAL_Ranking
- String Air_Date
- String Genre
- String Description
- int No_Of_Episodes
- int is_Currently_Running
- float Viewership_Sales

n

has

1

UserToAnime

- int UID
- int AID

GenreCatalog

- int genre_id
- String genre_name

V. Relational Diagram

User
🔑	User_ID	smallint(6)
	Email_ID	varchar(255)
	Username	varchar(255)
	Password	varchar(255)

Add field

Anime
🔑	Anime_ID	smallint(6)
	Anime_Name	varchar(255)
	Genre_ID	smallint(6)
	Genre_Name	varchar(255)

Add field

UserToAnime
UID	smallint(6)
AID	smallint(6)

Add field

GenreCatalog
🔑	Catalog_ID	smallint(6)
	Genre_Name	varchar(255)

Add field

Note: Some features of the class 'Anime' from the Class Diagram have been ignored in the Relational Diagram to make implementation easier.

VI. Demo Screenshots

```
Welcome to MyAnimeList

Connecting to database...
Creating statement...

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
2

Please enter your Email-ID:
Mail1
Please enter your Username:
User1
Please enter your Password:
Pass1
Account Created!

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
2

Please enter your Email-ID:
Mail1
Please enter your Username:
User2
Please enter your Password:
Pass2
This email ID already has an account

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
2

Please enter your Email-ID:
Mail2
Please enter your Username:
User1
Please enter your Password:
Pass2
Sorry, that username has already been taken
```

```
1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
2

Please enter your Email-ID:
Mail2
Please enter your Username:
User2
Please enter your Password:
Pass2
Account Created!

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
1

Please enter your Username:
User1
Please enter your Password:
Pass1
Logged In
```

```
What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
4
ID: 1
Name: Black Lagoon
Genre: Action

ID: 2
Name: Golden Time
Genre: Romance

ID: 3
Name: Nichijou
Genre: Comedy

ID: 4
Name: Sword Art Online
Genre: Fantasy

ID: 5
Name: Megalo Box
Genre: Action

ID: 6
Name: Toradora
Genre: Romance

ID: 7
Name: Gintama
Genre: Comedy

ID: 8
Name: Overlord
Genre: Fantasy
```

```
What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
1
Enter the name of the anime:
Gintama
Anime added to Favourites

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
1
Enter the name of the anime:
Gintama
Anime already present in Favourites

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
1
Enter the name of the anime:
Megalo Box
Anime added to Favourites
```

```
What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
2
Enter the name of the anime:
Megalo Box
ID: 5
Name: Megalo Box
Genre: Action

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
3
Enter the name of the anime:
Megalo Box
Anime removed from Favourites

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
2
Enter the name of the anime:
Gintama
ID: 7
Name: Gintama
Genre: Comedy
```

```
What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
5
Logged Out

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
1

Please enter your Username:
User1
Please enter your Password:
Pass2
Invalid username or password

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
1

Please enter your Username:
User2
Please enter your Password:
Pass2
Logged In
```

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
2
Enter the name of the anime:
Gintama
Anime not present in Favourites

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
1
Enter the name of the anime:
Sword Art Online
Anime added to Favourites

What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
3
Enter the name of the anime:
Gintama
Anime not present in Favourites

```
What would you like to do?
1. Add Anime
2. Search Anime
3. Delete Anime
4. View Anime Database
5. Logout
Please enter your choice:
5
Logged Out

1. Login
2. Dont have an account? Sign Up
3. Exit Application
Please enter your choice:
3

Closing Connection to Database....
```