

# 

Project and Professionalism

(6CS007)

Milestone 3

Music Recommendation System (Oni Music)

Student Id : 2051814

Student Name : Sakshyam Shrestha

Section : L6CG7

Supervisor : Prakash Dahal

Reader : Deepson Shrestha

Submitted On : 24th January 2022

Table of Contents

[Table of Figures 3](#_Toc93937844)

[1. Functional Decomposition Diagram (FDD) 1](#_Toc93937845)

[2. Software Requirement Specification (SRS) 2](#_Toc93937846)

[2.1. User Management System (UM) 2](#_Toc93937847)

[2.2. Recommendation Management System (RM) 3](#_Toc93937848)

[2.3. Genre Management System (GM) 3](#_Toc93937849)

[3. Activity Diagrams 4](#_Toc93937850)

[3.1. User Management System 4](#_Toc93937851)

[3.1.1. User Registration 4](#_Toc93937852)

[3.1.2. User Login 5](#_Toc93937853)

[3.1.3. User Logout 5](#_Toc93937854)

[3.1.4. User Password Reset 6](#_Toc93937855)

[3.2. Recommendation Management System 6](#_Toc93937856)

[3.2.1. Search Query 6](#_Toc93937857)

[3.2.2. Song Recommendation 7](#_Toc93937858)

[3.3. Genre Management System 7](#_Toc93937859)

[3.3.1. Genre Display 7](#_Toc93937860)

[3.3.2. Genre Search 8](#_Toc93937861)

[4. Use Case Diagrams 9](#_Toc93937862)

[4.1. User Management System 9](#_Toc93937863)

[4.2. Recommendation Management System 10](#_Toc93937864)

[4.3. Genre Management System 11](#_Toc93937865)

[5. Sequence Diagram 12](#_Toc93937866)

[5.1. User Management System 12](#_Toc93937867)

[5.1.1. User Registration 12](#_Toc93937868)

[5.1.2. User Login 13](#_Toc93937869)

[5.1.3. User Logout 14](#_Toc93937870)

[5.1.4. User Password Reset 15](#_Toc93937871)

[5.2. Recommendation Management System 16](#_Toc93937872)

[5.2.1. Search Query 16](#_Toc93937873)

[5.2.2. Song Recommendation 16](#_Toc93937874)

[5.3. Genre Management System 16](#_Toc93937875)

[5.3.1. Genre Display 16](#_Toc93937876)

[5.3.2. Genre Search 16](#_Toc93937877)

[6. Wireframes 16](#_Toc93937878)

[6.1. Homepage 16](#_Toc93937879)

[6.2. About Page 17](#_Toc93937880)

[6.3. Login Page 17](#_Toc93937881)

[7. Signup Page 18](#_Toc93937882)

[7.1. Genre Page 18](#_Toc93937883)

[8. Entity Relationship Diagram (ERD) 19](#_Toc93937884)

[9. Data Dictionary 19](#_Toc93937885)

[9.1. User 19](#_Toc93937886)

[10. Class Diagram (CD) 21](#_Toc93937887)

# Table of Figures

[Figure 1: Functional Decomposition Diagram (FDD) 1](#_Toc93937679)

[Figure 2: Legend 2](#_Toc93937680)

[Figure 3: User Registration (Activity Diagram) 4](#_Toc93937681)

[Figure 4: User Login (Activity Diagram) 5](#_Toc93937682)

[Figure 5: User Logout (Activity Diagram) 5](#_Toc93937683)

[Figure 6: User Password Reset (Activity Diagram) 6](#_Toc93937684)

[Figure 7: Search Query (Activity Diagram) 6](#_Toc93937685)

[Figure 8: Song Recommendation (Activity Diagram) 7](#_Toc93937686)

[Figure 9: Genre Display (Activity Diagram) 7](#_Toc93937687)

[Figure 10: Genre Search (Activity Diagram) 8](#_Toc93937688)

[Figure 11: User Management (Use Case Diagram) 9](#_Toc93937689)

[Figure 12: Recommendation Management (Use Case Diagram) 10](#_Toc93937690)

[Figure 13: Genre Management (Use Case Diagram) 11](#_Toc93937691)

[Figure 14: User Registration (Sequence Diagram) 12](#_Toc93937692)

[Figure 15: User Login (Sequence Diagram) 13](#_Toc93937693)

[Figure 16: User Logout (Sequence Diagram) 14](#_Toc93937694)

[Figure 17: Password Reset (Sequence Diagram) 15](#_Toc93937695)

[Figure 18: Homepage (Wireframe) 16](#_Toc93937696)

[Figure 19: About page (Wireframe) 17](#_Toc93937697)

[Figure 20: Login page (Wireframe) 17](#_Toc93937698)

[Figure 21: Signup page (Wireframe) 18](#_Toc93937699)

[Figure 22: Genre page (Wireframe) 18](#_Toc93937700)

[Figure 23: System ERD 19](#_Toc93937701)

[Figure 24: System Class Diagram 21](#_Toc93937702)

# Functional Decomposition Diagram (FDD)

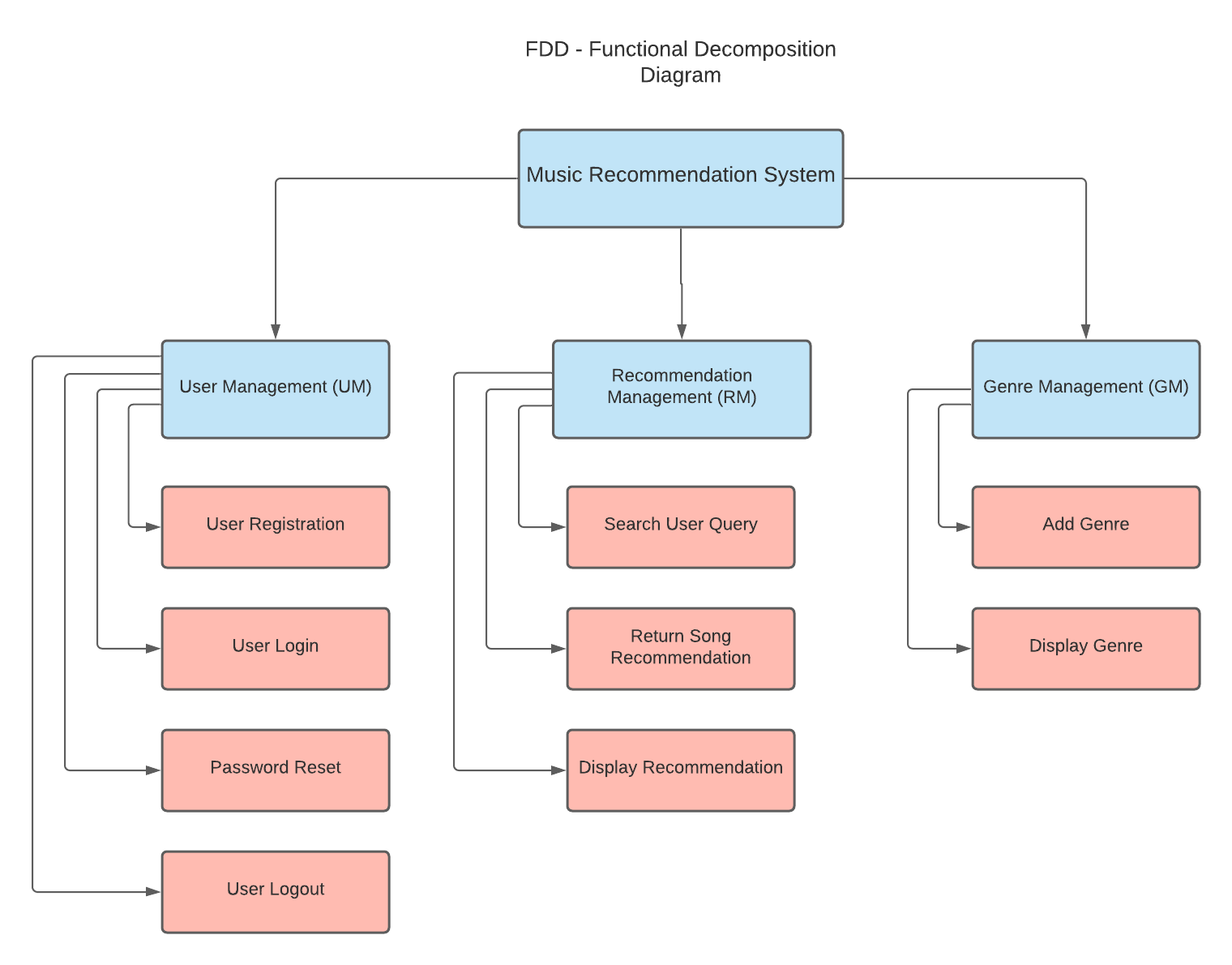


Figure 1: Functional Decomposition Diagram (FDD)

# Software Requirement Specification (SRS)

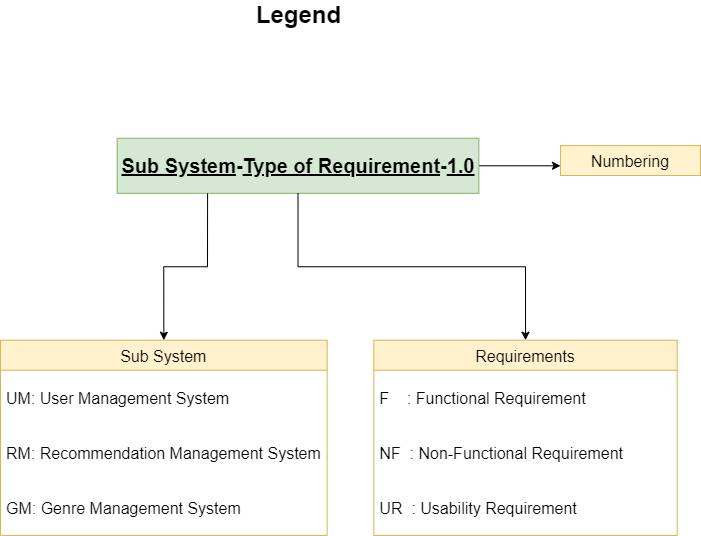


Figure 2: Legend

# User Management System (UM)

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement Code | Requirement Description | Use Case | MoSCoW Prioritization |
| UM-F-1.0 | The user should be able to create a new user account. | Create User | Must have |
| UM-NF-1.1 | While creating a user, the username must be less than 150 characters and only include letters, digits and @/. /+/-/\_ only. |  | Must have |
| UM-F-2.0 | The user should be able to logout of the system. |  | Must have |
| UM-F -2.1 | The user should be able to logout of the account that they are logged in. |  | Must have |
| UM-F-3.0 | The system should allow the user to reset their password. |  | Must have |
| UM-NF-3.1 | While resetting the user password, the user must be logged into the related account. |  | Must have |

# Recommendation Management System (RM)

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement Code | Requirement Description | Use Case | MoSCoW Prioritization |
| RM-F-1.0 | The user should be able to search for desired song. | Create search query | Must have |
| RM-NF-1.1 | While searching, the user must insert the name of a song track. |  | Should have |
| RM-F-2.0 | The user should be able to acquire music recommendation based on the search query. |  | Must have |

# Genre Management System (GM)

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement Code | Requirement Description | Use Case | MoSCoW Prioritization |
| GM-F-1.0 | The user should be able to browse the genre page. | Create genre view | Must have |
| GM-F-2.0 | The user should be able to search for specific genre. |  | Must have |

# Activity Diagrams

## User Management System

### User Registration

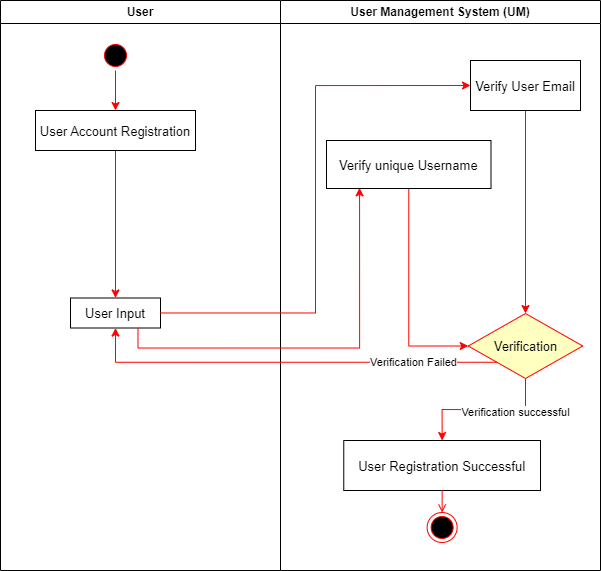


Figure 3: User Registration (Activity Diagram)

### User Login

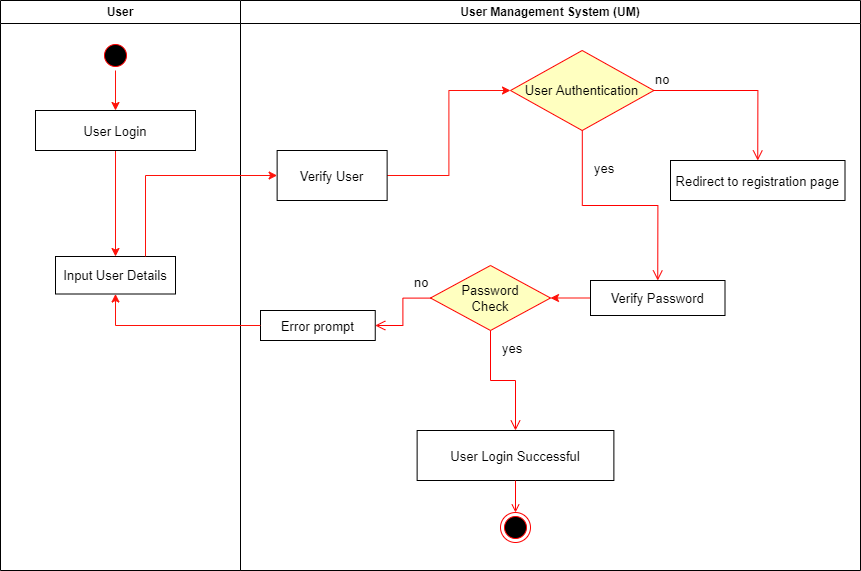


Figure 4: User Login (Activity Diagram)

### User Logout

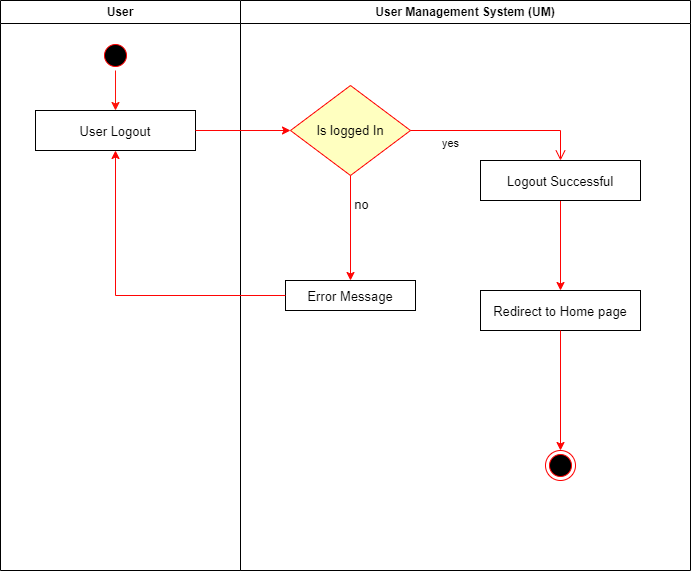


Figure 5: User Logout (Activity Diagram)

### User Password Reset

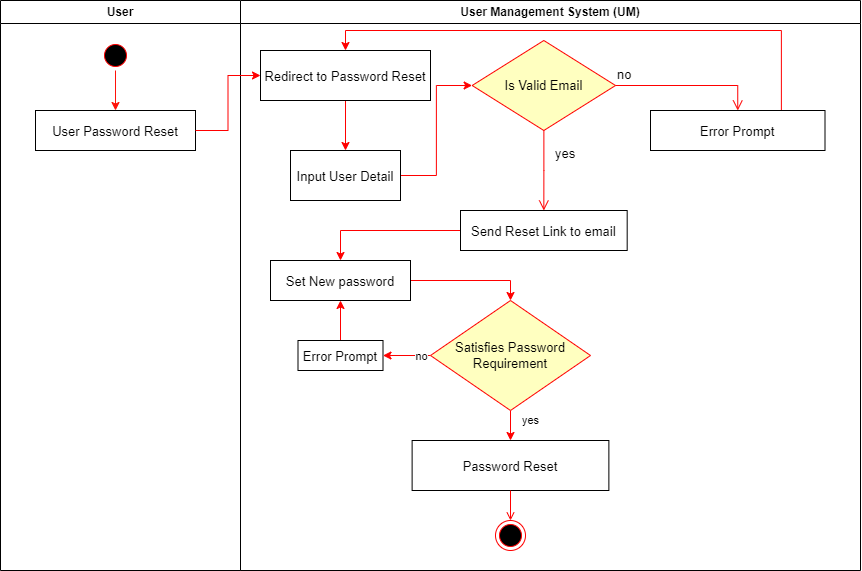


Figure 6: User Password Reset (Activity Diagram)

## Recommendation Management System

### Search Query

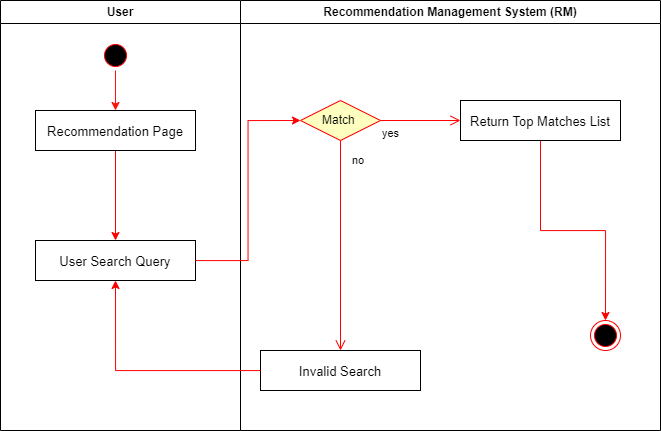


Figure 7: Search Query (Activity Diagram)

### Song Recommendation

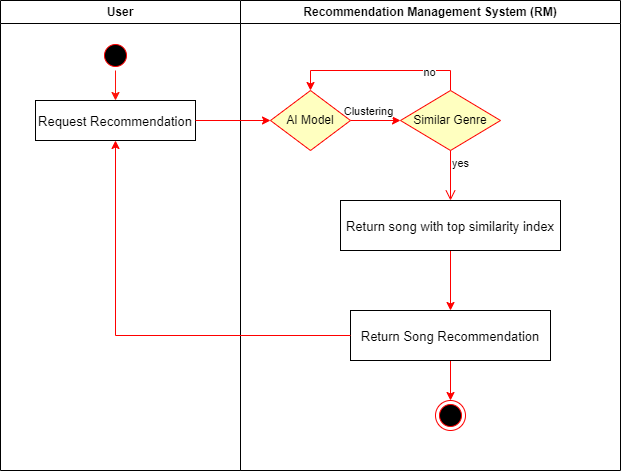


Figure 8: Song Recommendation (Activity Diagram)

## Genre Management System

### Genre Display

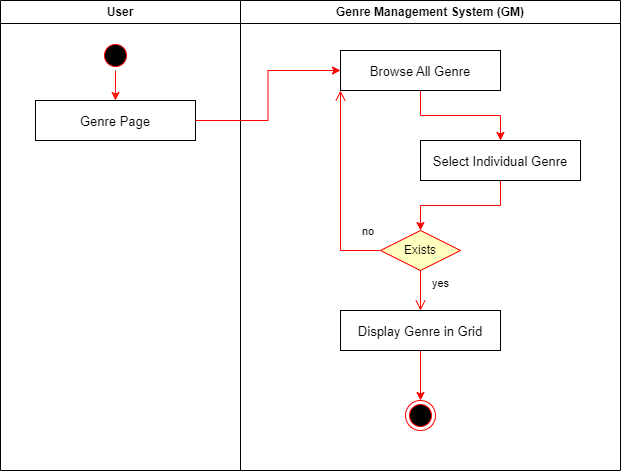


Figure 9: Genre Display (Activity Diagram)

### Genre Search

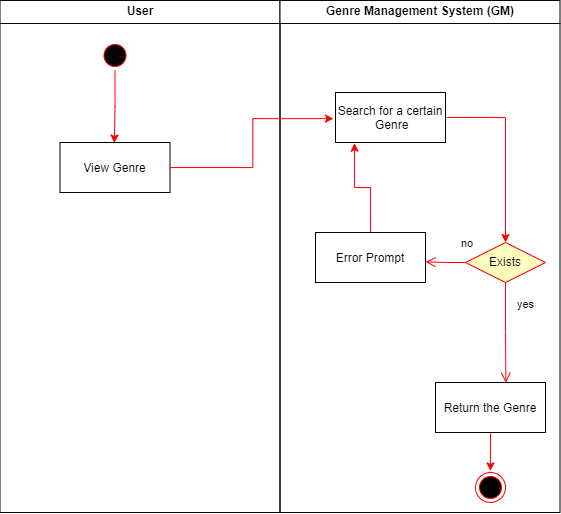


Figure 10: Genre Search (Activity Diagram)

# Use Case Diagrams

## User Management System

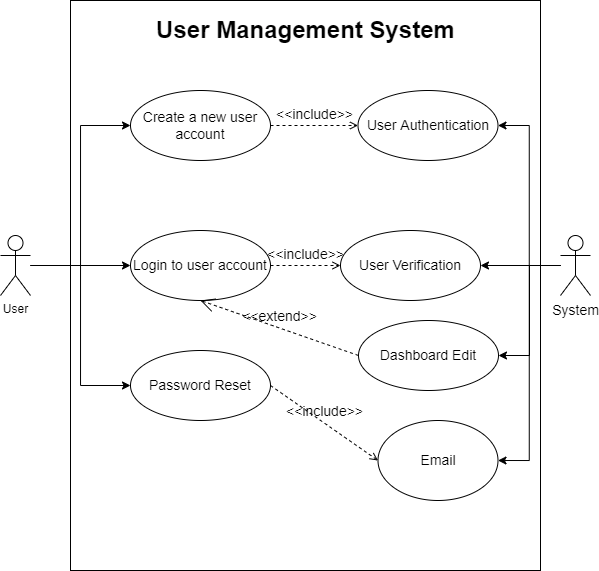


Figure 11: User Management (Use Case Diagram)

## Recommendation Management System

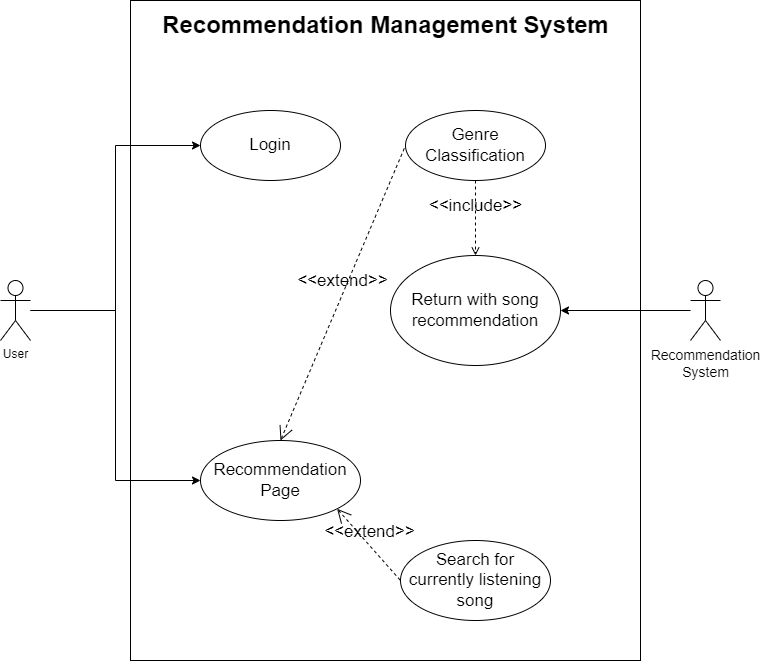


Figure 12: Recommendation Management (Use Case Diagram)

## Genre Management System

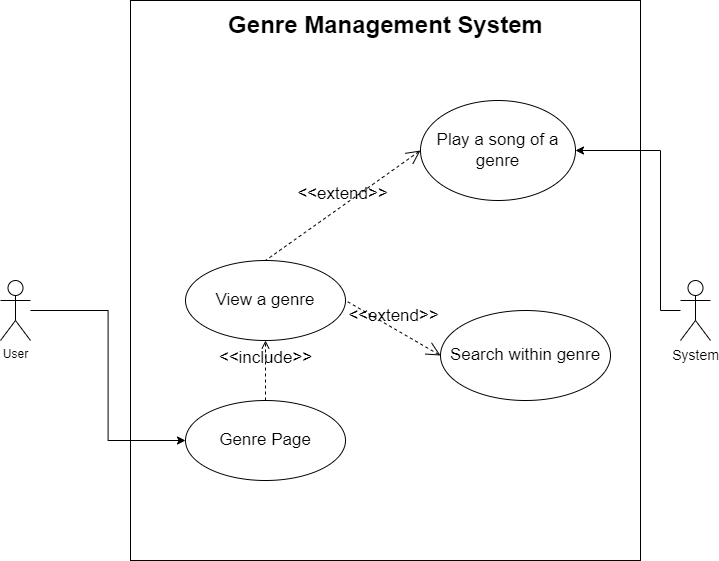


Figure 13: Genre Management (Use Case Diagram)

# Sequence Diagram

## User Management System

### User Registration

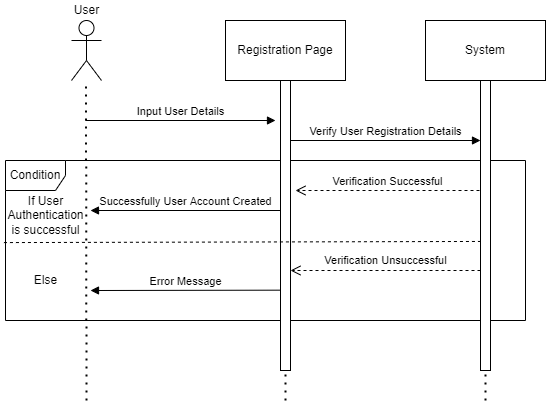


Figure 14: User Registration (Sequence Diagram)

### User Login

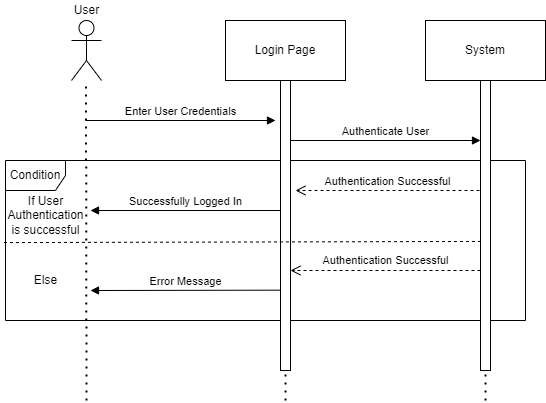


Figure 15: User Login (Sequence Diagram)

### User Logout

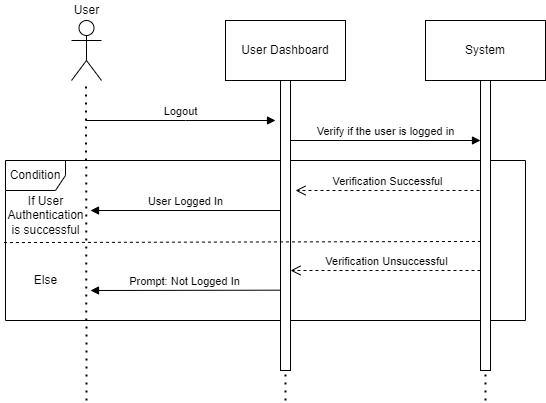


Figure 16: User Logout (Sequence Diagram)

### User Password Reset

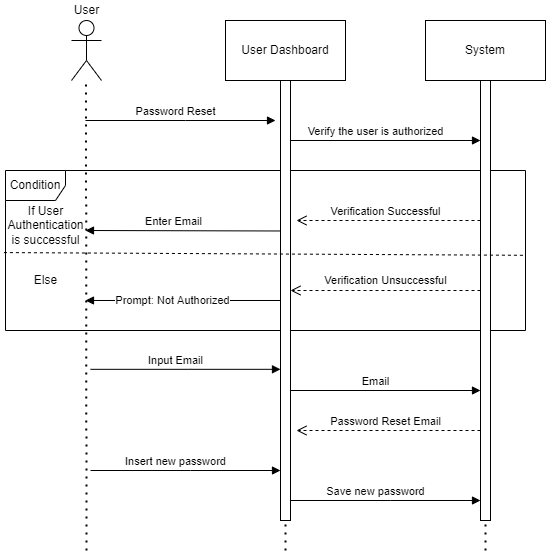


Figure 17: Password Reset (Sequence Diagram)

## Recommendation Management System

### Search Query

### Song Recommendation

## Genre Management System

### Genre Display

### Genre Search

# Wireframes

## Homepage

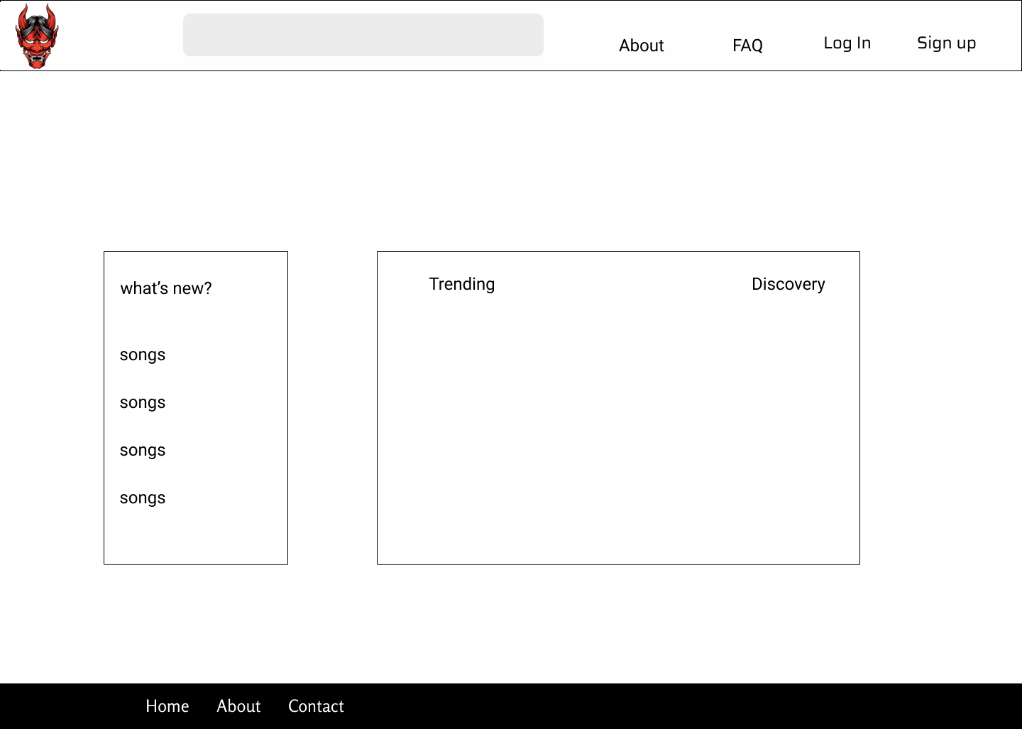


Figure 18: Homepage (Wireframe)

## About Page

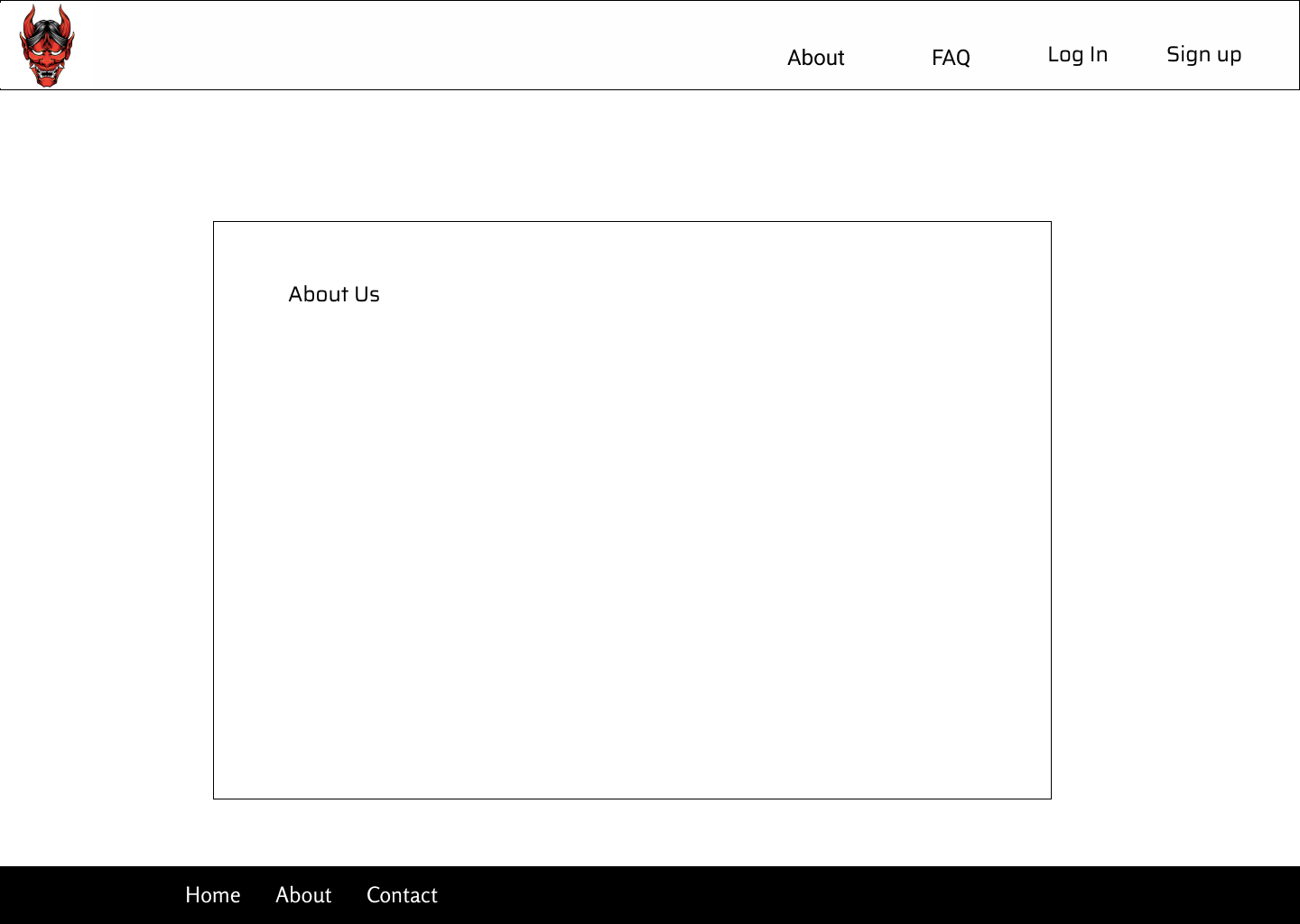


Figure 19: About page (Wireframe)

## Login Page

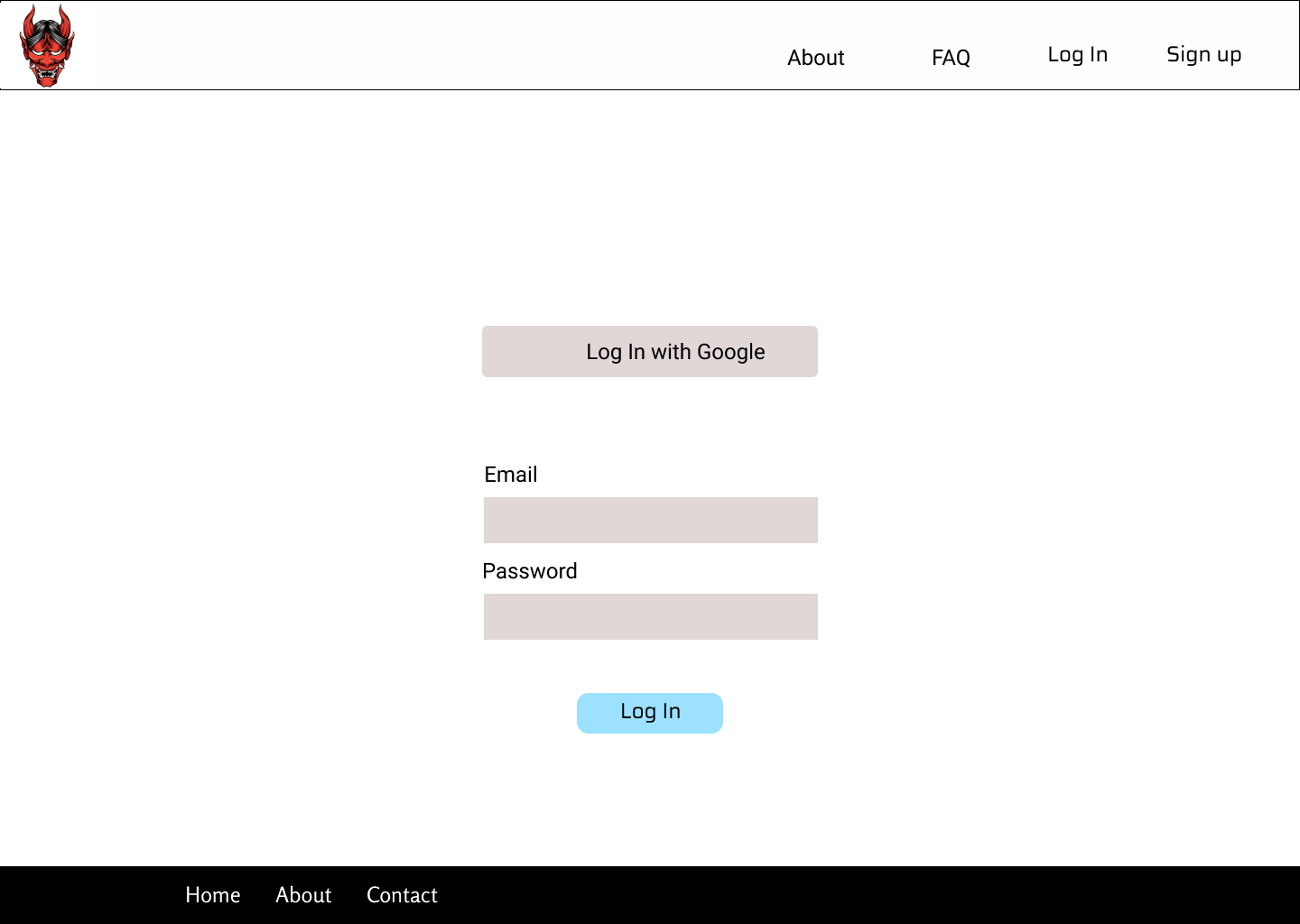


Figure 20: Login page (Wireframe)

## Signup Page

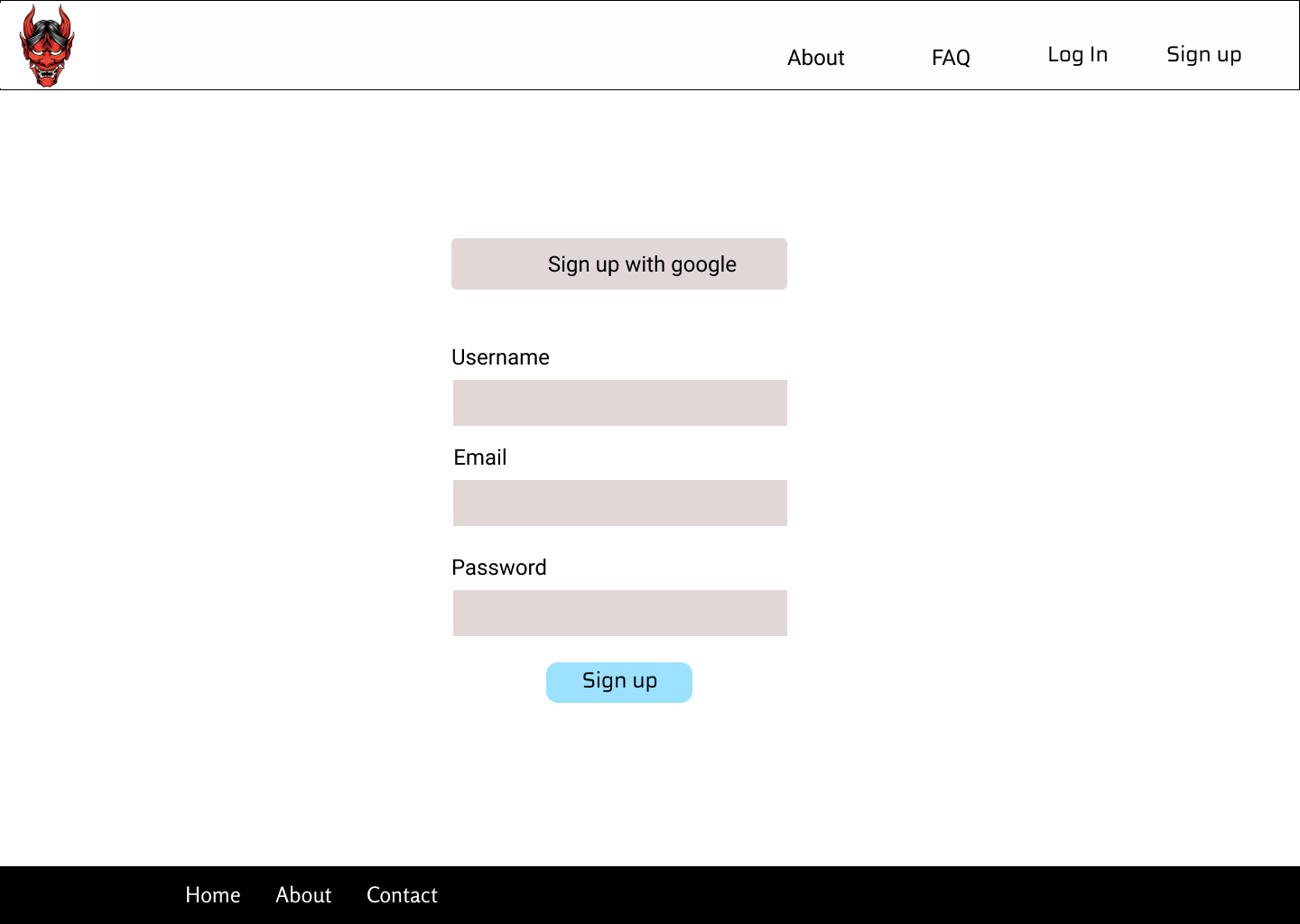


Figure 21: Signup page (Wireframe)

## Genre Page

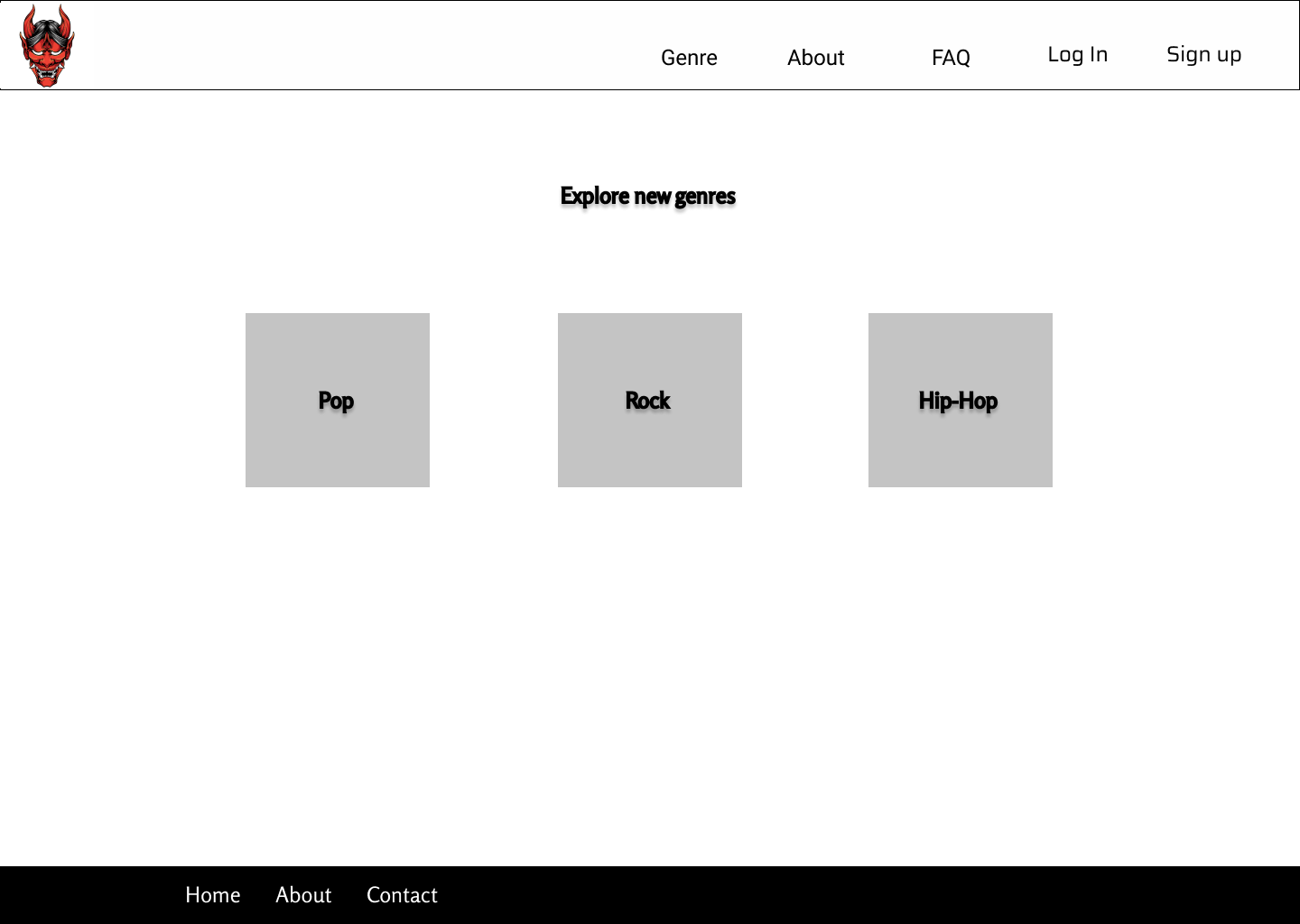


Figure 22: Genre page (Wireframe)

# Entity Relationship Diagram (ERD)

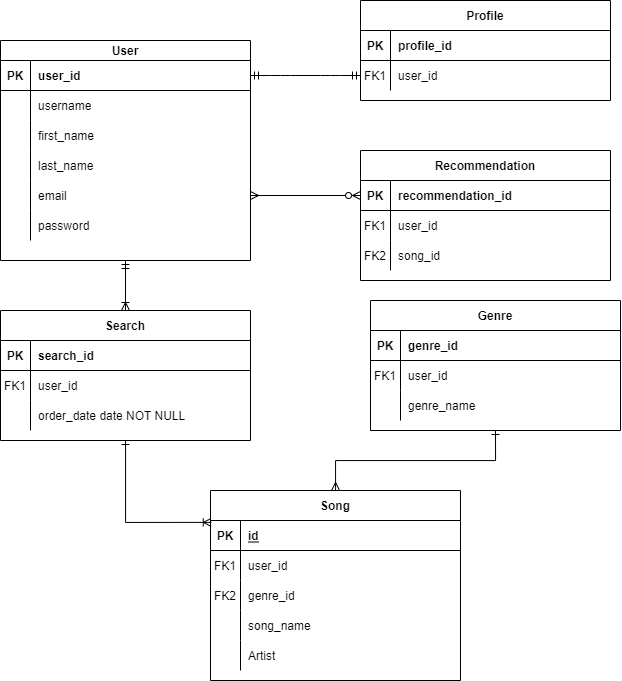


Figure : System ERD

# Data Dictionary

## User

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data Type | Size | Description | Key |
| user\_id | int | 8 | Unique user id | Primary |
| firstname | char | 20 | First name of the user |  |
| lastname | char | 20 | Last name of the user |  |
| email | char | 20 | Email of the user |  |
| password | char | 20 | Password of the user account |  |

# Class Diagram (CD)

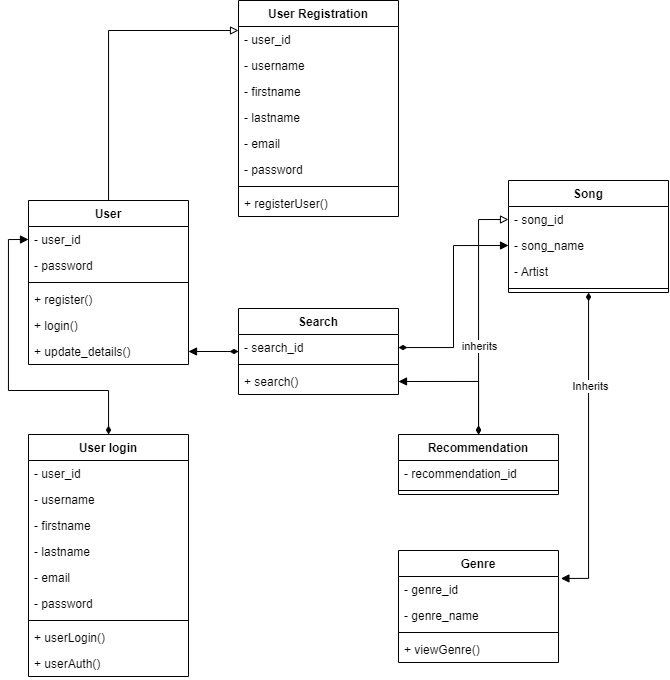


Figure : System Class Diagram