Database System Team Project

User-personalized Music recommendation system
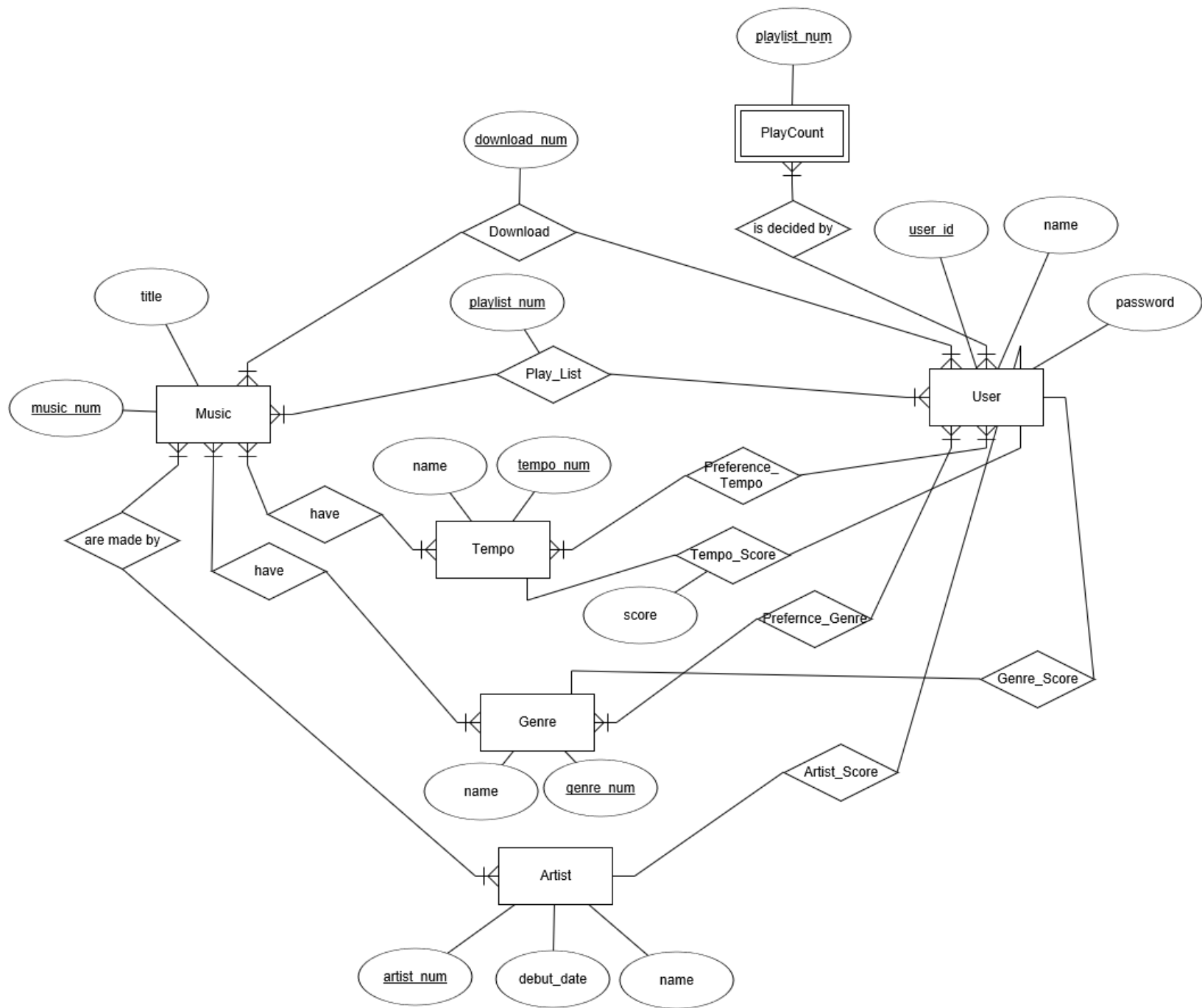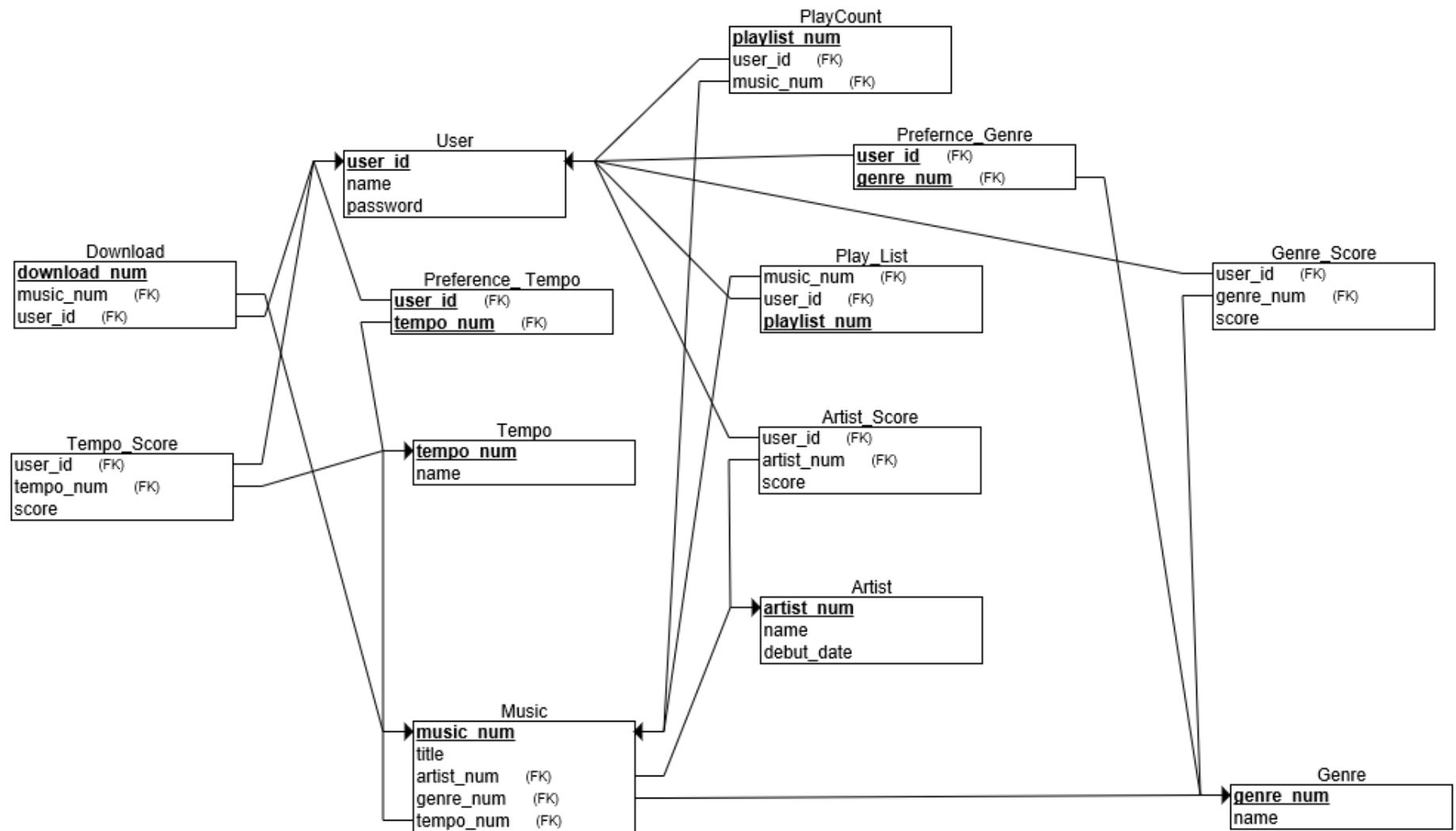
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01. THEME

User-personalized Music recommendation system

▶ User-personalized Music recommendation system (UPMRS)

▶ Function
- Login / Register
- Music search
  - add music to play list
  - download music
- Manage list
  - play / remove
- Recommend music

PlayCount
- **playlist_num**
- user_id (FK)
- music_num (FK)

User
- **user_id**
- name
- password

Prefernce_Genre
- **user_id** (FK)
- **genre_num** (FK)

Genre_Score
- user_id (FK)
- genre_num (FK)
- score

Download
- **download_num**
- music_num (FK)
- user_id (FK)

Preference_Tempo
- **user_id** (FK)
- **tempo_num** (FK)

Play_List
- music_num (FK)
- user_id (FK)
- **playlist_num**

Tempo_Score
- user_id (FK)
- tempo_num (FK)
- score

Tempo
- **tempo_num**
- name

Artist_Score
- user_id (FK)
- artist_num (FK)
- score

Artist
- **artist_num**
- name
- debut_date

Music
- **music_num**
- title
- artist_num (FK)
- genre_num (FK)
- tempo_num (FK)

Genre
- **genre_num**
- name

User-personalized Music recommendation system

▶ **Foreign key**
　　ex) Music(artist_num) -〉 Artist(artist_num)

▶ **Trigger**
　　ex) Preference_Genre_Ins_Trigger

▶ **Transaction**
　　ex) preference 수정 시

▶ **Index**

02. IMPLEMENTATION

How to recommend

▶ Use preference and grading tables −artist, genre, tempo
    user add music to the play list +1
    user select preference +10
    Play music +1
    Download music + 5

▶ Assume recommendation algorithm is already implemented

▶ Recommend based on score