Midterm Answer Template

https://docs.google.com/document/d/1KpWnllYqUYQljJ4eJuNQ_WXIP4SzsLYw1iZC
Rb7Uxzk/edit?tab=t.0

Midterm Submission Form

https://forms.gle/ZRp896WJM95ayVnf8

Task 0 [0 Mark]

Connect to the MySQL server

After clicking on the shell, you should see a black window. Type in the following command:

mysql -u root -p

When you are asked for a password, don't type anything just press enter. **The default password for XAMPP is an empty string.**

Step 1: Create the Database
CREATE DATABASE DemonSlayer_<Your8DigitStudentID>;
USE DemonSlayer_<Your8DigitStudentID>;

Step 2: Create Tables
CREATE TABLE PopularForms (
    FormID INT PRIMARY KEY,
    Form VARCHAR(100),
    Type VARCHAR(50),
    DiffLvl INT
);

CREATE TABLE Slayers (
    Slayer_ID INT PRIMARY KEY,

```sql
    Name VARCHAR(100),
    Family VARCHAR(100),
    IsHashira BOOLEAN,
    FormID INT,
    FOREIGN KEY (FormID) REFERENCES PopularForms(FormID));

CREATE TABLE Families (
    Family VARCHAR(255) PRIMARY KEY,
    TotalHashiras INT DEFAULT 0,
    AbilityPts INT DEFAULT 0,
    Speciality VARCHAR(255));

CREATE TABLE Training (
    ID INT PRIMARY KEY,
    Task VARCHAR(255) NOT NULL,
    Date DATE NOT NULL,
    SlayerID INT,
    FOREIGN KEY (SlayerID) REFERENCES Slayers(Slayer_ID));
```

Step 3: Populate Tables

```sql
INSERT INTO PopularForms (FormID, Form, Type, DiffLvl) VALUES
(1, 'Water Surface Slash', 'Water', 6),
(2, 'Raging Sun', 'Light', 10),
(3, 'Hinokami Kagura', 'Light', 10),
(4, 'Flame Dance', 'Fire', 8),
(5, 'Beast Fangs', 'Beast', 5),
(6, 'Thunderclap and Flash', 'Lightning', 7),
(7, 'Whirlwind Cutter', 'Wind', 6),
(8, 'Insect Sting: Butterfly Dance', 'Insect', 9),
(9, 'Silent Mist Strike', 'Mist', 8),
(10, 'Eighth Form: Moonlight Elegy', 'Dark', 10);

INSERT INTO Slayers (Slayer_ID, Name, Family, IsHashira, FormID)
VALUES
(1, 'Tanjiro Kamado', 'Kamado', TRUE, 1),
(2, 'Nezuko Kamado', 'Kamado', FALSE, NULL),
(3, 'Zenitsu Agatsuma', 'Agatsuma', TRUE, 6),
```

(4, 'Inosuke Hashibira', 'Hashibira', FALSE, NULL),
(5, 'Kanao Tsuyuri', 'Tsuyuri', TRUE, 8),
(6, 'Genya Shinazugawa', 'Shinazugawa', FALSE, NULL),
(7, 'Giyu Tomioka', 'Tomioka', TRUE, 1),
(8, 'Sanemi Shinazugawa', 'Shinazugawa', TRUE, 7),
(9, 'Shinobu Kocho', 'Kocho', TRUE, 8),
(10, 'Muichiro Tokito', 'Tokito', TRUE, 9);

INSERT INTO Families (Family, TotalHashiras, AbilityPts, Speciality)
VALUES
('Kamado', 2, 80, 'Defeating Upper Moon'),
('Agatsuma', 1, 60, 'Exceptional Courage'),
('Hashibira', 1, 50, 'Improvisational Skills'),
('Tsuyuri', 1, 70, 'Resilience'),
('Shinazugawa', 2, 90, 'Relentless Effort'),
('Tomioka', 1, 100, 'Water Mastery'),
('Kocho', 2, 85, 'Insect Breathing Prowess'),
('Tokito', 1, 95, 'Mist Breathing Expertise');

INSERT INTO Training (ID, Task, Date, SlayerID)
VALUES
(1, 'Waterfall Meditation', '1912-01-05', 1),
(2, 'Boulder Cutting', '1912-03-10', 3),
(3, 'Breath Control', '1912-06-15', 5),
(4, 'Swordsmanship', '1913-01-01', 4),
(5, 'Demon Decapitation Drill', '1913-02-20', 2),
(6, 'Mist Training', '1912-09-25', 10),
(7, 'Flame Training', '1912-11-10', 7),
(8, 'Agility Drill', '1912-08-15', 6),
(9, 'Endurance Test', '1912-04-20', 8),
(10, 'Strength Building', '1913-03-01', 9);

Task 3 [15 Marks]

Run appropriate queries to retrieve the requested data below [Use a single query for each question]:

a. Retrieve the names of the tasks from the **Training** table for 2 years starting from **1912-01-01**, along with the **Slayer ID**. [1]
b. Retrieve the names of the **Forms** from the **PopularForms** table that contain *"at least three a's"*. [2]
c. Retrieve the names of all **Families** and their **total Hashiras** with **Ability Points** *less* than 80. Show them in *ascending* order of **Ability Points**. [1]
d. Retrieve the **Forms** from the **PopularForms** table with a **difficulty level** that matches the **difficulty level** of the **Light** type **Forms**. [2]
e. Retrieve the names of all **Demon Slayers** who passed the **Hashira Training** but belong to a family that has *less* than 2 **Hashiras**. [2]
f. Let's assume that due to overwork, the **Ability Points** of **Family Members** have decreased by 10%. Now update it accordingly where **Ability Points** are above the average **Ability Points** of all families. [1]
g. Retrieve the top 3 **Forms** with the lowest **difficulty levels**, excluding the **Form** with the *lowest* **difficulty level**. [2]
h. Retrieve the name of the **Slayer** who completed **"Swordsmanship"** but is not a **Hashira**. [1]
i. Retrieve the names of all **Forms** along with their **Type** and corresponding **Slayers** (using a **Right JOIN**). [2]
j. Show the total **Ability Points** of the **Families** where the members have passed **'Breath Control'** in the **Hashira Training**. [1]