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This document will briefly explain the database setup and schema for the 'typing trainer' site. Sometimes it is easier to visualise the db with commands.

I have also included steps on how to connect to the mySQL db that has been set up on Amazon Web Services. For the purpose of testing this project a simple free tier database will be sufficient.

```
CREATE DATABASE user;
```

```
CREATE TABLE user (id int NOT NULL PRIMARY KEY,  
    uname varchar(10) NOT NULL,  
    pword varchar(255) NOT NULL,  
    email varchar(255) NOT NULL,  
    dob DATE  
);
```

```
CREATE TABLE stats (id int NOT NULL,  
    solo_games int,  
    online_games int,  
    words int,  
    chars int,  
    wpm int,  
    accuracy int,  
    acc_best int,  
    acc_worst,  
    wpm_best int,  
    wpm_worst int,  
    FOREIGN KEY (id) REFERENCES user(id)  
);
```

```
CREATE TABLE friends (id int NOT NULL,  
    friend_id int,  
    FOREIGN KEY (id) REFERENCES user(id)  
);
```

```
// Dummy values for testing purposes  
INSERT INTO user (id, uname, pword, email, dob)  
    values (123, 'john', 'john123', 'john@example.com', '1990-01-01');
```

```
INSERT INTO user (id, uname, pword, email, dob)  
    values (456, 'jane', 'jane456', 'jane@example.com', '1990-02-02');
```

```
INSERT INTO stats (id, solo_games, online_games, words, chars, wpm, accuracy, acc_best,  
acc_worst, wpm_best, wpm_worst)  
    values (123, 1, 0, 40, 320, 32, 84, 84, 32, 32, 32);
```

```
INSERT INTO stats (id, solo_games, online_games, words, chars, wpm, accuracy, acc_best,  
acc_worst, wpm_best, wpm_worst)  
    values (456, 2, 1, 156, 1445, 27, 80, 85, 50, 37, 22);
```

```
INSERT INTO friends (id, friend_id) VALUES (123, 456);
```

INSERT INTO friends (id, friend_id) VALUES (456, 123);

Below is a visualisation of the tables and their data types. This will be helpful further down the line when functionality like stat calculations will be implemented.

```
mysql> describe user;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int           | NO   | PRI | NULL    |       |
| uname | varchar(10)   | NO   |     | NULL    |       |
| pword | varchar(255)  | NO   |     | NULL    |       |
| email | varchar(255)  | NO   |     | NULL    |       |
| dob   | date          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)

mysql> describe stats;
+-----+-----+-----+-----+-----+-----+
| Field          | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id             | int  | NO   | MUL | NULL    |       |
| solo_games     | int  | YES  |     | NULL    |       |
| online_games   | int  | YES  |     | NULL    |       |
| words          | int  | YES  |     | NULL    |       |
| chars          | int  | YES  |     | NULL    |       |
| wpm            | int  | YES  |     | NULL    |       |
| accuracy       | int  | YES  |     | NULL    |       |
| acc_best       | int  | YES  |     | NULL    |       |
| acc_worst      | int  | YES  |     | NULL    |       |
| wpm_best       | int  | YES  |     | NULL    |       |
| wpm_worst      | int  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.01 sec)

mysql> describe friends;
+-----+-----+-----+-----+-----+-----+
| Field      | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | int  | NO   | MUL | NULL    |       |
| friend_id  | int  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

Connect to the AWS mySQL database (linux):

1. **Type in the following terminal command:**

```
mysql -h typing-trainer.cfg1087dpmin.eu-west-1.rds.amazonaws.com -P 3306 -u admin -p
```

2. **You will be prompted to enter the password, enter:**

```
zJh9g6UYobZ66JNSd
```