

Rachel Shaw

Modules 5 & 6 Assignment 1

6/22/2025

Creating database and table in MySQL command line:

```
mysql> CREATE TABLE rachel_library_data(  
  -> ID int PRIMARY KEY,  
  -> Title VARCHAR(25) NOT NULL,  
  -> AuthorFirst VARCHAR(25) NOT NULL,  
  -> AuthorLast VARCHAR(25) NOT NULL,  
  -> Genre VARCHAR(25) NOT NULL,  
  -> Format VARCHAR(25) NOT NULL  
  -> );  
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> INSERT INTO rachel_library_data(ID,Title,AuthorFirst,AuthorLast,Genre,Format)  
  -> VALUES  
  -> (1, 'Hyperion', 'Dan', 'Simmons', 'Sci-Fi', 'Audiobook'),  
  -> (2, 'The King In Yelllow', 'Robert', 'Chambers', 'Horror', 'E-Book'),  
  -> (3, 'The Apothecary Diaries', 'Natsu', 'Hyuga', 'Drama', 'E-Book'),  
  -> (4, 'Dune', 'Frank', 'Herbert', 'Sci-Fi', 'E-book'),  
  -> (5, 'Little Women', 'Louisa', 'Alcott', 'Drama', 'Hardcover'),  
  -> (6, 'Wuthering Heights', 'Emily', 'Bronte', 'Tragedy', 'Hardcover'),  
  -> (7, 'Ready Player One', 'Ernest', 'Cline', 'Adventure', 'Paperback'),  
  -> (8, 'Look Back', 'Tatsuki', 'Fujimoto', 'Drama', 'Paperback'),  
  -> (9, 'Circe', 'Madeline', 'Miller', 'Fantasy', 'Paperback'),  
  -> (10, 'Fahrenheit 451', 'Ray', 'Bradbury', 'Fiction', 'Paperback');  
Query OK, 10 rows affected (0.01 sec)  
Records: 10  Duplicates: 0  Warnings: 0
```

```
mysql> SELECT * FROM rachel_library_data;  
+----+-----+-----+-----+-----+-----+  
| ID | Title           | AuthorFirst | AuthorLast | Genre   | Format   |  
+----+-----+-----+-----+-----+-----+  
| 1  | Hyperion        | Dan        | Simmons    | Sci-Fi  | Audiobook |  
| 2  | The King In Yelllow | Robert     | Chambers   | Horror   | E-Book    |  
| 3  | The Apothecary Diaries | Natsu      | Hyuga      | Drama    | E-Book    |  
| 4  | Dune            | Frank      | Herbert     | Sci-Fi   | E-book    |  
| 5  | Little Women    | Louisa     | Alcott     | Drama    | Hardcover  |  
| 6  | Wuthering Heights | Emily      | Bronte     | Tragedy  | Hardcover  |  
| 7  | Ready Player One | Ernest     | Cline      | Adventure | Paperback   |  
| 8  | Look Back       | Tatsuki    | Fujimoto   | Drama    | Paperback   |  
| 9  | Circe           | Madeline   | Miller     | Fantasy  | Paperback   |  
| 10 | Fahrenheit 451   | Ray        | Bradbury   | Fiction  | Paperback   |  
+----+-----+-----+-----+-----+-----+  
10 rows in set (0.00 sec)
```

Connecting to database with JDBC:

```
//Allow connection to database
public Configure() {

    try {
        Class.forName("com.mysql.cj.jdbc.Driver");
        conn = DriverManager.getConnection(url, user, pass);
        stmt = conn.createStatement();

    }
    catch (Exception e) {
        System.out.println(e);
    }

}
```

Dropping and creating table with JDBC:

```
public String CreateTable() {

    StringBuilder message = new StringBuilder();
    //thought it would be cool to add the time each database activity was completed to the page
    LocalDateTime time = LocalDateTime.now();

    try {
        //drop table if it exists
        stmt.executeUpdate("DROP TABLE rachel_library_data");
        time = LocalDateTime.now();
        //display update on JSP page
        message.append(time.toString() + ": connected to database <br>");
        time = LocalDateTime.now();
        message.append(time.toString() + ": table dropped <br>");
    }
    catch(SQLException e) {
        time = LocalDateTime.now();
        message.append(time.toString() + ": table 'rachel_library_data' does not exist yet <br>");
        System.out.println(e);
    }
    try {
        //Create the table
        stmt.executeUpdate("CREATE TABLE rachel_library_data(ID int PRIMARY KEY, Title VARCHAR(25) NOT NULL, AuthorFirst VARCHAR(25) NOT NULL)");
        time = LocalDateTime.now();
        message.append(time.toString() + ": table rachel_library_data created <br>");
    }
    catch(java.sql.SQLException e) {
        time = LocalDateTime.now();
        message.append(time.toString() + "table creation failed <br>");
        System.out.println(e);
    }

    return message.toString();
}
```