

URL to GitHub Repository: <https://github.com/aliustunyer/CRUD-Create-Read-Update-and-Delete-operations-on-MySQL.git>

URL to Youtube Video : <https://youtu.be/1yoITrq9rMY>

Projects-schema.sql file :

```
DROP TABLE IF EXISTS material;
DROP TABLE IF EXISTS step;
DROP TABLE IF EXISTS project_category;
DROP TABLE IF EXISTS category;
DROP TABLE IF EXISTS project;
```

```
CREATE TABLE project (
  project_id INT AUTO_INCREMENT NOT NULL,
  project_name VARCHAR(128) NOT NULL,
  estimated_hours DECIMAL (7,2),
  actual_hours DECIMAL (7,2),
  difficulty INT,
  notes TEXT,
  PRIMARY KEY (project_id)
);
```

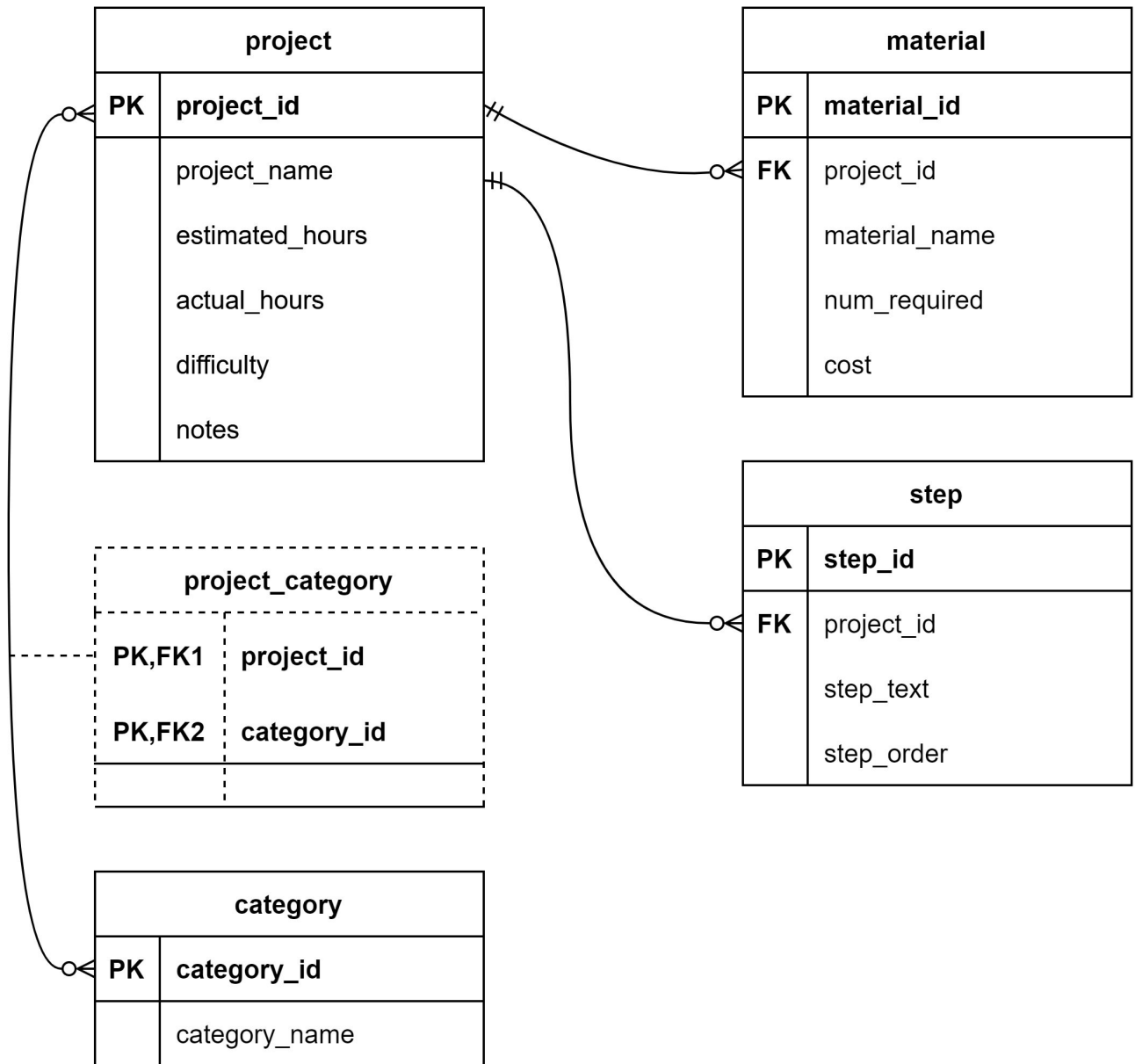
```
CREATE TABLE category (
  category_id INT AUTO_INCREMENT NOT NULL,
  category_name VARCHAR(128) NOT NULL,
  PRIMARY KEY (category_id)
);
```

```
CREATE TABLE project_category (
  project_id INT NOT NULL,
  category_id INT NOT NULL,
  FOREIGN KEY (project_id) REFERENCES project (project_id) ON DELETE CASCADE,
  FOREIGN KEY (category_id) REFERENCES category (category_id) ON DELETE CASCADE,
  UNIQUE KEY (project_id, category_id)
);
```

```
CREATE TABLE step (
  step_id INT AUTO_INCREMENT NOT NULL,
  project_id INT NOT NULL,
  step_text TEXT NOT NULL,
  step_order INT NOT NULL,
  PRIMARY KEY (step_id),
  FOREIGN KEY (project_id) REFERENCES project (project_id) ON DELETE CASCADE
);
```

```
CREATE TABLE material (
  material_id INT AUTO_INCREMENT NOT NULL,
  project_id INT NOT NULL,
  material_name VARCHAR(128) NOT NULL,
  num_required INT,
  cost DECIMAL(7, 2),
  PRIMARY KEY (material_id),
  FOREIGN KEY (project_id) REFERENCES project (project_id) ON DELETE CASCADE
);
```

ERD;



Main Class (ProjectApp)

```
package projects;

import projects.dao.DbConnection;

public class ProjectsApp {

    public static void main(String[] args) {

        DbConnection.getConnection();

    }

}
```

Class (Db Connection)

```
package projects.dao;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

import projects.exception.DbException;

public class DbConnection {

    private static final String HOST = "localhost";
    private static final String PASSWORD = "projects";
    private static final int PORT = 3306;
    private static final String SCHEMA = "projects";
    private static final String USER = "projects";

    public static Connection getConnection() {

        String url = String.format("jdbc:mysql://%s:%d/%s?user=%s&password=%s&useSSL=false", HOST, PORT, SCHEMA, USER,
                                   PASSWORD);

        System.out.println("Connecting with url =" + url);

        try {

            Connection conn =DriverManager.getConnection(url);
```

```

        System.out.println("Successfully obtained connection!");
        return conn;
    } catch (SQLException e) {

        throw new DbException(e);
    }
}

```

Class (Db Connection)

```
package projects.exception;
```

```
@SuppressWarnings("serial")
```

```
public class DbException extends RuntimeException {
```

```
    public DbException() {
```

```
    }
```

```
    public DbException(String message) {
        super(message);
```

```
    }
```

```
    public DbException(Throwable cause) {
        super(cause);
```

```
    }
```

```
    public DbException(String message, Throwable cause) {
        super(message, cause);
```

```
    }
```

```
}
```

pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-
4.0.0.xsd">
```

```
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.promineotech</groupId>
  <artifactId>mysql-java</artifactId>
  <version>0.0.1-SNAPSHOT</version>
```

```
  <properties>
    <java.version>17</java.version>
  </properties>
```

```
  <dependencies>
    <dependency>
      <groupId>com.mysql</groupId>
      <artifactId>mysql-connector-j</artifactId>
      <version>8.0.32</version>
    </dependency>
  </dependencies>
```

```
  <build>
    <pluginManagement>
      <plugins>
        <plugin>
          <groupId>org.apache.maven.plugins</groupId>
          <artifactId>maven-compiler-plugin</artifactId>
          <version>3.10.1</version>
          <configuration>
            <source>${java.version}</source>
            <target>${java.version}</target>
          </configuration>
        </plugin>
      </plugins>
    </pluginManagement>
  </build>
```

```
</project>
```