Automation Testing

Working with Database

Learning Objectives

By the end of this lesson, you will be able to:

- Create a database

- Select a database

- Drop a database

Create a Database

Create a Database

The steps to create a database are:

- Import JDBC packages
- Register the JDBC driver
- Open a connection
- Execute the query
- Close the database resources

Create a Database

Import JDBC packages

The JDBC classes required for database programming should be included in the packages.

Sample Code

```
import java.sql.*;
// JDBC driver name
static final String  JDBC_DriverName =
"com.mysql.jdbc.Driver";
// URL String
static final String database_URL =
"jdbc:mysql://localhost";
// Database credentials
static final String  userName =     "NameOfTheUser";
static final String password =      "password";
```

Create a Database

Register JDBC driver

Users can either use a Java system property or have the Java program to register the driver.

Sample Code

```
Class.forName("com.mysql.jdbc.Driver");
```

Create a Database

Open a connection

Create a connection object, which represents a physical connection with the database server, using the DriverManager.getConnection() method.

Sample Code

```
Connection connect =
DriverManager.getConnection(database_URL,
userName, password);
```

Create a Database

Execute the query

For creating and submitting an SQL statement to the database, users must use a Statement object.

Sample Code

```
Statement stmt = connect.createStatement();
String sqlString = "CREATE DATABASE SAMPLE";
stmt.executeUpdate(sqlString);
```

Create a Database

Close database resources

The resources are automatically closed to clean up the environment.
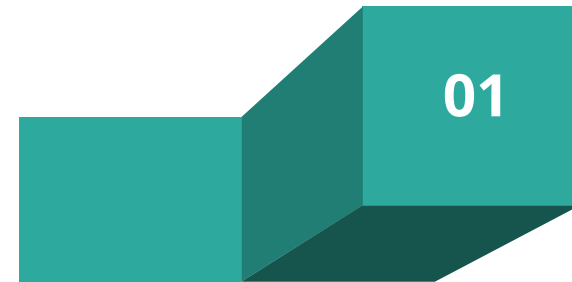
Sample Code

```
stmt.close(); connect.close();
```

Select a Database

Select a Database

The steps to select a database are:

Import JDBC packages   **01**
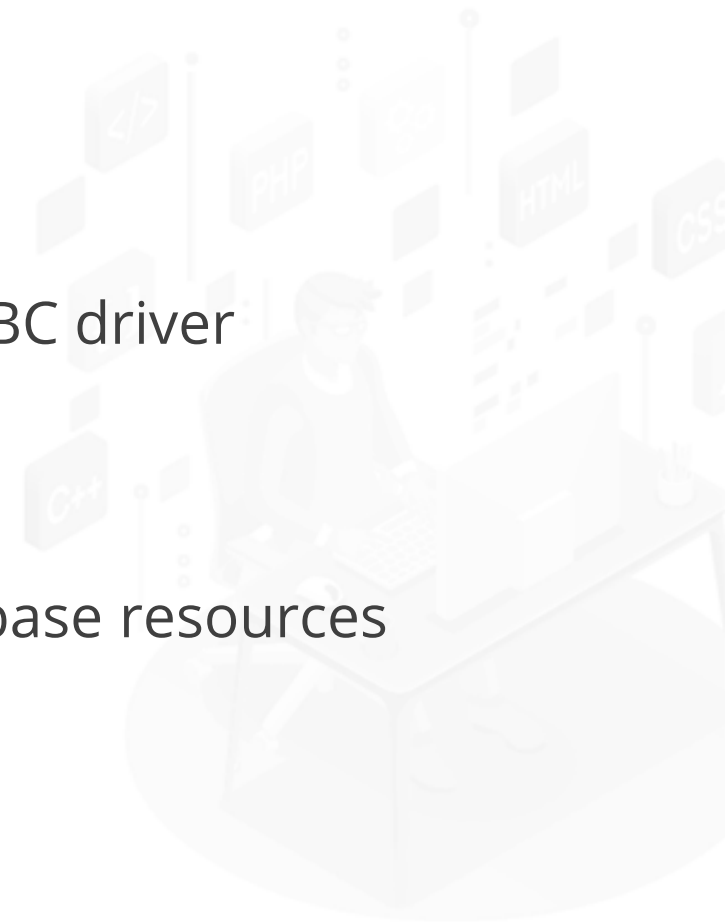
02   Register JDBC driver

Open a connection   **03**

04   Close database resources

simplilearn

Select a Database

The name of the database to be selected must be mentioned in the database URL.
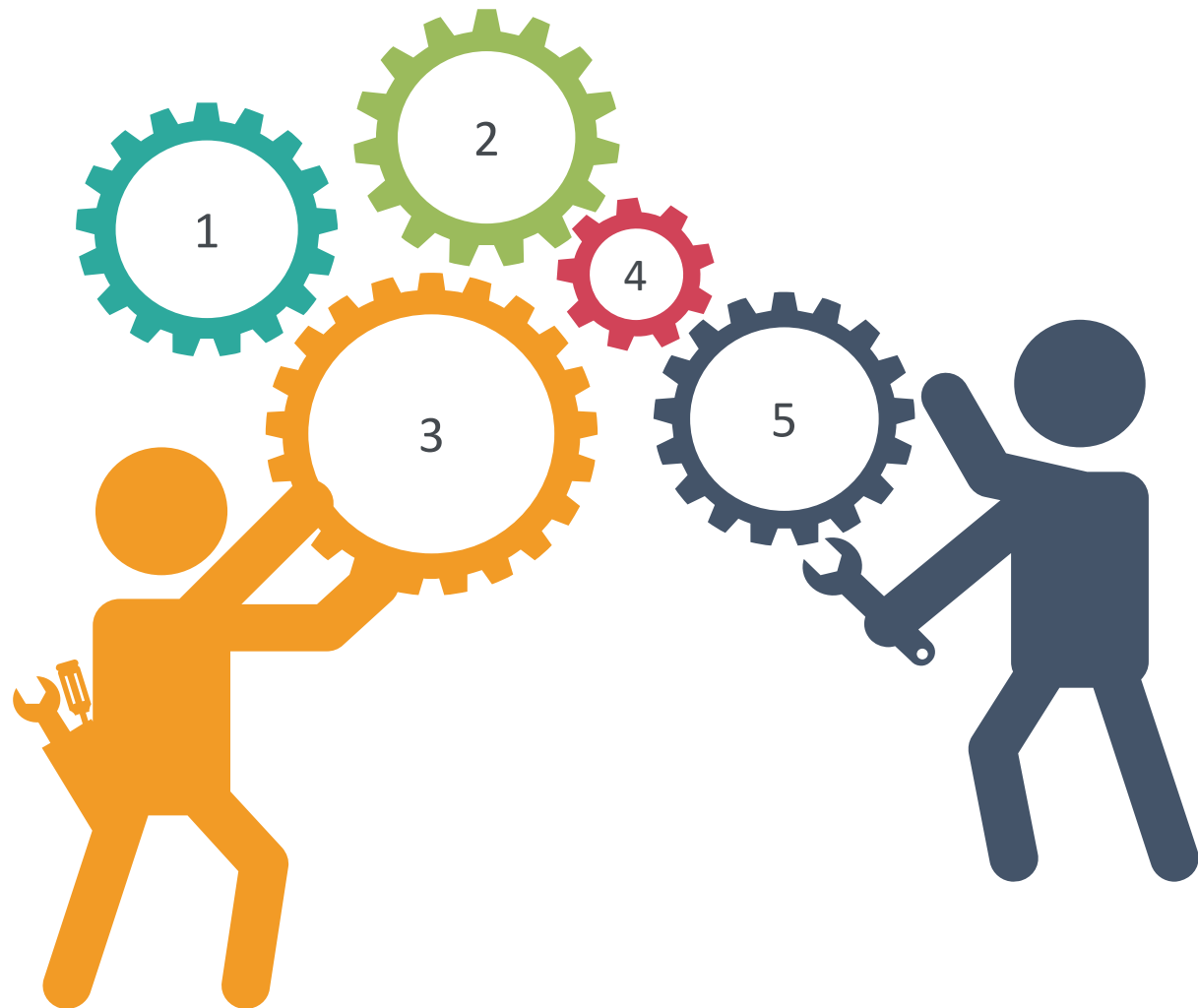
Sample Code

```
// URL String
static final String database_URL
="jdbc:mysql://localhost/databaseName";
```

Drop a Database

Drop a Database

The steps to drop a database are:

1
2
3
4
5

Import JDBC packages

Register the JDBC driver

Open a connection

Execute the query

Close the database resources

simplilearn

Drop a Database

The name of the database to be dropped must be mentioned in the database URL.

Sample Code

```
// Database to be dropped mentioned in the URL String
   static final String database_URL
      ="jdbc:mysql://localhost/databaseName";

// Drop the database
   Statement stmt = connect.createStatement();
   String sqlString = "DROP DATABASE SAMPLE";
   stmt.executeUpdate(sqlString);
```

Key Takeaways

- The name of a database to be selected and dropped must be mentioned in the database URL.

- The steps to create a database are : Import JDBC packages, Register a JDBC driver, Open a connection, Execute the query, and Close the database resources.

- For creating and submitting a SQL statement to the database, users must use a Statement object.

- Users can either use a Java system property or have the Java program to register the driver.