**Phase 2 :** Become a back-end expert

**9 days**

**JDBC**

**Hibernate : These two modules is use to connect the databases.**

**We are going to use MySQL Database.**

**Servlet**

**JSP : These two modules is use to create the web application using Java technologies.**

**In Virtual Lab to connect the database**

**mysql –u root –p**

**password : Simplilearn**

**MySQL is open source and type of RDBMS (Relational Database Management System).**

**Syntax to create the database**

**create database databaseName**

**create database myjavadb; This command is use to create the database**

**show databases; This command is use to view all databases present in your account**

**use myjavadb; using this command we can switch from one database to another database.**

**Syntax to create the table**

**create table tableName(columnName datatype, columnName datatype)**

**Employee**

**Id Name Salary**

**int varchar(10) float**

**Primary key**

**create table employee(id int primary key,name varchar(10),salary float);**

**show tables : this command is use to show all table present in that database**

**desc employee : This command is use to show table structure**

**Syntax to insert the records in table**

**insert into tableName values(v1,v2,v3);**

**insert into employee values(1,’Ravi’,15000);**

**View the records from a table**

**Select \* from tableName**

**select \* from employee**

**select columnName,columnName from tableName**

**Filter the records with conditions (where clause)**

1. **select \* from employee where salary >= 15000;**
2. **select \* from employee where id =1;**
3. **select \* from employee where name = 'Ravi';**
4. **select \* from employee where name like 'Ravi';**
5. **select \* from employee where salary between 15000 and 18000;**
6. **select \* from employee where id in (1,5)**

**update the records with conditions**

**syntax**

**update tableName set columnName = value where columnName = value**

1. **update employee set salary = 25000**
2. **update employee set salary = 22000 where id =1;**
3. **update employee set salary = 1800 where name = ‘Ramesh’;**
4. **update employee set name = ‘Ravi Kumar ‘ where name =’Ravi’;**

**delete records**

**syntax**

**delete from tableName**

1. **delete from employee;**
2. **delete from employee where id=1;**
3. **delete from employee where name =’Ravi’;**
4. **delete from employee where salary > 12000;**

**Database It is use to store the data in table format.**

**Java mysql**

**JDBC**

**JDBC : Java Database Connectivity :**

**JDBC is an API (Application Programming Interface) which provide lot of pre-defined classes and interface which help to connect the any RDMBS database(mysql, oracle, postgres sql, db2 or sql server) to store, retrieve, update and delete the records using Java technologies.**

**Steps to connect the database through Java technologies.**

1. **Import the package sql.**
2. **Jdbc always throw checked exception so we have to write the method it may be main method or user defined with exception handling concept ie try-catch or throws exception concept.**