Velagapudi Ramakrishna Siddhartha Engineering College

Kanuru, 520001

WEB PROGRAMMING AND DEVELOPMENT

HOME ASSIGNMENT - 1

Code : 20IT6303

Batch Members :

208W1A12A99

208W1A12A0

208W1A12A1

Submitted To :

Dr . M . Ashok Kumar

Department Of IT

Question – 12

Use The Given attributes related to the company table and implement operations using Statement and Prepared Statement Interfaces and Perform CRUD Operations.

Program – 1 :

CRUD Operations using Statement

```java
package javadbc;
import java.io.*;
import java.sql.*;
public class Home_Assignment1
{
    public static void main(String[] args)
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost/student","root","");
            Statement st = con.createStatement();

            //Create table
            String sqltable = "create table Company_Details(companyid int, companyname varchar(50),
companynumber bigint, addressline varchar(500), city varchar(50), state varchar(50), postalcode
int, country varchar(50))";
            //st.executeUpdate(sqltable);

            // Insert Records
            String sqlinsert = "insert into Company_Details values(2, 'EPAM', 456, 'Hyderbad India',
'Telangana', 'India', 4987, 'India')";
            //st.executeUpdate(sqlinsert);

             // Update Query
            String sqlupdate = "update Company_Details set companyname='MicroSoft' where
companyid = 1";
            //st.executeUpdate(sqlupdate);

            // Delete Query
            String sqldelete = "delete from Company_Details where companyid=1";
            st.executeUpdate(sqldelete);

            // Select Query
            ResultSet rs = st.executeQuery("select * from Company_Details");
```

```
        while(rs.next())
        {
            System.out.println(rs.getInt(1) + " | " + rs.getString(2) + " | " + rs.getInt(3) + " | " +
rs.getString(4) + " | " + rs.getString(5) + " | " + rs.getString(6) + " | " + rs.getInt(7) + " | " +
rs.getString(8));


        }

        con.close();

    }
    catch(Exception e)
    {
        System.out.print("An UnKnown Error occured : \n\n" + e);
    }
  }
}
```
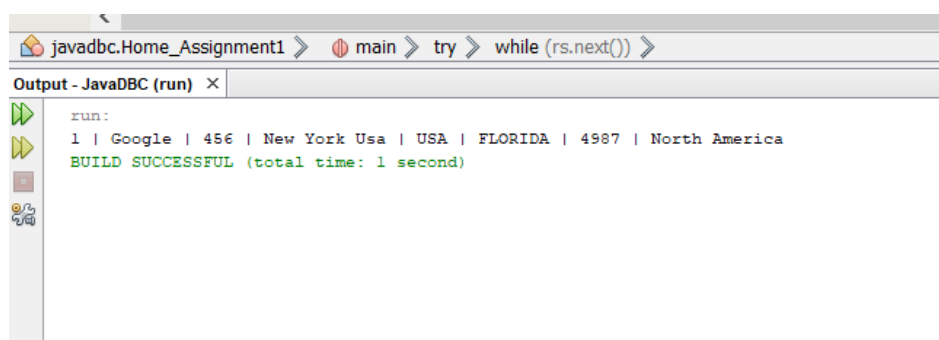
Outputs :

Create :

```
mysql> use student;
Database changed
mysql> desc company_details;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| companyid    | int(11)       | YES  |     | NULL    |       |
| companyname  | varchar(50)   | YES  |     | NULL    |       |
| companynumber| bigint(20)    | YES  |     | NULL    |       |
| addressline  | varchar(500)  | YES  |     | NULL    |       |
| city         | varchar(50)   | YES  |     | NULL    |       |
| state        | varchar(50)   | YES  |     | NULL    |       |
| postalcode   | int(11)       | YES  |     | NULL    |       |
| country      | varchar(50)   | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
8 rows in set (0.11 sec)

mysql>
```

Insert :

```
javadbc.Home_Assignment1 >  main >  try >  while (rs.next()) >
Output - JavaDBC (run) X
run:
1 | Google | 456 | New York Usa | USA | FLORIDA | 4987 | North America
BUILD SUCCESSFUL (total time: 1 second)
```
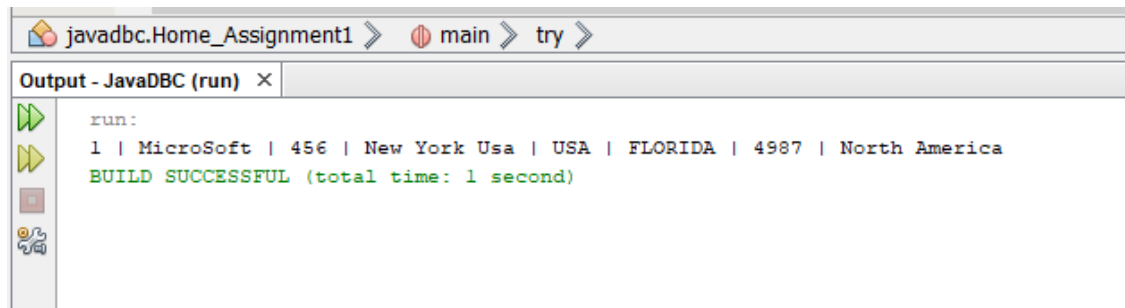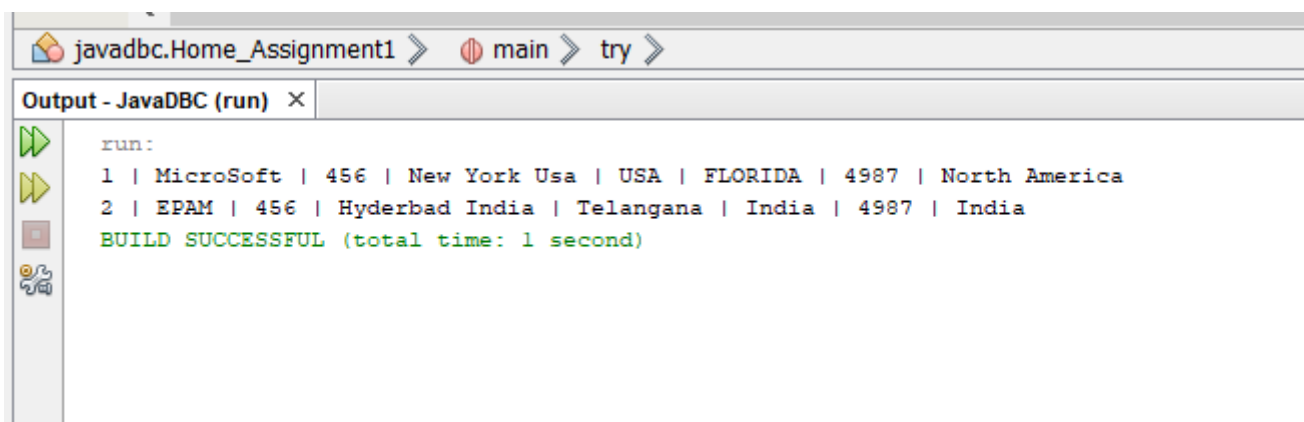
Update :

```
javadbc.Home_Assignment1  >   main  >  try  >

Output - JavaDBC (run)  X

  run:
  1 | MicroSoft | 456 | New York Usa | USA | FLORIDA | 4987 | North America
  BUILD SUCCESSFUL (total time: 1 second)
```
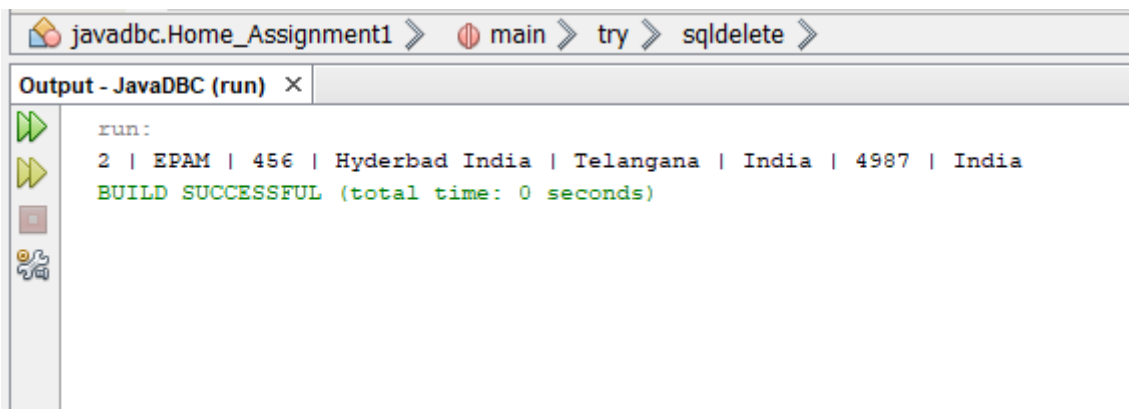
Delete :

```
javadbc.Home_Assignment1  >   main  >  try  >

Output - JavaDBC (run)  X

  run:
  1 | MicroSoft | 456 | New York Usa | USA | FLORIDA | 4987 | North America
  2 | EPAM | 456 | Hyderbad India | Telangana | India | 4987 | India
  BUILD SUCCESSFUL (total time: 1 second)
```

```
javadbc.Home_Assignment1  >   main  >  try  >  sqldelete  >

Output - JavaDBC (run)  X

  run:
  2 | EPAM | 456 | Hyderbad India | Telangana | India | 4987 | India
  BUILD SUCCESSFUL (total time: 0 seconds)
```

Program – 2

CRUD Operation Using Prepared Statement

```java
package javadbc;
import java.io.*;
import java.sql.*;
public class Company_Home
{
    public static void main(String[] args)
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost/college","root","");

            // Crete table
            String sqltable = "create table Company_Details(companyid int, companyname varchar(50),
companynumber bigint, addressline varchar(500), city varchar(50), state varchar(50), postalcode
int, country varchar(50))";
//          PreparedStatement psc = con.prepareStatement(sqltable);
//          int t = psc.executeUpdate();
//          System.out.println("Sucess Query : " + t);

            // Insert Query
            String sqlinsert = "insert into Company_Details values(2, 'Amazon', 456, 'Hyderbad India',
'Telangana', 'India', 4987, 'India')";
//          PreparedStatement ps = con.prepareStatement(sqlinsert);
//          int t = ps.executeUpdate();
//          System.out.println("Sucess Query : " + t);

            // Update Query
            String sqlupdate = "update Company_Details set companyname='MicroSoft' where
companyid = 2";
//          PreparedStatement ps = con.prepareStatement(sqlupdate);
//          int t = ps.executeUpdate();
//          System.out.println("Sucess Query : " + t);

            // Delete Query
            String sqldelete = "delete from Company_Details where companyid=2";
            PreparedStatement ps = con.prepareStatement(sqldelete);
            int t = ps.executeUpdate();
            System.out.println("Sucess Query : " + t);

            String sqlres = "select * from company_details";
            PreparedStatement ps1 = con.prepareStatement(sqlres);
            ResultSet rs = ps1.executeQuery();
            while(rs.next())
```

```
        {
            System.out.println(rs.getInt(1) + " | " + rs.getString(2) + " | " + rs.getInt(3) + " | " +
rs.getString(4) + " | " + rs.getString(5) + " | " + rs.getString(6) + " | " + rs.getInt(7) + " | " +
rs.getString(8));


        }
    }
    catch(Exception e)
    {
        System.out.print("An UnKnown Error occured : \n\n" + e);
    }
  }
}
```
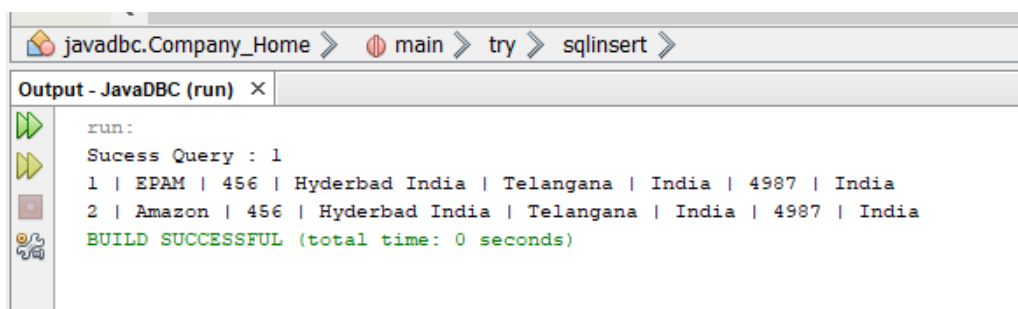
Outputs :

Create :

```
mysql> desc company_details;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| companyid    | int(11)      | YES  |     | NULL    |       |
| companyname  | varchar(50)  | YES  |     | NULL    |       |
| companynumber| bigint(20)   | YES  |     | NULL    |       |
| addressline  | varchar(500) | YES  |     | NULL    |       |
| city         | varchar(50)  | YES  |     | NULL    |       |
| state        | varchar(50)  | YES  |     | NULL    |       |
| postalcode   | int(11)      | YES  |     | NULL    |       |
| country      | varchar(50)  | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
8 rows in set (0.01 sec)

mysql>
```
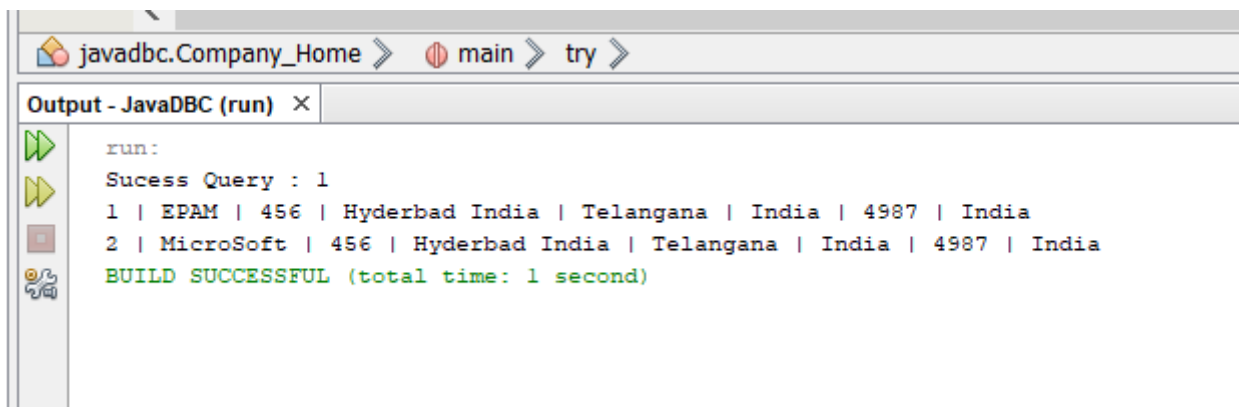
Insert :
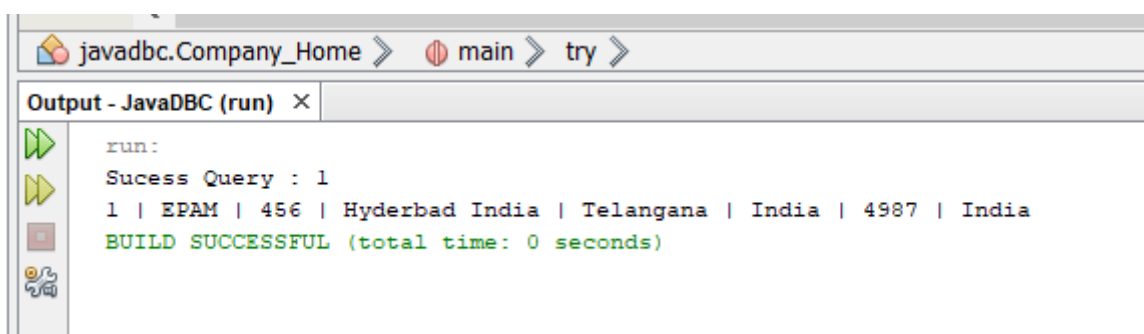
```
javadbc.Company_Home  >  main >  try >  sqlinsert >
Output - JavaDBC (run)  ×
    run:
    Sucess Query : 1
    1 | EPAM | 456 | Hyderbad India | Telangana | India | 4987 | India
    2 | Amazon | 456 | Hyderbad India | Telangana | India | 4987 | India
    BUILD SUCCESSFUL (total time: 0 seconds)
```

Update :

```
javadbc.Company_Home  >  main  >  try  >

Output - JavaDBC (run)  X

run:
Sucess Query : 1
1 | EPAM | 456 | Hyderbad India | Telangana | India | 4987 | India
2 | MicroSoft | 456 | Hyderbad India | Telangana | India | 4987 | India
BUILD SUCCESSFUL (total time: 1 second)
```
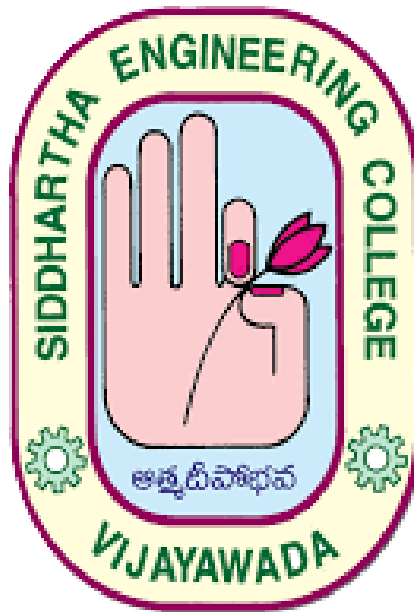
Delete :

```
javadbc.Company_Home  >  main  >  try  >

Output - JavaDBC (run)  X

run:
Sucess Query : 1
1 | EPAM | 456 | Hyderbad India | Telangana | India | 4987 | India
BUILD SUCCESSFUL (total time: 0 seconds)
```

Velagapudi Ramakrishna Siddhartha

Engineering College

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WEB PROGRAMMING AND DEVELOPMENT

HOME ASSIGNMENT - 3

Code : **20IT6303**

Batch Members :

208W1A12A99

208W1A12A0

208W1A12A1

Submitted To :

Dr . M . Ashok Kumar

Department Of IT

Question – 12

Create a Class Customer with four fields cno, cname,cmail and caddress.

Create a constructor, setters and getters.

Create a CustomerService class to insert the Customer details into the in-memory database and retrieve Customer information.

Test the application as a Spring Boot Application.

Program – 1 :

CDetails.java

```java
package com.example.CustomerDetails;

public class CDetails

{

private String cno, cname, cmail, caddress;

public String getCno()

{

return cno;

}

public void setCno(String cno)

{

this.cno = cno;

}

public String getCname()

{

return cname;

}

public void setCname(String cname)

{
```

```java
this.cname = cname;

}

public String getCmail()

{

return cmail;

}

public void setCmail(String cmail)

{

this.cmail = cmail;

}

public String getCaddress()

{

return caddress;

}

public void setCaddress(String caddress)

{

this.caddress = caddress;

}

public CDetails(String cno, String cname, String cmail, String caddress)

{

super();

this.cno = cno;

this.cname = cname;

this.cmail = cmail;

this.caddress = caddress;

}

}
```

Program – 2:

CService.java

```java
package com.example.CustomerDetails;

import java.util.ArrayList;

import java.util.List;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.jdbc.core.JdbcTemplate;

import org.springframework.stereotype.Service;

import javax.annotation.PostConstruct;

@Service

public class CService

{

private static final Logger log = LoggerFactory.getLogger(CService.class);

@Autowired

JdbcTemplate jdbcTemplate;

@PostConstruct

public void postConstruct()

{

CDetails cd1 = new CDetails("1", "Prabhas", "actorprabhas@gmail.com", "Indian Film
Industry, India");

CDetails cd2 = new CDetails("2", "Ram Charan", "actorramcharan@gmail.com", "Indian Film
Industry, India");

List<CDetails> customers = new ArrayList<>();

customers.add(cd1);

customers.add(cd2);

log.info("<------------------------ Creating tables --------------------------------
---->");

jdbcTemplate.execute("DROP TABLE Customer IF EXISTS");

jdbcTemplate.execute("CREATE TABLE Customer(" + " cno varchar(255), cname varchar(255),
```

```java
cmail varchar(255), caddress varchar(255))");

customers.forEach(i->jdbcTemplate.update("INSERT INTO Customer VALUES (?, ?, ?, ?)",
i.getCno(), i.getCname(), i.getCmail(), i.getCaddress()));

Log.info("<------------------------ Records Saved ------------------------------
>");

//retrieve saved records.

Log.info("<------------------------ Retrieving records --------------------------------
----->");

customers = jdbcTemplate.query("select * from Customer", (rs, rowNum)-> new
CDetails(rs.getString("cno"), rs.getString("cname"), rs.getString("cmail"),
rs.getString("caddress")));

customers.forEach(i -> Log.info(i.getCno() + " | " + i.getCname() + " | " + i.getCmail()
+ " | " + i.getCaddress()));

}

}
```
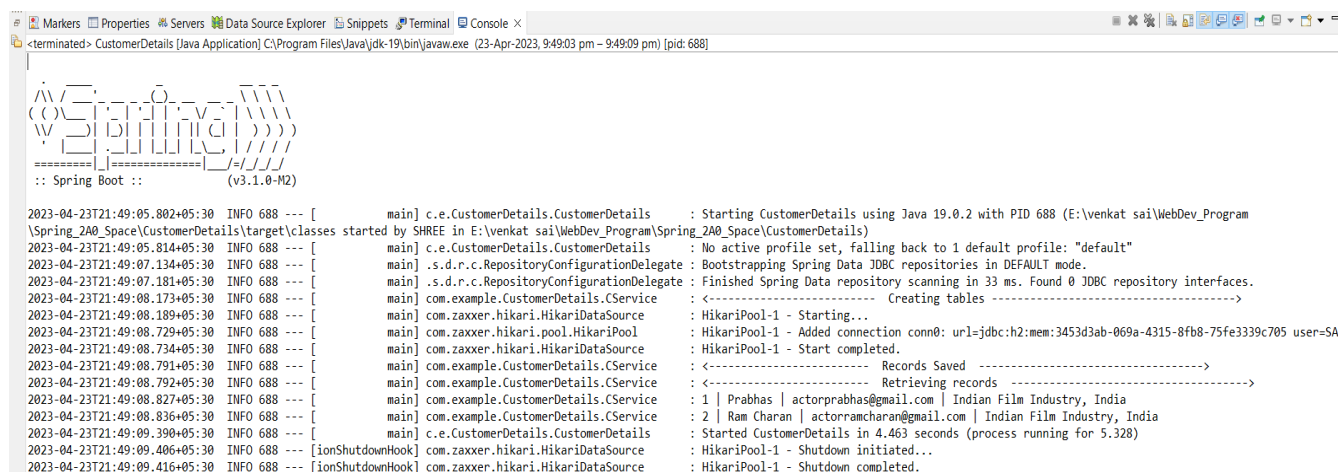
Output :

Velagapudi Ramakrishna Siddhartha Engineering College

Kanuru, 520001
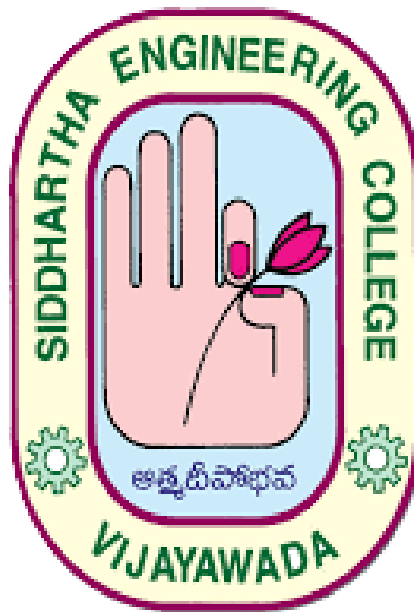
WEB PROGRAMMING AND DEVELOPMENT

HOME ASSIGNMENT - 4

Code : 20IT6303

Batch Members :

208W1A12A99

208W1A12A0

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Submitted To :

Dr . M . Ashok Kumar

Department Of IT

Question – 12

Create a Class Customer with four fields cno, cname,cmail and caddress. Use parameterised constructor to set the values and write the getters to retrieve the data. Override the toString( ) method too. Create another CustomerController to return list of all objects as an array(the end point is /customers). Test the classes using Spring Boot.

Program – 1:

CDetails.java

```java
package com.example.HomeAssignment4;

public class CDetails
{
private String cno, cname, cmail, caddress;

public String getCno()
{
return cno;
}

public void setCno(String cno)
{
this.cno = cno;
}

public String getCname()
{
return cname;
}

public void setCname(String cname)
{
this.cname = cname;
```

```java
}

public String getCmail()

{

return cmail;

}

public void setCmail(String cmail)

{

this.cmail = cmail;

}

public String getCaddress()

{

return caddress;

}

public void setCaddress(String caddress)

{

this.caddress = caddress;

}

public CDetails(String cno, String cname, String cmail, String caddress)

{

super();

this.cno = cno;

this.cname = cname;

this.cmail = cmail;

this.caddress = caddress;

}

}
```

Program – 2:

HomeApplication4.java

package com.example.HomeAssignment4;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class HomeAssignment4Application {

    public static void main(String[] args) {
        SpringApplication.run(HomeAssignment4Application.class, args);
    }

}

Program – 3:

CContoller.java

```java
package com.example.HomeAssignment4;

import java.util.Arrays;

import java.util.List;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RestController;

@RestController

public class CController

{

@RequestMapping("/customers")

public List<CDetails> retrieveAllCourses()

{

return Arrays.asList(

new CDetails("1", "Rizwan", "rizwan@gmail.com", "AP India Asia"),
```
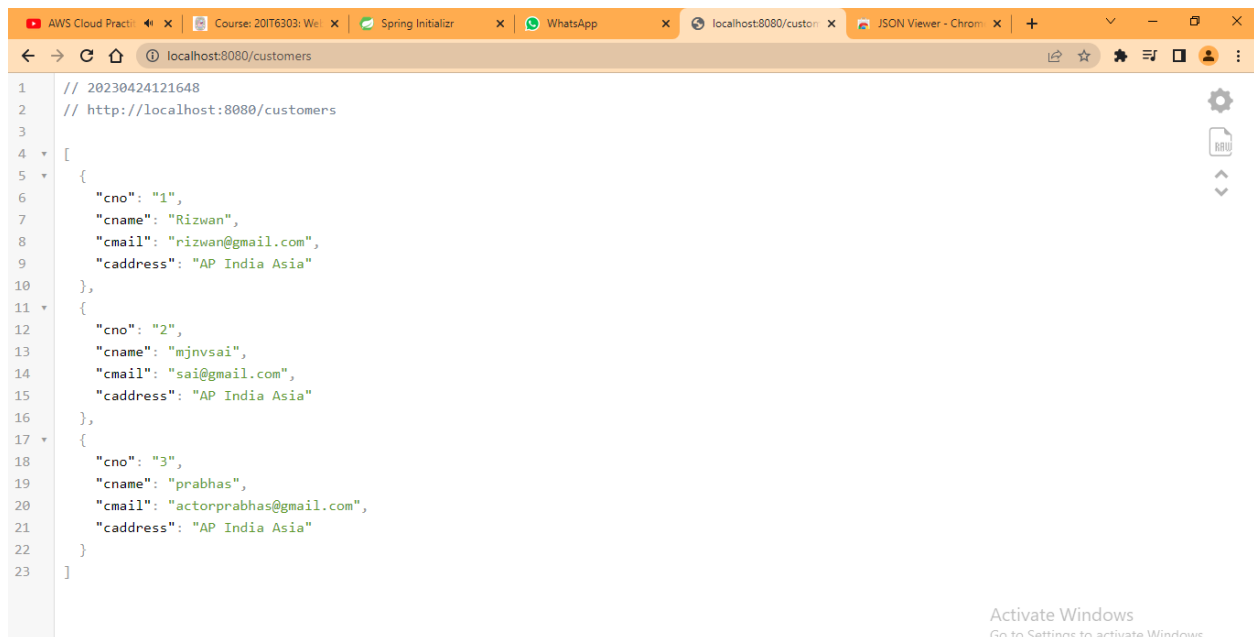
```
new CDetails("2", "mjnvsai", "sai@gmail.com", "AP India Asia"),

new CDetails("3", "prabhas", "actorprabhas@gmail.com", "AP India Asia")

);

}

}
```

Output :