

## Advanced Java

### Assignment 6

**Q1. Write a program to create a simple Spring Boot application that prints a message.**

#### KulsumController.java

```
package com.example.demo;

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

@RestController
public class KulsumController {

    @RequestMapping("/")
    public String hello() {
        return "Kulsum is here!";
    }
}
```

#### KulsumApplication.java

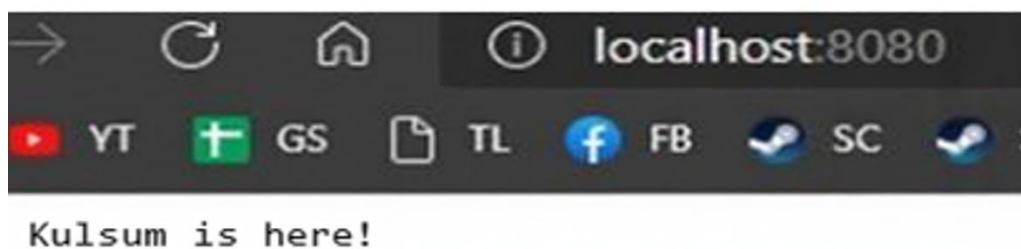
```
package com.example.demo;

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

@SpringBootApplication
public class KulsumApplication {

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

Output:



**Q2. Write a program to demonstrate RESTful Web Services with Spring Boot.****KulsumBean.java**

```
package com.example.demo;

public class KulsumBean {

    private String message;

    public KulsumBean(String message) {
        this.message = message;
    }

    public String getMessage() {
        return message;
    }

    public void setMessage(String message) {
        this.message = message;
    }

    @Override
    public String toString() {
        return String.format("KulsumBean [message=%s]", message);
    }
}
```

**KulsumController.java**

```
package com.example.demo;

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

@RestController
public class KulsumController {

    @GetMapping(path = "/hello-kulsum")
    public String helloKulsum() {
        return "Kulsum is here!";
    }

    @GetMapping(path = "/hello-kulsum-bean")
    public KulsumBean helloKulsumBean() {
        return new KulsumBean("Kaise ho Kulsum?");
    }
}
```

**KulsumApplication.java**

```
package com.example.demo;

import org.springframework.boot.SpringApplication;
```

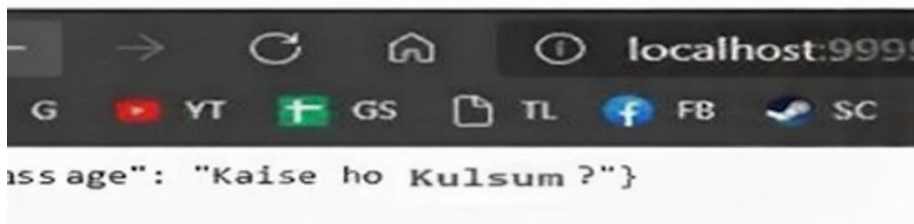
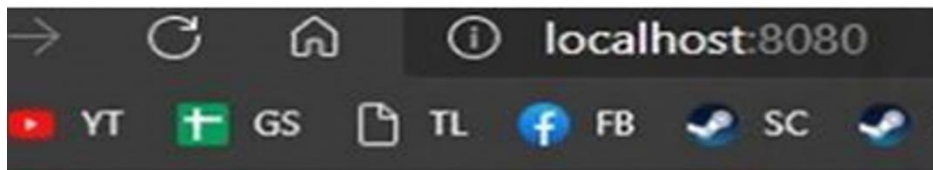
```
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class KulsumApplication {

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

}
```

Output:



**Q3. Write a program to demonstrate Database Connection with Spring with Spring Boot.**

**DatabaseController.java**

```
package com.example.demo;

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

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

@RestController
public class DatabaseController {

    @GetMapping("/db-connect")
    public String connectDB() {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/testdb",
                "root",
                "root"
            );
        }
    }
}
```

```
        if (con != null) {  
            return "Database Connected Successfully!";  
        }  
    } catch (Exception e) {  
        return e.toString();  
    }  
    return "Connection Failed!";  
}  
}
```

### KulsumApplication.java

```
package com.example.demo;  
  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
  
@SpringBootApplication  
public class KulsumApplication {  
    public static void main(String[] args) {  
        SpringApplication.run(KulsumApplication.class, args);  
    }  
}
```

Output:

