

WEB TECHNOLOGY LAB

LAB-4

Design and develop a responsive website to calculate Electricity bill using SpringBoot. Condition for first 50 units – Rs. 3.50/unit, for next 100 units – Rs. 4.00/unit, for next 100 units – Rs. 5.20/unit and for units above 250 – Rs. 6.50/unit.

Shruti Ajaykumar Singh

TY-CD-D2

Roll No – 25

PRN - 12010587

Batch – 2

CODE:

index.html

```
<!DOCTYPE html>
<html>

<head>
  <meta charset="UTF-8">
  <title>Electricity Bill Calculator</title>
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.
css">
</head>

<body>
  <div class="container">
    <h1 class="my-4">Electricity Bill Calculator</h1>
    <form id="electricity-bill-form">
      <div class="form-group">
        <label for="units">Enter Units Consumed:</label>
        <input type="number" class="form-control" id="units" name="units"
placeholder="Enter units">
      </div>
      <button type="submit" class="btn btn-primary">Calculate
      Bill</button>
    </form>
    <div id="bill-amount"></div>
  </div>

  <script src="https://code.jquery.com/jquery-3.2.1.min.js"></script>
  <script>
```

```

$(document).ready(function () {
    $('#electricity-bill-form').submit(function (event) {
        event.preventDefault();
        $.ajax({
            type: 'POST',
            url: '/calculate-bill',
            data: $(this).serialize(),
            success: function (response) {
                $('#bill-amount').html('Your bill amount is Rs. ' + response);
            }
        });
    });
});
</script>
</body>

</html>

```

BillController.java

```

package com.example.demo;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.ResponseBody;

@Controller
public class BillController {
    @GetMapping("/electricity-bill")
    public String showElectricityBillPage() {

```

```

        return "electricity-bill";
    }
    @PostMapping("/calculate-bill")
    @ResponseBody
    public String calculateElectricityBill(@RequestParam("units") int units) {
        double billAmount = 0.0;
        if (units <= 50) {
            billAmount = units * 3.50;
        } else if (units <= 150) {
            billAmount = 50 * 3.50 + (units - 50) * 4.00;
        } else if (units <= 250) {
            billAmount = 50 * 3.50 + 100 * 4.00 + (units - 150) * 5.20;
        } else {
            billAmount = 50 * 3.50 + 100 * 4.00 + 100 * 5.20 + (units - 250) * 6.50;
        }
        return String.format("%.2f", billAmount);
    }
}

```

Lab4Application.java

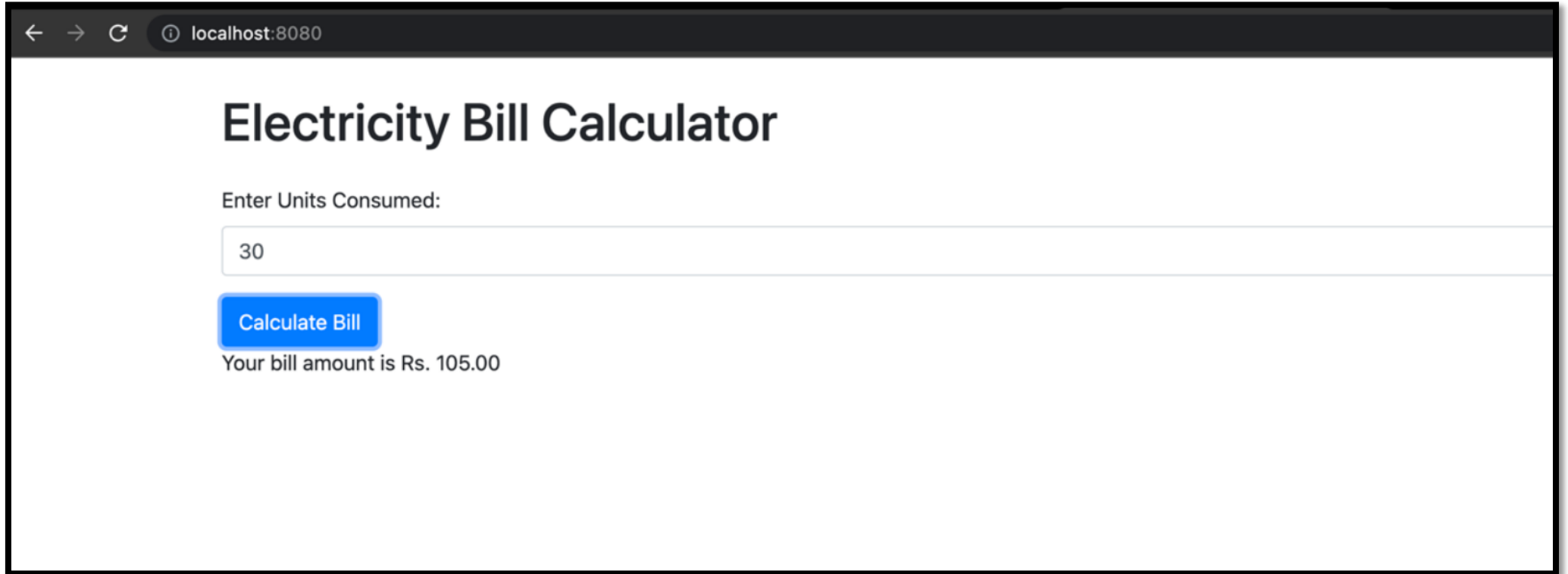
```

package com.example.demo;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class Lab4Application {
    public static void main(String[] args) {
        SpringApplication.run(Lab4Application.class, args);
    }
}

```

OUTPUT:



The screenshot shows a web browser window with the address bar displaying 'localhost:8080'. The page title is 'Electricity Bill Calculator'. Below the title, there is a label 'Enter Units Consumed:' followed by a text input field containing the number '30'. A blue button labeled 'Calculate Bill' is positioned below the input field. Below the button, the text 'Your bill amount is Rs. 105.00' is displayed.

Electricity Bill Calculator

Enter Units Consumed:

30

Calculate Bill

Your bill amount is Rs. 105.00