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Class : TY CS-D **Batch : D1**

Experiment Number: 05

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. You can make the use of bootstrap as well as jQuery.

Html code

```
<!DOCTYPE html>
<html xmlns:th="http://www.thymeleaf.org">
<head>
    <title>Electricity Bill Calculator</title>
    <link rel="stylesheet"

href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.
css"
            integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
            crossorigin="anonymous"/>
    <link rel="stylesheet" th:href="@{/style.css}"/>
    <style>


    </style>
</head>
<body>
<div class="container">
    <h2>Electricity Bill Generator</h2>
    <h4 class="my-4">Generate your bill here</h4>
    <form method="post" th:action="@{/}">
        <div class="form-group my-3">
                    <label for="units">Enter Total Units Consumed:</label>
                    <input type="number" class="form-control my-3" id="units"
name="units" required>
```

```
            </div>
            <button type="submit" class="btn btn-primary" id =
"calculate-btn">Calculate</button>



    </form>
    <br>
</div>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script>
$(document).ready(function() {
$('#billForm').submit(function(event) {
event.preventDefault();
var units = parseInt($('#units').val());
if (units <= 0 || isNaN(units)) {
alert('Please enter a valid number of units consumed.');
return;
}
this.submit();
});
});
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html xmlns:th="http://www.thymeleaf.org">
<head>
  <title>Electricity Bill Calculator</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.
css"
```

Output.html

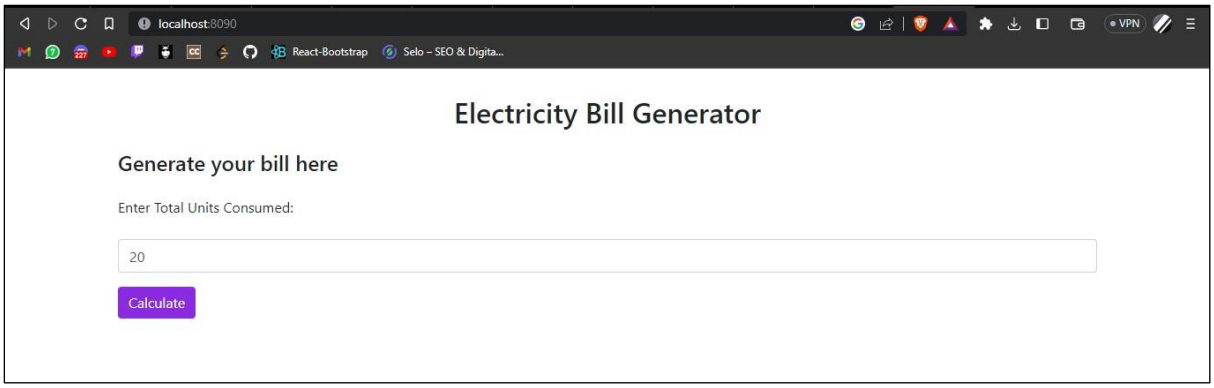
```
            integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
            crossorigin="anonymous">
</head>
<body>
<div class="container">
  <div class="row mt-5">
     <div class="col-md-6 offset-md-3">
        <h1 class="text-center mb-4">Electricity Bill</h1>
        <div class="card">
           <div class="card-body">
              <div class="alert alert-success" id =
"alerticon"><strong>Electricity Bill: </strong>Rs <span
                        th:text="${bill}"></span></div>
           </div>
        </div>
     </div>
  </div>
</div>
</body>
</html>
```

Electricity Calculator

```
package com.example.demo3.Controller;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestParam;
@Controller
public class ElectricityController {
public class ElectricityController {
```

```
    @GetMapping("/")
    public String showForm() {
        return "input";
    }
    @PostMapping("/")
    public String calculateBill(@RequestParam("units") int units, Model
            model) {
        double bill = 0;
        if (units <= 50) {
            bill = units * 3.5;
        } else if (units <= 150) {
            bill = 50 * 3.5 + (units - 50) * 4.0;
        } else if (units <= 250) {
            bill = 50 * 3.5 + 100 * 4.0 + (units - 150) * 5.2;
        } else {
            bill = 50 * 3.5 + 100 * 4.0 + 100 * 5.2 + (units - 250) * 6.5;
        }
        model.addAttribute("bill", bill);
        return "output";
    }
}
```

Output:


localhost:8090
React-Bootstrap
Selo – SEO & Digita...
VPN
Electricity Bill Generator
Generate your bill here
Enter Total Units Consumed:
20
Calculate

localhost:8090
React-Bootstrap
Selo – SEO & Digita...
VPN
Electricity Bill
Electricity Bill: Rs 70.0