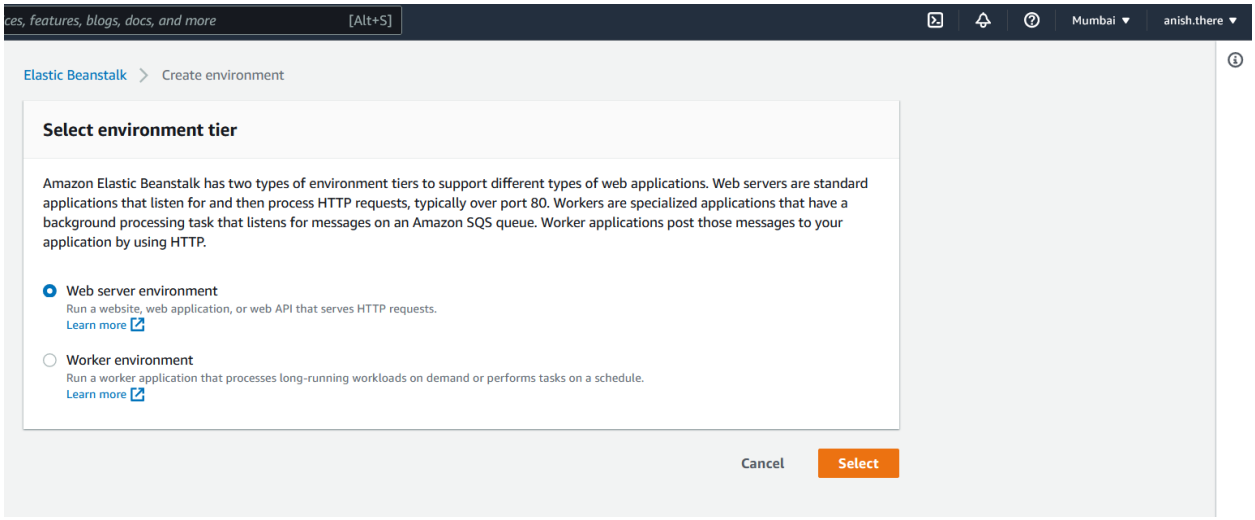
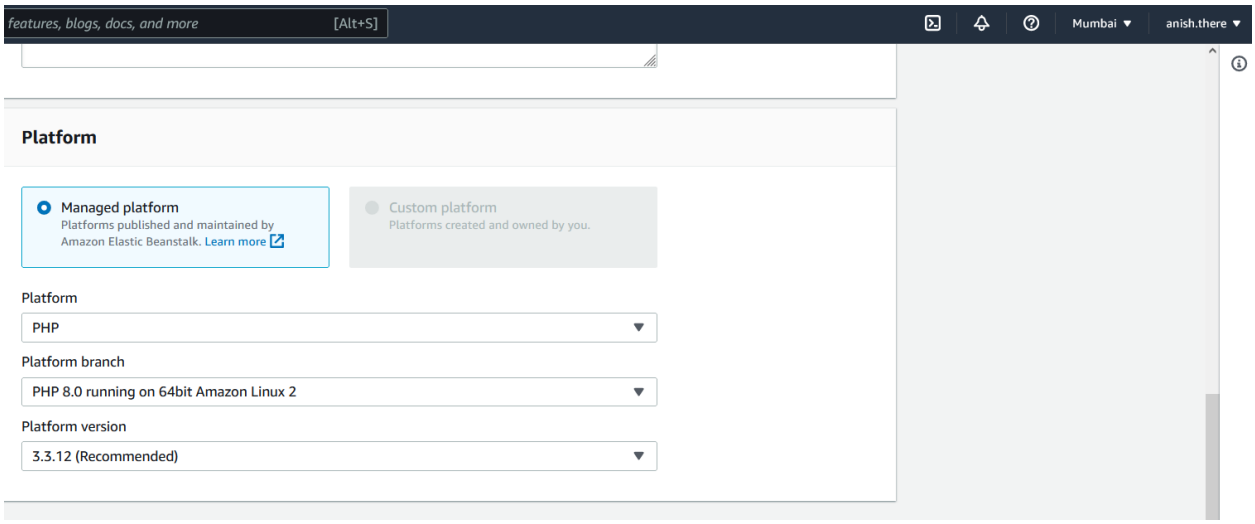
Name: Anish Hemant There
Reg. No: 19BCE1349
Course: Cloud Computing for AI / ML
Topic: Cloud based electricity bill calculation platform with a load balancer and monitoring services

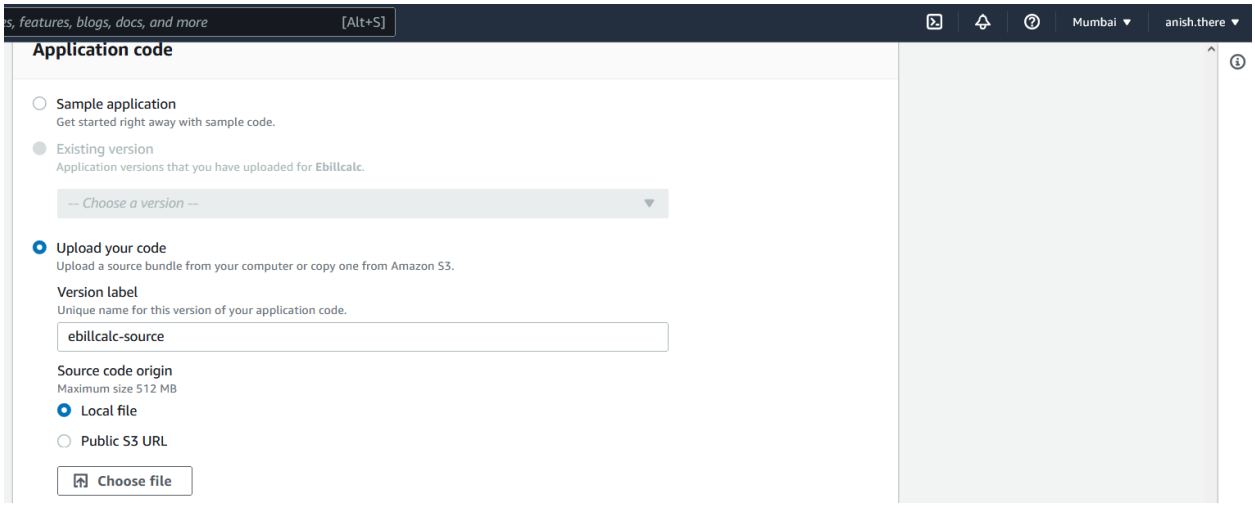
1. AWS Elastic Beanstalk



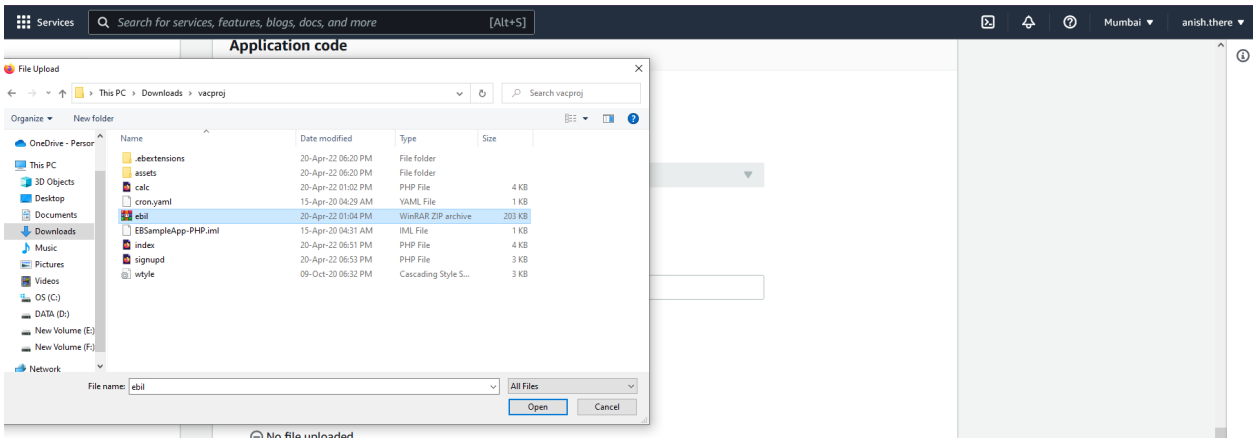
2. PHP Platform



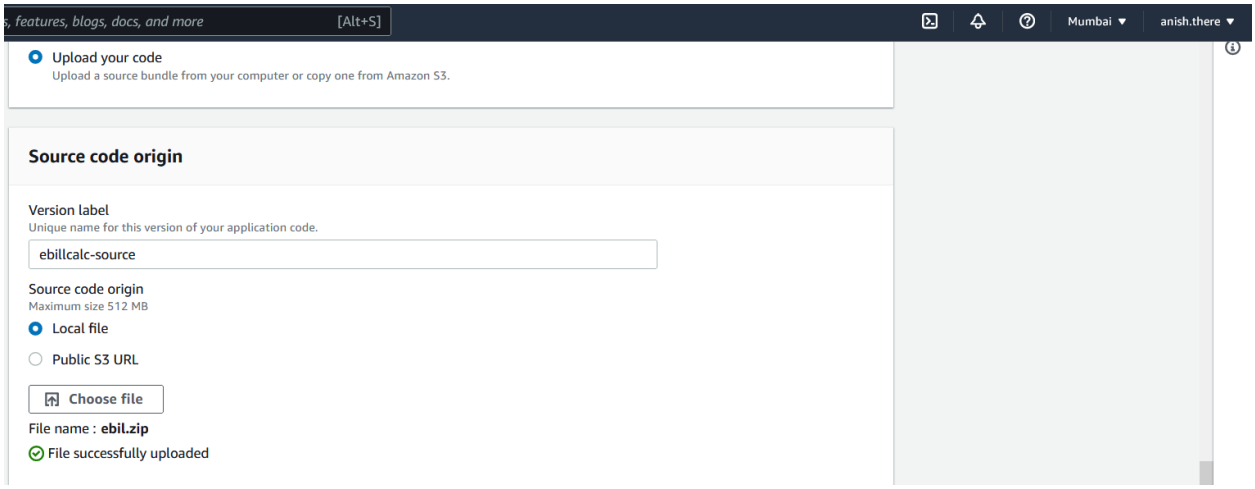
3. Upload code



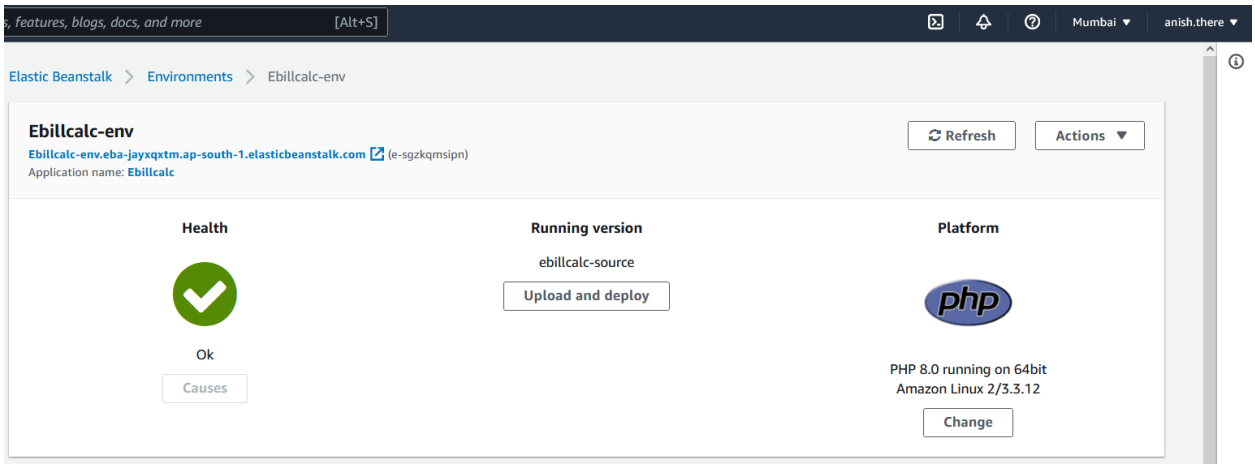
4. Upload the zip



5. Uploaded

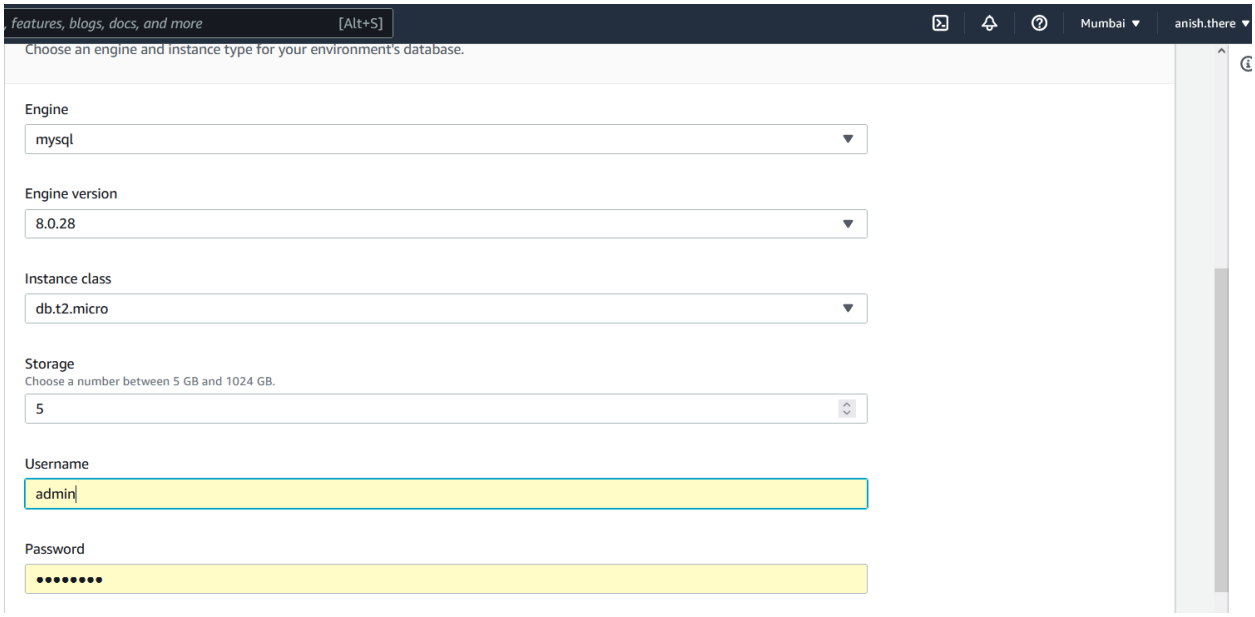


6. Created

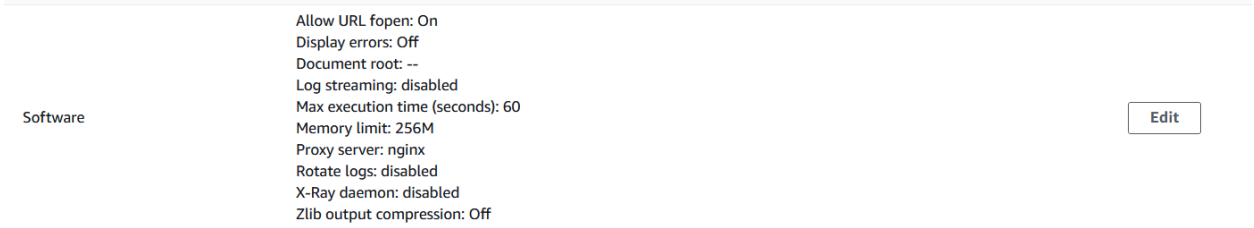


7. Adding database in configuration tab

8. Mysql database



9. Create environment variables from software in configuration



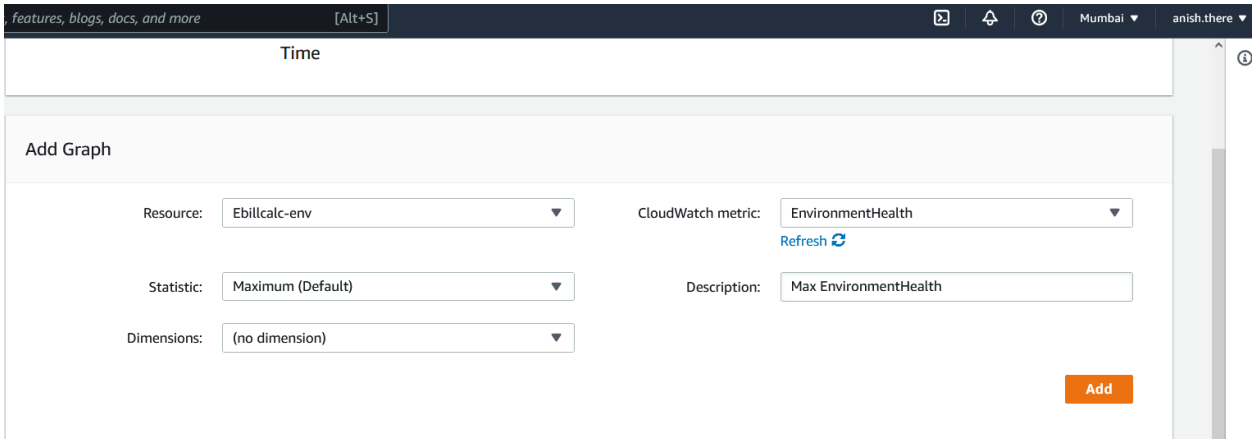
10.

Environment properties

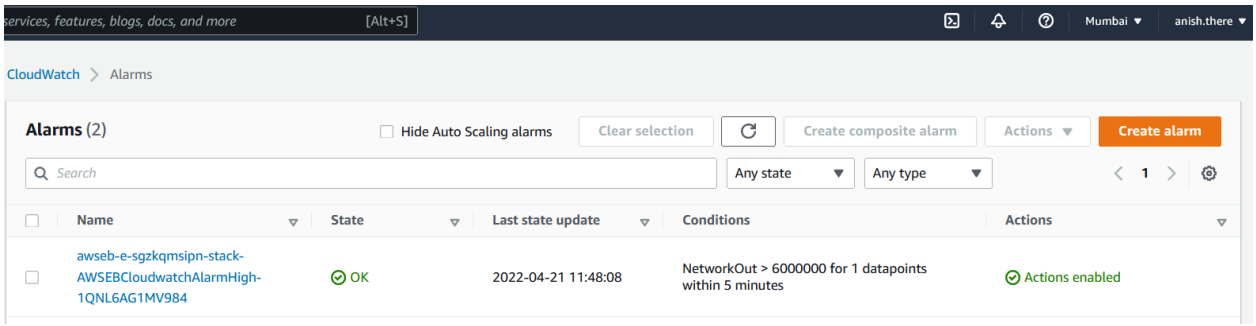
The following properties are passed in the application as environment properties. **Learn more**

Name	Value
RDS_HOSTNAME	Ebillcalc-env-1.eba-58fa4md9.ap-south-1.elasticbeanstalk.com
RDS_PORT	3306
RDS_DB_NAME	db1
RDS_USERNAME	admin
RDS_PASSWORD	12345678

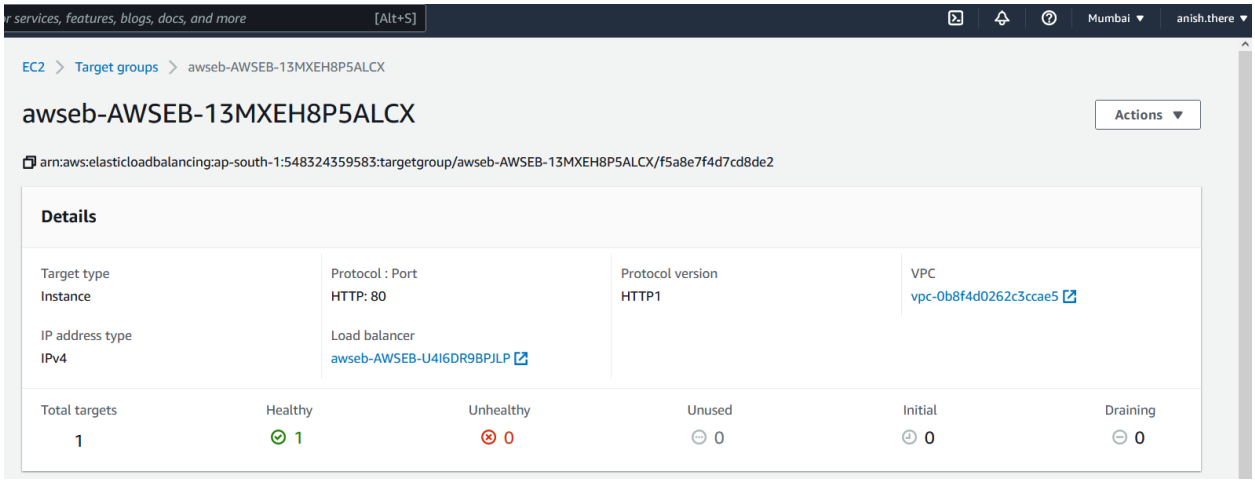
11. Add monitoring



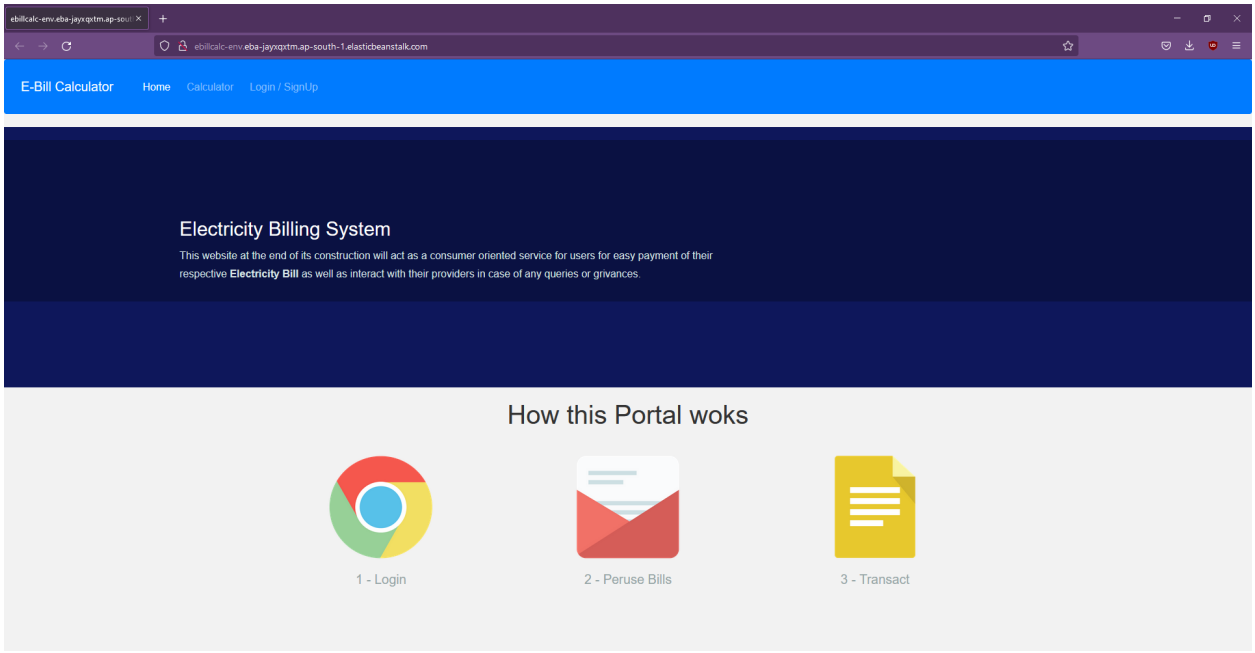
12. Created



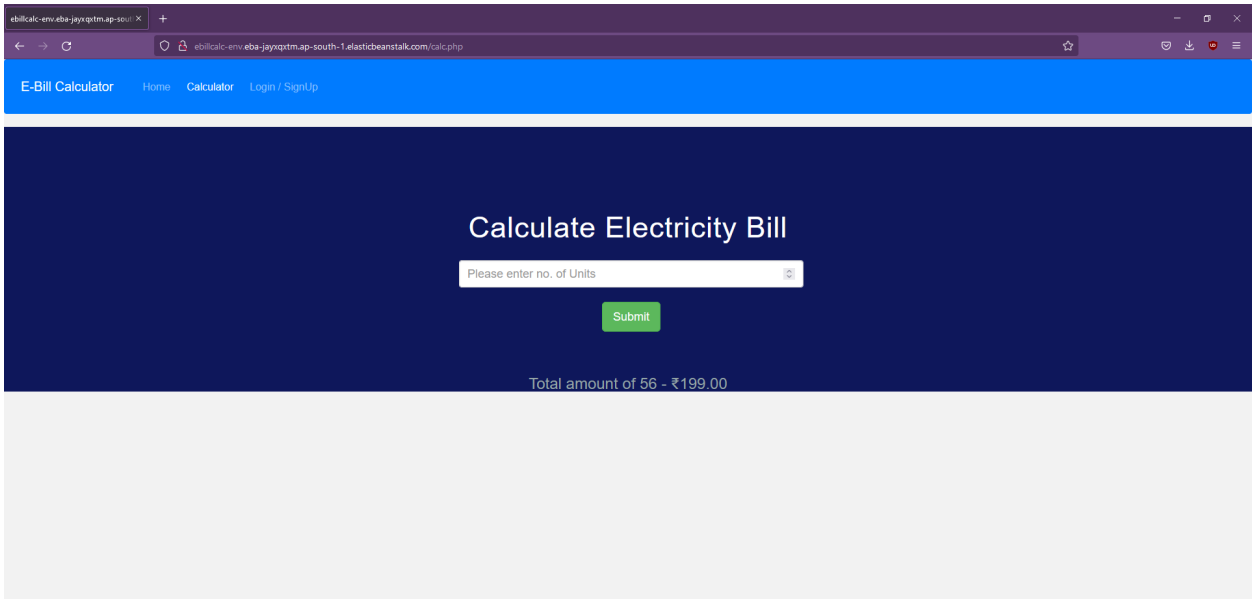
13. Load balancer



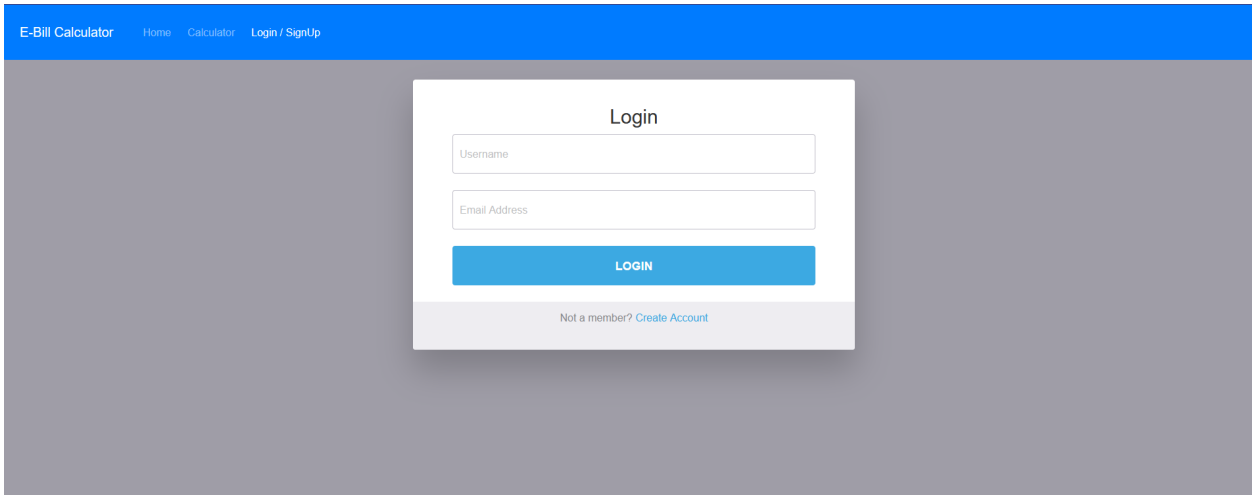
14. Website



15.


ebillcalc-env.eba-jayxqxtm.ap-south-1.elasticbeanstalk.com/calc.php
E-Bill Calculator
Home
Calculator
Login / SignUp
Calculate Electricity Bill
Please enter no. of Units
Submit
Total amount of 56 - ₹199.00

16.


E-Bill Calculator
Home
Calculator
Login / SignUp
Login
Username
Email Address
LOGIN
Not a member? Create Account

Code:

Index.php

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.
css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/
dAiS6JXm" crossorigin="anonymous">
<link href="assets/css/bootstrap.css" rel="stylesheet">
<link href="assets/css/font-awesome.css" rel="stylesheet">
<link href="assets/css/main.css" rel="stylesheet">
  </head>
  <body>

    <nav class="navbar navbar-expand-lg navbar-dark bg-primary">
  <a class="navbar-brand" href="index.php"><h4 style="color:white">E-Bill
Calculator</h4></a>
  <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarNav">
    <ul class="navbar-nav">
      <li class="nav-item active">
        <a class="nav-link" href="index.php"
style="padding-right:20px;">Home <span
class="sr-only">(current)</span></a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="calc.php"
style="padding-right:20px;">Calculator</a>
      </li>
      <li class="nav-item">
```

```
        <a class="nav-link" href="signupd.php"
style="padding-right:20px;">Login / SignUp</a>
      </li>
    </ul>
  </div>
</nav>

<div id="headerwrap">
        <div class="darkhearderwrap">
            <div >
                <div >
                    <div style="padding-left: 270px;">
                        <h2 style="color: white">Electricity Billing
System</h2>
                        <p>This website at the end of its construction
will act as a consumer oriented service for users for
        easy payment of their <br>respective <b>Electricity Bill</b> as
well as interact with their providers
        in case of any queries or grivances. </p>
                    </div>
                </div>
            </div>
            </div>
    </div>
    <div class="container">
        <div class="row mt centered">
            <div class="col-lg-6 col-lg-offset-3">
                <h1>How this Portal woks</h1>
                <h3></h3>
            </div>
        </div>

        <div class="row mt centered">
            <div class="col-lg-4">
                <img src="assets/img/ser01.png" width="180" alt="">
                <h4>1 - Login</h4>
                <p></p>
            </div>

            <div class="col-lg-4">
```

```
                <img src="assets/img/ser02.png" width="180" alt="">
                <h4>2 - Peruse Bills</h4>
                <p></p>
            </div>

            <div class="col-lg-4">
                <img src="assets/img/ser03.png" width="180" alt="">
                <h4>3 - Transact</h4>
                <p></p>
            </div>

        </div>
    </div>

    <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"
integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93
hXpG5KkN" crossorigin="anonymous"></script>
    <script
src="https://cdn.jsdelivr.net/npm/popper.js@1.12.9/dist/umd/popper.min.js"
integrity="sha384-ApNbgh9B+Y1QKtv3Rn7W3mgPxhU9K/ScQsAP7hUibX39j7fakFPskvXu
svfa0b4Q" crossorigin="anonymous"></script>
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/js/bootstrap.min.js
"
integrity="sha384-JZR6Spejh4U02d8jOt6vLEHfe/JQGiRRSQQxSfFWpi1MquVdAyjUar5+
76PVCmYl" crossorigin="anonymous"></script>
  </body>
</html>
```

Calc.php

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.
css"
```

```
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/
dAiS6JXm" crossorigin="anonymous">
<link href="assets/css/bootstrap.css" rel="stylesheet">
<link href="assets/css/font-awesome.css" rel="stylesheet">
<link href="assets/css/main.css" rel="stylesheet">
  </head>

<body>
<?php
$result_str = $result = '';
if (isset($_POST['unit-submit'])) {
    $units = $_POST['units'];
    if (!empty($units)) {
        $result = calculate_bill($units);
        $result_str = 'Total amount of ' . $units . ' - &#x20b9;' .
$result;
    }
}

function calculate_bill($units) {
    $unit_cost_first = 3.50;
    $unit_cost_second = 4.00;
    $unit_cost_third = 5.20;
    $unit_cost_fourth = 6.50;

    if($units <= 50) {
        $bill = $units * $unit_cost_first;
    }
    else if($units>50 && $units<=100) {
        $temp = 50 * $unit_cost_first;
        $remaining_units = $units - 50;
        $bill = $temp + ($remaining_units * $unit_cost_second);
    }
    else if($units > 100 && $units <= 200) {
        $temp = (50 * 3.5) + (100 * $unit_cost_second);
        $remaining_units = $units - 150;
        $bill = $temp + ($remaining_units * $unit_cost_third);
    }
    else {
```

```
        $temp = (50 * 3.5) + (100 * $unit_cost_second) + (100 *
$unit_cost_third);
        $remaining_units = $units - 250;
        $bill = $temp + ($remaining_units * $unit_cost_fourth);
    }
    return number_format((float)$bill, 2, '.', '');
}

?>

<nav class="navbar navbar-expand-lg navbar-dark bg-primary">
  <a class="navbar-brand" href="index.php"><h4 style="color:white">E-Bill
Calculator</h4></a>
  <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarNav">
    <ul class="navbar-nav">
      <li class="nav-item">
        <a class="nav-link" href="index.php"
style="padding-right:20px;">Home <span
class="sr-only">(current)</span></a>
      </li>
      <li class="nav-item  active">
        <a class="nav-link" href="calc.php"
style="padding-right:20px;">Calculator</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="signupd.php"
style="padding-right:20px;">Login / SignUp</a>
      </li>
    </ul>
  </div>
</nav>
  <div id="headerwrap">
    <h1>Calculate Electricity Bill</h1>
```

```
    <form action="" method="post" id="quiz-form" style="padding-left:
700px;padding-right:690px">
              <input type="number" name="units" id="units"
class="form-control" style="width: 100%;" placeholder="Please enter no. of
Units" /><br>
              <div style="padding-left:220px">
      <input type="submit" name="unit-submit" class="btn btn-success
btn-lg" id="unit-submit" value="Submit" />
</div>
    </form>

    <div style="text-align:center">
        <?php echo '<br /><br /> <h3 >' . $result_str; '</h3> '?>
    </div>
  </div>
</body>
</html>
```

Signup.php

```
<!DOCTYPE html>
<html lang="en" >
<head>
  <meta charset="UTF-8">
  <title></title>
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/normalize/5.0.0/normalize.min
.css">
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.
css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/
dAiS6JXm" crossorigin="anonymous">
<link href="assets/css/bootstrap.css" rel="stylesheet">
<link href="assets/css/font-awesome.css" rel="stylesheet">
<link href="assets/css/main.css" rel="stylesheet">
  </head>
<link rel="stylesheet" href="./wtyle.css">

</head>
```

```php
<?php
  $con = new mysqli($_SERVER['RDS_HOSTNAME'], $_SERVER['RDS_USERNAME'],
$_SERVER['RDS_PASSWORD'],
                    $_SERVER['RDS_DB_NAME'], $_SERVER['RDS_PORT']);

  if (!$con) die('Could not connect: ' . mysql_error());

  $con->query("DROP TABLE IF EXISTS user");
  $con->query("CREATE TABLE 'user' (
    'id' int(14) NOT NULL,
    'name' varchar(40) NOT NULL,
    'email' varchar(40) NOT NULL,
    'phone' varchar(255) NOT NULL,
    'pass' varchar(20) NOT NULL,
    'address' varchar(100) NOT NULL
  )");

  $sql = "INSERT INTO user ('name','email','pass')
  VALUES('$name','$email','$password')";
  echo $sql;
  if (!mysqli_query($con,$sql))
  {
    die('Error: ' . mysqli_error($con));
  }
  header("Location:index.php");

?>

<body>
<nav class="navbar navbar-expand-lg navbar-dark bg-primary">
  <a class="navbar-brand" href="index.php"><h4 style="color:white">E-Bill
Calculator</h4></a>
  <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarNav">
    <ul class="navbar-nav">
      <li class="nav-item">
```

```
        <a class="nav-link" href="index.php"
style="padding-right:20px;">Home <span
class="sr-only">(current)</span></a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="calc.php"
style="padding-right:20px;">Calculator</a>
      </li>
      <li class="nav-item active">
        <a class="nav-link" href="signupd.php"
style="padding-right:20px;">Login / SignUp</a>
      </li>
    </ul>
  </div>
</nav>

<div id="login-form-wrap">
  <h2>Login</h2>
  <form id="login-form" action="signupd.php">
    <p>
    <input type="text" id="name" name="name" placeholder="Name"
required><i class="validation"><span></span><span></span></i>
    </p>
    <p>
    <input type="email" id="email" name="email" placeholder="Password"
required><i class="validation"><span></span><span></span></i>
    </p>

    <p>
    <input type="submit" id="login" value="Login">
    </p>
  </form>
  <div id="create-account-wrap">
    <p>Not a member? <a href="#">Create Account</a><p>
  </div>
</div>

</body>
</html>
```

[redacted]