

Name :- Harsh Harsani

Reg No.:- 201900351

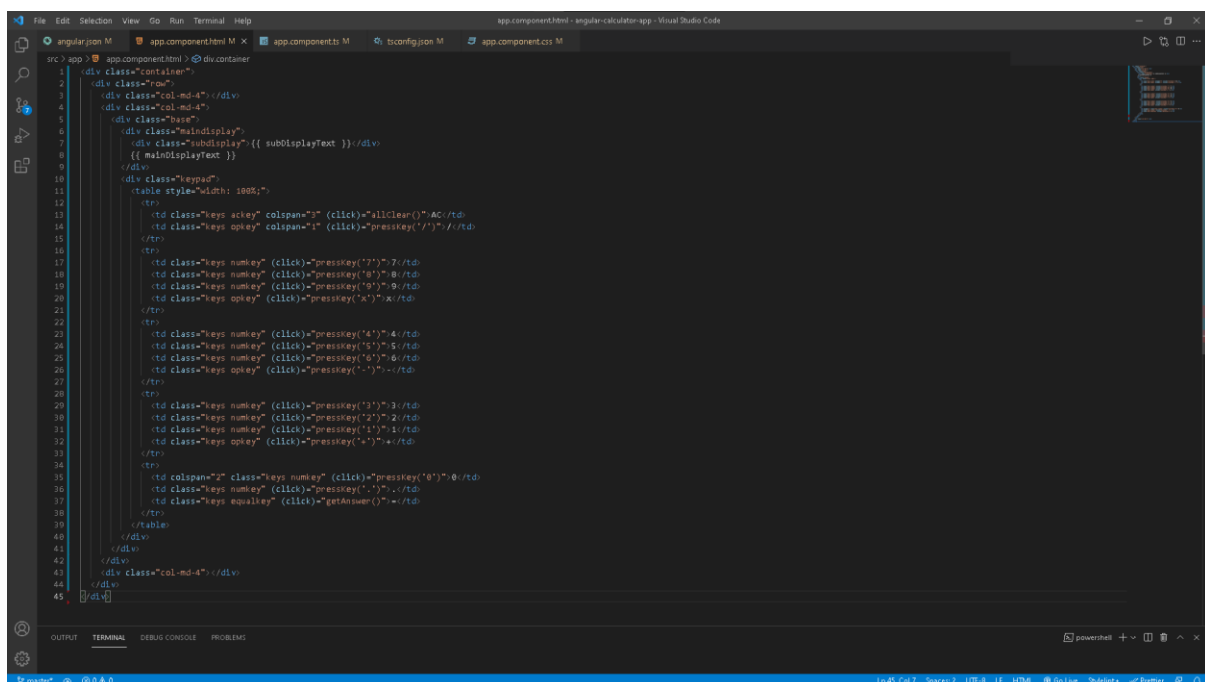
## Create a calculator app using Angular

Create a calculator app using Angular which is capable of performing following operations:

1. Addition of two numbers
2. Subtraction of two numbers
3. Multiplication of two numbers
4. Division of two numbers
5. Factorial of a number
6. Checking if a given number is Prime or not

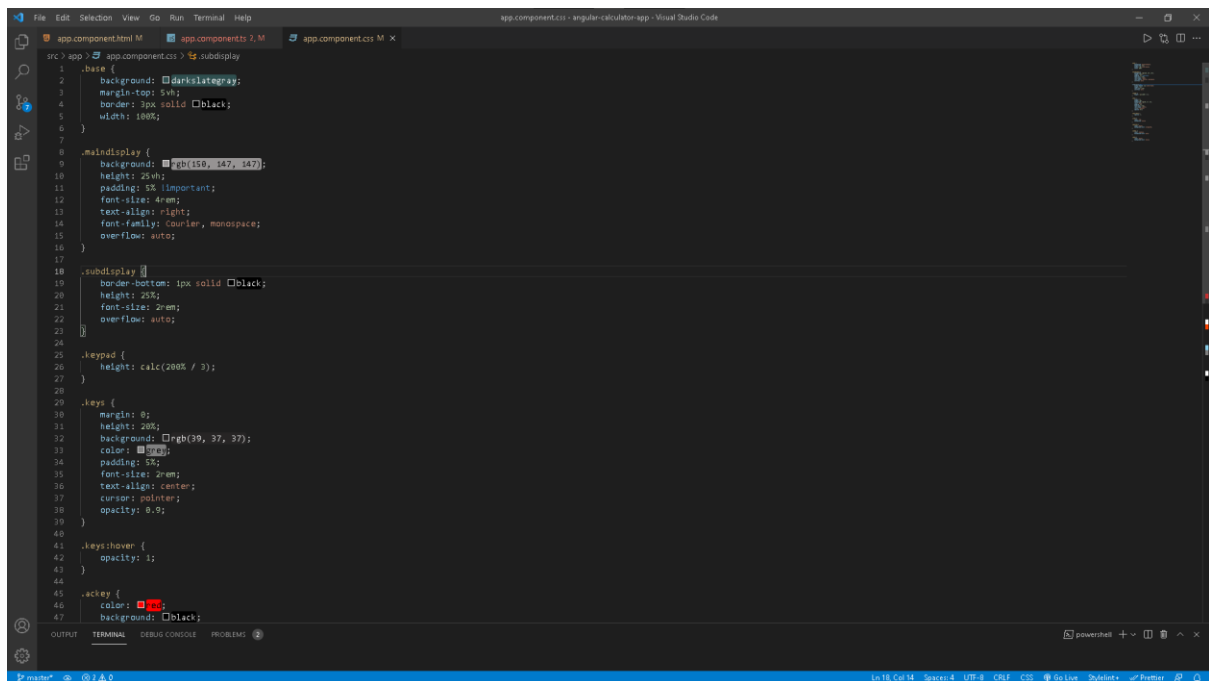
Code:-

Html:-



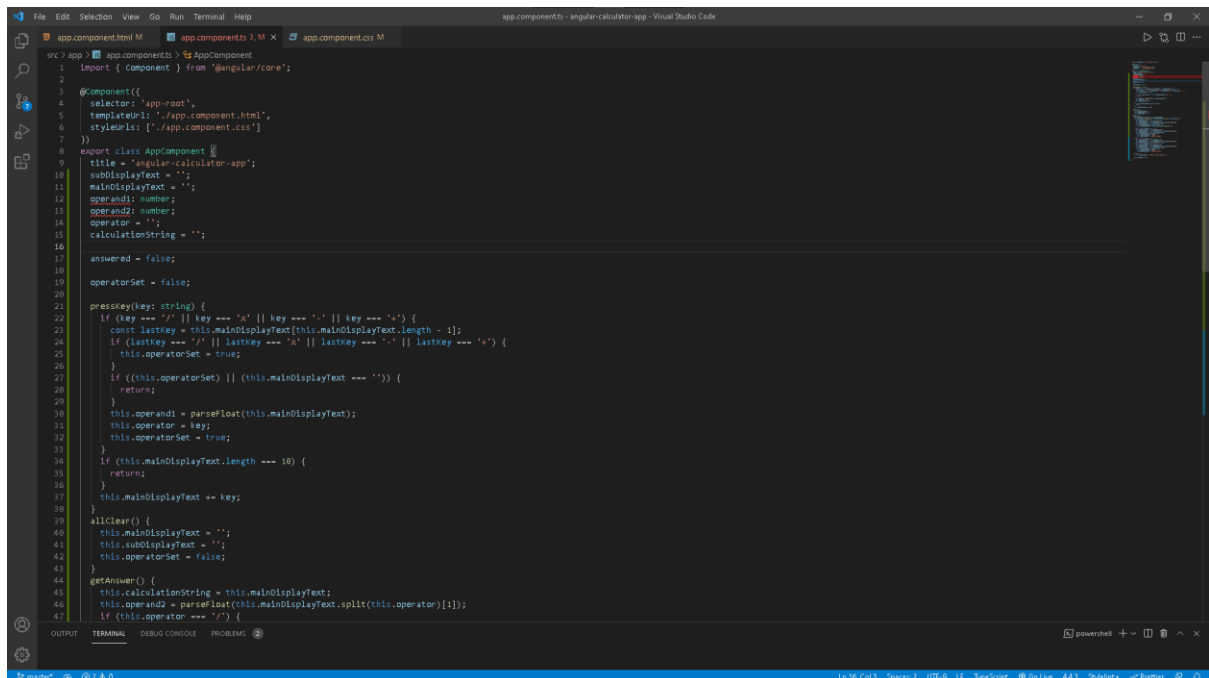
```
1 <div class="container">
2   <div class="row">
3     <div class="col-md-4"> //div
4     <div class="col-md-4">
5       <div class="base">
6         <div class="subDisplay"> {{ subDisplayText }} //div
7         {{ mainDisplayText }}
8       </div>
9     </div>
10    <div class="output">
11      <table style="width: 100%;">
12        <tr>
13          <td class="keys ackey" colspan="3" (click)="allClear()">AC /td
14          <td class="keys opkey" colspan="1" (click)="presskey('/')">/ /td
15        </tr>
16        <tr>
17          <td class="keys numkey" (click)="presskey('7')">7 /td
18          <td class="keys numkey" (click)="presskey('8')">8 /td
19          <td class="keys numkey" (click)="presskey('9')">9 /td
20          <td class="keys opkey" (click)="presskey('*')">* /td
21        </tr>
22        <tr>
23          <td class="keys numkey" (click)="presskey('4')">4 /td
24          <td class="keys numkey" (click)="presskey('5')">5 /td
25          <td class="keys numkey" (click)="presskey('6')">6 /td
26          <td class="keys opkey" (click)="presskey('-')">- /td
27        </tr>
28        <tr>
29          <td class="keys numkey" (click)="presskey('3')">3 /td
30          <td class="keys numkey" (click)="presskey('2')">2 /td
31          <td class="keys numkey" (click)="presskey('1')">1 /td
32          <td class="keys opkey" (click)="presskey('+')">+ /td
33        </tr>
34        <tr>
35          <td colspan="3" class="keys numkey" (click)="presskey('0')">0 /td
36          <td class="keys numkey" (click)="presskey('.')">./td
37          <td class="keys equalkey" (click)="getAnswer()">= /td
38        </tr>
39      </table>
40    </div>
41  </div>
42 </div>
43 <div class="col-md-4"> //div
44 </div>
45 </div>
```

CSS:-



```
1 .base {
2   background: #darkslategray;
3   margin-top: 50px;
4   border: 3px solid black;
5   width: 100%;
6 }
7
8 .mainDisplay {
9   background: #rgb(150, 147, 147);
10  height: 250px;
11  padding: 5px;
12  font-size: 40px;
13  text-align: right;
14  font-family: Courier, monospace;
15  overflow: auto;
16 }
17
18 .subDisplay {
19   border-bottom: 1px solid black;
20   height: 20px;
21   font-size: 20px;
22   overflow: auto;
23 }
24
25 .keypad {
26   height: calc(200% / 3);
27 }
28
29 .keys {
30   margin: 5px;
31   height: 20px;
32   background: #rgb(30, 37, 37);
33   color: #white;
34   padding: 5px;
35   font-size: 20px;
36   text-align: center;
37   cursor: pointer;
38   opacity: 0.9;
39 }
40
41 .keyshover {
42   opacity: 1;
43 }
44
45 .ackey {
46   color: #red;
47   background: black;
48 }
```

TS:-



```
1 import { Component } from '@angular/core';
2
3 @Component({
4   selector: 'app-root',
5   templateUrl: './app.component.html',
6   styleUrls: ['./app.component.css']
7 })
8 export class AppComponent {
9   title = 'angular-calculator-app';
10  subDisplayText = '';
11  mainDisplayText = '';
12  operand1: number;
13  operand2: number;
14  operator = '';
15  calculationString = '';
16
17  answered = false;
18  operatorSet = false;
19
20  presskey(key: string) {
21    if (key === '/' || key === 'x' || key === '-' || key === '+') {
22      const lastkey = this.mainDisplayText[this.mainDisplayText.length - 1];
23      if (lastkey === '/' || lastkey === 'x' || lastkey === '-' || lastkey === '+') {
24        this.operatorSet = true;
25      }
26      if ((this.operatorSet) || (this.mainDisplayText === '')) {
27        return;
28      }
29      this.operator = key;
30      this.operatorSet = true;
31      this.operator = key;
32      this.operatorSet = true;
33    }
34    if (this.mainDisplayText.length === 10) {
35      return;
36    }
37    this.mainDisplayText += key;
38  }
39  allclear() {
40    this.mainDisplayText = '';
41    this.subDisplayText = '';
42    this.operatorSet = false;
43  }
44  getAnswer() {
45    this.calculationString = this.mainDisplayText;
46    this.operand2 = parseFloat(this.mainDisplayText.split(this.operator)[1]);
47    if (this.operator === '/') {
```

Working calculator:-

