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Sec: A

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

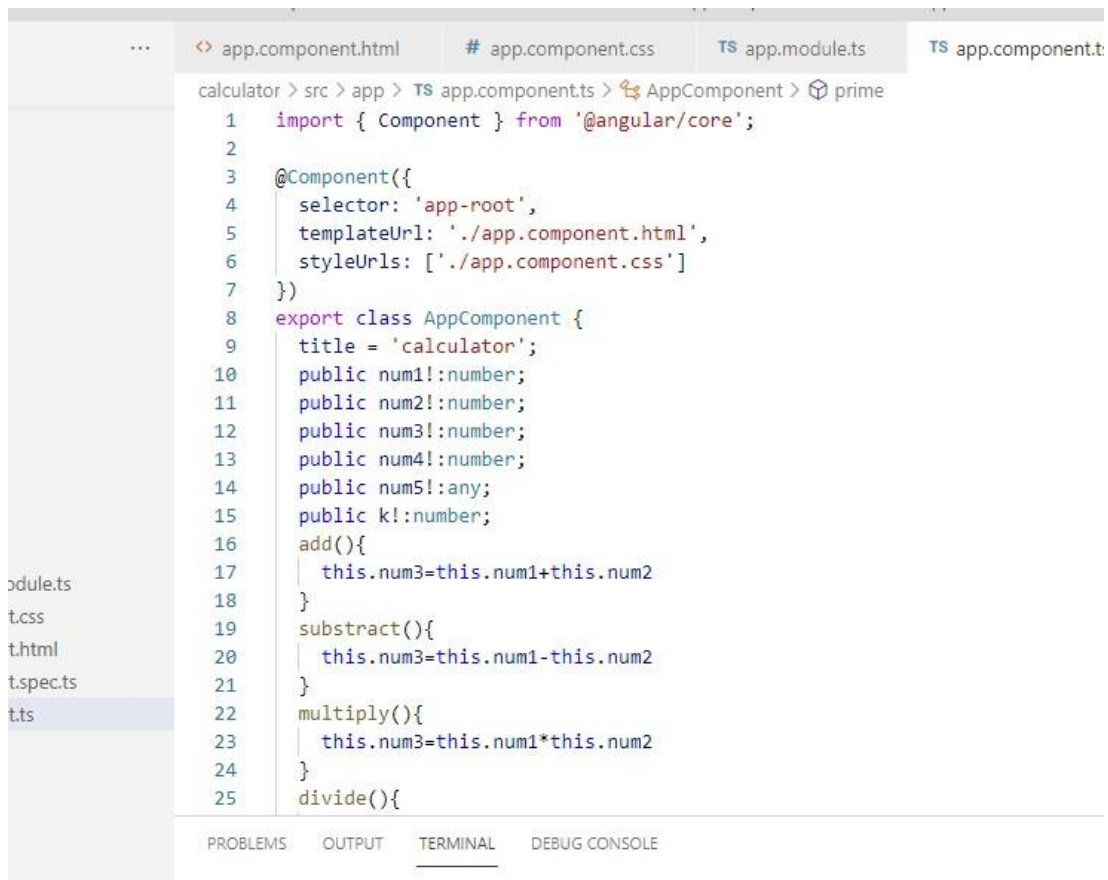
- Addition of two numbers
- Subtraction of two numbers
- Multiplication of two numbers
- Division of two numbers
- Factorial of a number
- Checking if a given number is Prime or not Solution:

App.component.html

```
<? app.component.html x # app.component.css TS app.module.ts TS app.component.ts
calculator > src > app > <? app.component.html > mat-card > br
1 <mat-toolbar color='primary'>
2   <span>Calculator App</span>
3   <span class="example-spacer"></span>
4   <mat-icon class="example-icon" aria-hidden="false" aria-label="Example delete icon">delete</mat-icon>
5 </mat-toolbar>
6 <mat-card>
7   <p>Enter the first number:</p>
8   <input type="number" name="num1" [(ngModel)]="num1">
9   <p>Enter the second number:</p>
10  <input type="number" name="num2" [(ngModel)]="num2">
11  <div class="first">
12    <button mat-raised-button color='primary' (click)="add()">Addition</button>
13    <button mat-raised-button color='primary' (click)="subtract()">Subtraction</button>
14    <button mat-raised-button color='primary' (click)="multiply()">Multiplication</button>
15    <button mat-raised-button color='primary' (click)="divide()">Division</button>
16  </div><br>
17  <h3>Result:{{num3}}</h3>
18  <div class="second">
19    <p>Enter number for factorial or prime number:</p>
20    <input type="number" name="num4" [(ngModel)]="num4"><br><br>
21    <button mat-raised-button color='primary'>Factorial</button>
22    <button mat-raised-button color='primary' (click)="prime()">Prime or Not</button>
23  </div><br>
24  <h3>Result:{{num5}}</h3>
25 </mat-card>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
```

## App.component.ts



```
calculator > src > app > TS app.component.ts > AppComponent > prime
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 = 'calculator';
10   public num1!:number;
11   public num2!:number;
12   public num3!:number;
13   public num4!:number;
14   public num5!:any;
15   public k!:number;
16   add(){
17     this.num3=this.num1+this.num2
18   }
19   subtract(){
20     this.num3=this.num1-this.num2
21   }
22   multiply(){
23     this.num3=this.num1*this.num2
24   }
25   divide(){
```

```
25   divide(){
26     this.num3=this.num1/this.num2
27   }
28   prime(){
29     if(this.num4 < 2)
30       return this.num5="1 is not a prime";
31     for (let k = 2; k < this.num4; k++){
32       if( this.num4 % k == 0){
33         return this.num5="It is not a prime";
34       }
35     }
36     return this.num5="It is a prime";
37   }
38 }
```

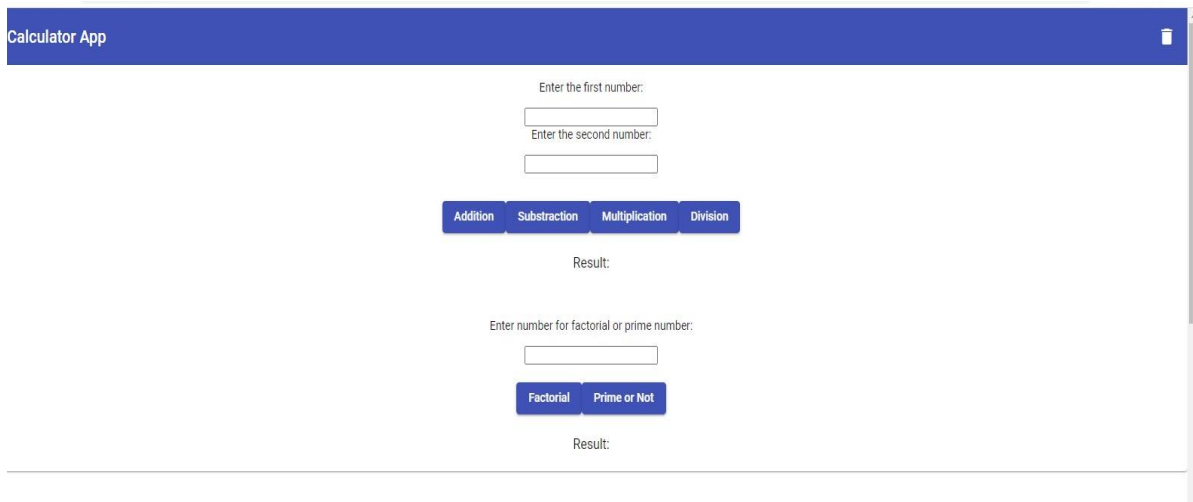
## App.component.css

```
...  <> app.component.html  # app.component.css X  TS app.r
calculator > src > app > # app.component.css > mat-card
1  mat-card{
2      text-align: center;
3  }
4
5
6  .example-icon {
7      padding: 90%;
8  }
9
10 div.first{
11     padding-top: 2%;
12     text-align: center;
13 }
14 div.second{
15     padding-top: 2%;
16     text-align: center;
17 }
```

## App.module.ts

```
calculator > src > app > TS app.module.ts > AppModule
1  import { NgModule } from '@angular/core';
2  import { FormsModule } from '@angular/forms';
3  import { BrowserModule } from '@angular/platform-browser';
4  import { MatButtonModule } from '@angular/material/button';
5  import { AppRoutingModule } from './app-routing.module';
6  import { AppComponent } from './app.component';
7  import { BrowserAnimationsModule } from '@angular/platform-browser/animations';
8  import { MatToolbarModule } from '@angular/material/toolbar';
9  import { MatIconModule } from '@angular/material/icon';
10 import { MatCardModule } from '@angular/material/card';
11
12
13 @NgModule({
14   declarations: [
15     AppComponent,
16   ],
17   imports: [
18     BrowserModule,
19     AppRoutingModule,
20     BrowserAnimationsModule,
21     MatButtonModule,
22     MatToolbarModule,
23     MatIconModule,
24     MatCardModule,
25     FormsModule
26   ],
27   providers: [],
28   bootstrap: [AppComponent],
29 })
30 export class AppModule { }
31
```

Output:



The screenshot shows a web application titled "Calculator App" in a blue header bar. The main content area is white and contains two input sections. The first section has two labels: "Enter the first number:" and "Enter the second number:", each followed by a text input field. Below these fields is a row of four blue buttons labeled "Addition", "Substraction", "Multiplication", and "Division". Underneath the buttons is a label "Result:" followed by a large, empty text area. The second section has a label "Enter number for factorial or prime number:" followed by a text input field. Below this field are two blue buttons labeled "Factorial" and "Prime or Not". At the bottom of this section is another label "Result:" followed by a large, empty text area.

Suppose we take two number 4 and 5 and multiplying them we get answer 20



This screenshot shows the same "Calculator App" interface as before, but with data entered. The first input field contains the number "4" and the second input field contains the number "5". The "Multiplication" button is highlighted with a yellow glow. Below the buttons, the "Result:" label is followed by the text "20".

Suppose we want to check 9 is a prime number or not

Enter number for factorial or prime number:

**Factorial**

**Prime or Not**

Result:It is not a prime

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