Calculator

Component.html code:

```
<!DOCTYPE html>
<html>
 <head>
  <title>Calculator</title>
  <meta charset="UTF-8">
 </head>
 <body>
  <div id="bg">
   <h2>Simple Calculator</h2>
   <h3>First Number:{{num1}}</h3>
   <h3>Second Number:{{num2}}</h3>
   <br>
   <div id="bu">
    <button (click)="add()" id="a">Addition of two numbers</button>
    <button (click)="sub()" id="b">Subtraction of two numbers</button>
    <button (click)="mul()" id="c">Multiplication of two numbers</button>
    <button (click)="divi()" id="d">Division of two numbers</button>
    <button (click)="modu()" id="e">Modulus</button>
    <button (click)="facto()" id="f">Factorial of a number</button>
    <button (click)="primenum()" id="g">Checks Prime or Comosite number</button>
   </div>
   <div id="dis">
    <h4 *ngIf="check==0">Sum is {{sum}}</h4>
    <h4 *ngIf="check==1">Difference is {{dif}}</h4>
    <h4 *ngIf="check==2">Product is {{mult}}</h4>
    <h4 *ngIf="check==3">Quotient is {{quo}}</h4>
    <h4 *ngIf="check==4">Remainder is {{modulo}}</h4>
    <h4 *ngIf="check==5">Factorial of {{num1}} is {{fact1}}</h4>
    <h4 *ngIf="check==5">Factorial of {{num2}} is {{fact2}}</h4>
    <h4 *ngIf="flag1==0 && check==6">{{num1}} is Prime number</h4>
    <h4 *ngIf="flag1!=0 && check==6">{{num1}} is Composite number</h4>
    <h4 *ngIf="flag2==0 && check==6">{{num2}} is Prime number</h4>
    <h4 *ngIf="flag2!=0 && check==6">{{num2}} is Composite number</h4>
   </div>
  </div>
 </body>
</html>
```

Name: J Praneeth Registration number:201900324

Component.css Code:

```
body
{
    font-size: 30px;
    font-family: 'Times New Roman';
}
#bg
{
    background-image: url("Images/background.jpg");
}
h2
{
    color: royalblue;
    font-size: 60px;
    font-family: 'Times New Roman';
    text-align: center;
}
h3
{
    color:rgb(53, 23, 245);
    font-size: 45px;
    text-align:center;
}
#bu
{
    border: 1px solid black;
    border-width: 1px;
    border-radius: 2px;
}
button
{
    background-color:teal;
    border:1px solid black;
    color:floralwhite;
    border-width: 1px;
    margin: 15px;
    padding: 20px;
    text-align: center;
    font-family: 'Times New Roman';
    font-size: 30px;
    display:block;
}
button:hover
{
    background-color:aqua;
    color:rgb(236, 130, 30);
```

```
}
#a
{
   padding: 20px 80px;
}
#b
{
   padding: 20px 65px;
}
#c
{
   padding: 20px 48px;
}
#d
{
  padding: 20px 82px;
}
#e
{
  padding: 20px 177px;
}
#f
{
  padding: 20px 102px;
}
h4
{
   color:rgb(184, 2, 2);
   font-size: 50px;
   font-family: 'Times New Roman';
   text-align: center;
   position: relative;
   top: -500px;
   left: 250px;
}
```

Component.ts Code:

```
import { Component } from '@angular/core';

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'Calculator';
  num1=13;
  num2=10;
  sum={};
  dif={};
  mult={};
  quo={};
  modulo={};
  fact1=1;
  fact2=1;
  flag1=0;
  flag2=0;
  check={};
  add()
  {
    this.check=0;
    this.sum=this.num1+this.num2;
  }
  sub()
  {
    this.check=1;
    if(this.num1>this.num2)
    {
      this.dif=this.num1-this.num2;
    }
    else
    {
      this.dif=this.num2-this.num1;
    }
  }
  mul()
  {
    this.check=2;
    this.mult=this.num1*this.num2;
  }
  divi()
  {
```

```
  this.check=3;
  this.quo=this.num1/this.num2;
}
modu()
{
  this.check=4;
  this.modulo=this.num1%this.num2;
}
facto()
{
  this.check=5;
  for(let i=0;i<=this.num1;i++)
  {
     if(i==0)
     {
       this.fact1*=1;
     }
     else if(i==1)
     {
       this.fact1*=1;
     }
     else
     {
       this.fact1*=i;
     }
  }
  for(let i=0;i<=this.num2;i++)
  {
     if(i==0)
     {
       this.fact2*=1;
     }
     else if(i==1)
     {
       this.fact2*=1;
     }
     else
     {
       this.fact2*=i;
     }
  }
}
primenum()
{
  this.check=6;
  for(let i=2;i<this.num1;i++)
  {
    if(this.num1%i==0)
    {
```

```
      this.flag1=1;
      break;
    }
  }
  for(let i=2;i<this.num2;i++)
  {
    if(this.num2%i==0)
    {
      this.flag2=1;
      break;
    }
  }
 }
}
```

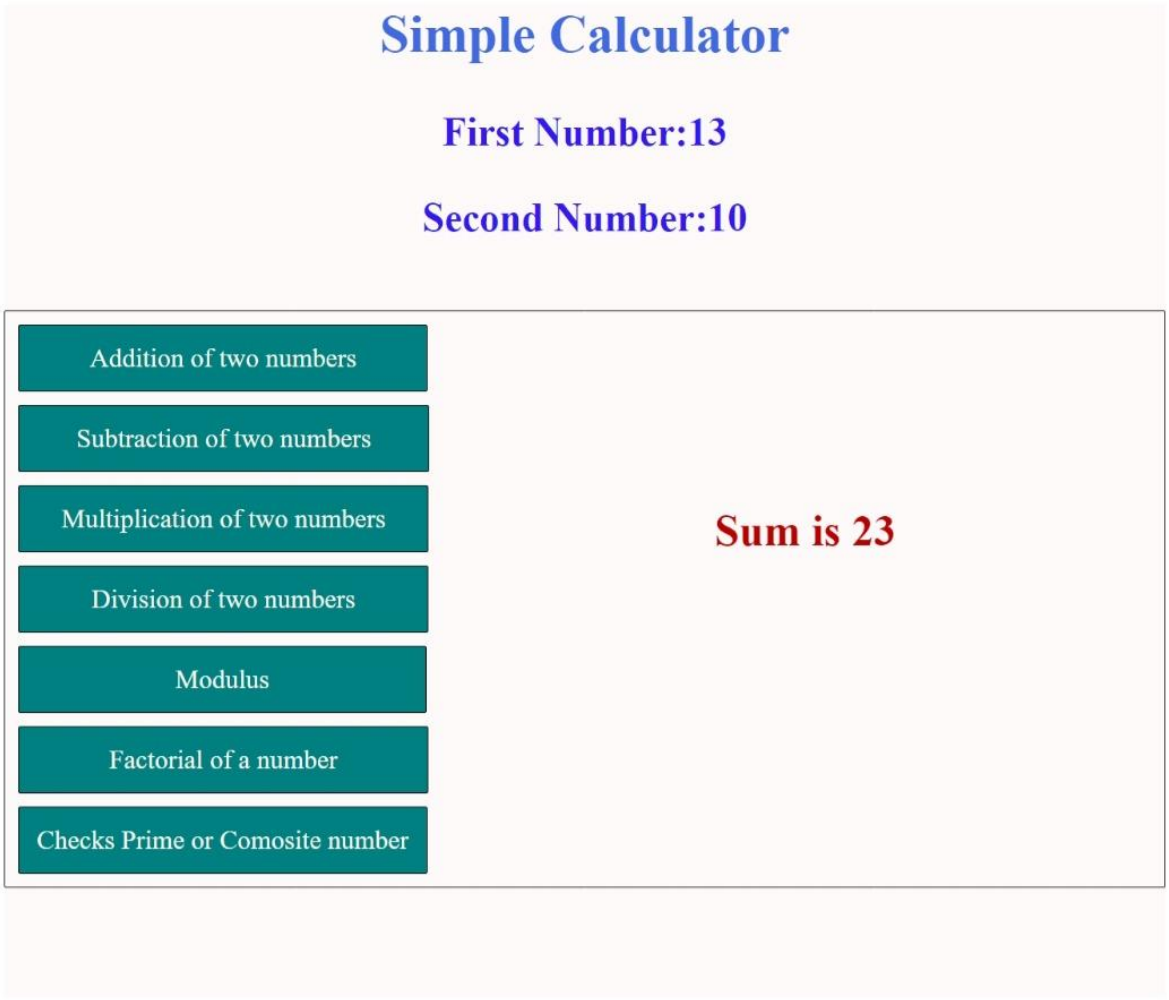
Component.module.ts

```
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';

import { AppComponent } from './app.component';

@NgModule({
 declarations: [
   AppComponent
 ],
 imports: [
   BrowserModule
 ],
 providers: [],
 bootstrap: [AppComponent]
})
export class AppModule { }
```

Component.spec.ts

```
import { TestBed } from '@angular/core/testing';
import { AppComponent } from './app.component';

describe('AppComponent', () => {
  beforeEach(async () => {
    await TestBed.configureTestingModule({
      declarations: [
        AppComponent
      ],
    }).compileComponents();
  });

  it('should create the app', () => {
    const fixture = TestBed.createComponent(AppComponent);
    const app = fixture.componentInstance;
    expect(app).toBeTruthy();
  });

  it(`should have as title 'calculator'`, () => {
    const fixture = TestBed.createComponent(AppComponent);
    const app = fixture.componentInstance;
    expect(app.title).toEqual('calculator');
  });

  it('should render title', () => {
    const fixture = TestBed.createComponent(AppComponent);
    fixture.detectChanges();
    const compiled = fixture.nativeElement as HTMLElement;
    expect(compiled.querySelector('.content span')?.textContent).toContain('calculator app is running!');
  });
});
```

App:



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