Scripting Language Lab

Name: Utkarsh Prakash Srivastava

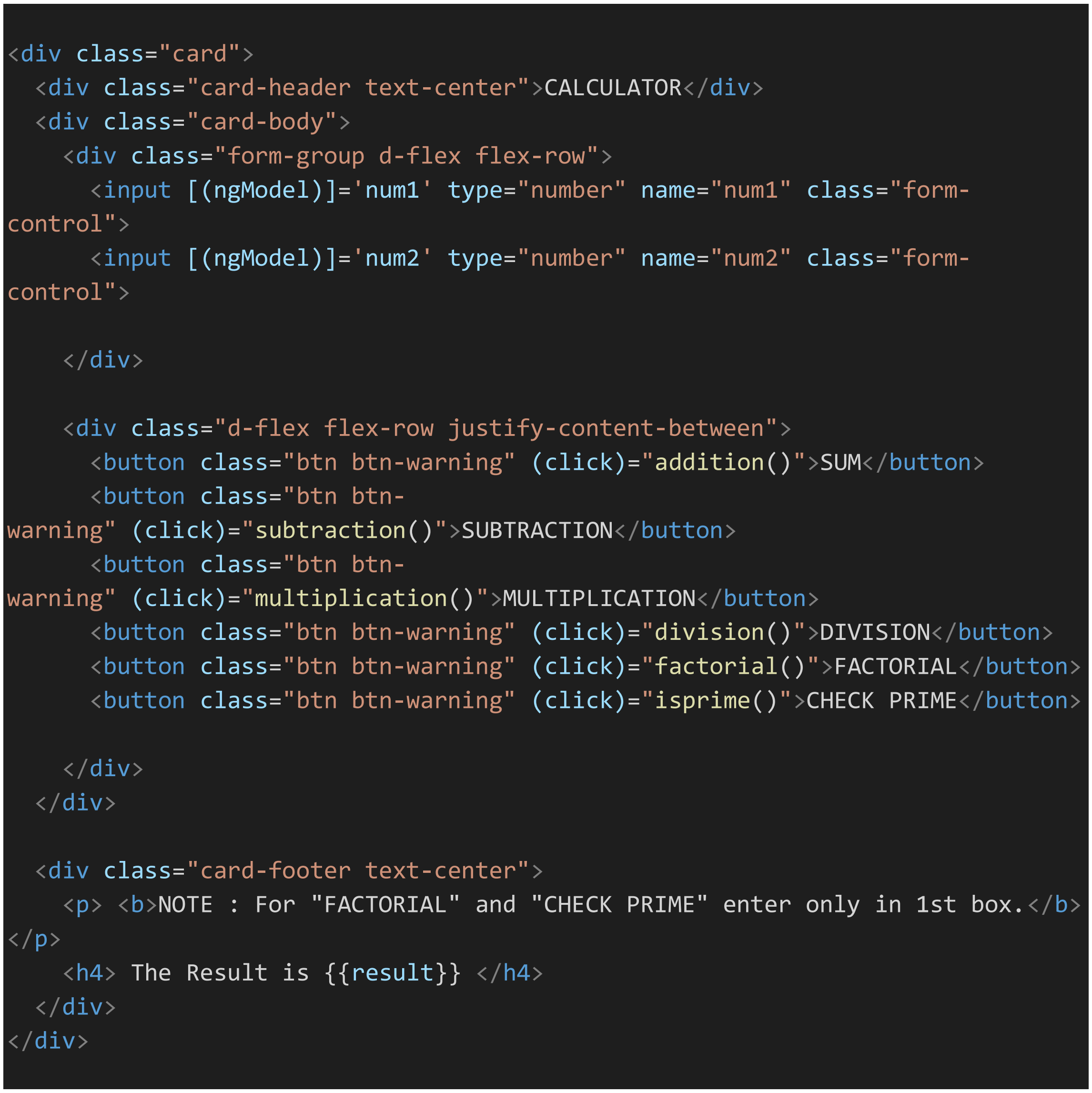
Sec: B

Reg No.: 201900232

Roll No.: 25

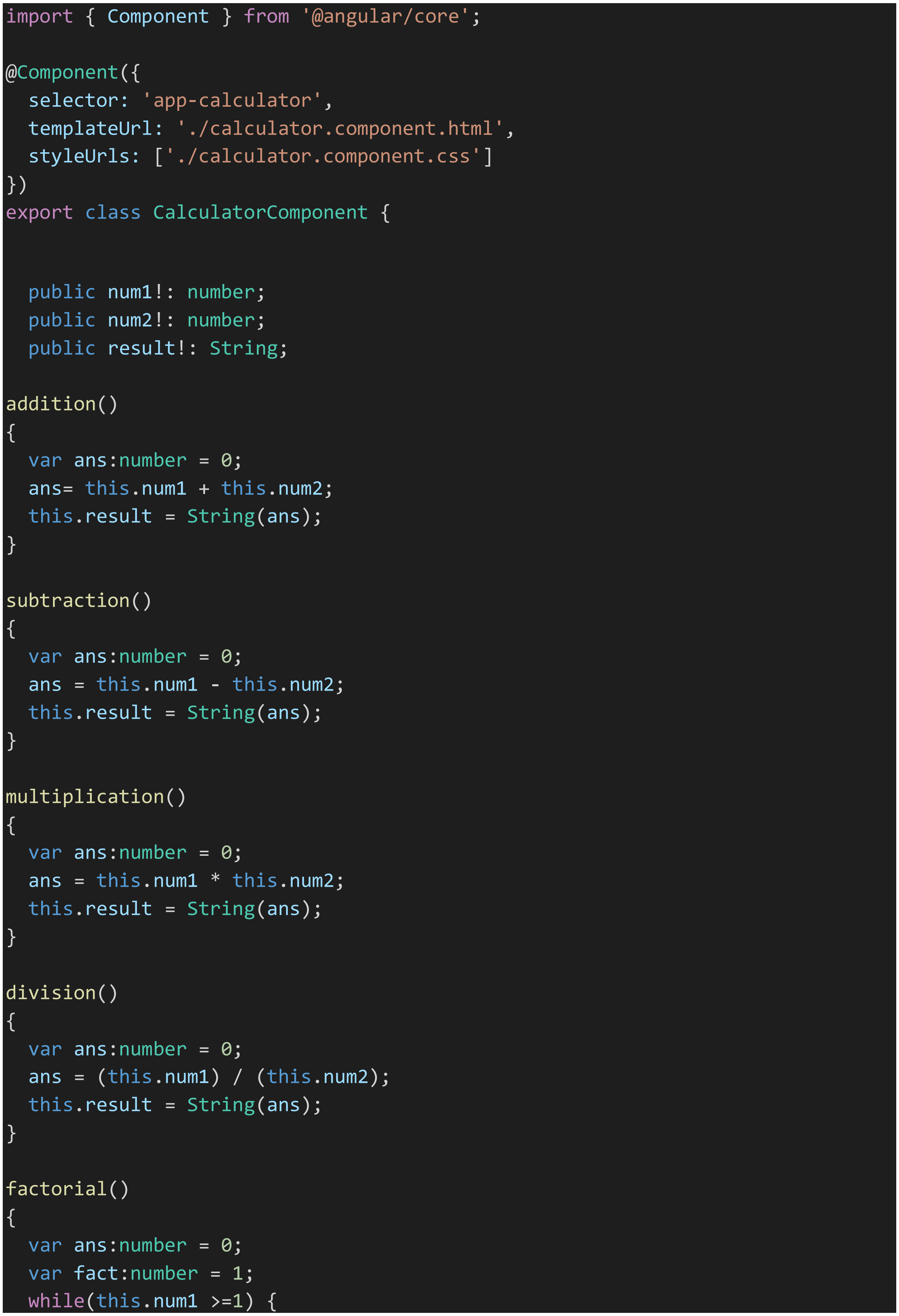
CODE OF ALL COMPONENTS

1.*calculator.component.html*



```
<div class="card">
  <div class="card-header text-center">CALCULATOR</div>
  <div class="card-body">
    <div class="form-group d-flex flex-row">
      <input [(ngModel)]='num1' type="number" name="num1" class="form-control">
      <input [(ngModel)]='num2' type="number" name="num2" class="form-control">

    </div>

    <div class="d-flex flex-row justify-content-between">
      <button class="btn btn-warning" (click)="addition()">SUM</button>
      <button class="btn btn-warning" (click)="subtraction()">SUBTRACTION</button>
      <button class="btn btn-warning" (click)="multiplication()">MULTIPLICATION</button>
      <button class="btn btn-warning" (click)="division()">DIVISION</button>
      <button class="btn btn-warning" (click)="factorial()">FACTORIAL</button>
      <button class="btn btn-warning" (click)="isprime()">CHECK PRIME</button>

    </div>
  </div>

  <div class="card-footer text-center">
    <p> <b>NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.</b></p>
    <h4> The Result is {{result}} </h4>
  </div>
</div>
```

2.*calculator.component.ts*



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

@Component({
  selector: 'app-calculator',
  templateUrl: './calculator.component.html',
  styleUrls: ['./calculator.component.css']
})
export class CalculatorComponent {


  public num1!: number;
  public num2!: number;
  public result!: String;

addition()
{
  var ans:number = 0;
  ans= this.num1 + this.num2;
  this.result = String(ans);
}

subtraction()
{
  var ans:number = 0;
  ans = this.num1 - this.num2;
  this.result = String(ans);
}

multiplication()
{
  var ans:number = 0;
  ans = this.num1 * this.num2;
  this.result = String(ans);
}

division()
{
  var ans:number = 0;
  ans = (this.num1) / (this.num2);
  this.result = String(ans);
}

factorial()
{
  var ans:number = 0;
  var fact:number = 1;
  while(this.num1 >=1) {
    fact = fact * this.num1;
    this.num1--;
 }
 ans = fact;
 this.result = String(ans);

}

isprime()
{
  var temp:number = this.num1;
  var ans:number = 1;
  for(var i = 2; i < temp; i++)
    if(temp % i === 0)
      ans = 0;
  if( ans === 0)
  {
    this.result = " NOT PRIME"
  }
  else{
    this.result = "PRIME"
  }
}

}
```

3.app-routing.module.ts

```
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';

const routes: Routes = [];

@NgModule({
  imports: [RouterModule.forRoot(routes)],
  exports: [RouterModule]
})
export class AppRoutingModule { }
```

4.app.component.html

```html
<app-calculator></app-calculator>
```

5.app.component.spec.ts

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

describe('AppComponent', () => {
  beforeEach(async () => {
    await TestBed.configureTestingModule({
      imports: [
        RouterTestingModule
      ],
      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 'CalculatorApp'`, () => {
    const fixture = TestBed.createComponent(AppComponent);
    const app = fixture.componentInstance;
    expect(app.title).toEqual('CalculatorApp');
  });

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

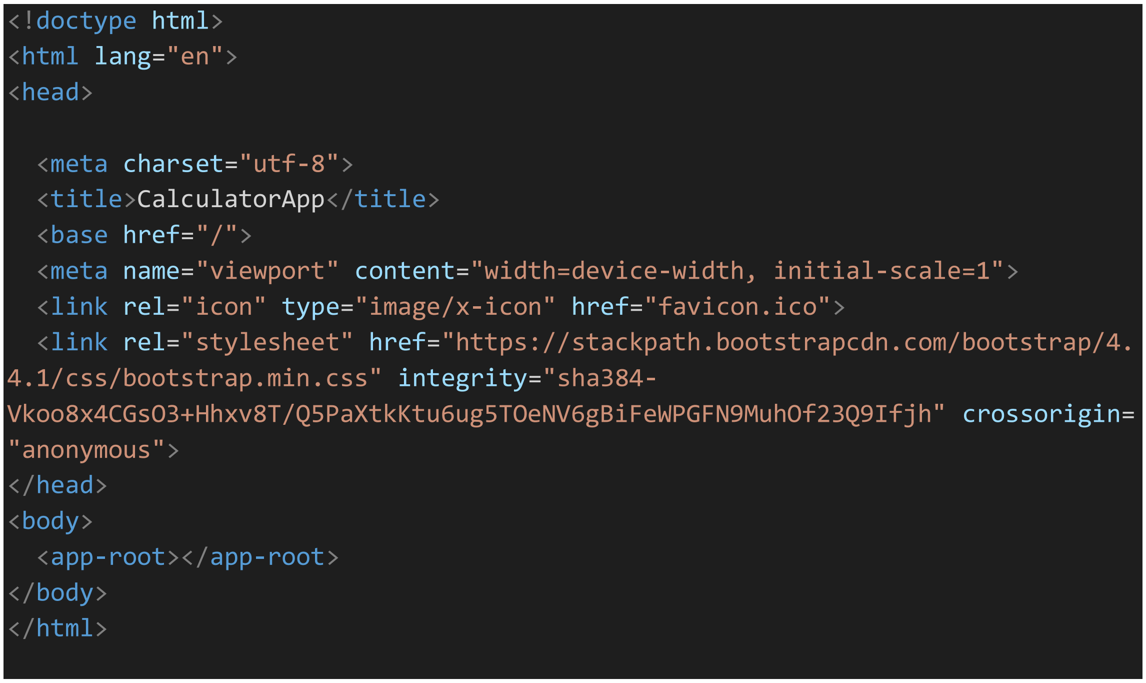
6. app.component.ts

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

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'CalculatorApp';
}
```

7. app.module.ts

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

import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { CalculatorComponent } from './calculator/calculator.component';
import { FormsModule } from '@angular/forms';
@NgModule({
  declarations: [
    AppComponent,
    CalculatorComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    FormsModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

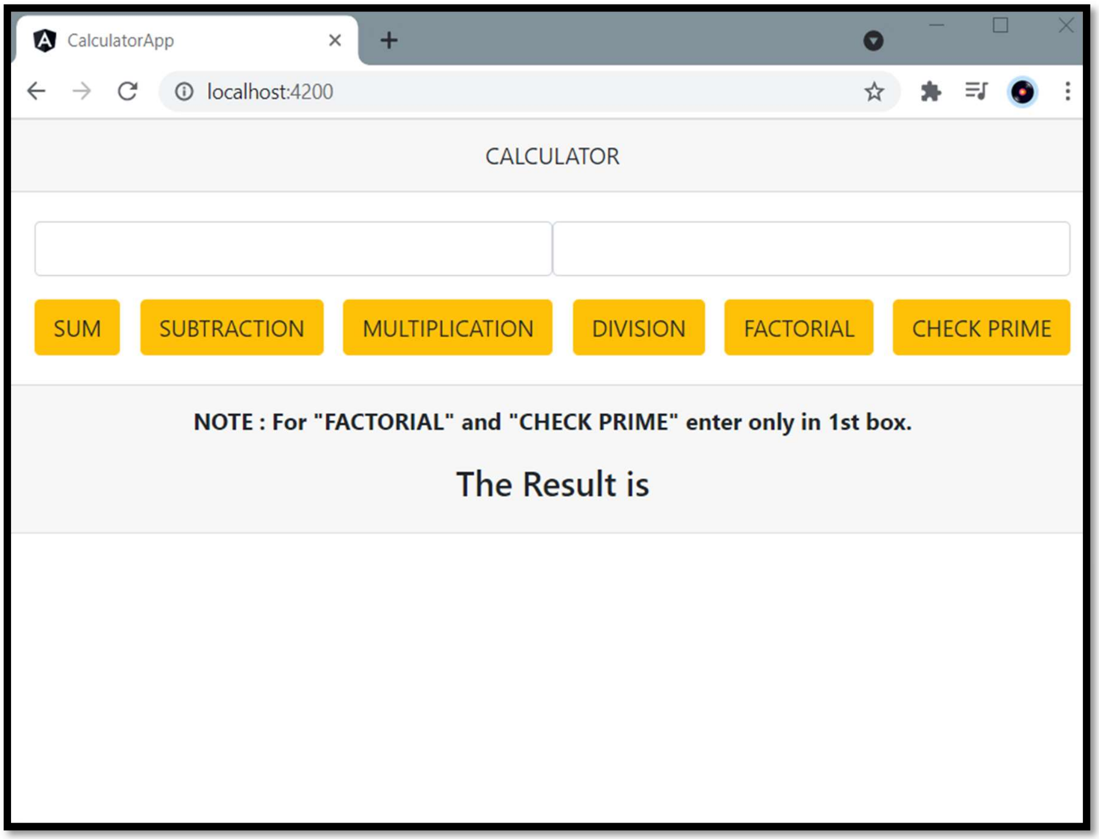
8.index.html



```
<!doctype html>
<html lang="en">
<head>

  <meta charset="utf-8">
  <title>CalculatorApp</title>
  <base href="/">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="icon" type="image/x-icon" href="favicon.ico">
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.
4.1/css/bootstrap.min.css" integrity="sha384-
Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh" crossorigin=
"anonymous">
</head>
<body>
  <app-root></app-root>
</body>
</html>
```

WEB APP

1. *INITIAL LOOK*

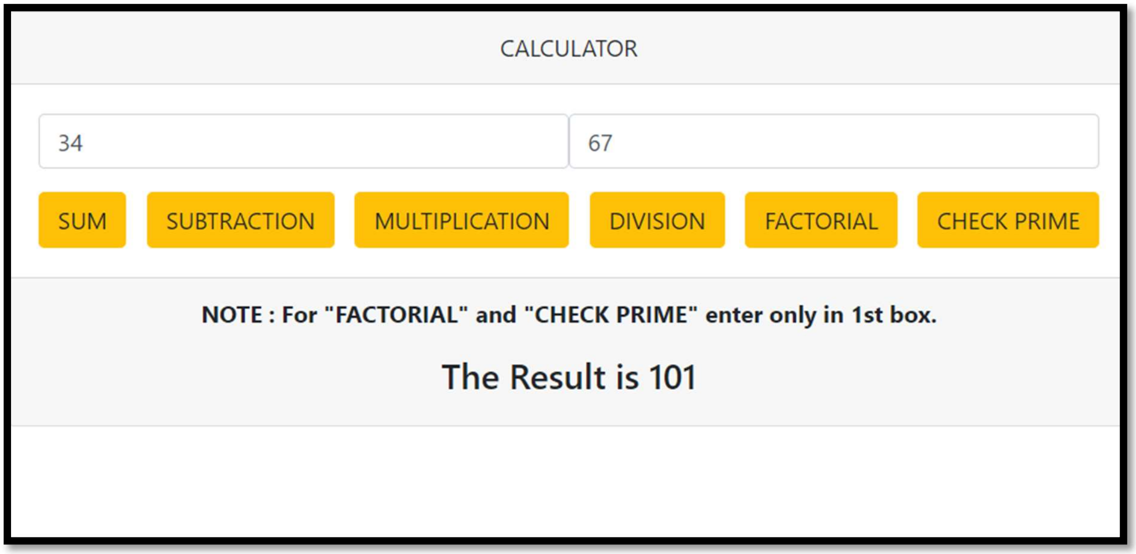


CALCULATOR

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is

2. *Case1 : Addition*



CALCULATOR

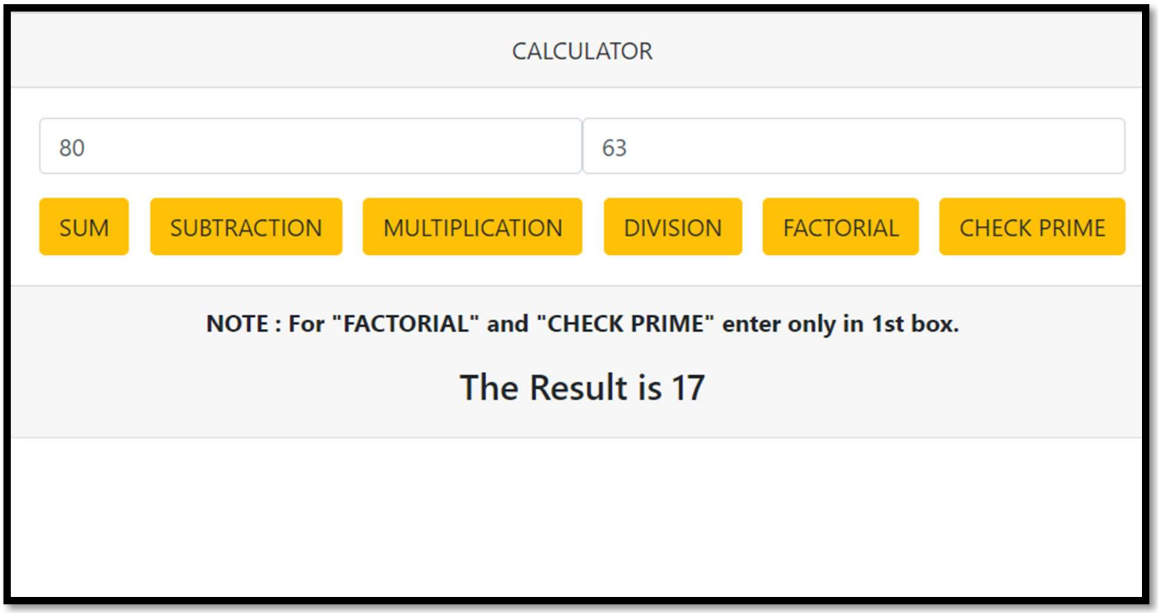
34

67

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is 101

3. *CASE 2: SUBTRACTION*


CALCULATOR

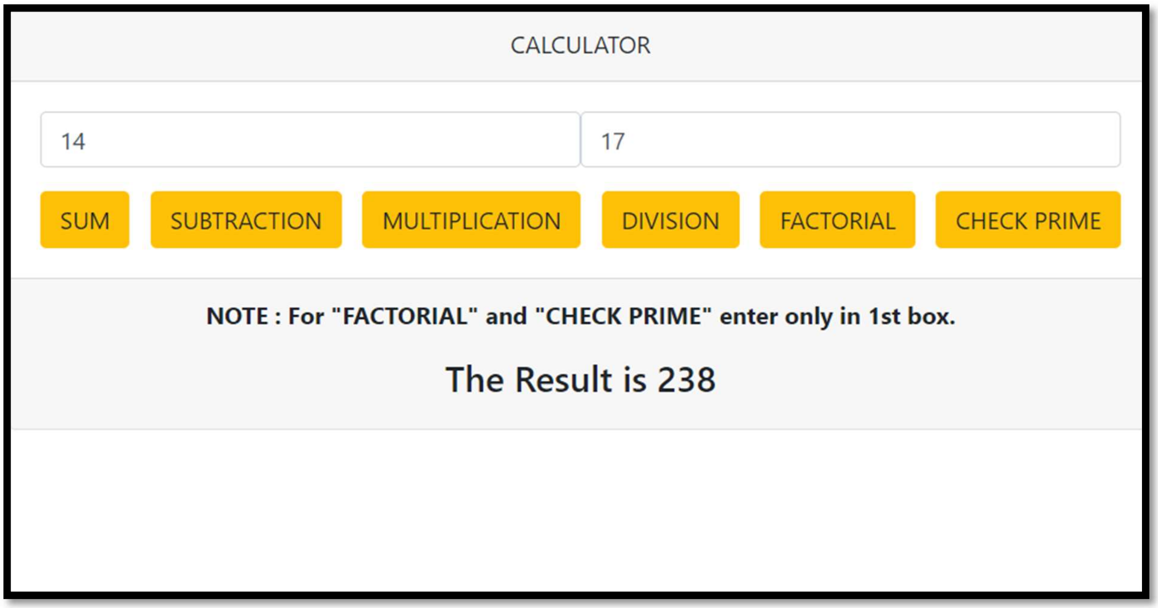
80

63

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is 17

4. *CASE 3: MULTIPLICATION*


CALCULATOR

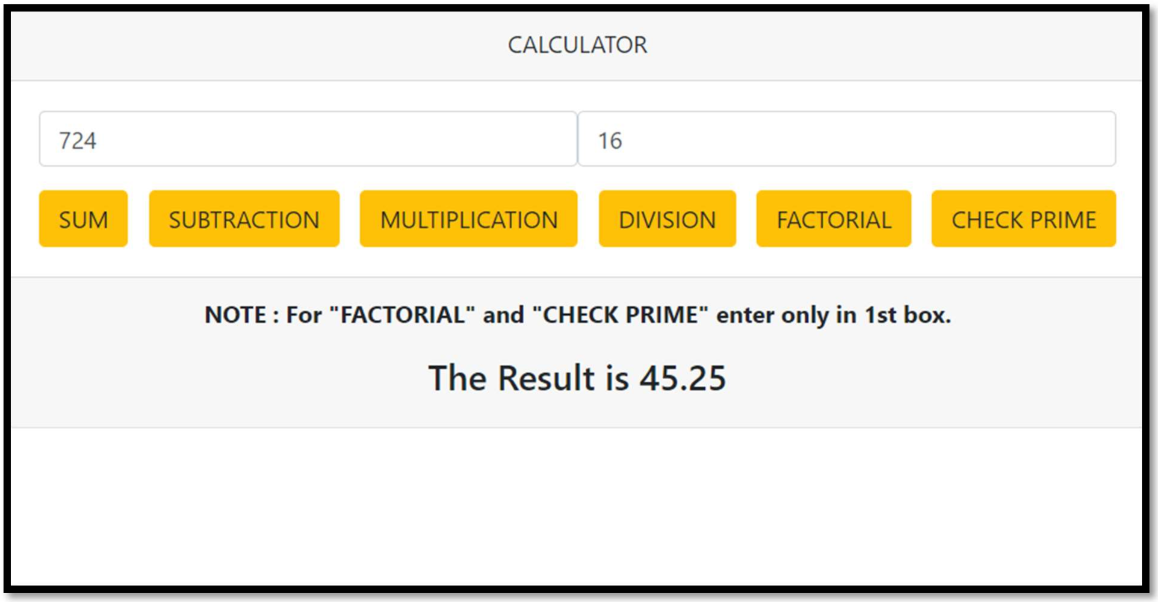
14

17

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is 238

5. *CASE 4 : DIVISION*



CALCULATOR

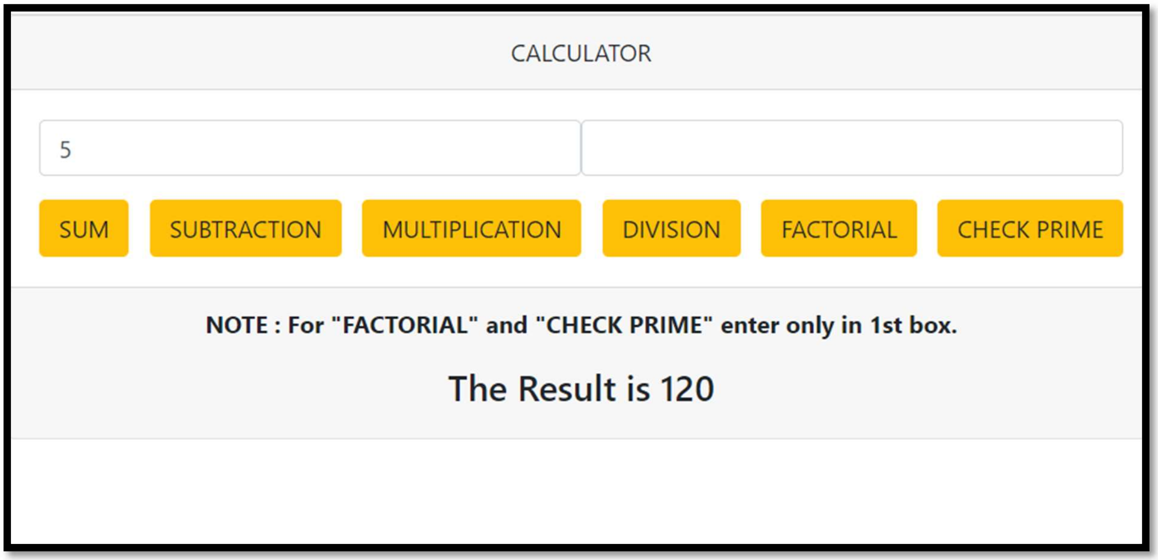
724

16

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is 45.25

6. *CASE 5: FACTORIAL*



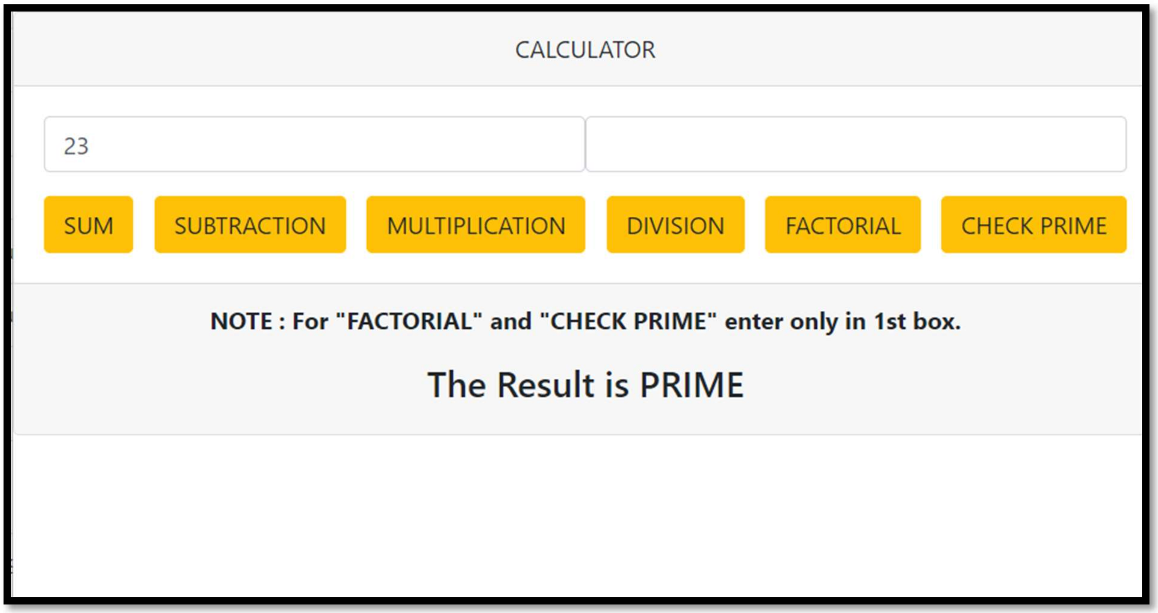
CALCULATOR

5

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is 120

7. *CASE 6.a: CHECK PRIME(is prime)*

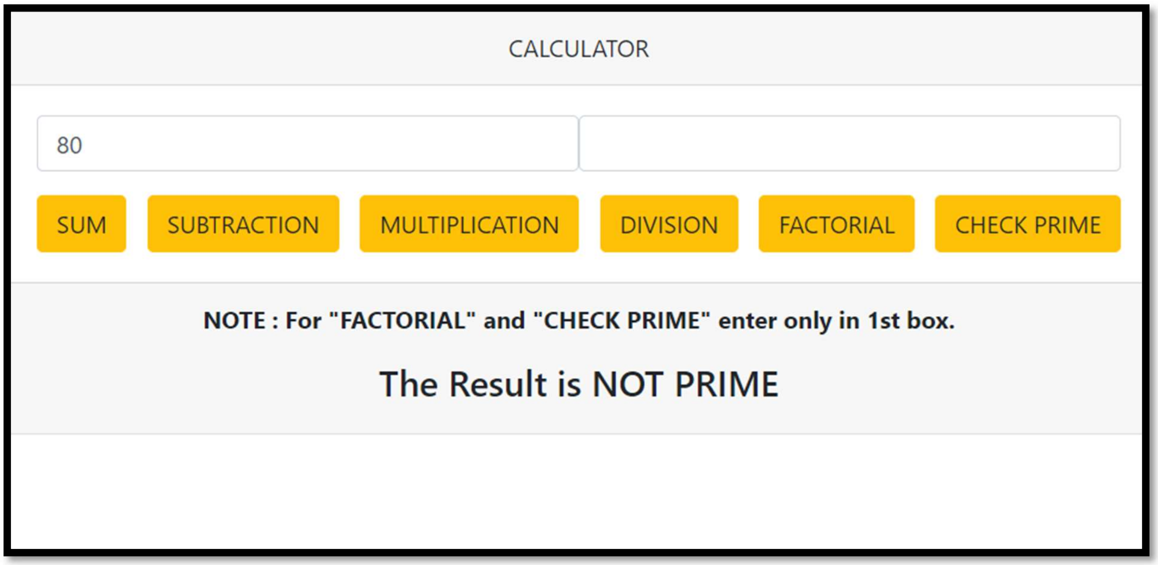


23

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is PRIME

8. *CASE 6.b: CHECK PRIME(is not prime)*



80

NOTE : For "FACTORIAL" and "CHECK PRIME" enter only in 1st box.

The Result is NOT PRIME