Name: Omkar Satish Bathe Class: M.Sc. (Computer Science) Part - II

Enrollment No.: 2202445 Subject: Lab Course on UI/UX

UI/UX Practical Assignment

AngularJS

Q1. Accept a number from user, display its square.

Solution:

STEP - 1: Install the Angular CLI in your local environment: npm install -g @angular/cli

STEP - 2: Create a new project: ng new Q1

STEP - 3: In the **app.component.ts** file type the following code:

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

@Component({
    selector: 'app-square',
    template: `<input type="number" [(ngModel)]="num" />
    <button (click)="squareNum()">Square</button>
    The square of the number is {{ square }}
}

export class AppComponent {
    num: number = 0;
    square: number = 0;
    squareNum() {
        this.square = this.num * this.num;
    }
}
```

STEP - 4: In index.html, replace <app-root></app-root> by <app-square></app-square>

STEP - 5: Run your project now: ng serve -o

OUTPUT:

7 Square

The square of the number is 49

Q2. Create 2 angular component named class and college, print "MSc (CS) part II" and "Modern College" from respective classes. Call College component from root, and class component from college.

Solution:

STEP - 1: Create two new components, ClassComponent and CollegeComponent:

ng generate component class

ng generate component college

STEP - 2: In class.component.ts file type following code:

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

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

export class ClassComponent {
    className = "M.Sc.(Computer Science) Part - II";
}
```

STEP - 3: In college.component.ts file type following code:

```
import { Component } from '@angular/core';
import { ClassComponent } from '../class/class.component';

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

export class CollegeComponent {
    className = "Modern College of Arts, Commerce and Science";
}
```

STEP - 4: Now in class.component.html and college.component.html file, type the following code respectively:

class.component.html:

```
<div>
     <h2>My Class</h2>
     I am studying in {{className}}
</div>
```

college.component.html:

STEP - 5: Now in app.component.html file, type following code:

```
<div class="app">
  <h1>Demonstration of Nested Components in AngularJS</h1>
  <app-college></app-college>
</div>
```

STEP - 6: Run the project: ng serve -o

OUTPUT:

Demonstration of Nested Components in AngularJS

My College

I am from Modern College of Arts, Commerce and Science

My Class

I am studying in M.Sc.(Computer Science) Part - II

Q.3 Accept a font size from user and apply it to following text using component directives:

Modern college of Arts, Science and Commerce.

Solution:

STEP - 1: Create a new component, FontSizeComponent:

ng generate component font-size

STEP - 2: In font-size.component.ts file:

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

@Component({
    selector: 'app-font-size',
    templateUrl: './font-size.component.html',
    styleUrls: ['./font-size.component.css']
})

export class FontSizeComponent {
    fontSize = 16;
}
```

STEP - 3: In font-size.component.html file:

```
<div class="app">
  <input type="number" [(ngModel)]="fontSize" />
  Modern College of Arts, Commerce and Science
</div>
```

STEP - 4: In app.component.html file:

```
<div class="app">
  <h1>Demonstration of how to use Component Directives in AngularJS</h1>
  <app-font-size></app-font-size>
</div>
```

OUTPUT:

Demonstration of how to use Component Directives in AngularJS
20
Modern College of Arts, Commerce and Science

Demonstration of how to use Component Directives in AngularJS

30 ♦

Modern College of Arts, Commerce and Science

Q.4 Accept a roll no from user and display student information using components.

Solution:

STEP - 1:

Create two new components, **StudentInfoComponent** and **StudentServiceComponent**:

ng generate component student-info

ng generate component student-service

STEP - 2: In student-service.component.ts file:

```
import { Injectable } from '@angular/core';
@Injectable({
 providedIn: 'root'
})
export class StudentServiceComponent {
  students: any[] = [
    { rollNo: 2202503, name: 'Ruchita Chaudhari', class: 'M.Sc. (Computer Science) Part -
II' },
    { rollNo: 2203209, name: 'Jahed Inamdar', class: 'M.Sc. (Computer Science) Part - II'
},
    { rollNo: 2202477, name: 'Pranita Pagare', class: 'M.Sc. (Computer Science) Part - II'
},
    { rollNo: 2203452, name: 'Prajwal Ladkat', class: 'M.Sc. (Computer Science) Part - II'
    { rollNo: 2202490, name: 'Sahil Gurav', class: 'M.Sc. (Computer Science) Part - II' }
 ];
  constructor() { }
 getStudentInfo(rollNo: number) {
    return this.students.find(student => student.rollNo === rollNo);
```

STEP - 3: In student-info.component.tx file:

```
import { Component } from '@angular/core';
import { StudentServiceComponent } from '../student-service/student-service.component';

@Component({
    selector: 'app-student-info',
        templateUrl: './student-info.component.html',
        styleUrls: ['./student-info.component.css']
})

export class StudentInfoComponent {

    rollNo!: number;
    studentInfo: any;

    constructor(private studentService: StudentServiceComponent) { }

    getStudentInfo() {
        this.studentInfo = this.studentService.getStudentInfo(this.rollNo);
    }
}
```

STEP - 4: In student-info.component.html file:

STEP - 5: In app.component.html file:

```
<div>
    <app-student-info></app-student-info>
</div>
```

STEP - 6: Run the project: ng serve - o

OUTPUT:

Student Information

2202477

Get Student Info

Name: Pranita Pagare Class: M.Sc. (Computer Science) Part - II