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# Experiment No: 13

**Aim**: Simple application using angularJS.

**Theory:**

TypeScript lets you write JavaScript the way you really want to. TypeScript is a typed superset of JavaScript that compiles to plain JavaScript. TypeScript is pure object oriented with classes, interfaces and statically typed like C# or Java. The popular JavaScript framework **Angular 2.0** is written in TypeScript. Mastering TypeScript can help programmers to write object-oriented programs and have them compiled to JavaScript, both on server side and client side.

Inheritance is an aspect of OOPs languages, which provides the ability of a program to create a new class from an existing class. It is a mechanism which acquires

the **properties** and **behaviours** of a class from another class. The class whose members are inherited is called the **base class**, and the class that inherits those members is called

the **derived/child/subclass**. In child class, we can override or modify the behaviours of its parent class.

Before ES6, JavaScript uses **functions** and **prototype-based** inheritance, but TypeScript supports the **class-based** inheritance which comes from ES6 version. The TypeScript uses class inheritance through the **extends** keyword. TypeScript supports only **single** inheritance and **multilevel** inheritance. It doesn't support multiple and hybrid inheritance.

Angular is a popular open-source web application framework developed by Google. It is designed to help developers build dynamic, modern web applications using a structured approach to building components and managing data.

Angular is built on the principles of declarative programming, which means that developers can define the behavior of their applications using a set of templates and declarative statements. It also includes a powerful set of tools for managing data, including two-way data binding and dependency injection.

Angular is known for its ability to scale, allowing developers to build complex applications with ease. It also has a large and active community of developers, which means that there are many resources available for learning and troubleshooting.

Overall, Angular is a powerful tool for building modern web applications that are scalable, maintainable, and easy to develop.

Angular Material is a UI component library developed by the Angular team at Google. It provides a set of reusable UI components, including buttons, forms, menus, and dialog boxes, that follow Google's Material Design principles.

The library is designed to make it easy for developers to build beautiful and responsive web applications using Angular. Angular Material provides a consistent look and feel across all of its components, which helps to create a unified and intuitive user experience.

One of the key benefits of using Angular Material is that it saves developers time and effort by providing pre-built UI components that can be easily customized to meet the needs of their application. The library is also fully compatible with Angular's built-in directives, so developers can easily integrate it into their projects.

In addition to its UI components, Angular Material also provides a number of useful features, such as support for internationalization and accessibility. It is also actively maintained by the Angular team, which means that it is constantly updated and improved with new features and bug fixes.

Overall, Angular Material is a powerful tool for building modern and responsive web applications with Angular. Its reusable UI components and consistent design make it easy to create beautiful and intuitive user interfaces, while its compatibility with Angular's built-in directives ensures that it integrates seamlessly with Angular projects.

**PROGRAM CODE:**

```
C:\Users\dell\Desktop\SIES\SEM 6\Web X Lab\120A3051>cd angularJS

C:\Users\dell\Desktop\SIES\SEM 6\Web X Lab\120A3051\angularJS>npm install -g @angular/cli
npm WARN EBADENGINE Unsupported engine {
npm WARN EBADENGINE    package: 'lru-cache@9.1.0',
npm WARN EBADENGINE    required: { node: '14 || >=16.14' },
npm WARN EBADENGINE    current: { node: 'v16.13.0', npm: '8.14.0' }
npm WARN EBADENGINE }
npm WARN deprecated @npmcli/move-file@2.0.1: This functionality has been moved to @npmcli/fs

added 5 packages, changed 235 packages, and audited 241 packages in 56s

30 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice
npm notice New major version of npm available! 8.14.0 -> 9.6.5
npm notice Changelog: https://github.com/npm/cli/releases/tag/v9.6.5
npm notice Run npm install -g npm@9.6.5 to update!
npm notice
```
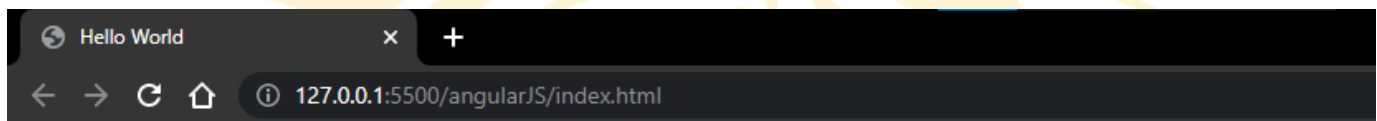
index.html

```html
index.html ×
angularJS > 🔶 index.html > ...
   1    <!DOCTYPE html>
   2    <html>
   3    <head>
   4        <title>Hello World</title>
   5        <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
   6    </head>
   7    <body>
   8        <div ng-app="myApp" ng-controller="myCtrl">
   9            <h1>{{ message }}</h1>
  10        </div>
  11
  12        <script>
  13            var app = angular.module("myApp", []);
  14            app.controller("myCtrl", function($scope) {
  15                $scope.message = "Hello, World! This is Shreya's AngularJS App";
  16            });
  17        </script>
  18    </body>
  19    </html>
```

Hello World        ×    +

← → C ⌂    ⓘ 127.0.0.1:5500/angularJS/index.html

# Hello, World! This is Shreya's AngularJS App

**Conclusion:** Thus, we have successfully able to create simple angular website