Experiment No.: 07

Title: Demonstrate the directives in angular.

Objectives:

1. To study different directives in angular.

Theory:

Directives in Angular is a js class, which is declared as **@directive**. We have 3 directives in Angular. The directives are listed below −

1) Component Directives-

These form the main class having details of how the component should be processed, instantiated and used at runtime. 2) Structural Directives-

A structure directive basically deals with manipulating the dom elements. Structural directives have a * sign before the directive. For example, *ngIf and *ngFor.

3) Attribute Directives-

Attribute directives deal with changing the look and behavior of the dom element.

Structural Directives-

Structural directives are responsible for HTML layout. They shape or reshape the DOM's structure, typically by adding, removing, or manipulating elements. A structural directive can be applied to a host element. The directive then does whatever it's supposed to do with that host element and its descendants.

Structural directives are easy to recognize. An asterisk (*) precedes the directive attribute name as in this example.

```
<div *ngIf="hero" class="name">{{hero.name}}</div>
```

Angular translates the *ngIf attribute into a <ng-template> element, wrapped around the host element, like this.

```
<ng-template [ngIf]="hero">
<div class="name">{{hero.name}}</div>
</ng-template>
```

Three of the common, built-in structural directives—NgIf, NgFor, and NgSwitch

NgIf-

NgIf is the simplest structural directive and the easiest to understand. It takes a boolean expression and makes an entire chunk of the DOM appear or disappear.

NgFor-

This is more complicated than NgIf. The NgFor directive has more features, both required and optional, than the NgIf. At minimum NgFor needs a looping variable and a list.

NgSwitch-

The Angular NgSwitch is actually a set of cooperating directives: NgSwitch, NgSwitchCase, and NgSwitchDefault. The switch value assigned to NgSwitch determines which (if any) of the switch cases are displayed. NgSwitch itself is not a structural directive. It's an attribute directive that controls the behavior of the other two switch directives.

NgSwitchCase and NgSwitchDefault are structural directives. They are attached to the elements using the asterisk (*) prefix notation. An NgSwitchCase displays its host element when its value matches the switch value. The NgSwitchDefault displays its host element when no sibling NgSwitchCase matches the switch value.

Attribute Directives-

An Attribute directive changes the appearance or behavior of a DOM element. Attribute directives are used as attributes of elements. The built-in NgStyle directive can change several element styles at the same time. An attribute directive minimally requires building a controller class annotated with @Directive, which specifies the selector that identifies the attribute. The controller class implements the desired directive behavior.

Key Concept: Directive, Structural Directive, Attribute Directive