Angular TS Directives ngIf ngFor ngClass ngStyle

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**✅ Task 4: Directives**

**1️⃣ Purpose**

To learn how to use **built-in Angular directives** like \*ngIf, \*ngFor, ngClass, ngStyle, and understand how to apply them in UI templates.

**2️⃣ Theory**

| **Directive** | **Type** | **Description** |
| --- | --- | --- |
| \*ngIf | Structural | Conditionally include a DOM element. |
| \*ngFor | Structural | Loop through an array and render elements. |
| ngClass | Attribute | Dynamically add CSS classes. |
| ngStyle | Attribute | Dynamically apply inline styles. |

**Structural Directives** affect layout by adding/removing elements.  
**Attribute Directives** change the behavior/appearance of elements.

**3️⃣ Prerequisites**

* Angular 18 CLI
* Standalone components enabled
* Routing already configured (app.routes.ts, app.config.ts)

**4️⃣ Code Example (Step-by-Step)**

**✅ a) Create DirectivesComponent**

ng generate component components/directives --standalone

**✅ b) directives.component.ts**

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

import { CommonModule } from '@angular/common';

@Component({

selector: 'app-directives',

standalone: true,

imports: [CommonModule],

template: `

<h2>Angular Directives Demo</h2>

<!-- ngIf -->

<button (click)="show = !show">Toggle Message</button>

<p \*ngIf="show">Hello! ngIf is working.</p>

<!-- ngFor -->

<ul>

<li \*ngFor="let name of names">{{ name }}</li>

</ul>

<!-- ngClass -->

<p [ngClass]="{ 'highlight': isHighlighted }">This text is conditionally highlighted.</p>

<button (click)="toggleHighlight()">Toggle Highlight</button>

<!-- ngStyle -->

<p [ngStyle]="{ 'color': fontColor, 'font-size': fontSize }">

Styled using ngStyle!

</p>

`,

styles: [`

.highlight {

background-color: yellow;

}

`]

})

export class DirectivesComponent {

show = true;

names = ['Kiran', 'John', 'Maria', 'Amit'];

isHighlighted = false;

fontColor = 'green';

fontSize = '18px';

toggleHighlight() {

this.isHighlighted = !this.isHighlighted;

}

}

**5️⃣ Update app.routes.ts**

import { Routes } from '@angular/router';

import { DirectivesComponent } from './components/directives/directives.component';

export const appRoutes: Routes = [

// ... other routes

{ path: 'directives', component: DirectivesComponent }

];

**6️⃣ Project Structure Snapshot**

src/

├── app/

│ ├── components/

│ │ └── directives/

│ │ └── directives.component.ts ✅

│ ├── app.routes.ts ✅

│ ├── app.config.ts ✅

│ └── app.component.ts ✅

└── main.ts ✅

**✅ 7️⃣ Summary**

* \*ngIf, \*ngFor, ngClass, and ngStyle are commonly used Angular directives.
* In Angular 18, you import CommonModule directly in the standalone component.
* This task adds dynamic DOM manipulation to your project via directives.