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Angular 7 Interview Questions

What is Angular 7?

Angular 7 is an upgraded version of the **Angular Framework** developed by Google INC. It is used for creating realtime quick updating web software and dashing single-page applications. It is written in Typescript and completely based on components.

Q1. What's new in Angular 7?

Angular Elements is enabled to support content projection with the help of web standards for custom elements.

- **Angular Material Gets Minor Updates**

  Angular Material got better in the display that gives it an elegant look in the new update. Moreover, it also added a new homepage for the material, material.io. In this, you get tooling, design guidance, development components and stay up-to-date with the latest news.

  If you are using an Angular Material v7 then you observe a visual difference as library make changes to itself with the updated version of the Material Design.

- **Better Accessibility for Selects**

  In the updated version, it includes a lot of new features to enhance accessibility for selects. It adds a new feature of the native select inside mat-form-field. It is far better and outperformed than the mat- select.

  Both the select and mat-select are available so you can choose what you want to do.

- **Virtual Scrolling**

  The Component Dev Kit (CDK) is available in the market with the great virtual scrolling capabilities that the user can apply by importing the `ScrollingModule`!

  ```
  <cdk-virtual-scroll-viewport itemSize="20">
  <div *cdkVirtualFor="let dog of dogsArray"> {{dog}}</div>
  </cdk-virtual-scroll-viewport>
  ```

- **Drag & Drop**

  The CDK in the new update also now recommends Drag & Drop, which possess these great hallmarks:

- **Automated render as a user moves items**

It is new feature available only in Angular 7

- **Helper methods for reordering/transferring items in lists**

  For reordering or transferring items in lists, you can use a helper method: moveItemInArray and transferArrayItem

- **Enhancing Application Performance**

  You will get enhanced application performance in Angular 7

- **A safeguard has come into play for the users of Angular 7**

  It gives a portent to new application builders when they are crossing the budget with their bundle size. The warning occurs on 2 MB whereas an error occurs over 5 MB. But you don't need to frighten. You can change the limits simply in your angular.json file. The thing you have to do is add in a bit about the warnings and error sizes with budget details.

```
"budgets": [
  {
    "type": "initial",
    "maximumWarning": "2mb",
    "maximumError": "5mb"
  }
]
```

Q2. What is IVY Renderer? Is it supported by Angular 7?

Angular will be releasing a new kind of rendering pipeline and view engine.

The purpose of angular view engine is to translate the templates and components that we have written into the regular HTML and JavaScript so it is easy for the browser to read it comfortably. Ivy is believed to be splendid for the Angular Renderer.

Yes, it is supported by Angular 7.

Q3. What are the Core Dependencies of Angular 7?

Core Dependencies of Angular 7

There are two types of core dependencies: RxJS and TypeScript.

RxJS 6.3

RxJS version 6.3 is used by Angular 7. It has no changes in the version from Angular 6

TypeScript 3.1

TypeScript version 3.1 is used by Angular 7. It is the upgrade from the version2.9 of Angular 6.

Q4. How to update Angular 4,5, 6 to Angular 7?

- First of all, you need to update the **Angular version** globally by inserting the latest version via the terminal: sudo npm install -g @angular/cli@latest.
- The next step is to upgrade the version locally in your project and need to assure the altering for the new version are displayed in the package.json file ng update @angular/cli
- When it is done, upgrade all your dependencies and dev dependencies in package.json
- To build Angular applications, Angular-devkit was introduced in Angular 6 that needs the dependency on the CLI projects.
- With all of this, you'll also require to upgrade the version for Typescriptnpm install typescript@2.9.2 -- save-dev
- Then, you need to relocate the configuration of angular-cli.json to angular.json ng update @angular/cli and ng update @angular/core.
- Use this command: ng update @angular/material in case of Angular material is used.
- The next step is the removal of deprecated RxJS 6 features npm install -g rxjs-tslint rxjs-5-to-6-migrate -p src/tsconfig.app.json
- When it is done, uninstall rxjs-compat as it is not required for Angular npm uninstall --save rxjs-compat
- Also change import { Observable } from 'rxjs/Observable'; to import { Observable } from 'rxjs';
- Finally, you are able to start your Angular 7 application by using ng serve

Q5. Explain Bazel use in Angular 7?

Bazel is a test tool just like the Make, Maven and Gradle and it is an open-source build. Bazel utilizes readable and high-level build language. It handles the project in a great number of languages and builds the product for a large number of platforms. Moreover, it supports multiple users and large codebases over several repositories.

Q6. How to generate a class in Angular 7 using CLI?

Create a class in ANgular 7 using below code:

ng generate **class** <name> [options]

ng g **class** <name> [options]

Where name refers to the name of a class.

Options refer to the project name, spec value in Boolean or type of a file

Q7. How can you create a decorator in Angular?

There are two ways to register decorators in Angular. These are:

- $provide.decorator, and
- module.decorator

Q8. How can you handle events in Angular 7?

There are various methods to handle **events in Angular 7**. These are:

1. Binding to user input events: You are able to use the Angular event binding to answer to DOM event. User input triggers so many DOM events. It is a very effective method to get input from the user.

For example,

```
<button (click)="onClickMe()">Click me!</button>
```

2. Get user input from the event object: DOM carries a cargo of the information that possibly is valuable for the components. Here is an example to show you the keyup event of an input box to obtain the user's input after every stroke

```
src/app/keyup.components.ts (template v.1)
content_copy
template: `
<input (keyup)="onKey($event)">
<p>{{values}} </p>
```

3. Key event filtering: Every keystroke is heard by the (keyup) event handler. The enter keys matter the most as it provides the sign of the user that he has done with the typing. The most efficient method of eliminating the noise is to look after every $event.keyCode and the action is taken only when the enter key is pressed.

Q9. What is the difference between Structural and Attribute directives in Angular?

Structural directives are used to alter the DOM layout by removing and adding DOM elements. It is far better in changing the structure of the view. Examples of Structural directives are NgFor and Nglf.

Attribute Directives These are being used as characteristics of elements. For example, a directive such as built-in NgStyle in the template Syntax guide is an attribute directive.

Q10. What is TestBed in Angular?

Angular Test Bed (ATB) is the primary API for writing unit tests for Angular Application and libraries. It allows us to test behaviors and change detections that depend on the Angular Framework.

Q11. Explain activated route in Angular?

ActivatedRoute is an interface and it contains the information about a route associated with a component loaded into an outlet and it can also be used to traverse the router state tree.

Q12. What is NgUpgrade?

NgUpgrade is a library in Angular that allows us to upgrade our Angularjs (1.X) application to Angular gradually. It lets run Angular side-by-side along with AngularJs with breaking the application. You can install NgUpgrade using npm command `npm install @angular/upgrade --save`

Q13. Enlist few advantages with AOT?

Advantages of AOT are:

- This has an application that is smaller in size.
- During the building process, it quickly detects the template parse errors.
- It is secured and provides a faster way of component rendering.
- It can be easily used just with the latest version of the angular and that too when it was released.
- It also has outputted metadata files for the development of the library.

Q14. Explain router outlet?

The **router-outlet** is a directive from the @angular/router package. In angular, it works as a placeholder which is used to load the different components dynamically based on the activated and to mark where a matched component should be inserted in a template.

Q15. What is subscribing and multicasting in Angular?

When someone subscribes then at that point in time the observable instance helps in the development of the values.

On the other hand, the process of broadcasting the list of several multiple subscribers and that too in a single execution this process is known as multicasting. The observable used here then here you have no registered listeners on the document. So what happens here is that by the use of the first listener we can send the values to each and every subscriber and that also we can keep reusing it.

Q16. Explain UrlSegment Interface in Angular 7?

UrlSegment is a modified feature of Angular 7 that is a part of a URL between the two slashes. It is used to add a new interface such that it represents URL segment, constructor, properties, and methods that are present in UrlSegment class.

Q17. What is difference between pure and impure pipe in Angular?

The difference between pure and impure pipes are:

Pure pipes	Impure pipes
Here it only executes a pure pipe only when there is a change in the internal state of the pipe.	Here the execution of the impure pipe is done on every change in the component during the entire cycle.
The change here can be primitive or non-primitive.	Here if you want to be a pipe to be impure then at that time you need to change the settings from flag to false.

Q18. What is difference between Parameterizing and Chaining Pipe?

In Angular, we can pass any number of parameters to the pipe using a colon (:), this method is known as Angular **Parameterized Pipes.** Whereas chaining multiple pipes together by associating more than one pipe then the final output will be transformed with all the pipes applied, this method is called **Chaining Pipe.**

Q19. Enlist type of forms in supported by Angular 7?

There are two types of Forms available in Angular 7.

- **Reactive Forms:** It uses an explicit and immutable approach to managing the state of a form at a given point in time.
- **Template-driven Forms:** All logics, validations, controls are written in the template part.

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