Angular JS

* It is a framework developed by Angular.io community.
* Angular.io -> Angular JS -> Angular (name hierarchy).\
* Has OOPS and MVC features.
* Based on Type Script.
* Supports routing.

AngularJS is a JavaScript-based open-source front-end web application framework. Here are some fundamental concepts and notes about AngularJS:

1. Introduction to AngularJS:

- Developed and maintained by Google.

- Allows you to build dynamic, single-page web applications (SPAs).

- Uses declarative programming.

2. Key Features:

- \*\*Two-Way Data Binding:\*\* Any changes in the model are immediately reflected in the view and vice versa.

- \*\*Dependency Injection:\*\* Helps in creating and injecting dependent objects, which promotes reusability.

- \*\*Directives:\*\* Extends HTML with new attributes and elements.

- \*\*Modules:\*\* Helps in organizing the application into logical containers.

- \*\*Services:\*\* Singleton objects which hold business logic, data, or functions.

3. AngularJS Directives:

- \*\*ng-app:\*\* Defines the root element of an AngularJS application.

- \*\*ng-model:\*\* Binds the value of HTML controls (input, select, textarea) to application data.

- \*\*ng-bind:\*\* Binds the content of an HTML element to an AngularJS expression.

- \*\*ng-controller:\*\* Attaches a controller class to the view.

4. Controllers:

- Responsible for establishing a connection between the view and the model.

- Contains business logic and data transformations.

- Scope variables in controllers are directly accessible in the views.

5. Filters:

- Formats the value of an expression for display to the user.

- Can be used in controllers, services, and directives.

6. Modules:

- Acts as a container for different parts of an application.

- Helps in organizing code into manageable pieces.

- Modules can depend on other modules.

7. Services:

- Singleton objects that carry out specific tasks common to web applications.

- Can be injected into controllers, filters, and directives.

8. Dependency Injection:

- A software design pattern that deals with how components get hold of their dependencies.

- In AngularJS, the injector subsystem is in charge of creating components, resolving their dependencies, and providing them to other components as requested.

9. Routing:

- Helps in building single-page applications by providing navigation among views and their controllers.

- Uses the ngRoute module to enable routing in AngularJS applications.

10. Testing:

- AngularJS provides support for unit testing through tools like Jasmine and Karma.

- Encourages writing testable code, making it easier to test individual components.

Remember, AngularJS has evolved, and Angular (also known as Angular 2+) is the current version. The concepts are similar, but there are significant differences in the implementation details. It's recommended to learn Angular (the newer version) for building modern web applications.

Steps:

1. Install angular cli(command line interface).

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1. C:\Users\nithik.k\AppData\Roaming\npm\node\_modules\@angular\cli\bin set path in environment
2. Type ng new filename

In Angular only class components can be created.

Flow

Package.json -> Main.ts -> index.html (<app-root> </app-root>) -> app.module.ts -> app.component.ts ->

Package.json

* Required Dependencies and Libraries
* Website configurations

Main.ts

* All Imports are done

Angular

* Collection of Components / Tags
  + View (HTML Files)
  + One or More Styles (CSS)
  + Controller (JS)
  + Model (JS / TypeScript)
* Angular by default follows External Style sheet.
* Internal Views and External Views