- What is angular?

Angular is a popular open-source web application framework developed and maintained by Google. It is primarily used for building dynamic, single-page web applications (SPAs). Angular provides a comprehensive solution for developing web apps by offering tools for building user interfaces, handling user input, managing data, and routing.

- Difference between Angular & React?

Angular and **React** are two of the most popular front-end frameworks/libraries for building web applications, but they differ in their architecture, design philosophy, and the type of projects they are best suited for.

Core Differences:

Type:

Angular: A full-fledged framework.

React: A JavaScript library focused on UI components.

Data Binding:

Angular: Two-way data binding (changes in the UI automatically update the model, and vice versa).

React: One-way data binding (changes in the model update the UI, but not the other way around).

Components:

Angular: Components are tightly coupled with the framework and use TypeScript.

React: Components are more flexible and typically use JavaScript (or optionally TypeScript) with JSX.

Rendering:

Angular: Uses the real DOM for rendering.

React: Employs a virtual DOM for faster updates and better performance.

Learning Curve:
Angular: Steeper learning curve due to its comprehensive nature and TypeScript.

React: Easier to learn initially, but requires understanding of component-based architecture and state management.

- What is difference between Typescript & Javascript?

TypeScript and **JavaScript** are related but distinct programming languages. TypeScript is built on top of JavaScript, adding extra features while still allowing you to write plain JavaScript if needed. Here's a detailed comparison:

1. Typing:

TypeScript:

Statically typed (optional). You can define the types of variables, function parameters, and return values, allowing for better code analysis and error detection during development.

JavaScript:
Dynamically typed. The type of a variable is determined at runtime, which can lead to errors that are only caught during execution.
2. Superset/Subset:

TypeScript:

A superset of JavaScript, meaning it includes all JavaScript features and adds additional functionalities like interfaces, generics, and decorators.

JavaScript:
The base language, providing the core syntax and functionality for web development.
3. Compilation:

TypeScript: Requires compilation into JavaScript before it can be executed in a web browser.

JavaScript: Can be executed directly by browsers without any compilation step.
4. Tooling:

TypeScript:

Offers enhanced tooling support, including better code completion, refactoring, and debugging capabilities in many IDEs.

JavaScript:
Tooling support varies, but generally less robust than TypeScript for complex projects.

5. Error Detection:

TypeScript: Catches type-related errors during development, preventing runtime errors and improving code reliability.

JavaScript: Errors may only be detected at runtime, making debugging more challenging.

6. Community and Adoption:

- **TypeScript:** Growing rapidly in popularity, especially for large-scale applications, due to its type safety and enhanced tooling.
- **JavaScript:** Widely adopted and used across the web development landscape.

- What is difference between Angular & AngularJs?

Angular and **AngularJS** are two frameworks for building web applications, both developed by Google, but they have significant differences in their architecture, performance, and features. Here's a breakdown of the main differences between **Angular** (also known as Angular 2+ or simply Angular) and **AngularJS** (also known as Angular 1.x):

But they differ in several ways, including:

Language

Angular is based on TypeScript, while AngularJS is based on JavaScript.

Architecture

Angular uses a component-based architecture, while AngularJS uses the MVC framework.

Data binding

Angular supports one-way and two-way data binding, while AngularJS only supports one-way data binding.

Command-line interface

Angular has a command-line interface (CLI) for testing and application maintenance, while AngularJS does not.

Mobile support

Angular offers mobile support with Ionic and NativeScript, while AngularJS does not.

Performance

Angular is at least seven times faster than AngularJS.

Dependency injection

Angular has a hierarchical dependency injection system, while AngularJS has only one injector.

Routing

Angular has advanced routing features that support lazy loading, while AngularJS uses '@routeProvider.when' to define routing information.

Project structure

Angular projects are structured and easier to manage, while AngularJS projects are not.