

Dependency Injection

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What is Dependency Injection (DI)?

- Software design pattern that implements inversion of control for resolving dependencies
 - Dependency: An object that can be used (a service)
 - Injection: Passing of a dependency to a dependent object so that it can use it. The client does not need to build the object
 - Coined by Martin Fowler in 2004

https://en.wikipedia.org/wiki/Dependency_injection

Dependency

- Three ways for a component to get hold of its dependencies:
 - Create dependency using new operator
 - Look up dependency using a global variable
 - Have dependency passed to it where needed
- Third option is most flexible
 - Hard coding of dependency avoided
 - Testing becomes feasible

Dependency Injection

- DI involves four roles:
 - The service
 - The client
 - The interfaces
 - The injector

Angular and DI

- Separation of business logic and dependency construction
- The dependency is passed to the object consuming it where it is needed
- Angular injector subsystem is responsible for:
 - creating components
 - resolving their dependencies, and
 - providing them to other components