DI Providers

Examples and utilities

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DI FRAMEWORK

```
providers: [LanguageService]
```

```
{ provide: LanguageService, useClass: LanguageService }
```

DI TOKEN

PROVIDER

- TOKEN: key for locating a dependency value

- PROVIDER: definition object to create dependency value

DI TOKEN

- **Class type**

```
{ provide: LanguageService, useClass: LanguageService }
```

- string

```
{ provide: 'api', useValue: 'http://myapp/api' }
```

- InjectionToken

```
{
  provide: HTTP_INTERCEPTORS,
  useClass: CustomHttpInterceptor,
  multi: true,
},
```

PROVIDERS

- **useValue** use native value, object
- **useClass** creates a new dependencies
- **useExisting** reuses an existing dependencies
- **useFactory** function to create a dependencies based on runtime values/dependencies

useValue

- Configuration
  - Shared in app
  - Shared to a library
- Testing: mock, stubs, spies

```
APP_CONFIG = new InjectionToken<MyConfig>('config');
{
  provide: APP_CONFIG,
  useValue: importedConfig,
}
```

```
const translateServiceStub = {
  instant: (label: string): string => {
    return prefixes[label];
  },
};

{ provide: TranslateService, useValue:  translateServiceStub }
```

useClass

- Use testing

```
{provide: TranslateService, useClass: TranslateServiceStub}
```

- Specialization/Overrides behavior `CustomDatepickerI18n`

- Configuration `WebpackTranslateLoader`

- Defines a dependencies for a fake service in lib

```
CustomI18nService extends LibI18nService
```

  - Fake dependencies, leaves decision of right library to application

useExisting

- Fake service in library, defining in app with already used service

```
DateUtils extends LibDateUtils
```

useFactory

- Setup Angular based on own service

```
useFactory: LocaleFactory
```

- Fake service in library with default dependency

```
useFactory: LibI18nServiceFactory
```

  - Lib could tested without real dependencies
  - Division of work

Resources

- https://angular.io/guide/dependency-injection-providers
- https://medium.com/swlh/angular-dependency-providers-60a0400f370
- https://www.tektutorialshub.com/angular/angular-providers/

- Repo: https://github.com/oreynaldocl/di-examples
  Presentation: notes/DI Providers.pdf

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THANK YOU