# **Dependency Injection**

1.	Built-in IoC Container	.2
2.	Registering Application Service	.4
	Understanding Service Lifetime	
4.	Extension Methods for Registration	.6
	Constructor Injection.	

1

## 1. Built-in IoC Container

- ASP.NET Core framework includes built-in IoC container for automatic dependency injection. The built-in IoC container is a simple yet effective container.
- The built-in IoC container is a simple yet effective container.
- The followings are important interfaces and classes for built-in IoC container:



Extension method to get IServiceProvider instance from ServiceCollection

+ AddScopped()
Extension methods to add services with lifetime

#### • Interfaces:

### a. IServiceProvider

- IServiceProvider includes GetService method.
- The ServiceProvider class implements IServiceProvider interface which returns registered services with the container
- We cannot instantiate ServiceProvider class because its constructors are marked with internal access modifier.

#### b. IServiceCollection:

- We can register application services with built-in IoC container in the Configure method of Startup class by using IServiceCollection. IServiceCollection interface is an empty interface. It just inherits IList<servicedescriptor>.
- The ServiceCollection class implements IServiceCollection interface.

2