

## CRUD operations, services and DI

### I CRUD operations

Definition: CRUD is an acronym that comes from the world of databases and it stands for Create, Read, Update and Delete.

CRUD can be seen as a design paradigm which describes what operations can be performed on a set of data.

Each letter can be mapped to a type of action that a user can perform on a set of data.

It's possible to apply the CRUD concept to the world wide web and its underlying HTTP protocol.

Considering that every URL points to a resource, that is a set of data you can access those with different HTTP verbs: GET, PUT, POST and DELETE.

CRUD can be applied for API projects in order to describe how the resources can be manipulated and what are the operations supported by the API.



## II Services & DI

### ① Service

A service is a class which provides specific functionality for an app. Services are usually provided using Dependency Injection pattern.

Two types of services:

- a) Framework services: these services are part of the .Net Core framework (IConfiguration, IApplicationBuilder, ILoggerFactory, etc.)
- b) App services: these are the services that you create in your app; since the DI doesn't know them, you need to register them explicitly.

### ② Dependency Injection

DI is a design pattern which allows the creation of dependent objects outside of the class that depends on them and provides those objects to a class through different ways.