# C# Masterclass Exam - 16 May 2021

# Overview

Since you are a C# developer, probably you are familiar with the DI techniques. You will be tasked to implement a custom (of course) dependency injection library.

# Setup

* **Do not** violate your **interface** **implementations** by adding **more public methods** or **properties** in the concrete class than the interface has defined.

# Task 1: Master Injection (50 points)

You have to implement Dependency Injection library. You are given three methods which needs to be implemented.

You are given **MyCrazyProject**. With this project you can test you custom DI library.

You are given а ready skeleton for the DI container.

## Add<TDestination, TSource>:

* Within the **Add** method you need to add the interface and implementation in a collection.

## CreateInstance(Type type)

* You need to create an instance of this type.

## CreateInstance<T>()

* You need to create an instance of **T**.

When creating an instance, take the constructor which has less required parameters.

You are not allowed to change anything in **MyCrazyProject**.

**NOTE: Upload MyCrazyProject and MasterInjection folders without the bin and obj folders.**

# Task 2: IO Provider (50 points)

You are given a few files in the skeleton. You will need to read them asynchronously and write the content in new files again asynchronously.