# Repository

## Preparation

Download the skeleton provided in Judge. **Do not** change the **StartUp** class or its **namespace**.

## Problem description

Write a C# class Person that has the following properties:

* **Name** – String
* **Age** – Integer
* **Birthdate** – DateTime

The class **constructor** should receive all the properties (**name**, **age**, **birthdate**).

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| **public class** Person  {  *//* ***TODO: implement this class*** } |

Write a C# class Repository that has **data** **field**, which stores entities). All entities inside the repository have the **same properties** and a **unique ID**, that is assigned when they are added **starting from zero**.

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| **public class** Repository  {  *//* ***TODO: implement this class*** } |

The class **constructor** should initialize the **data** with a new **Dictionary** instance**.** Implement the following features:

* Method Add(Person person) – adds an entity to the Data;
* Method Get(int id) – returns the entity with given ID
* Method Update(int id, Person newPerson) – replaces the entity with the given id with the new entity. Returns false if the id doesn't exist, otherwise returns true.
* Method Delete(id) – deletes an entity by given id. Return false if the id doesn't exist, otherwise return true.
* Getter Count – returns the number of stored entities

## Examples

This is an example how the Repository class is **intended to be used**. Make sure to comment out the parts that throw an error!

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| Sample code usage |
| var repository = new Repository();  repository.Add(new Person("George", 10, new DateTime(2009, 05, 04)));  repository.Add(new Person("Peter", 5, new DateTime(2014, 05, 24)));  Person foundPerson = repository.Get(0);  Console.WriteLine($"{foundPerson.Name} is {foundPerson.Age} years old ({foundPerson.Birthdate:dd/MM/yyyy})");  //George is 10 years old (04/05/2009)  Person newPerson = new Person("John", 12, new DateTime(2007, 2, 3));  repository.Update(2, newPerson); // false  repository.Update(0, newPerson); // true  foundPerson = repository.Get(0);  Console.WriteLine($"{foundPerson.Name} is {foundPerson.Age} years old ({foundPerson.Birthdate:dd/MM/yyyy})");  //John is 12 years old (03/02/2007)  Console.WriteLine(repository.Count); // 2  repository.Delete(5); // false  repository.Delete(0); // true  Console.WriteLine(repository.Count); // 1 |

## Constraints

* The ID should change **only** when we **add** a new entity.
* The ID is unique per repository – if two repositories are instantiated, each has its own counter.

## Submission

Submit **the entire project without bin and obj folders.**