# Heroes

## Preparation

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

## Problem description

Your task is to create a repository which stores hero by creating the classes described below.

First, write a C# class **Item** with the following properties:

**Strength: int**

**Ability: int**

**Intelligence: int**

The class **constructor** should receive **strength, ability and intelligence** and override the **ToString()** method in the following format:

**"Item:"**

**" \* Strength: {Strength Value}"**

**" \*** **Ability: {Ability Value}"**

**" \*** **Intelligence: {Intelligence Value}"**

Next, write a C# class **Hero** with the following properties:

* **Name: string**
* **Level: int**
* **Item: Item**

The class **constructor** should receive **name, level and item** and override the **ToString()** method in the following format:

**"Hero: {Name} – {Level}lvl"**

**"Item:"**

**" \* Strength: {Strength Value}"**

**" \* Ability: {Ability Value}"**

**" \* Intelligence: {Intelligence Value}"**

Write a C# class **Hero**Repository that has **data** (a collection which stores the entity **Hero**). All entities inside the repository have the **same properties**.

|  |
| --- |
| **public class** HeroRepository  {  *//* ***TODO: implement this class*** } |

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

* Field **data** – **collection** that holds added heroes
* Method Add(Hero hero) – adds an entity to the data.
* Method Remove(string name) – removes an entity by given hero name.
* Method GetHeroWithHighestStrength() – returns the Hero which poses the item with the highest stength.
* Method GetHeroWithHighestAbility() – returns the Hero which poses the item with the highest ability.
* Method GetHeroWithHighestIntelligence() – returns the Hero which poses the item with the highest intellgence.
* Getter Count – returns the number of stored heroes.
* Оverride **ToString()** – Print all the heroes.

## Constraints

* The names of the heroes will be always unique.
* The items of the heroes will always be with positive values.
* The items of the heroes will always be different.
* You will always have an item with the highest strength, ability and intelligence.

## Examples

This is an example how the **Hero**Repository class is **intended to be used**.

|  |
| --- |
| Sample code usage |
| //Initialize the repository  HeroRepository repository = new HeroRepository();  //Initialize entity  Item item = new Item(23, 35, 48);  //Print Item  Console.WriteLine(item);  //Item:  // \* Strength: 23  // \* Ability: 35  // \* Intelligence: 48  //Initialize entity  Hero hero = new Hero("Hero Name", 24, item);  //Print Hero  Console.WriteLine(hero);  //Hero: Hero Name - 24lvl  //Item:  // \* Strength: 23  // \* Ability: 35  // \* Intelligence: 48  //Add Hero  repository.Add(hero);  //Remove Hero  repository.Remove("Hero Name");  Item secondItem = new Item(100, 20, 13);  Hero secondHero = new Hero("Second Hero Name", 125, secondItem);  //Add Heroes  repository.Add(hero);  repository.Add(secondHero);  Hero heroStrength = repository.GetHeroWithHighestStrength(); // Hero with name Second Hero  Hero heroAbility = repository.GetHeroWithHighestAbility(); // Hero with name Hero Name  Hero heroIntelligence = repository.GetHeroWithHighestIntelligence(); // Hero with name Hero  Console.WriteLine(repository.Count); //2  Console.WriteLine(repository);  //Hero: Hero Name - 24lvl  //Item:  //\*Strength: 23  // \* Ability: 35  // \* Intelligence: 48  //Hero: Second Hero Name - 125lvl  //Item:  // \* Strength: 100  // \* Ability: 20  // \* Intelligence: 13 |

## Submission

Zip all the files in the project folder except **bin** and **obj** folders