

CSC 241

Lab 5

Implement a class called **Bag** that implements the **BagInterface** class.

Then, test the **Bag** class by verifying all of the methods work correctly with objects of the **FamousPerson** class.

Test the **Bag** class with multiple entries of **FamousPerson** objects such that the name and year of birth are the same, but the factoids of the **FamousPerson** for each entry are different.

In order to display the contents of the **Bag** after testing the methods, write a **toString** method.

Use the following template:

```
public class Bag extends ArrayCollection implements BagInterface{

    @Override
    public Object grab() {
        // TODO Auto-generated method stub
        return null;
    }

    @Override
    public int count(Object target) {
        // TODO Auto-generated method stub
        return 0;
    }

    @Override
    public int removeAll(Object target) {
        // TODO Auto-generated method stub
        return 0;
    }

    @Override
    public void clear() {
        // TODO Auto-generated method stub
    }

}
```

Use the following driver program to test your Bag implementation (feel free to add your own code for sufficient testing):

```
public class BagDriver {
    public static void main(String[] args){
        Bag<FamousPerson> myBag = new Bag(10);
        FamousPerson p1, p2, p3;
        p1 = new FamousPerson("John", "McEnroe", 1980, "Tennis star.");
    }
}
```

```
p2 = new FamousPerson("Herman", "Hollerith", 1860,  
                        "American scientist.");  
p3 = new FamousPerson("John", "McEnroe", 2017, "Tennis announcer.");  
System.out.println(myBag);  
myBag.add(p1);  
myBag.add(p2);  
myBag.add(p3);  
System.out.println(myBag);  
System.out.println(myBag.grab());  
System.out.println(myBag.count(p1));  
System.out.println(myBag.removeAll(p1));  
System.out.println(myBag);  
myBag.clear();  
System.out.println(myBag);  
}  
}
```