Computer Science II - Prepa Tec Campus Eugenio Garza Lagüera  
First Partial Lab

Hand in your answers to all problems by hand.

**Problem 1.1:** Design a class called CreditCard that can model a credit card. List 5 attributes with their respective data types, and 4 methods with a brief description of what they would do. There is no need to code this class.

**Problem 1.2:** Using the class defined in problem 1.1, think of three objects (or instances) of the CreditCard class, and assign unique values to each of its 5 attributes.

**Problem 2.1:** Sort the following arrays using both Bubble and Selection Sort, showing all procedures.

|  |  |  |  |
| --- | --- | --- | --- |
| 0 | 14 | 43 | -2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 3 | 10 | 4 | 5 |

**Problem 3.1**

Code a static method that receives an array of Strings, and returns a copy of the same array, with its elements inverted.

public String[] invertArray(String[] in)

For example

* invertArray({"a","b","c"}) 🡪 ({"c","b","a"}
* invertArray({"1","2","3", “4”}) 🡪 ({"4","3","2","1"}

**Problem 3.2**

Code a static method that returns a new array of characters without any duplicates on it.

public char[] removeDuplicates(char[] in)

For example

* removeDuplicates({‘1’,’1’,’2’,’1’}) 🡪{’1’,’2’}
* removeDuplicates({'b','d','a','b’,’f’,’a’,’g’,’a’,’a’}) 🡪 {‘b’,’d’,’a’,’f’,’g’}