CIS 27– 19th In Class / Lab Assignment – **10 Points**
Student Name kachilau **Student ID** 10819338 **Point Total**

Pg. 211-212 , Java Programming *A comprehensive Introduction*

Define

Procedural Programming vs Object Orientated Programming explain the difference.

Procedural programming is a programming paradigm, derived from structured programming, based upon the concept of the procedure call.

Object-oriented programming (OOP) is a programming language model organized around "objects" rather than "actions" and data rather than logic.

Object- An object can be a variable, a data structure, or a function. In the class-based object-oriented programming paradigm, "object" refers to a particular instance of a class where the object can be a combination of variables, functions, and data structures.

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Object orientated programming- Object-oriented programming (OOP) is a programming language model organized around "objects" rather than "actions" and data rather than logic.

Programming Assignments:

Task 1- Page 252, #20 Java Programming *A comprehensive Introduction*

Modified

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Implement a class **Arrayplus1()** that takes an integer array **data** and an **int x** as its size. Create a method inside the class **Arrayplus1()**

that creates a new array whose length is one greater than **data's** length.

Then create a method to copy all data's elements into the new array and add the value of x into the last element of the array. (Search for java methods for copying Arrays)

Create a **printall()** method to return all the integers in the new array**.**

Attach Snipping Photos of source code and output.

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```
1   package javaapplication2;
2
3   class Arrayplus1{
4
5       int size;
6       int[] data;
7       int[] newary;
8
9       public Arrayplus1(int x, int[] array){
10          size = x;
11          data = array;
12      }
13
14      public void createarray(){
15          newary = new int[data.length + 1];
16      }
17
18      public void copyarray(){
20          for(int i = 0; i < data.length; i++) {
21              newary[i] = data[i];
22          }
23          newary[newary.length-1] = size;
24      }
25
26      public void printall(){
27          for(int i = 0;i < newary.length; i++) {
28              System.out.println(newary[i]);
29          }
30      }
31  }
32
33  public class JavaApplication2 {
```

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```
34      public static void main(String[] args) {
35          //use stack
36
37          int[] ary = {1, 2, 3};
38          int x = ary.length;
39
40          Arrayplus1 first = new Arrayplus1(x, ary);
41
42          first.createarray();
43          first.copyarray();
44          first.printall();
45
46      }
47
48  }
49
```

Arrayplus1 > copyarray >

Output - JavaApplication2 (run)

```
run:
1
2
3
3
BUILD SUCCESSFUL (total time: 0 seconds)
```