CIS 36A – 14th In Class / Lab Assignment

Student Name Ka Chi Lau **Student ID** 10819338 **Point Total**

Pg. 155 - 161, Java Programming *A comprehensive Introduction*

Arrays

Due Wednesday 4/2/14 during lab

Section 1: Define / Answer

Array: An array is a container object that holds a fixed number of values of a single type.

Primitive Data Type Variables: A variable of a non-primitive type doesn't contain the value directly; instead, it is a reference (similar to a pointer) to an object. (It is not possible in Java to create user-defined value types). Java has eight primitive types: byte , short , int , long , char , boolean , float and double .

One-Dimensional Arrays: One dimensional array stores numbers in one direction (horizontal only) eg imagine an array called 'array' with the following values

Type [] array-name = new type[size]: The way to create a array;

Array Element: an array data structure or simply an array is a data structure consisting of a collection of elements (values or variables), each identified by at least one array index or key.

Array *Index:* Array indexing refers to any use of the square brackets ([]) to index array values.

How is 0 used? Because 0 is how far from the pointer to the head of the array to the array's first element.

Array Initializers? Type [] array-name = new type[size]

CIS 36A – 14th In Class / Lab Assignment

Student Name **Ka Chi Lau** **Student ID** **10819338** **Point Total**

1st Position For Data	2nd Position For Data	3rd Position For Data	4th Position For Data	5th Position For Data
0	1	2	3	4

Programming Assignment

Pg. 201, Java Programming *A comprehensive Introduction*

Task 1- Page 201 # 1:

Show two ways to declare a one-dimensional array of 12 doubles.

{1.0, 2.0, 3.0, 4.0, 5.0, 6.0,7.0, 8.0, 9.0, 10.0, 11.0, 12.0};

For the first example print the 7.0 and 10.0 in a println.

Example - Your println should match

7.0

10.0

For the first example print the 2.0 and 12.0 in a println.

Example - Your println should match

2.0

12.0

Attach a 2 different snipping photos. The Snipping photos should include the programmer source code and the outputs.

CIS 36A – 14th In Class / Lab Assignment

Student Name Ka Chi Lau **Student ID** 10819338 **Point Total**

```
1
2   package javaapplication1;
3
4   public class JavaApplication1 {
5
6       public static void main(String[] args) {
7           //1st declare
8           double[] sample = new double[12];
9           sample[0] = 1.0;
10          sample[1] = 2.0;
11          sample[2] = 3.0;
12          sample[3] = 4.0;
13          sample[4] = 5.0;
14          sample[5] = 6.0;
15          sample[6] = 7.0;
16          sample[7] = 8.0;
17          sample[8] = 9.0;
18          sample[9] = 10.0;
19          sample[10] = 11.0;
20          sample[11] = 12.0;
21          System.out.println(sample[6] + "\n" + sample[9]);
22
23      }
24
25  }
26
```

Output - JavaApplication1 (run)

```
run:
7.0
10.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

CIS 36A – 14th In Class / Lab Assignment

Student Name Ka Chi Lau **Student ID** 10819338 **Point Total**

```
1
2   package javaapplication1;
3
4   public class JavaApplication1 {
5
6       public static void main(String[] args) {
7           //2nd declare
8           double[] sample2 = {1.0,2.0,3.0,4.0,5.0,6.0,7.0,8.0,9.0,10.0,11.0,12.0};
9           System.out.println(sample2[1] + "\n" + sample2[11]);
10
11      }
12
13  }
14
```

JavaApplication1 > main >

Output - JavaApplication1 (run)

```
run:
2.0
12.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

CIS 36A – 14th In Class / Lab Assignment

Student Name Ka Chi Lau **Student ID** 10819338 **Point Total**

Pg. 201, Java Programming *A comprehensive Introduction*

Task 2- Page 201 #3:

Write a program that uses an array to find the Average o 10 double values.

Use any 10 double values you like.

Use a **for** loop to cycle through the array when summing the total for all 10 double values.

Attach Snipping photos of source code and output.

CIS 36A – 14th In Class / Lab Assignment

Student Name Ka Chi Lau **Student ID** 10819338 **Point Total**

```
1
2   package javaapplication1;
3
4   public class JavaApplication1 {
5
6       public static void main(String[] args) {
7           //2nd declare
8           double[] sample2 = {1.0,2.0,3.0,4.0,5.0,6.0,7.0,8.0,9.0,10.0};
9           double sum = 0;
10          for(int i = 0; i <= 9; i++) {
11              sum = sum + sample2[i];
12          }
13
14          System.out.println("The average of the 10 double values is " + sum / 10);
15
16      }
17
18  }
19
```

JavaApplication1 > main > for (int i = 0; i <= 9; i++)

Output - JavaApplication1 (run)

```
run:
The average of the 10 double values is 5.5
BUILD SUCCESSFUL (total time: 0 seconds)
```