Assignment 2: Arrays

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**Objective: To learned about arrays**

This assignment will go over writing and running basic Java programs with Arrays.

Exercise 1: Fill in the array with the values that would be stored after the code executes:

Table 1

|  |
| --- |
| int[] data = new int[8];  data[0] = 3;  data[7] = -18;  data[4] = 5;  data[1] = data[0];  int x = data[4];  data[4] = 6;  data[x] = data[0] \* data[1]; |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index  value | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 3 | 0 | 0 | 6 | 9 | 0 | -18 |

Exercise 2: Fill in the array with the values that would be stored after the code executes:

Table 2

|  |
| --- |
| int[] list = {2, 18, 6, -4, 5, 1};  for (int i = 0; i < list.length; i++) {  list[i] = list[i] + (list[i] / list[0]);  } |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index  value | 0 | 1 | 2 | 3 | 4 | 5 |
| 3 | 24 | 8 | -5 | 6 | 1 |

Exercise 3: Write a Java program that takes integers in an array of size N and write a function that returns the square values of the array. Sort this array in ascending order and print the sorted array.

Table 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index  value | 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | 4 | 9 | 25 | 64 | 121 |

Exercise 4: Write a Java program to build the Arraylist of elements. {20, 30, 25, 35, -16, 60, -100}. Write code to add 80 in it and remove -16.

Table 4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Index  value | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 20 | 30 | 25 | 35 | 60 | -100 | 80 |

Exercise 5: Write code to find average of all elements of each row in the Multi dimensional Array a= {{45,20, 40}, {30,40,60}, {34,67,78}}Find the row with the largest avg and print its index and value.

Table 5

|  |  |
| --- | --- |
| Index  value | 2 |
| 59.666666666666664 |

**Conclusion: this helped me learn more about how to use arrays in java**

Please Complete all exercises.

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