**Written Assignment 2 Some Additional Useful Types and Classes and ArrayLists CSC 123 Spring 2021**

Notes: All homework must be submitted via e-mail. All parts of assignment must be submitted in a single e-mail with multiple attachments when required.

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The other homework file should be submitted with your name using the following format:

**RosenthalH\_Ax.doc**, where x is the assignment number. Note: use your name, not mine

**Short Answers. (1 point each)**

**Multiple Choice**

1. A series of words or other items of data, separated by spaces or other characters, is known as a \_\_\_\_B\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | String | B. | token | C. | delimiter | D. | caption |

1. Autoboxing is \_\_\_A\_\_\_\_.

|  |
| --- |
| 1. Java's process of automatically "boxing up" a value inside an object |
| 1. the automatic allocation of array elements |
| 1. the process of assigning a default value to primitive data types |
| 1. the process of identifying tokens in a string |

1. The term used for the character that separates tokens is \_\_\_B\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | tokenizer | B. | delimiter | C. | whitespace | D. | separator |

1. Which of the following statements converts a String object variable named str to an int and stores the value in the variable x? \_\_\_D\_\_\_\_

|  |
| --- |
| 1. int x = Integer.integer(str); |
| 1. int x - str; |
| 1. int x = Integer.parseInteger(str); |
| 1. int x = Integer.parseInt(str); |

1. Which of the following statements will convert the double variable, d = 543.98 to a string? \_\_A\_\_\_\_\_

|  |
| --- |
| 1. String str = Double.toString(d); |
| 1. String str = double.toString(d); |
| 1. String str = double(d); |
| 1. String str = d.Double.toString(str); |

1. What will be displayed after the following statements are executed? \_\_\_\_A\_\_\_

String str = "red$green&blue#orange";

String[] tokens = str.split("[$&#]");

for (String s : tokens)

System.out.print(s + " ");

|  |
| --- |
| 1. red green blue orange |
| 1. red $ green & blue # orange |
| 1. $ & # |
| 1. red[$&#]green[$&#]blue[$&#]orange |

1. The ArrayList class is in the \_\_D\_\_\_\_\_ package.

|  |  |  |
| --- | --- | --- |
| A. java.arraylist | C. | java.array |
| B. java.lang | D. | java.util |

1. You can use the \_\_\_\_A\_\_\_ method to replace an item at a specific location in an ArrayList.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | set | B. | remove | C. | replace | D. | add |

1. What will print when the following code executes? \_\_D\_\_\_\_\_

List<Integer> list1 = new ArrayList<Integer>();

list1.add(new Integer(1));

list1.add(new Integer(2));

list1.add(new Integer(3));

list1.remove(1);

System.out.printf(“%s\n”, list1);

1. [2, 3]
2. [1, 2, 3
3. [1, 2]
4. [1, 3]
5. What will print when the following code executes? \_\_\_A\_\_\_\_

List<String> list1 = **new** ArrayList<String>();

list1.add("Anaya");

list1.add("Layla");

list1.add("Sharrie");

list1.set(0, "Destini");

list1.add(0, "Sarah");

System.out.printf((“%s\n”, list1);

1. ["Sarah", "Destini", "Layla", "Sharrie"]
2. ["Sarah", "Destini", "Anaya", "Layla", "Sharrie"]
3. ["Sarah", "Layla", "Sharrie"]
4. ["Destini", "Layla", "Sharrie", "Sarah"]

**Answer the following as true or false:**

1. You cannot assign a value to a wrapper class object. \_\_False\_\_\_\_\_
2. StringBuilder objects are immutable. \_\_\_\_True\_\_\_
3. You can change the contents of a StringBuilder object, but you cannot change the contents of a String object \_\_\_\_\_True\_\_
4. When working with the String and StringBuilder classes' getChars method, the character at the start position is included in the substring but the character at the end position is not included. \_\_\_True\_\_\_\_
5. Primitive variables are objects. \_\_\_False\_\_\_\_
6. Integer y = new Integer(); generates a compile time error. \_\_\_True\_\_\_\_
7. Integer z = Integer.valueOf(3); generates a compile time error. \_\_False\_\_\_\_\_
8. Integer u = Integer.valueOf (3.14); generates a compile time error. \_\_\_True\_\_\_\_
9. Integer w = Integer.valueOf ("345"); generates a compile time error. \_\_\_False\_\_\_\_
10. An ArrayList object automatically expands in size to accommodate the items stored in it. \_\_\_True\_\_\_\_