Navraj Singh 1310194
Partner Risham Singh 1313527
CSCI260 – W03
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Programming Assignment 6 - Midterm Preparation

```java
/* 1.
* Create a Java program that collects 5 first names from the user,
* stores them to an array and then outputs/displays the contents of the array to the user after the 5th name is entered.
* (Grading Rubric - Capturing data, use of a loop, use of an array, 5 first names, string value).
*/
public static void get5Names() {
    input = new Scanner(System.in);
    String[] names = new String[5]; //use of an array

    for (int i = 0; i < 5; i++) { //use of a loop
        System.out.println(x:"Enter a name: "); //5 first names
        names[i] = input.next(); //Capturing data
    }

    System.out.println(x:"\nThe names you entered are: ");
    for (int i = 0; i < 5; i++) {
        System.out.println(names[i]); //string values
    }
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
1.
Enter a name:
Nav
Enter a name:
Joe
Enter a name:
Bob
Enter a name:
LeBron
Enter a name:
Shelby

The names you entered are:
Nav
Joe
Bob
LeBron
Shelby
```

```java
/* 2. Create a Java program that collects 3 annual salaries from the user, stores them to an array list
    and then outputs/displays the contents of the array list to the user after the 3rd annual salary is
    entered. (Grading Rubric – Capturing data, use of a loop, use of an array list, 3 salaries,
    numeric value).
*/
public static void get3Salaries() {
    input = new Scanner(System.in);
    ArrayList<Integer> salaries = new ArrayList<Integer>(); //use of an array list

    for(int i = 0; i < 3; i++) { //use of a loop
        System.out.println("Enter your " + i + " year's salary: "); //3 salaries
        salaries.add(input.nextInt()); //Capturing data
    }

    System.out.println(x:"\nThe salaries you entered are: ");
    System.out.println(salaries); //numeric value
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
2.
Enter your 0 year's salary:
100
Enter your 1 year's salary:
200
Enter your 2 year's salary:
300

The salaries you entered are:
[100, 200, 300]
```

```java
 * 3.
 * Create a Java program that collects 2 countries from the user, stores them to an Linked List and
 * then outputs/displays the contents of the Linked List to the user after the second country is
 * entered. (Grading Rubric – Capturing data, use of a loop, use of a linked list, 2 countries, string
 * value).
 */
public static void get2Countries() {
    input = new Scanner(System.in);
    LinkedList<String> countries = new LinkedList<String>(); //use of a linked list

    for(int i = 0; i < 2; i++) { //use of a loop
        System.out.println(x:"Enter a country: "); //2 countries
        countries.add(input.next()); //Capturing data
    }

    System.out.println(x:"\nThe countries you entered are: ");
    System.out.println(countries); //string value
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
3.
Enter a country:
USA
Enter a country:
Canada

The countries you entered are:
[USA, Canada]
```

```java
    * 4.
    * Create a Java program that uses a Stack to store 5 word processing commands of your choice
       (e.g. cut, paste, font size, font style etc.) and then simulate the “undo” function by outputting
       the contents of the stack as... UNDO: [stack element] for all elements (Grading Rubric – Use of
       a loop, use of a stack, 5 word processing features, output simulation).
    */
    public static void get5CommandsUndo() {
        Stack<String> commands = new Stack<String>(); //use of a stack
        input = new Scanner(System.in);

        for(int i = 0; i < 5; i++) {
            System.out.println(x:"Enter a command: "); //5 word processing features
            commands.push(input.next()); //Capturing data
        }

        for(int i = 0; i < 5; i++) {
            System.out.println("UNDO: " + commands.pop()); //output simulation
        }
    }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
4.
Enter a command:
Copy
Enter a command:
Paste
Enter a command:
Type
Enter a command:
Bold
Enter a command:
Cut
UNDO: Cut
UNDO: Bold
UNDO: Type
UNDO: Paste
UNDO: Copy
```

```java
    * 5.
    * Create a Java program that uses a Queue to store 4 word processing commands of your choice
       (e.g. cut, paste, font size, font style etc.) and then simulate the “redo” function by outputting the
       contents of the stack as... REDO: [queue element] for all elements (Grading Rubric – Use of a
       loop, use of a queue, 4 word processing features, output simulation).
    */
    public static void get4CommandsRedo() {
        Queue<String> commands = new LinkedList<String>(); //use of a queue
        input = new Scanner(System.in);

        for(int i = 0; i < 4; i++) {
            System.out.println(x:"Enter a command: "); //4 word processing features
            commands.add(input.next()); //Capturing data
        }

        for(int i = 0; i < 4; i++) {
            System.out.println("REDO: " + commands.remove()); //output simulation
        }
    }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
5.
Enter a command:
Delete
Enter a command:
Insert
Enter a command:
Italics
Enter a command:
Strikethrough
REDO: Delete
REDO: Insert
REDO: Italics
REDO: Strikethrough
```

```java
105     * 6.
106     * Create a Java program that uses an Array to capture 5 numeric integers from the user, sort those
107        integers using a bubble sort algorithm, and then output/display the sorted data. (Grading Rubric
108        - Capturing data, use of a loop, use of an array, use of a bubble sort algorithm, output of data)
109     */
110    public static void get5Nums() {
111        input = new Scanner(System.in);
112        int[] nums = new int[5]; //use of an array
113
114        for(int i = 0; i < 5; i++) { //use of a loop
115            System.out.println(x:"Enter a number: "); //Capturing data
116            nums[i] = input.nextInt();
117        }
118
119        //Bubble sort algorithm
120        for(int i = 0; i < nums.length - 1; i++) {
121            for(int j = 0; j < nums.length - i - 1; j++) {
122                if(nums[j] > nums[j + 1]) {
123                    int temp = nums[j + 1];
124                    nums[j + 1] = nums[j];
125                    nums[j] = temp;
126                }
127            }
128        }
129
130        System.out.print(s:"\nThe sorted numbers are: ");
131        for(int i = 0; i < 5; i++) {
132            System.out.print(nums[i] + ", "); //output of data
133        }
134    }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Enter a number:
100
Enter a number:
200
Enter a number:
50
Enter a number:
105
Enter a number:
0

The sorted numbers are: 0, 50, 100, 105, 200,
```