SESSION : 2:2021/2022

DEPARTMENT : JTMK

ASSESSMENT : LABORATORY TASK 2

CODE COURSE: DFP 30243

COURSE NAME: OBJECT ORIENTED PROGRAMMING

NAME & REG. NO. : 1) KHAIRUNNISA ISMA BINTI AB MAJIT
32DDT20F2003

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PROGRAMME : DDT3A

LECTURER : HAZLEENA BINTI OSMAN/ RODZIAH BINTI IBRAHIM

INSTRUCTIONS :

1. Answer **ALL** the questions.
2. Submission Date : ……

CODE / COURSE	DFP 30243 – OBJECT ORIENTED PROGRAMMING	LABORATORY TASK	~~1~~ / 2 / ~~3 / 4~~
PROGRAM / CLASS	DDT3A	DURATION	120 MINUTES
STUDENT'S NAME	KHAIRUNNISA ISMA BINTI AB MAJIT BUNGA SYAZWANIE BT MD TARMIZIE MUHAMMAD AFIQ MUHAIMIN BIN MOHD ZAINI	CLO	1P
REG. NO.	32DDT20F2003 32DDT20F2005 32DDT20F2029	TOTAL MARKS	/10
LECTURER'S NAME	HAZLEENA BINTI OSMAN/ RODZIAH BINTI IBRAHIM		

CLO1: Construct Object Oriented Programming concept and exception handling in Java programming (P4, PLO3)

Learning outcomes:
Upon completion of this lab, students should be able to:
1. Build objects in Java Program
2. Construct String in Java programs

INSTRUCTION: Answer all questions.

QUESTION 1

```
public class Main {

  public void displayLanguage () {
    String a;
    String b;
    a= "Java";
    b= "Python";
    System.out.println("Programming Language: " + a);
    System.out.println("Programming Language: " + b);
  }

  public static void main(String[] args) {

    Main obj1 = new Main();
    obj1.displayLanguage();
  }
}
```

Figure 1

Reproduce the program in Figure 1 and use **constructor overloading** in this coding.

Sample output:

```
General Output
--------------------Configuration: <Default>---
Programming Language: Java
Programming Language: Python

Process completed.
```

A. Source code

***snip and paste your source code here. (Make sure it is snipped from your text editor/ java platform). Refer Appendix 1 for an example.**

Main.java > Main

```java
public class Main {
    String name1;
    String name2;

    Main(String a, String b) {
        name1 = a;
        name2 = b;
    }

    Run | Debug
    public static void main(String args[]) {
        Main language = new Main(a: "Java", b: "Python");
        System.out.println("\nProgramming Language: " + language.name1 + "\nProgramming Language: " + language.name2);
    }
}
```

B. Output

***snip and paste your output here. (Make sure it is from your command prompt/ java platform). Refer Appendix 1 for an example.**

```
Programming Language: Java
Programming Language: Python
PS C:\Users\Emma\OneDrive\Documents\SEM3\DFP 30243 OOP\LAB ACTIVITY 6>
```

QUESTION 2

The program in **Figure 2** is supposed to achieve the following:

i) Change the below code to code with method overloading
ii) Create 3 method overloading in this program
iii) The name of method overloading is **mul()**

Change the below code to three method overloading which utilise

i) 1 Method with no arguments
ii) 2 Method with integer arguments (1 for multiplying two values, 1 for multiplying three values) that displaying below outputs:

Rewrite and define each of the calculation overloading methods so that the program will run successfully.

```
public class main {
   public static void main(String arg []) {
      System.out.println("Total of two=" + (10*20));
      System.out.println("Total of two=" + (30*40));
      System.out.println("Total of three=" + (10*20*39.9));
   }
}
```

Figure 2

Sample Output

```
General Output
--------------------Configuration: <Default>--------
Sum of two=200.0
Sum of two=1200
Sum of three=7980.0

Process completed.
```

A. Source code

***snip and paste your source code here. (Make sure it is snipped from your text editor/ java platform). Refer Appendix 1 for an example.**

```
public class MainQ2 {
    public void mul() {
        int i = 10;
        int j = 20;
        float x = i * j;
        System.out.println("Total of two= " + (x));
    }

    public void mul(int num1, int num2) {
        System.out.println("Total of two= " + (num1 * num2));
    }

    public void mul(int num1, int num2, double num3) {
        System.out.println("Total of three= " + (num1 * num2 * num3));
    }

    Run | Debug
    public static void main(String[] args) {
        MainQ2 ans = new MainQ2();
        ans.mul();
        ans.mul(num1: 30, num2: 40);
        ans.mul(num1: 10, num2: 20, num3: 39.9);
    }
}
```

B. Output

***snip and paste your output here. (Make sure it is from your command prompt/ java platform). Refer Appendix 1 for an example.**

```
Total of two= 200.0
Total of two= 1200
Total of three= 7980.0
```

QUESTION 3

Write the program that use string method

i) String **str1**=" I like to eat Apple"
ii) String **str2**="An Apple a day keeps the doctor away"

The program is required to have the following:

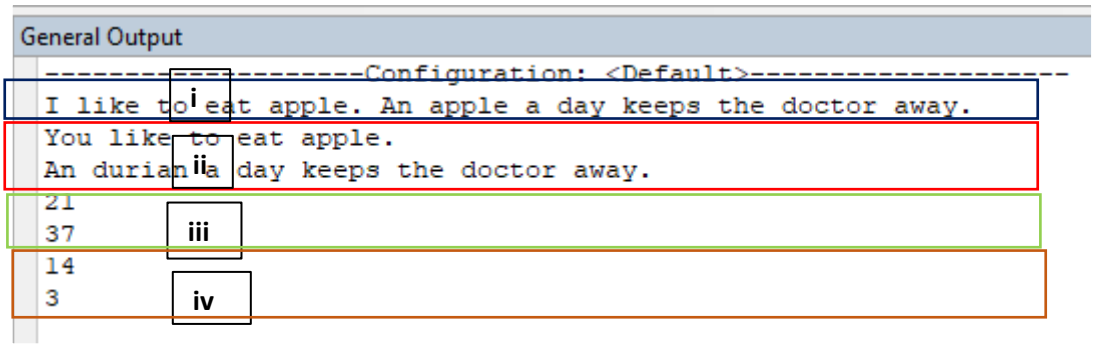
i) Combine both string using String method

ii) Replace str1 that contain "I" to "You" and str2 that contain "Apple" to "Durian"

iii)Calculate length each string for **str1** and **str2**

iv) Check str1 and str2 that have" *Apple"*

Sample Output:



A. Source code

***snip and paste your source code here. (Make sure it is snipped from your text editor/ java platform). Refer Appendix 1 for an example.**

Start Page | StringMethodQ3.java *

```
public class StringMethodQ3{

    public static void main(String[] args)
    {
        String str1 = "I like to eat Apple.";
        String str2 = "An Apple a day keeps the doctor away.";

        System.out.println(str1.concat(str2));
        System.out.println(str1.replace("I","You"));
        System.out.println(str2.replace("Apple","Durian"));
        System.out.println(str1.length());
        System.out.println(str2.length());
        System.out.println(str1.indexOf("Apple"));
        System.out.println(str2.indexOf("Apple"));
    }
}
```

B. Output

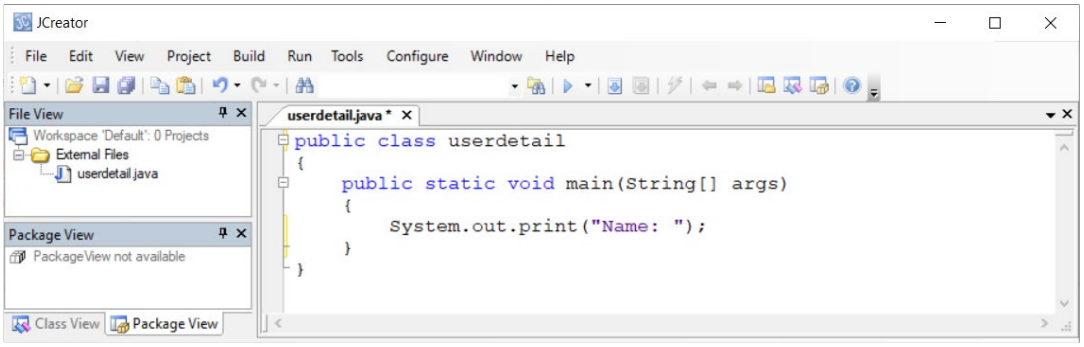
***snip and paste your output here. (Make sure it is from your command prompt/ java platform). Refer Appendix 1 for an example.**

General Output

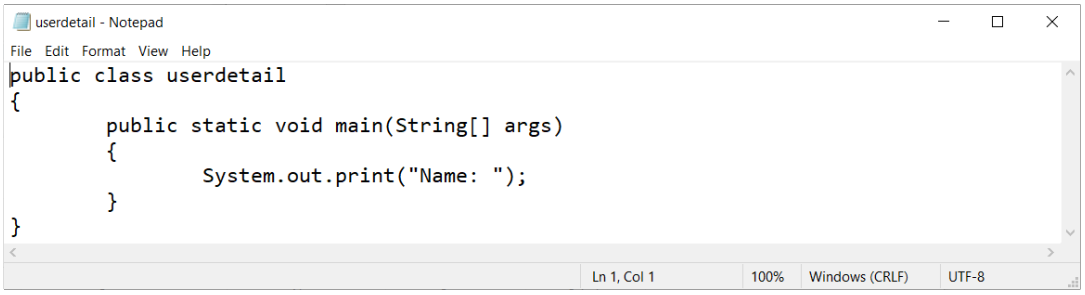
```
--------------------Configuration: <Default>--------------
I like to eat Apple.An Apple a day keeps the doctor away.
You like to eat Apple.
An Durian a day keeps the doctor away.
20
37
14
3

Process completed.
```

Example of source code:

i) If you use Java platform to write the source code

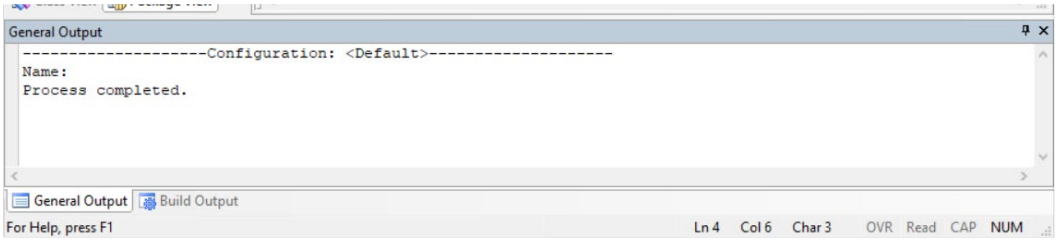


ii) If you use text editor to write the source code



Example of output:

i) If you use Java platform to compile and execute



ii) If you use Command Prompt to compile and execute