


Course Code	OCAJP8
Section	Topic_5
Student Name	Dominic Kgoete
Student Signature	
Date	16 – 01 - 2020

1. Program Objective and Summary

- Create and use while loops
- Create and use for loops including the enhanced for loop
- Create and use do/while loops
- Compare loop constructs
- Use break and continue

2. Tools (Clearly state the IDE, Databases, languages used)

IntelliJ IDEA

3. Code

```

/* **** Topic 3: Using Loop Construct
* Objectives :
* 1 Create and use while loops
* 2 Create and use do/while loops
* 3 Compare loop construct
* 4 Use break and continue
*/

package com.company;


import java.util.Scanner;

public class Main {

    public static void main(String[] args) {
        usingWhileLoop();
        usingForLoops();
        usingBreak();
    }

    public static void usingWhileLoop () {
        //In this program we will find the factorial of a number entered
        System.out.println("1. Finding factorial using while loop".toUpperCase());
        int number;
        System.out.print("Enter any integer number: ");
        Scanner scanner = new Scanner(System.in);
        number = scanner.nextInt();
        long fact = 1;
        int i = 1;
        while(i <= number){

```

Course Code	OCAJP8
Section	Topic_5
Student Name	Dominic Kgoete
Student Signature	
Date	16 – 01 - 2020

```

        fact = fact * i;
        i++;
    }
    System.out.println("Factorial of "+number+" is: "+fact);
}

public static void usingForLoops(){
    //this program will help you find sum of the natural numbers
    System.out.println("Now lets use For loops to find sum of the first natural numbers".toUpperCase());
    int number, count, total = 0;

    System.out.println("Enter the value of n:");
    //Scanner is used for reading user input
    Scanner scan = new Scanner(System.in);
    //nextInt() method reads integer entered by user
    number = scan.nextInt();
    //closing scanner after use
    scan.close();
    for(count = 1; count <= number; count++){
        total = total + count;
    }


    System.out.println("Sum of first "+number+" natural numbers is: "+total+ "\n");

    System.out.println("Results of enhanced loop");
    String arr[] = {"now", "this", "is", "the results", "of", "Enhanced loop\n\n"};
    for (String str : arr){
        System.out.println(str);
    }
}

public static void usingBreak(){// Break statement
    System.out.println("Break state");
    int num =4;
    while(num<=5)
    {
        System.out.println("Value of variable is: "+num);
        if (num==2)
        {
            break;
        }
        num++;
    }
    System.out.println("Out of while-loop");
}
}

```

4. Output (Please attach screen output as evidence)

Course Code	OCAJP8
Section	Topic_5
Student Name	Dominic Kgoete
Student Signature	
Date	16 – 01 - 2020

```

Main
Main x
"C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2019.3.1\jbr
1. FINDING FACTORIAL USING WHILE LOOP
Enter any integer number: 4
Factorial of 4 is: 24
NOW LETS USE FOR LOOPS TO FIND SUM OF THE FIRST NATURAL NUMBERS
Enter the value of n:
3
Sum of first 3 natural numbers is: 6

Results of enhanced loop
now
this
is
the results
of
Enhanced loop

Break state
Value of variable is: 4
Value of variable is: 5
Out of while-loop

Process finished with exit code 0

```

Clone: <https://github.com/lorthbroth/OCA-java-se8-programmer-1.git> to compile

5. Completed Practical Assignment Template
Completed Practical Assignment Template and attach it on LMS as a pdf file