OOP Using Java- Practical 01

1. **Write you first java programme to display "Hello World" on the screen.**

```
package com.mycompany.practicle01;

public class Practicle01
{

  public static void main(String[] args)

{

System.out.println("Hello World!");

   }
}
```

2. **Write a programme to display your name on the first line and to display your degree programme on the second line on the screen. Please use command line (cmd) to execute your code.**

```
Microsoft Windows [Version 10.0.19045.3086]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DELL>cd Documents

C:\Users\DELL\Documents>cd NetBeansProjects

C:\Users\DELL\Documents\NetBeansProjects>javac DisplayInfo.java

C:\Users\DELL\Documents\NetBeansProjects>java DisplayInfo.java
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C:\Users\DELL\Documents\NetBeansProjects>
```

3. **Write down a programme to get the following output using a for loop. Repeat the same example by using a while loop.**

Executing Loop 0
Executing Loop 1
Executing Loop 2
Executing Loop 3
Executing Loop 4

```
package com.mycompany.LoopExample;
```

```
public class LoopExample
{

   public static void main(String[] args)
   {
      int i = 0;
      while (i < 5)
      {
         System.out.println("Executing Loop "+i);
         i++;
      }
   }
}
```

4. Write a class and insert the following code block into the appropriate place. Execute the code and get the result.

“

```
int [] numbers = {10, 20, 30, 40, 50};
for(int x : numbers ){
  if( x == 30 ){
    break;
  }
  System.out.print( x );
  System.out.print("\n");
}
   System.out.print(“I’m  out of the Loop now");
```

“

Results:

Repeat the same code using “continue” instead of “break”. Write down the output.

Results:

```
public class LoopExample {
   public static void main(String[] args) {
      int[] numbers = {10, 20, 30, 40, 50};
      for (int x : numbers) {
         if (x == 30) {
            break;
         }
```

```
        System.out.println(x);
      }
      System.out.println("I'm out of the Loop now");
   }
}
```

Result:

```
10
20
I'm out of the Loop now
```

```
public class LoopExample {
   public static void main(String[] args) {
      int[] numbers = {10, 20, 30, 40, 50};
      for (int x : numbers) {
         if (x == 30) {
            continue;
         }
         System.out.println(x);
      }
      System.out.println("I'm out of the Loop now");
   }
}
```

Result:

```
10
20
40
50
I'm out of the Loop now
```

5. **Write a class and insert the following code block into the appropriate place. Execute the code and get the result.**

```
1. char grade ='A';
2.  switch(grade)
3. {
4. case 'A' :
5. System.out.println("Excellent!");
6. break;
7. case 'D' :
```

8. **System.out.println("You passed");**
9. **case 'F' :**
10. **System.out.println("Better try again");**
11. **break;**
12. **default :**
13. **System.out.println("Invalid grade");**
14. **}**
15. **System.out.println("Your grade is " + grade);**

Results:

Repeat the same removing "break" command at line number 6. Write down the output.

Repeat the same scenario by using if-else-if statement instead of switch case.

```
public class GradeChecker {
   public static void main(String[] args) {
      char grade = 'A';

      switch (grade) {
         case 'A':
            System.out.println("Excellent!");
            break;
         case 'D':
            System.out.println("You passed");
         case 'F':
            System.out.println("Better try again");
            break;
         default:
            System.out.println("Invalid grade");
      }

      System.out.println("Your grade is " + grade);
   }
}
```

Executing the code will produce the following output:

```
Excellent!
Your grade is A
```

Now, let's remove the "break" command at line number 6:

```
public class GradeChecker {
   public static void main(String[] args) {
      char grade = 'A';

      switch (grade) {
         case 'A':
            System.out.println("Excellent!");
         case 'D':
            System.out.println("You passed");
         case 'F':
            System.out.println("Better try again");
            break;
         default:
            System.out.println("Invalid grade");
      }

      System.out.println("Your grade is " + grade);
   }
}
```

The output will be:

```
Excellent!
You passed
Better try again
Your grade is A
```

Now, let's rewrite the code using if-else-if statements instead of a switch case:

```
public class GradeChecker {
   public static void main(String[] args) {
      char grade = 'A';

      if (grade == 'A') {
         System.out.println("Excellent!");
      } else if (grade == 'D') {
         System.out.println("You passed");
      } else if (grade == 'F') {
         System.out.println("Better try again");
```

```
      } else {
         System.out.println("Invalid grade");
      }

      System.out.println("Your grade is " + grade);
   }
}
```

The output will be the same as before:
Excellent!
Your grade is A

6. **As of java 5 the enhanced for loop was introduced. This is mainly used for Arrays. Below code contains few mistakes. First execute the code. Then identify the errors printed on the console. Rectify all the errors and execute to get the output:**

```
class TestEnhanceForLoop {

public static void mains(String args[]){

 int [] numbers = {10, 20, 30, 40, 50};

     for(int x : numbers ){

                    System.out.print( x );

                   System.out.print(",")

     }

 System.out.print("\n");

String [] names ={“James”, "Larry", "Tom", "Lacy"}

     for( String name : names ) {

                   System.out.print( name );

                   System.out.print(",");

     Output:
```

```
class TestEnhancedForLoop {

   public static void main(String[] args) {

      int[] numbers = {10, 20, 30, 40, 50};
```

```
        for (int x : numbers) {
            System.out.print(x);
            System.out.print(",");
        }
          System.out.print("\n");
          String[] names = {"James", "Larry", "Tom", "Lacy"};
           for (String name : names) {
           System.out.print(name);
           System.out.print(",");
        }
    }
}
```

The output will be:

10,20,30,40,50,

James,Larry,Tom,Lacy,

In the original code, there were a few mistakes:

1.The method should be named main, not mains.

2.The opening curly brace after the main method declaration was missing.

3.The closing parenthesis after names array declaration was missing.

4.The double quotation marks around "James" in the names array were incorrect. They were using different quotation marks (“ and "). They should be replaced with standard double quotation marks (").

5.There was a missing semicolon after the first System.out.print(",") statement within the enhanced for loop for numbers array.