OOP Using Java- Practical 01

1. Write you first java programme to display “Hello World” on the screen.

Answer

```
public class HelloWorld {
   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.

Answer

```
public class MyDetails {
   public static void main(String[] args) {
      System.out.println("Mohamed Rila");
      System.out.println("BSc Software engeering");
}
```

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
```

Answers

Using a for loop:

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

```
    }
}
```

Using a while loop:

```
public class WhileLoopExample {
    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: 10
20
I'm out of the Loop now

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

```
public class ContinueExample {
    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");
   }
}
```

Results: 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: Excellent!
Your grade is A

⇒ **Repeat the same removing “break” command at line number 6. Write down the output.**

Input

```
public class SwitchExampleWithoutBreak {
   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);
      }
}
```

Output

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

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

Input

```
public class IfElseIfExample {
   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);
   }
}
```

Output

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(",");
```

Correct code

```
public 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(",");
      }
   }
}
```

Output: 10,20,30,40,50,

James,Larry,Tom,Lacy,