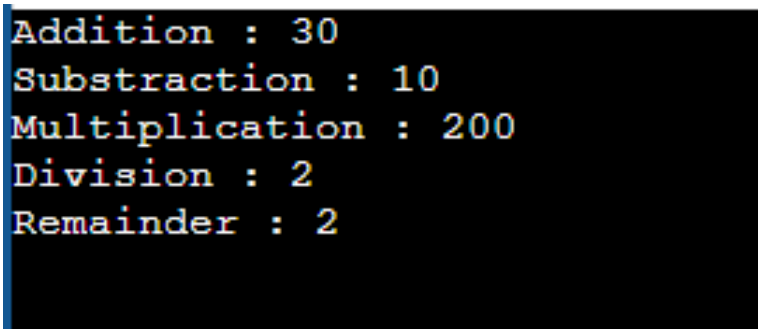
IS 2104 – Rapid Application Development

Lab sheet 02

Question 01

1. Declare three variables (a ,b and c) and assign values as 20,10 and 3.
2. Print the addition,subtraction, multiplication and division in separate lines using a and b variables.
3. Print the remainder value of a is divided by c.
   Sample Output



Question 02

1. Declare a variable named “a” and assign the value as 14.5.
2. Print the statements according to following criteria.
   If a is greater than or equal to 10 print “Good”.
   If it is less than 10 print “Bad”.
   (The syntax of if-else statement is given below)

```
if (condition) {
  // block of code to be executed if the condition is true
} else {
  // block of code to be executed if the condition is false
}
```

3. Change the variable value into 9.
4. Check the output again.

Question 03

1. Code the following program and check the output.

```
public class ComparisonOp {
  public static void main(String[] args) {
    int x = 5;
    int y = 3;
    System.out.println(x < y);
  }
}
```

2. Modify the above program adding separate lines for each comparison operator. (List of comparison operators are given below).

Operator	Name
==	Equal to
!=	Not equal
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Question 04

1. Declare two variables(a and b) and assign values as 20.5 and 30.5
2. According to the following condition, print the relevant statements.
   If a>b AND a<100 →display “Great”
   If a>b OR a<100 → display “Good”
   (List of Logical operators are given below)

Operator	Name
&&	Logical and
||	Logical or
!	Logical not

3. Add a separate printing statement to check whether a is NOT EQUAL to 20.
4. At the end of the program add comments by explaining the AND operator and OR operator. (comment syntax is given below)

```
// This is a comment
```
(single line comment)

(multi line comment)

```
/* The code below will print the words Hello World
to the screen, and it is amazing */
```

Question 05

1. Code the following program and check the output.

```
public class PrintNumber
{
    public static void main(String[] args) {
        int i = 0;
        while (i < 6) {
            System.out.println(i);
            i++;
        }
    }
}
```

2. Modify the above program to print numbers from 10 to 1.
3. Write the same program using the “do while” loop. (use the following syntax)

```
do {
  // code block to be executed
}
while (condition);
```

Question 06

1. Guess the output of the following program.

```
public class CheckPro
{
    public static void main(String[] args) {
        int i = 1;
        do {
          System.out.println(i);
          i++;
        }
        while (i > 10);
    }
}
```

2. Code the above program and check the output.
3. Explain the difference between “while loop” and “do while loop”. (add this to the end of the above program as a comment)

Question 07

1. Code the following program and check the output.

```
public class PrintNumbersFor
{
    public static void main(String[] args) {
        for (int i = 0; i < 6; i++) {
            System.out.println(i);
        }
    }
}
```

2. Modify the above program to print from 15 to 1.

Question 08

Develop a program to print “ten star marks” horizontally using a for loop.

Sample Output