King Saud University
College of Computer & Information Science
CSC111 – Lab3
Arithmetic operator, Increment, Decrement
All Sections

Exercise 1:

Write a java program that reads an integer and print the least significant digit and the next least significant digit.

Example:

```
Enter an integer number > 7235
The least significant digit is 5
The next least significant digit is 3
```

Solution:

```
import java.util.Scanner;

public class Lab3_q1
{
     public static void main(String[] args)
     {
           // lsd is The least significant digit
           // nlsd is The next least significant digit

           int input, lsd, nlsd;
           Scanner Read = new Scanner(System.in);

           System.out.print("Enter an integer number > ");
           input = Read.nextInt();

           lsd = input % 10;
           nlsd = (input % 100) / 10;

           System.out.println("The least significant digit is " + lsd);
           System.out.print("The next least significant digit is " + nlsd);
     }
}
```

Exercise 2:

Trace the following java program and find the output:

```
import java.util.Scanner;

public class inc_dec {
public static void main(String[ ] args) {

Scanner read = new Scanner (System.in);
int x,y,z;
System.out.println (" enter the values of x and y : ");
x= read.nextInt ( );
y= read.nextInt ( );
z= x+y;
System.out.println (++x);
System.out.println (y--);
System.out.println (z);
System.out.println (x--);
System.out.println (y);
}
}
```

Example:

enter the values of x and y :

Exercise 3:

Write a java program that reads an integer decimal number <u>smaller than 15</u> and prints the equivalent representation in binary system.
<u>Hint: use four variables to store the value of the binary digits.</u>
Example:

```
Enter an integer number smaller than 15 > 12
The equivalent in binary = 1100
```

Solution:

```
import java.util.Scanner;

public class Lab3_q3
{
     public static void main(String[] args)
     {
           int number, d1, d2, d3, d4;
           Scanner Read = new Scanner(System.in);

           System.out.print("Enter an integer number smaller than 15 > ");
           number = Read.nextInt();

           d1 = number % 2;
           d2 = (number/=2) % 2;
           d3 = (number/=2) % 2;
           d4 = (number/=2) % 2;

           System.out.print("The equivalent in binary = "+d4+d3+d2+d1);

     }
}
```

Hint: number/=2 **is** number = number / 2