Assignment 2 on Session2: FLOW CONTROL, CONSTRUCTORS AND STRING

Problem Statement1:

Write a program to find the highest among the given 3 numbers.

Solution:

```
import java.util.Scanner; //To import utility files for Scanner
class FindGrtNum
{
  public static void main(String a[])
  {
  Scanner sc=new Scanner(System.in); //To get keyboard input
  System.out.println("Enter only integer values");
  System.out.println("Enter First number");
  int num1=sc.nextInt(); //To assign first keyboard input
  System.out.println("Enter Second number");
  int num2=sc.nextInt(); //To assign second keyboard input
  System.out.println("Enter Third number");
  int num3=sc.nextInt(); //To assign third keyboard input
  if (num1>num2 && num1>num3) //condition1
    System.out.println(num1+" is greater than "+num2+" and "+num3);
  else if(num2>num3) //condition2
    System.out.println(num2+" is greater than "+num1+" and "+num3);
  else
    System.out.println(num3+" is greater than "+num1+" and "+num2);

  }
}
```

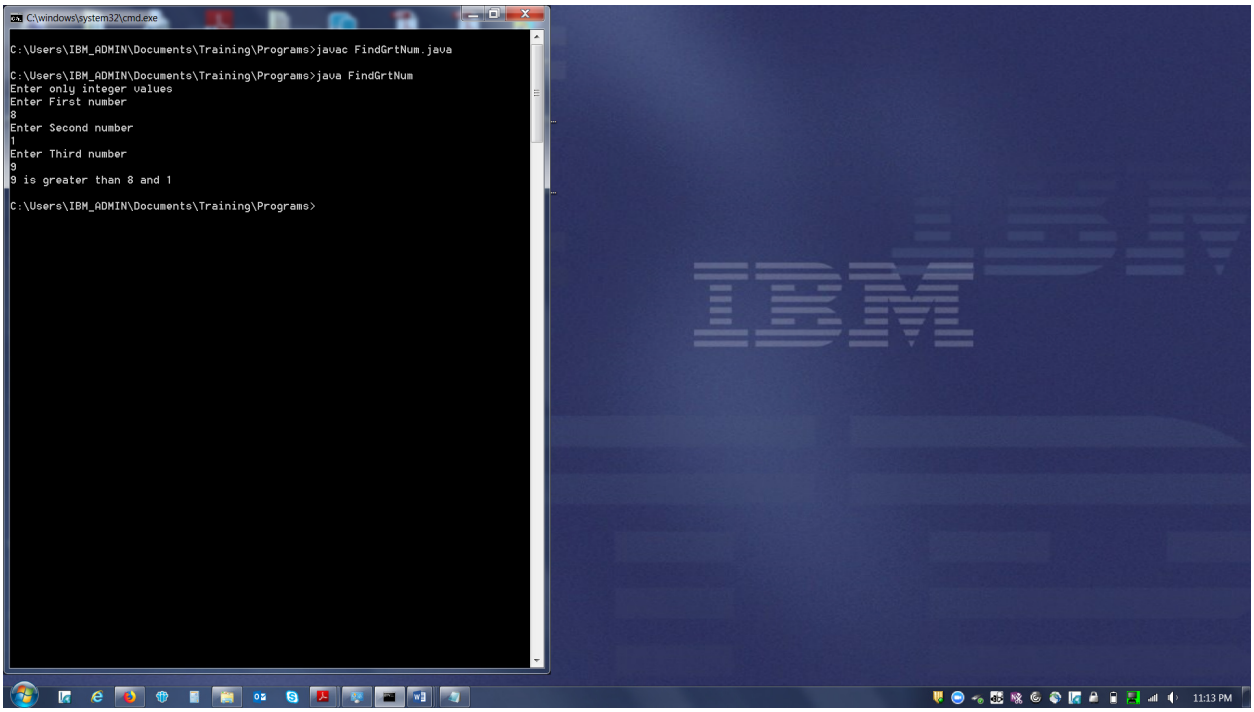
Explanation of the code:

The code gets 3 inputs from the user and finds the greater number among the 3 inputs. 3 integer variables declared to get and store 3 inputs. Simple logic of number comparison is applied to find the greater number – if a is > b and c then a is greater. Else if b is > c then b is greater. Else c is greater.

Note: The code is not covered for handling the below

1. if user enters any value other than integer
2. if all the 3 inputs are same

Result flow & Screen shot:



Problem Statement2:

Write a program to print the following pattern:

```
*       *
  *   *
    *
  *   *
*       *
```

Solution:

```
import java.util.*; //To import utility files
class PatternPrint
{
  public static void main(String a[])
  {
  for(int i = 1; i <= 5; i++) //To count the number of rows
  {
    for(int j = 1; j <= 5; j++) //To count the number of columns
    {
   if( ((i==1)&&(j==1)) || //To position in 1,1 for printing *
       ((i==1)&&(j==5)) || //To position in 1,5 for printing *
       ((i==2)&&(j==2)) || //To position in 2,2 for printing *
       ((i==2)&&(j==4)) || //To position in 2,4 for printing *
       ((i==3)&&(j==3)) || //To position in 3,3 for printing *
       ((i==4)&&(j==2)) || //To position in 4,2 for printing *
       ((i==4)&&(j==4)) || //To position in 4,4 for printing *
       ((i==5)&&(j==1)) || //To position in 5,1 for printing *
       ((i==5)&&(j==5)) )  //To position in 5,5 for printing *
     System.out.print("*");
```

```
   else
     System.out.print(" ");
   }
  System.out.println();
  }
  }
}
```

Explanation of the code:

This program uses simple logic. Two for loops used for counting the number of rows and number of columns. By keeping 5x5 matrix, the row and column positions calculated. As per the pattern the * is printed in the calculated positions. Rest of the positions filled with space.

Result flow and screen shot: