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Subject : Java Lab
Group : G3
Date :02/09/2021

LAB ASSIGNMENT 02

1. Java Program to Find Factorial of a Number

Code:

```
public class Factorial{
public static void main(String args[]){
int i,fact=1;
int number=5;//It is the number to calculate factorial
for(i=1;i<=number;i++){
fact=fact*i;
 }
  System.out.println("Factorial of "+number+" is: "+fact);
 }
}
```

Output:

```
Factorial of 5 is 120
```

2. Java Program to Check Whether a Character is Alphabet or Not

Code:

```
import java.util.Scanner;
public class Alphabet {
  public static void main(String args[]){
    System.out.println("Enter a character :: ");
    Scanner sc = new Scanner(System.in);
    char ch = sc.next().charAt(0);

    if(((ch >= 'A' && ch <= 'Z')||ch >= 'a' && ch <= 'z') ){
      System.out.println(sc +" is an Alphabet");
    }else{
      System.out.println( sc +" is not an alphabet");
    }
```

```
  }
```

Output:

```
B is an Alphabet
```

3. Java Program to Count Number of Digits in an Integer

Code :

```
import java.util.Scanner;
public class CountingDigitsInInteger {
  public static void main(String args[]){
    Scanner sc = new Scanner(System.in);
    int count = 0;
    System.out.println("Enter a number ::");
    int num = sc.nextInt();
    while(num!=0){
      num = num/10;
      count++;
    }
System.out.println("Number of digits in the entered integer are :: "+count);
  }
}
```

Output:

```
Number of digits : 9
```

4. Java Program to Make a Simple Calculator Using switch...case

Code:

```
import java.util.Scanner;
public class ab39_CalculatorUsingSwitch {
  public static void main(String args[]) {
```

```
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter value of 1st number ::");
    int a = sc.nextInt();
System.out.println("Enter value of 2nd number ::");
    int b = sc.nextInt();
 System.out.println("Select operation");
    System.out.println("Addition-a: Subtraction-s: Multiplication-m: Division-d: ");
    char ch = sc.next().charAt(0);
    switch(ch) {
      case 'a' :
       System.out.println("Sum of the given two numbers: "+(a+b));
      break;
      case 's' :
      System.out.println("Difference between the two numbers: "+(a-b));
      break;
      case 'm' :
      System.out.println("Product of the two numbers: "+(a*b));
      case 'd' :
      System.out.println("Result of the division: "+(a/b));
      break;
      default :
      System.out.println("Invalid grade");
    }
  }
}
```

Output:

```
Choose an operator : +, -,  *, or /
*
Enter first number
4
Enter second number
5
4.0 * 5.0 = 20.0
```

5. Java Code To Create Pyramid Pattern

Code:

```
Public class main {
public static void main(String[] args) {
      int rows = 5;
      for(int i = 1; i <= rows; ++i) {
         for(int j = 1; j <= i; ++j) {
            System.out.print("* ");
         }
         System.out.println();
      }
   }
```

Output :