Learn and understand scope of variabls ,Demonstrate it with an suitable example.

```
class Hospital{
        //Instance variable
        String patientName;
        int patientid;
        //Static(class) variable
        static String DocName="Dr. Murthy";
        void sethospital(String pN,intpId)
        {
                patientName=pN;
                patientid=pId;
        }
        String getpatientName()
        {
                return patientName;
        }
        int getpatientid()
        {
                return patientid;
        }
}

Public class DemoScopeofVariables{
        public static void main(String args[])
        {
                //Local variable
                String hospitalName="Apollo Hosapital";

                Hospital patient1=new Hospital();
                patient1.sethospital("Anita Joseph",101);
                System.out.println("The patient " +patient1.getpatientName()+ " With the Id "
+patient1.getpatientid()+ " is treated by "   +patient1.DocName+ " at "   +hospitalName);
          }
}
```

Output

The patient Anita Joseph With the Id 101 is treated by Dr. Murthy at Apollo Hosapital

Learn and understand default values of instance variables, demonstrate it with a suitable example.

```
class values
{
        byte Byte;
        int  integer;
        long Long;
        short Short;
        boolean Boolean;
        String string;
        float Float;
        char ch;
        double Double;
        void getvalues()
        {
                System.out.println("The Default value of primitive datatype Byte : "+ Byte);
                System.out.println("The Default value of primitive datatype Integer : "+ integer);
                System.out.println("The Default value of primitive datatype long : "+ Long);
                System.out.println("The Default value of primitive datatype Short : "+ Short);
                System.out.println("The Default value of primitive datatype Boolean : "+
        Boolean);
                System.out.println("The Default value of string : "+ string);
                System.out.println("The Default value of primitive datatype Float : "+ Float);
                System.out.println("The Default value of primitive datatype char : "+ ch);
                System.out.println("The Default value of primitive datatype double : "+ Double);
        }
}
public class defaultvalues
{
        public static void main(String[] args)
        {
                values var=new values();
                var.getvalues();
        }
}
```

Output:

```
The Default value of primitive datatypeByte : 0
The Default value of primitive datatypeInteger : 0
The Default value of primitive datatypelong : 0
The Default value of primitive datatypeShort : 0
The Default value of primitive datatypeBoolean : false
The Default value of string : null
The Default value of primitive datatypeFloat : 0.0
The Default value of primitive datatypechar :
The Default value of primitive datatypedouble : 0.0
```

Learn and understand what are command line arguments? Write a program to implement the same.

```
public class  commandLine {
        public static void main(String[] args) {
                if (args.length>0) {
                        System.out.println("Java Buzzwords....");
                        for(byte i=0;i<args.length;i++) {
                                System.out.println((i+1)+". "+ args[i]);
                        }
                }
                else {
                        System.out.println("NO COMMANDLINE ARGUMENT FOUND
                                        ");
                }
        }
}
```

OUTPUT

Java Buzzwords....

1. Compiled&Interpreted
2. Dunamic&Extensible
3. Robust&Secure
4. PlatformIndependant
5. Highperformance

Learn and Understand how to Instantiating and ,Demonstrate it with by creatingStudent Class.

```
class Student
{
        String StudName,dept;
        int Rollno;
        static String clg = "GPT";
        int  percentage;
        void setStudent(String Name, int  rollno,String cdept,int per)
        {
                StudName = Name;
                Rollno = rollno;
                dept=cdept;
                percentage=per;
        }
        void getStudent()
        {
                System.out.println(StudName+"\t"+Rollno+"\t"+clg+"\t"+dept+"\t\t"+percentage)
        ;
        }
}
class Stud
{
        public static void main(String args[])
        {
                System.out.println("Name\tRollno\tCollege\tDepartment\t
                Percentage");
                Student Stud1 = new Student();
                Student Stud2 = new Student();
                Stud1.setStudent("Sindhu",155,"CS",88);
                Stud2.setStudent("Madhu",100,"EC",90);
                Stud1.getStudent();
                Stud2.getStudent();
        }
}
```

Output:

```
Name RollnoCollegeDepartment Percentage
Sindhu155GPT CS 88
Madhu100 GPT EC 90
```

You are assigned a task of issuing 10% bonus for all female employees of an organization on account of International Women's Day. Design and implement a java program for the same

```
class Employee
{
        String empName;
        int empNo;
        byte expYrs;
        String gender;
        double basicSalary;
        double bonus;
        double netSalary;
        void  setEmployee(String Name,int no,String sex,byte ex,double basicsalary)
        {
        empName=Name;
        empNo=no;
        gender=sex;
        expYrs=ex;
        basicSalary=basicsalary;
        }
        void getEmployeeDetails()
        {
if(gender == "female")
        {
bonus=basicSalary*10/100;
                netSalary=basicSalary+bonus;
          }
        else
netSalary=basicSalary;
        System.out.println(empName+"\t"+empNo+"\t"+gender+"\t"+expYrs+"\t"
+basicSalary+"\t"+bonus+"\t"+netSalary+"\n");
        }
}
```

```
public class EmployeeDetails
{
	public static void main (String args[])
	{
		Employee Rahul=new Employee();
		Rahul.setEmployee("Rashmi",128966,"female",(byte)20,100000.0d);
		System.out.println("empName\tempNo\tgender\texpYrs\tbasicSalary\tbonus
			\tnetSalary\n");
		Rahul.getEmployeeDetails();
	Employee Rakesh=newEmployee();
		Rakesh.setEmployee("Rakesh",7851161,"male",(byte)25,200000.0d);
		Rakesh.getEmployeeDetails();
		Employee madhu=newEmployee();
		madhu.setEmployee("madhu",7851161,"female",(byte)25,150000.0d);
		madhu.getEmployeeDetails();

	}
}
```

Output:

empName	empNo	gender	expYrs	basicSalary	bonus	netSalary
Rashmi	128966	female	20	100000.0	10000.0	110000.0
Rakesh	7851161	male	25	200000.0	0.0	200000.0
madhu	7851161	female	25	150000.0	15000.0	165000.0