

# ASSIGNMENT-5

20BCSE50\_KUMAR\_JIJNASU\_C1\_08

1..

```
class Student {
    int roll,mark[]=new int[3];
    String name;
    Character sex;
    Student(int r, String n, int p, int q, int t, Character s)
    {
        roll = r;
        name = n;
        mark[0] = p;
        mark[1] = q;
        mark[2] = t;
        sex = s;
    }

    float CalMark(int m[])
    {
        int av=0;
        for(int i=0;i<m.length;i++)
            av+=m[i];
        return (float)av/m.length;
    }

    void ShowDetails()
    {
        System.out.println("NAME : "+name);
        System.out.println("ROLL NO. : "+roll);
        System.out.print("MARKS : ");
        for(int i=0;i<mark.length;i++)
            System.out.print(mark[i]+" ", " ");
        System.out.println("\nAVERAGE MARK : "+CalMark(mark));
        System.out.println("SEX : "+sex);
    }
}

class stu2Driver
{
    public static void main(String[] args) {
        Student s1 = new Student(23, "Manas Das", 10, 20, 30, 'M');
        s1.ShowDetails();
        Student s2 = new Student(24, "RPD", 10, 20, 30, 'M');
        s2.ShowDetails();
    }
}
```

```

        Student s3 = new Student(25, "Hades", 10, 20, 30, 'F');
        s3.ShowDetails();
        Student s4 = new Student(26, "Locus", 10, 20, 30, 'F');
        s4.ShowDetails();
        Student s5 = new Student(27, "Bizon", 10, 20, 30, 'M');
        s5.ShowDetails();
    }
}

```

2..

```

class myStack {
    int max,top;
    int stk[]=new int[20];
    myStack(int n)
    {
        this.max=n;
        this.top = -1;
        // this.stk[]=new int[n];
    }

    void push(int v)
    {
        if(this.top<this.max-1)
            this.stk[++this.top]=v;
        else
            System.out.println("Stack overflow...");
    }

    void pop()
    {
        if(this.top<0)
            System.out.println("Stack underflow...");
        else
            System.out.println("Poped element is: "+this.stk[this.top--]);
    }

    void traverse()
    {
        if(this.top<0)
            System.out.println("Stack is empty...");
        else
        {
            System.out.print("Stack is : ");
            for(int i=0;i<=this.top;i++)
                System.out.print(this.stk[i]+" ", );
            System.out.println();
        }
    }
}

```

```

    }
}
}

```

```

class stkDriver
{
    public static void main(String[] args) {
        myStack s=new myStack(3);
        s.push(35);
        s.push(3);
        s.push(5);
        s.push(85);
        s.traverse();
        s.pop();
        s.traverse();
        s.pop();
        s.traverse();
        s.pop();
        s.traverse();
        s.pop();
        s.traverse();
    }
}

```

3..

```

class Employee
{
    int empNo,basicSal,da,hra;
    double grossSal;
    String empName;
    Employee(String name,int no,int sal,int da,int hra)
    {
        empName = name;
        empNo = no;
        basicSal = sal;
        this.da = da;
        this.hra = hra;
        calGrossSal();
    }

    void calGrossSal()
    {
        grossSal = 0.2*basicSal + da + 0.1*hra;
    }
    void showEmpDetails()
    {

```

```

        System.out.println(empName+"\t"+empNo+"\t"+basicSal+"\t"+da+"\t"+hra+"\t"+grossSal);
    }
}

```

```

class empDriver
{
    public static void main(String args[])
    {
        Employee emp1=new Employee("Ram",1,50000,10000,5000);
        Employee emp2=new Employee("Jkhunme",2,30000,30000,4000);
        System.out.println("NAME\tEMPNO\tBASIC\tDA\tHRA\tGROSS");
        emp1.showEmpDetails();
        emp2.showEmpDetails();
    }
}

```

4..

```

class Item
{
    int quantity;
    double price;
    String name;
    Item(int q,double p,String n){
        quantity=q;
        price=p;
        name=n;
    }
    String getName(){
        return name;
    }
    double getPrice(){
        return price;
    }
    int getQuantity(){
        return quantity;
    }
    double getValue(){
        double value=price*quantity;
        return value;
    }
    void showDetails(){
        System.out.println("\t"+name+"\t"+"$"+price+"\t"+quantity+"\t$"+getValue());
    }
}

```

```

class Inventory
{
    public static void main(String args[])
    {
        Item i1=new Item(15,2.25,"Stapler");
        Item i2=new Item(5,2.99,"Ereaser");
        Item i3=new Item(9,4.75,"Pensil");
        System.out.println("\t"+"Name"+" \t"+"Price"+" \t"+"Quantity"+" \t"+"Value");
        System.out.println("-----");
        i1.showDetails();
        i2.showDetails();
        i3.showDetails();
        System.out.println("\nTotal Inventory is
$(i1.getValue()+i2.getValue()+i3.getValue()));
    }
}

```

5..

```

class Addcomplex{
    int img,real;
    Addcomplex(int r,int i){
        img=i;
        real=r;
    }
    void addComplex(Addcomplex A2){
        real=real+A2.real;
        img=img+A2.img;
    }
    void complex(){
        System.out.println("final complex no.: "+real+" + i"+img);
    }
}

class Driver{
    public static void main(String args[]){
        Addcomplex A1=new Addcomplex(2,3);
        Addcomplex A2=new Addcomplex(1,4);
        A1.addComplex(A2);
        A1.complex();
    }
}

```