

Question 1:

```
public class Main
```

```
{
```

```
    public static long factorial(int i)
```

```
    {
```

```
        return (i < 1) ? 1 : i * factorial(i - 1);
```

```
    }
```

```
    public static void main(String[] args)
```

```
    {
```

```
        System.out.println("Program By Manasa\nJava1\nSAP ID:51834754");
```

```
        int i = 10;
```

```
        System.out.println("The Factorial of " + i + " is " + factorial(i));
```

```
    }
```

```
}
```

```

1 public class Main
2 {
3     public static long factorial(int i)
4     {
5         return (i < 1) ? 1 : i * factorial(i - 1);
6     }
7
8     public static void main(String[] args)
9     {
10        System.out.println("Program By Manasa\nJava1");
11        int i = 10;
12        System.out.println("The Factorial of " + i);
13    }
14 }

```

× Terminal

```

Program By Manasa
Java1
SAP ID:51834754
The Factorial of 10 is 3628800

Process finished.

```

Question 3:

abstract class Bank

```

{
    abstract int getBalance();
}

```

class BankA extends Bank

```

{
    int deposit=1000;
    int getBalance()
{

```

```
        return deposit;
    }
}

class BankB extends Bank
{
    int deposit=1500;
    int getBalance()
    {
        return deposit;
    }
}

class BankC extends Bank
{
    int deposit=2000;
    int getBalance()
    {
        return deposit;
    }
}

class Main
{
    public static void main(String args[])
    {
        System.out.println("Program by Manasa\nJava1\nSAP ID:51834754");
        //object for Bank A
```

```
BankA i=new BankA();
```

```
System.out.println("Balance in Bank A: "+i.getBalance());
```

```
//object for Bank B
```

```
BankB j=new BankB();
```

```
System.out.println("Balance in Bank B: "+j.getBalance());
```

```
//object for Bank C
```

```
BankC k=new BankC();
```

```
System.out.println("Balance in Bank C: "+k.getBalance());
```

```
}
```

```
}
```

```
6 {
7   int deposit=1000;
8   int getBalance()
9   {
10    return deposit;
11  }
12}
13class BankB extends Bank
14{
15  int deposit=1500;
16  int getBalance()
17  {
18    return deposit;
19  }
20}
21class BankC extends Bank
22{
23  int deposit=2000;
24  int getBalance()
25  {
26    return deposit;
27  }
28}
29class Main
30{
31  public static void main(String args[])
32  {
33    System.out.println("Program by Manasa\nJava1 \nSAP ID:51834754");
34    //object for Bank A
35    BankA i=new BankA();
36    System.out.println("Balance in Bank A: "+i.getBalance());
37    //object for Bank B
38    BankB j=new BankB();
39    System.out.println("Balance in Bank B: "+j.getBalance());
40    //object for Bank C
41    BankC k=new BankC();
42    System.out.println("Balance in Bank C: "+k.getBalance());
43  }
44}
```

Terminal

```
Program by Manasa
Java1
SAP ID:51834754
Balance in Bank A: 1000
Balance in Bank B: 1500
Balance in Bank C: 2000

Process finished.
```

Question 4:

```
import java.util.Scanner;
```

```
class Pattern
```

```
{
```

```
    public static void main(String args[])
```

```
{
```

```
System.out.println("Program by Manasa\nJava1\nSap:51834754");

Scanner sc=new Scanner(System.in);

for(int i=4;i>=1;i--)
{
    for(int j=4;j>i;j--)
    {
        System.out.print(" ");
    }
    for(int j=2*i-1;j>=1;j--)
    {
        if(j%2==0)
        {

            System.out.print("0");
        }
        else
        {
            System.out.print("1");
        }
    }
    System.out.println();
}
}
```

```

1 import java.util.Scanner;
2 class Pattern
3 {
4     public static void main(String args[])
5     {
6         System.out.println("Program by Manasa\nJava1\n");
7         Scanner sc=new Scanner(System.in);
8         for(int i=4;i>=1;i--)
9         {
10             for(int j=4;j>i;j--)
11             {
12                 System.out.print(" ");
13             }
14             for(int j=2*i-1;j>=1;j--)
15             {
16                 if(j%2==0)
17                 {
18                     System.out.print("0");
19                 }
20                 else
21                 {
22                     System.out.print("1");
23                 }
24             }
25             System.out.println();
26         }
27     }
28 }
29 }

```

× Terminal

```

Program by Manasa
Java1
Sap:51834754
1010101
 10101
   101
    1

```

Process finished.



QUESTION 5:

```
import java.util.Scanner;

public class Main
{
    int Id;
    String Name;
    int Age;
    long Salary;

    void GetData()    // Defining GetData()
    {

        Scanner sc = new Scanner(System.in);

        System.out.print("\n\tEnter Employee Id : ");
        Id = Integer.parseInt(sc.nextLine());

        System.out.print("\n\tEnter Employee Name : ");
        Name = sc.nextLine();
    }
}
```



```

        System.out.print("\n\tEnter Employee Age : ");
        Age = Integer.parseInt(sc.nextLine());

        System.out.print("\n\tEnter Employee Salary : ");
        Salary = Integer.parseInt(sc.nextLine());

    }

    void PutData()        // Defining PutData()
    {
        System.out.print("\n\t" + Id + "\t" +Name + "\t" +Age + "\t" +Salary);
    }

    public static void main(String args[])
    {

        System.out.println("Program by Manasa\nJava1 \nSAP ID:519834754");
        Main[] M = new Main[10];
        int i;

        for(i=0;i<10;i++)

            M[i] = new Main(); // Allocating memory to each object

        for(i=0;i<10;i++)
        {

```

```
        System.out.print("\nEnter details of " + (i+1) + " Employee\n");  
        M[i].GetData();  
    }
```

```
    System.out.print("\nDetails of Employees\n");  
    for(i=0;i<3;i++)  
        M[i].PutData();  
  
    }  
}
```

Program by Manasa  
Java1  
SAP ID:519834754

Enter details of 1 Employee

Enter Employee Id : 1

Enter Employee Name : Manasa

Enter Employee Age : 18

Enter Employee Salary : 100000

Enter details of 2 Employee

Enter Employee Id : 2

Enter Employee Name : Kushi

Enter Employee Age : 19

Enter Employee Salary : 80000

Enter details of 3 Employee

Enter Employee Id : 3

Enter Employee Name : Rohit

Enter Employee Age : 18

Enter Employee Salary : 130000

Enter details of 4 Employee

Enter Employee Id : 4

Enter Employee Name : Pravi

Enter Employee Age : 17

Enter Employee Salary : 130000

Enter details of 5 Employee

Enter Employee Id : 5

Enter Employee Name : Ishu

Enter Employee Age : 18

Enter Employee Salary : 100000

Enter details of 6 Employee

Enter Employee Id : 6

Enter Employee Name : Vyju

Enter Employee Age : 17

Enter Employee Salary : 80000

Enter details of 7 Employee

Enter Employee Id : 7

Enter Employee Name : Teju

Enter Employee Age : 17

Enter Employee Salary : 80000

Enter details of 8 Employee

Enter Employee Id : 8

Enter Employee Name : Chandu

Enter Employee Age : 18

Enter Employee Salary : 60000

Enter details of 9 Employee

Enter Employee Id : 9



Enter Employee Age : 18  
Enter Employee Salary : 60000

Enter details of 9 Employee

Enter Employee Id : 9  
Enter Employee Name : Tany  
Enter Employee Age : 17  
Enter Employee Salary : 80000

Enter details of 10 Employee

Enter Employee Id : 10  
Enter Employee Name : harsha  
Enter Employee Age : 18  
Enter Employee Salary : 5000

Details of Employees

1 Manasa 18 100000  
2 Kushi 19 80000  
3 Rohit 18 130000  
4 Pravi 17 130000  
5 Ishu18 100000  
6 Vyju17 80000  
7 Teju17 80000  
8 Chandu 18 60000  
9 Tany17 80000  
10 harsha 18 5000

Process finished.

|

