



```
1 //question 1//  
2 public class Main  
3 {  
4     public static long factorial(int i)  
5     {  
6         return (i < 1) ? 1 : i * factorial(i - 1);  
7     }  
8  
9     public static void main(String[] args)  
10    {  
11        System.out.println("Author:ch.madhu sai\nSAP ID:51834527");  
12        int i = 5;  
13        System.out.println("The Factorial of " + i + " is " + factorial(i)  
14    }  
15 }
```



Author:ch.madhu sai
SAP ID:51834527
The Factorial of 5 is 120

Process finished.



```
1 //question 3//
2 abstract class Bank
3 {
4     abstract int getBalance();
5 }
6 class BankA extends Bank
7 {
8     int deposit=100;
9     int getBalance()
10 {
11     return deposit;
12 }
13 }
14 class BankB extends Bank
15 {
16     int deposit=150;
17     int getBalance()
18 {
19     return deposit;
20 }
21 }
22 class BankC extends Bank
23 {
24     int deposit=200;
25     int getBalance()
26 {
27     return deposit;
28 }
29 }
30 class Main
31 {
32     public static void main(String args[])
33 {
34         System.out.println("Author:ch.madhu sai\nSAP ID:51834527");
35         //object for Bank A
36         BankA i=new BankA();
37         System.out.println("Balance in Bank A: "+i.getBalance());
38
39         //object for Bank B
40         BankB j=new BankB();
41         System.out.println("Balance in Bank B: "+j.getBalance());
42
43         //object for Bank C
44         BankC k=new BankC();
45         System.out.println("Balance in Bank C: "+k.getBalance());
46
47     }
48 }
```

```
X Terminal
Author:ch.madhu sai
SAP ID:51834527

Enter details of 1 Employee
Enter Employee Id : 1350624
Enter Employee Name : madhu
Enter Employee Age : 18
Enter Employee Salary : 23000
Enter details of 2 Employee
Enter Employee Id : 5283688
Enter Employee Name : sai
Enter Employee Age : 17
Enter Employee Salary : 60000
Enter details of 3 Employee
Enter Employee Id : 1350625
Enter Employee Name : ganesh
Enter Employee Age : 23
Enter Employee Salary : 50000
Enter details of 4 Employee
Enter Employee Id : 1344456
Enter Employee Name : leela
Enter Employee Age : 23
Enter Employee Salary : 100000
Enter details of 5 Employee
Enter Employee Id : 135677
Enter Employee Name : prasad
Enter Employee Age : 24
Enter Employee Salary : 50000
Enter details of 6 Employee
Enter Employee Id : 123465
Enter Employee Name : jayanth
Enter Employee Age : 19
Enter Employee Salary : 26000
Enter details of 7 Employee
Enter Employee Id : 137599
Enter Employee Name : lokesh
Enter Employee Age : 19
Enter Employee Salary : 16000
Enter details of 8 Employee
Enter Employee Id : 108689
Enter Employee Name : pavan sai
Enter Employee Age : 21
Enter Employee Salary : 60000
Enter details of 9 Employee
Enter Employee Id : 567122
Enter Employee Name : mani
Enter Employee Age : 17
Enter Employee Salary : 10000
Enter details of 10 Employee
Enter Employee Id : Process killed, because it ran longer than
at java.base/java.util.Scanner.nextLine(Scanner.java:1651)
at Main.GetData(source.java:16)
at Main.main(source.java:47)
Process finished.
```

```
//question 4//
import java.util.Scanner;
class Pattern
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number of rows : ");
        int n=sc.nextInt();
        for(int i=n;i>=1;i--)
        {
            for(int j=n;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();
        }
    }
}
```

X

Terminal



Enter the number of rows :

4

1010101
10101
101
1

Process finished.

hcl.java 

Saved

```
1 //question 5//  
2 import java.util.Scanner;  
3  
4     public class Main  
5     {  
6         int Id;  
7         String Name;  
8         int Age;  
9         long Salary;  
10  
11         void GetData()           // Defining GetData()  
12         {  
13  
14             Scanner sc = new Scanner(System.in);  
15  
16             System.out.print("\n\tEnter Employee Id : ");  
17             Id = Integer.parseInt(sc.nextLine());  
18  
19             System.out.print("\n\tEnter Employee Name : ");  
20             Name = sc.nextLine();  
21  
22             System.out.print("\n\tEnter Employee Age : ");  
23             Age = Integer.parseInt(sc.nextLine());  
24  
25             System.out.print("\n\tEnter Employee Salary : ");  
26             Salary = Integer.parseInt(sc.nextLine());  
27  
28         }  
29  
30         void PutData()           // Defining PutData()  
31         {  
32             System.out.print("\n\t" + Id + "\t" + Name + "\t" + Age + "  
33         }  
34  
35         public static void main(String args[])  
36         {  
37  
38             System.out.println("Author:ch.madhu sai\nSAP ID:51834527"  
39             Main[] M = new Main[10];  
40             int i;  
41  
42             for(i=0;i<10;i++)  
43                 M[i] = new Main();    // Allocating memory to each ob  
44  
45             for(i=0;i<10;i++)  
46             {  
47                 System.out.print("\nEnter details of " + (i+1) + " Emp")  
48                 M[i].GetData();  
49             }  
50  
51             System.out.print("\nDetails of Employees\n");  
52             for(i=0;i<3;i++)  
53                 M[i].PutData();  
54  
55         }  
56     }
```

Try Dcoder's keyboard 



Author:ch.madhu sai
SAP ID:51834527
Balance in Bank A: 100
Balance in Bank B: 150
Balance in Bank C: 200

Process finished.