

1st Question :

```
← Factorial.java Saved → ⋮
1 import java.util.Scanner;
2 class FactorialNum
3 {
4     static long factorial(int n)
5     {
6         int fact=1;
7         for(int i=n;i>=1;i--)
8         {
9             fact=fact*i;
10        }
11        return fact;
12    }
13    public static void main(String args[])
14    {
15        Scanner sc=new Scanner(System.in);
16        System.out.println("Host name : M.Likhitha");
17        while(true)
18        {
19            System.out.println("Choose your option\n");
20            int option=sc.nextInt();
21            switch(option)
22            {
23                case 1 :
24                    System.out.println("Enter a number");
25                    int num=sc.nextInt();
26                    System.out.println(FactorialNum.factorial(num));
27                    break;
28                case 2 :
29                    System.out.println("Exited");
30                    System.exit(0);
31                default :
32                    System.out.println("Invalid input");
33            }
34        }
35    }
36 }
37 }
```



Out put Screen :

```
x Terminal
Host name : M.Likhitha
Sap id : 51834624
Choose your option
1.Find factorial of a number
2.Exit
1
Enter a number :
5
120
Choose your option
1.Find factorial of a number
2.Exit
2
Exited

Process finished.
```



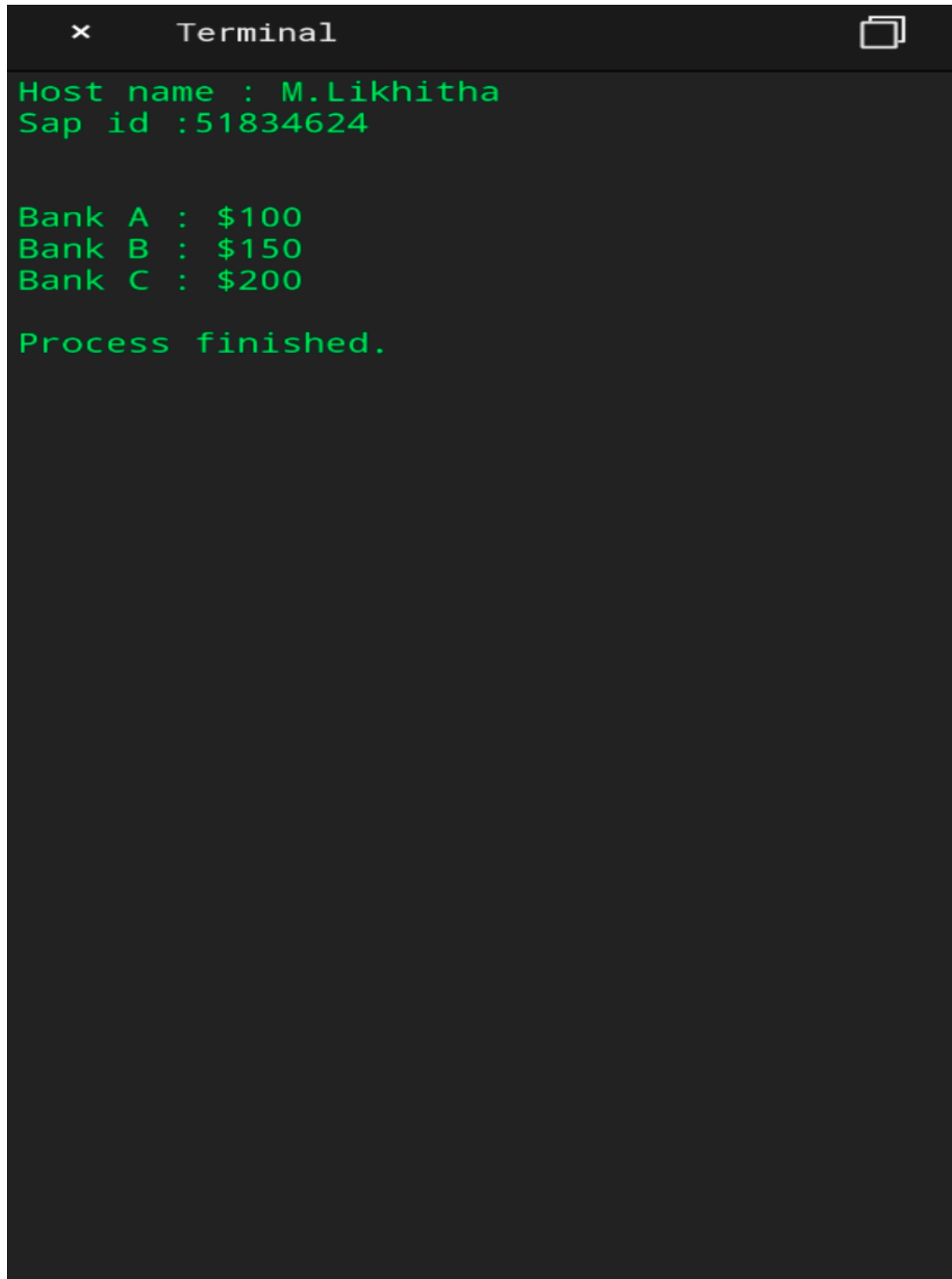
3rd Question :

```
← Bank.java Saved → ⋮

1  interface Bank
2  {
3      int getBalance();
4  }
5  class BankA implements Bank
6  {
7      public int getBalance()
8      {
9          return 100;
10     }
11 }
12 class BankB implements Bank
13 {
14     public int getBalance()
15     {
16         return 150;
17     }
18 }
19 class BankC implements Bank
20 {
21     public int getBalance()
22     {
23         return 200;
24     }
25 }
26 class Display
27 {
28     public static void main(String args[])
29     {
30         System.out.println("Host name : M.Likhith");
31         Bank a=new BankA();
32         System.out.println("Bank A : $" +a.getBalance());
33         Bank b=new BankB();
34         System.out.println("Bank B : $" +b.getBalance());
35         Bank c=new BankC();
36         System.out.println("Bank C : $" +c.getBalance());
37     }
38 }
```



Output Screen:

A screenshot of a terminal window titled "Terminal" with a dark background and green text. The window has a standard macOS-style title bar with a close button (X) on the left and a window control icon on the right. The text inside the terminal displays the output of a program, showing host and SAP IDs, followed by bank account balances for three banks, and a final status message.

```
Host name : M.Likhitha
Sap id :51834624

Bank A : $100
Bank B : $150
Bank C : $200

Process finished.
```

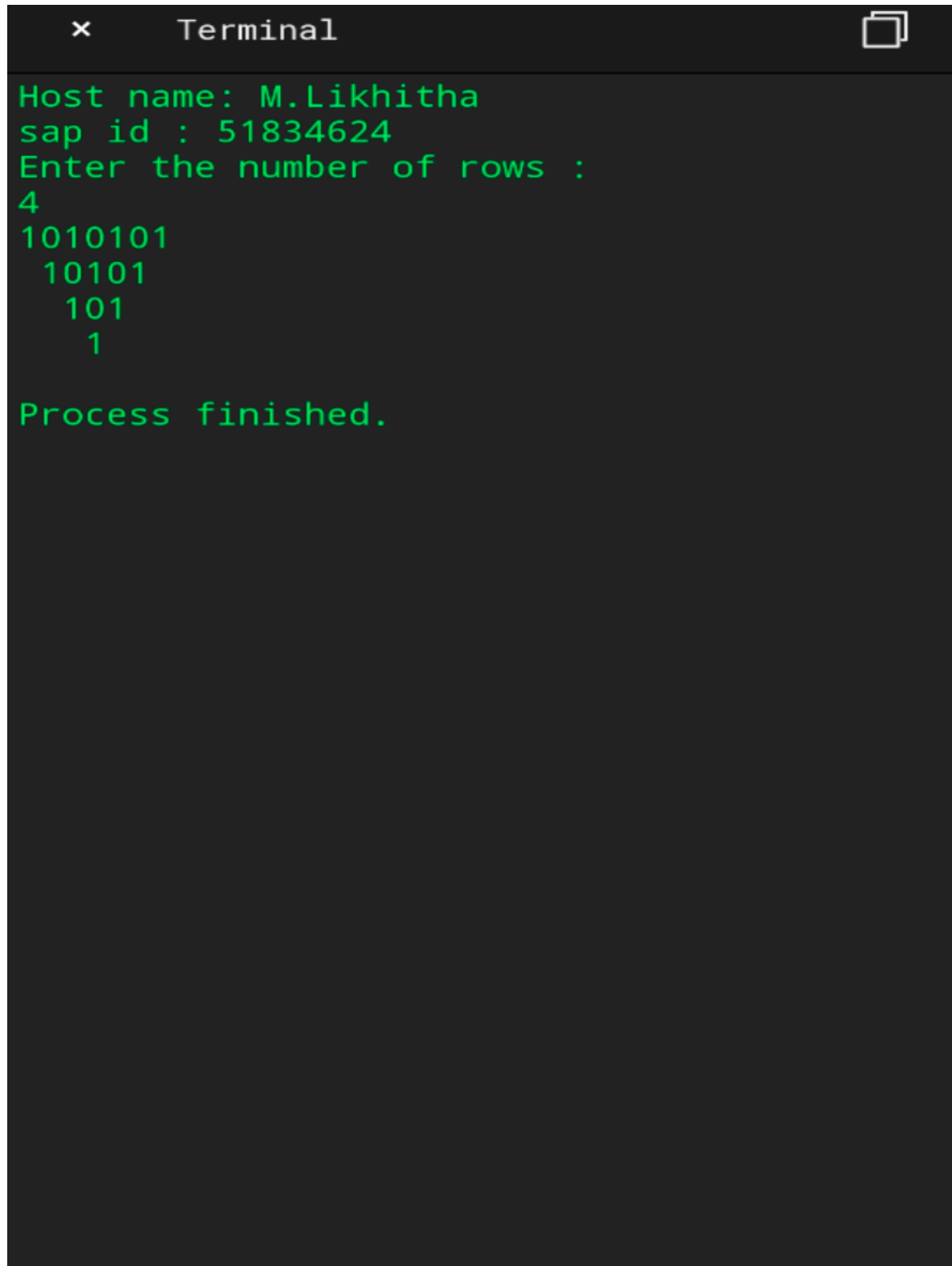


4th Question :

```
← PatterN.java Saved → ⋮
1  import java.util.Scanner;
2  class Pattern
3  {
4      public static void main(String args[])
5      {
6          Scanner sc=new Scanner(System.in);
7          System.out.println("Host name: M.Likhitha");
8          System.out.println("Enter the number of rows");
9          int n=sc.nextInt();
10         for(int i=n;i>=1;i--)
11         {
12             for(int j=n;j>i;j--)
13             {
14                 System.out.print(" ");
15             }
16             for(int j=2*i-1;j>=1;j--)
17             {
18                 if(j%2==0)
19                 {
20                     System.out.print("0");
21                 }
22                 else
23                 {
24                     System.out.print("1");
25                 }
26             }
27             System.out.println();
28         }
29     }
30 }
```



Output screen :



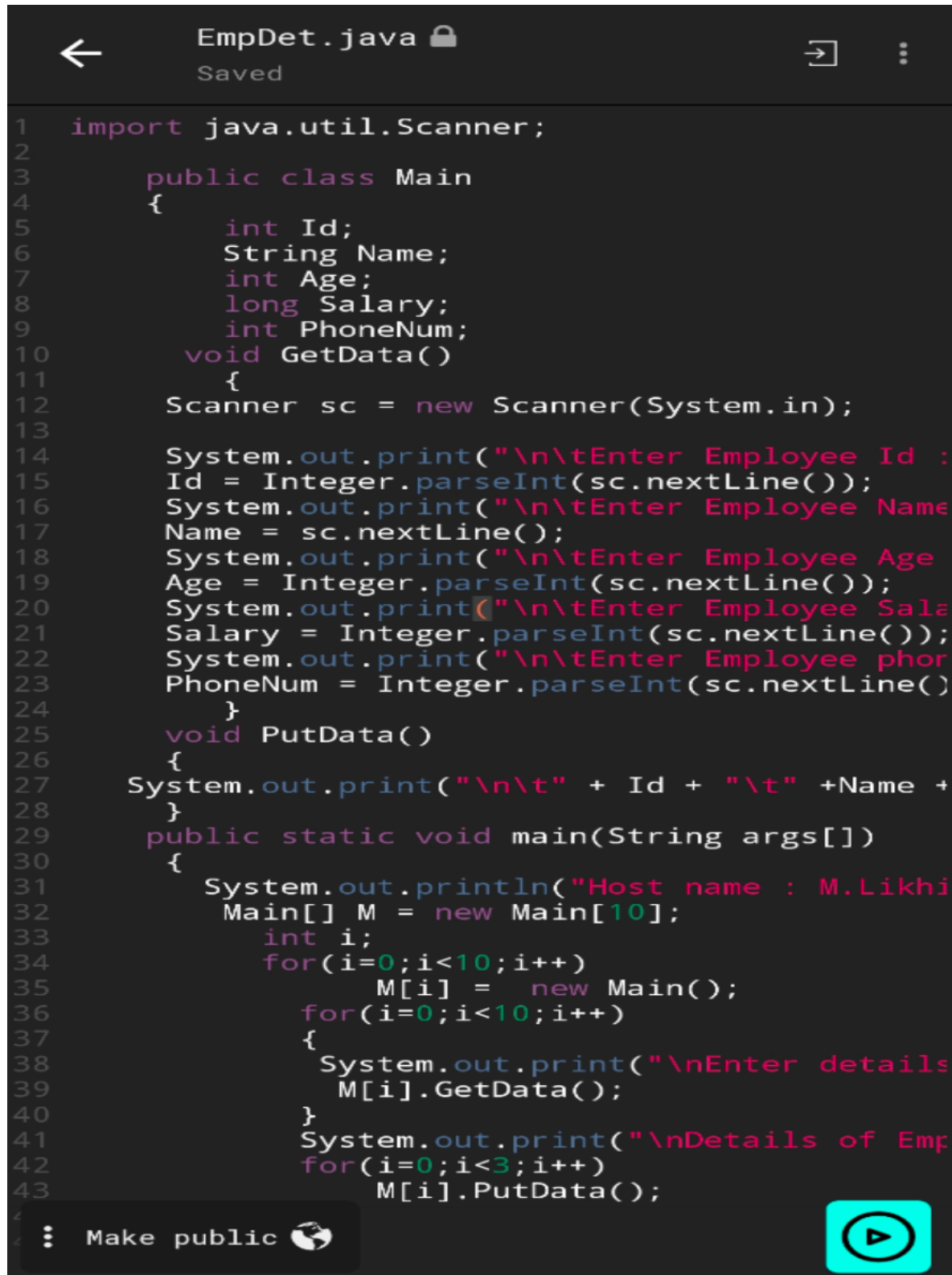
```
× Terminal
Host name: M.Likhitha
sap id : 51834624
Enter the number of rows :
4
1010101
 10101
   101
    1

Process finished.
```

The image shows a terminal window titled "Terminal" with a close button (x) and a maximize button (square icon). The terminal displays the following text in green on a black background: "Host name: M.Likhitha", "sap id : 51834624", "Enter the number of rows :", "4", a Pascal's triangle pattern of 4 rows (1010101, 10101, 101, 1), and "Process finished.".



5th Question :



```
1  import java.util.Scanner;
2
3      public class Main
4      {
5          int Id;
6          String Name;
7          int Age;
8          long Salary;
9          int PhoneNum;
10         void GetData()
11         {
12             Scanner sc = new Scanner(System.in);
13
14             System.out.print("\n\tEnter Employee Id : ");
15             Id = Integer.parseInt(sc.nextLine());
16             System.out.print("\n\tEnter Employee Name : ");
17             Name = sc.nextLine();
18             System.out.print("\n\tEnter Employee Age : ");
19             Age = Integer.parseInt(sc.nextLine());
20             System.out.print("\n\tEnter Employee Salary : ");
21             Salary = Integer.parseInt(sc.nextLine());
22             System.out.print("\n\tEnter Employee phone number : ");
23             PhoneNum = Integer.parseInt(sc.nextLine());
24         }
25         void PutData()
26         {
27             System.out.print("\n\t" + Id + "\t" + Name + "\t" + Age + "\t" + Salary + "\t" + PhoneNum);
28         }
29         public static void main(String args[])
30         {
31             System.out.println("Host name : M.Likhi");
32             Main[] M = new Main[10];
33             int i;
34             for(i=0;i<10;i++)
35                 M[i] = new Main();
36             for(i=0;i<10;i++)
37             {
38                 System.out.print("\nEnter details of Employee " + (i+1) + " : ");
39                 M[i].GetData();
40             }
41             System.out.print("\nDetails of Employees : ");
42             for(i=0;i<3;i++)
43                 M[i].PutData();
44         }
45     }
```

Make public



Out put Screen:

```
× Terminal
Enter details of 8 Employee
Enter Employee Id : 8
Enter Employee Name : lucky
Enter Employee Age : 73
Enter Employee Salary : 90000
Enter Employee phone Number : 96636464
Enter details of 9 Employee
Enter Employee Id : 9
Enter Employee Name : lishv
Enter Employee Age : 27
Enter Employee Salary : 93774
Enter Employee phone Number : 97655478
Enter details of 10 Employee
Enter Employee Id : 10
Enter Employee Name : lsgvdb
Enter Employee Age : 27
Enter Employee Salary : 936642
Enter Employee phone Number : 976363125
Details of Employees
1 Mahesh 21 85000 93758852
2 Likhitha 20 73993 93747747
3 Krishna 23 74000 88302900
```

