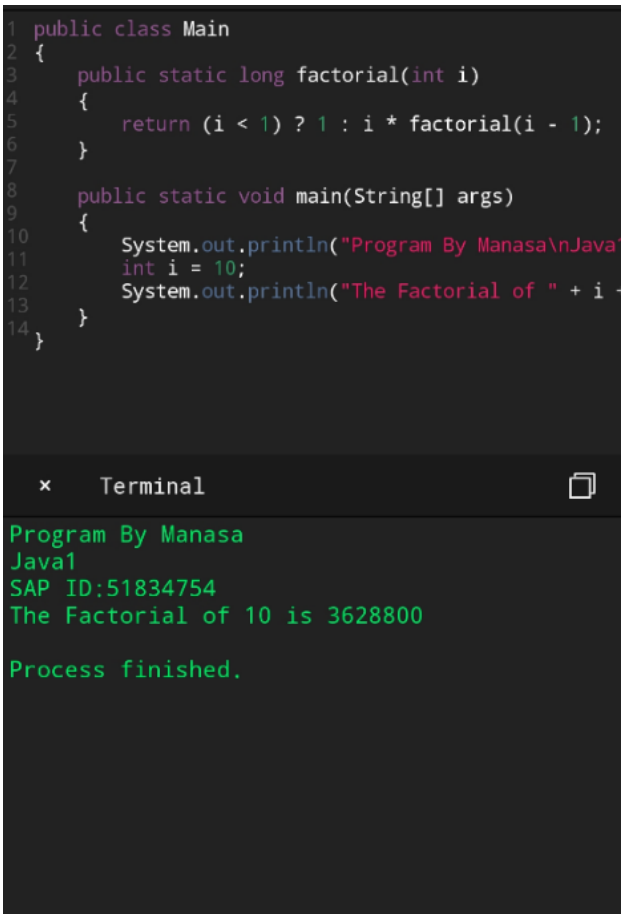
Question 1:

```
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));
	}
}
```

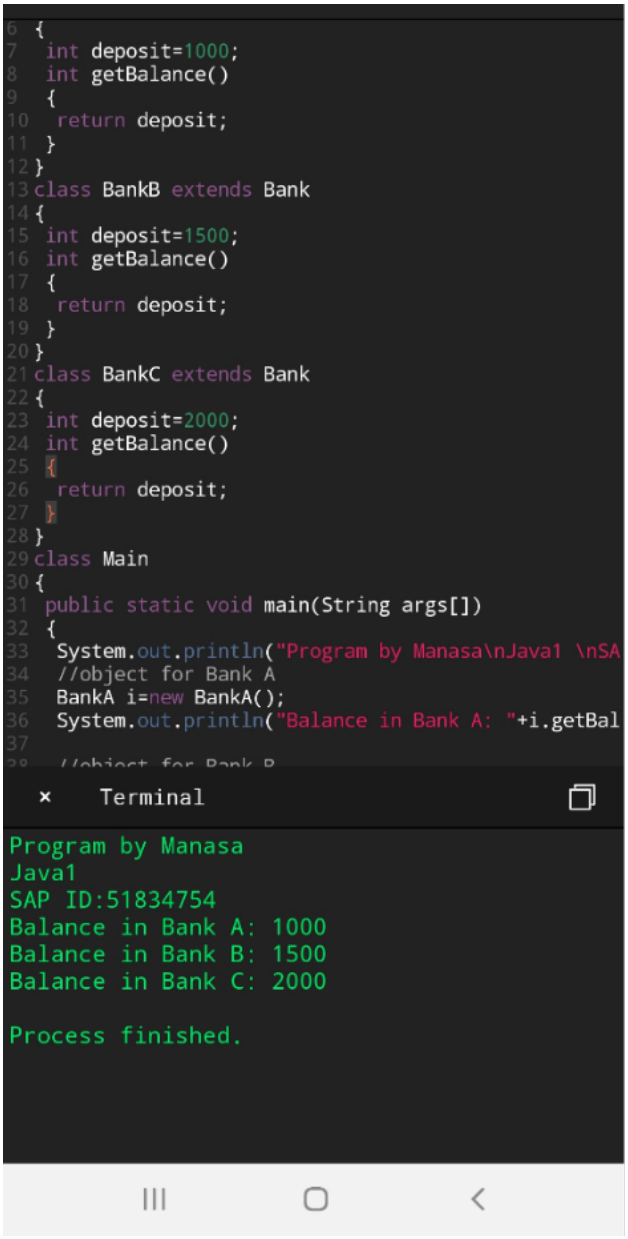


Question 3:

```
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());

 }
}
```



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();
    }
  }
}
```

```
mport java.util.Scanner;
class Pattern
{
  public static void main(String args[])
  {
    System.out.println("Program by Manasa\nJava1\n
    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();
    }
  }
}
```

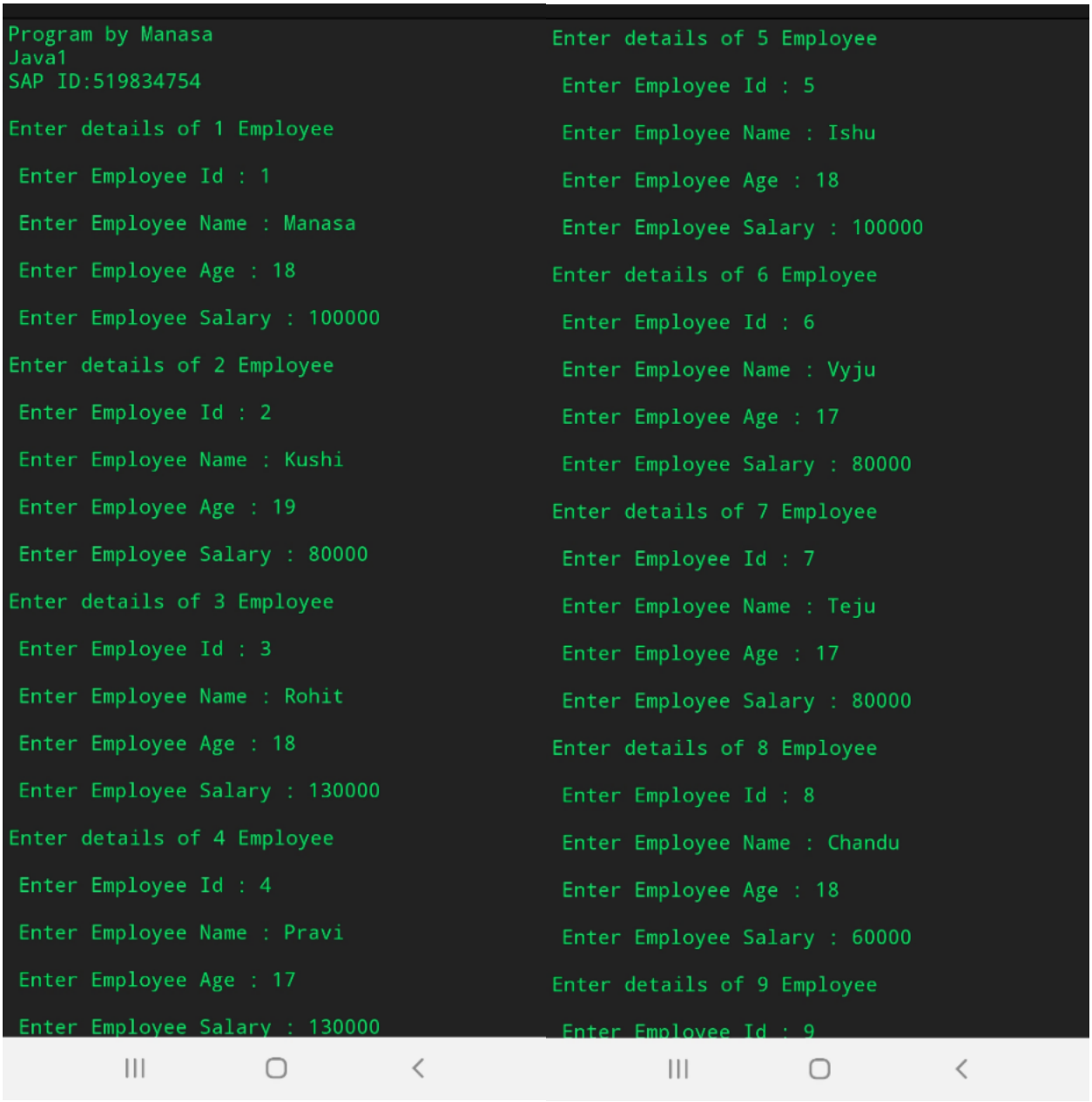
```
Terminal
Program by Manasa
Java1
Sap:51834754
1010101
 10101
  101
   1

Process finished.
```

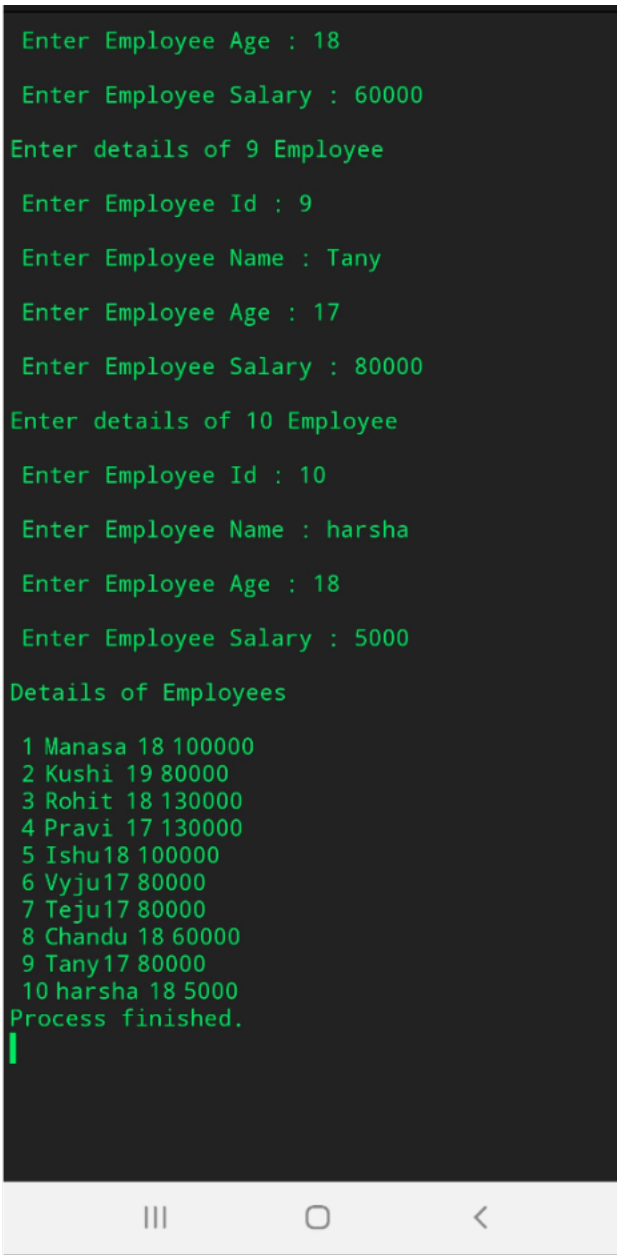
QUESTION 5:

```
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.