1.

```
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("Author:jaganmohan\nSAP ID:51834
11          int i = 5;
12          System.out.println("The Factorial of " + i + " is " + factor
13      }
14  }
```

```
×    Terminal
Author:jaganmohan
SAP ID:51834796
The Factorial of 5 is 120

Process finished.
```

3.

```
abstract class Bank
{
 abstract int getBalance();
}
class BankA extends Bank
{
 int deposit=100;
 int getBalance()
 {
  return deposit;
 }
}
class BankB extends Bank
{
 int deposit=150;
 int getBalance()
 {
  return deposit;
 }
}
class BankC extends Bank
{
 int deposit=200;
 int getBalance()
 {
  return deposit;
 }
}
class Main
{
 public static void main(String args[])
 {
```

```
Terminal
Author; p. jaganmohan
SAP ID:51834796
Balance in Bank A: 100
Balance in Bank B: 150
Balance in Bank C: 200
```

4.

```java
import java.util.Scanner;
 class Pattern
 {
   public static void main(String args[])
   {
     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
1010101
 10101
  101
   1
```