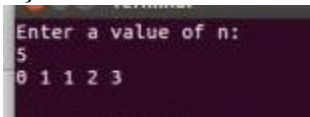# Problem#3 Option#1

1.Fibonacci sequence.

```java
import java.util.Scanner;

public class Fibonacci
{
        public static void main(String args[])
        {
                long[] ar = new long[1000000];
                ar[0]=0;
                ar[1]=1;
                int n;
                Scanner scan=new Scanner(System.in);
                System.out.println("Enter a value of n:");
                n=scan.nextInt();
                for(int i=2;i<n;i++)
                        ar[i]=ar[i-1]+ar[i-2];
                for(int i=0;i<n;i++)
                        System.out.print(ar[i]+" ");

        }

}
```
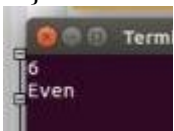
```
Enter a value of n:
5
0 1 1 2 3
```

2.EvenOdd

```java
import java.util.Scanner;

public class EvenOdd
{
        public static void main(String args[])
        {
                Scanner scan=new Scanner(System.in);
                int a;
                a=scan.nextInt();
                if(a%2==0)
                        System.out.println("True");
                else
                        System.out.println("False");
        }

}
```

```
Term
6
Even
```

Problem#3 Option#2

```java
public class Numbers {
private int num;
        public Numbers(int num){
                this.num=num;
        }
        public  void showFibonacci(){
                long[] ar = new long[1000000];
                ar[0]=0;
                ar[1]=1;
                for(int i=2;i<num;i++)ar[i]=ar[i-1]+ar[i-2];
                for(int i=0;i<num;i++)System.out.print(ar[i]+" ");
                System.out.print("\n\n");
        }
        public void showPyramid(){
                int n=num;
                if(n>9)n=9;
                int s=n;
                for(int i=1;i<=n;i++){
                        for(int j=0;j<s-i;j++)System.out.print(" ");
                        for(int k=1;k<=i;k++)System.out.print(k);
                        for(int l=i-1;l>=1;l--)System.out.print(l);
                        System.out.print("\n");
                }
                System.out.print("\n\n");
        }
        public boolean checkNumber(){
                if(num%2==0)return true;
                elsereturn false;
        }
        public void setNum(int num){
                this.num=num;
        }
}

public class Number2 {
        public static void main(String[] args) {
                Numbers a=new Numbers(5);
                a.showFibonacci();
                a.showPyramid();
                System.out.print(a.checkNumber());
                a.setNum(85);
                System.out.print("\n\n");
                a.showFibonacci();
                a.showPyramid();
                System.out.print(a.checkNumber());
        }
}
```

```
0 1 1 2 3

     1
    121
   12321
  1234321
 123454321

false

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711 28657 46368 7

        1
       121
      12321
     1234321
    123454321
   12345654321
  1234567654321
 123456787654321
12345678987654321

false
```
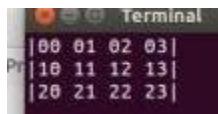
Problem#4

```java
public class Problem4{
    public static void main(String args[]){
        String[][] a = new String[3][4];
        int b=0;
        for(int i=0;i<3;i++){
            int d=0;
            for(int j=0;j<4;j++){
                a[i][j]=Integer.toString(b)+Integer.toString(d);
                d++;
            }
            b++;
        }
        for(int i=0;i<3;i++)
        {
            System.out.print("|");
            for(int j=0;j<4;j++)
            {
                System.out.print(a[i][j]);
                if(j<4-1)
                    System.out.print(" ");
            }
            System.out.print("|");
            System.out.println("");
        }

    }

}
```



```
     Terminal
|00 01 02 03|
|10 11 12 13|
|20 21 22 23|
```