

## Java Notebook.

Fibonacci  $\rightarrow 1, 1, 2, 3, 5, 8, 13, \dots$  nth.

```
public class Fibonacci {  
    public static void main (String[] args) {  
        int n=10 ;  
        int a=0, b=1, sum;  
        for (int i=0 ; i < n; i++) {  
            System.out.print (a + " , " );  
            sum = a+b;  
            a = b;  
            b = sum;  
        }  
    }  
}  
// end of for loop  
// End of main  
// End of class definition.
```



3) Pattern :  
1  
1<sup>2</sup> - 2  
1<sup>3</sup> - 3  
1<sup>4</sup> - 4 . . .

```
public class Pattern {  
    public static void main (String[] args) {  
        System.out.println ("1");  
        for (int i = 2; i <= 10; i++) {  
            System.out.println (1-i);  
        }  
    }  
    // End of main method  
}  
// End of class definition.
```



2) Pattern :

1	1
1 2	2 2
1 2 3	3 3 3
1 2 3 4 ...	4 4 4 4 ...

```

public class Pattern {
    public static void main (String [] args) {
        int i = 0, n = 10; recom
        for (i = 1; i <= n; i++) {
xxxxxx
            for (int j = 1; j <= i; j++) {
                System.out.print (i + " ");
            }
            System.out.println();
        }
    }
}

```



a) Using Queue to check Palindrome.

```
import java.util.Queue;
import java.util.LinkedList;

public class QueEx {
    public static void main (String[] args) {
        Queue<Character> rev = new LinkedList<>();
        String inp = "FAFAR";

        for (int i = 0; i < inp.length(); i++) {
            rev.add(inp.charAt(inp.length() - i - 1));
        }

        String rev_inp = "";
        while (!rev.isEmpty()) {
            rev_inp += rev.remove();
        }

        if (rev_inp.equals(inp)) {
            System.out.println("Equal");
        } else {
            System.out.println("Not Equal");
        }
    }
}
```



o) A program to understand concept of Scanner class.

```
import java.util.Scanner;
public class Employee {
    public static void main (String [] args) {
        Scanner sc = new Scanner (System.in);
        String name = sc.nextLine();
        char gender = sc.next().charAt(0);
        int age = sc.nextInt();
        long mobileNo. = sc.nextLong();
        double cgpa = sc.nextDouble();

        // printing data.

        System.out.println ("Name = " + name);
        System.out.println ("Gender = " + gender);
        System.out.println ("Age = " + age);
        System.out.println ("mobileNo. = " + mobileNo);
        System.out.println ("CGPA = " + cgpa);
    }
}
```



## a) Interface Example.

```
interface Potable {  
    public void carry();  
    public void sum();  
}
```

```
class Laptop implements Potable {  
    public void carry () {  
        System.out.println("Carry");  
    }  
    public void sum () {  
        System.out.print("Sum");  
    }  
}
```

```
public class Inter1 {  
    public static void main (String args[]) {  
        Laptop len = new Laptop();  
        len.carry();  
        len.sum();  
    }  
}
```

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## e) Inheritance Example.

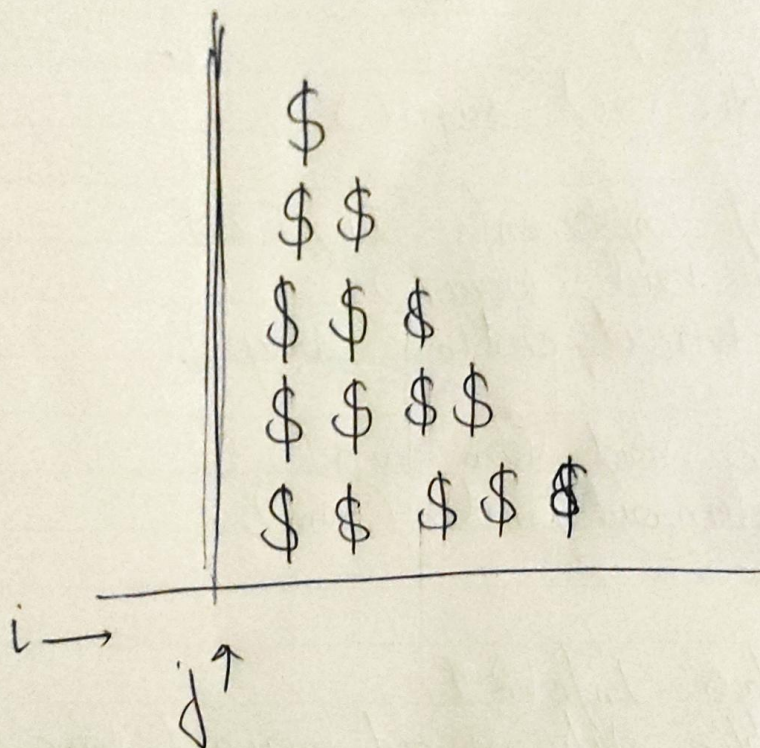
```
interface I1 {  
    public void carry();  
}
```

```
interface I2 {  
    public void sum();  
}
```

```
class Lap implements I1, I2 {  
    public void carry() {  
        System.out.println("Carry");  
    }  
    public void sum sum() {  
        System.out.println("Sum");  
    }  
}
```

```
public class Infer2 {  
    public static void main (String[] args) {  
        Lap L1 = new Lap();  
        L1.sum();  
        L1.carry();  
    }  
}
```







## ① Pattern Program.

```
import java.util.*;  
class Pattern  
{
```

```
    public static void main (String args[]) throws  
    {
```

```
        int i, j;  
        for (i = 0; i < 5; i++)  
        {
```

```
            for (j = 0; j < i; j++)
```

```
                System.out.print("$");  
            }
```

```
            System.out.println();  
        }
```

```
    }
```

```
}
```

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