

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();  
    }  
}
```

---



## e) Inheritance Example.

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

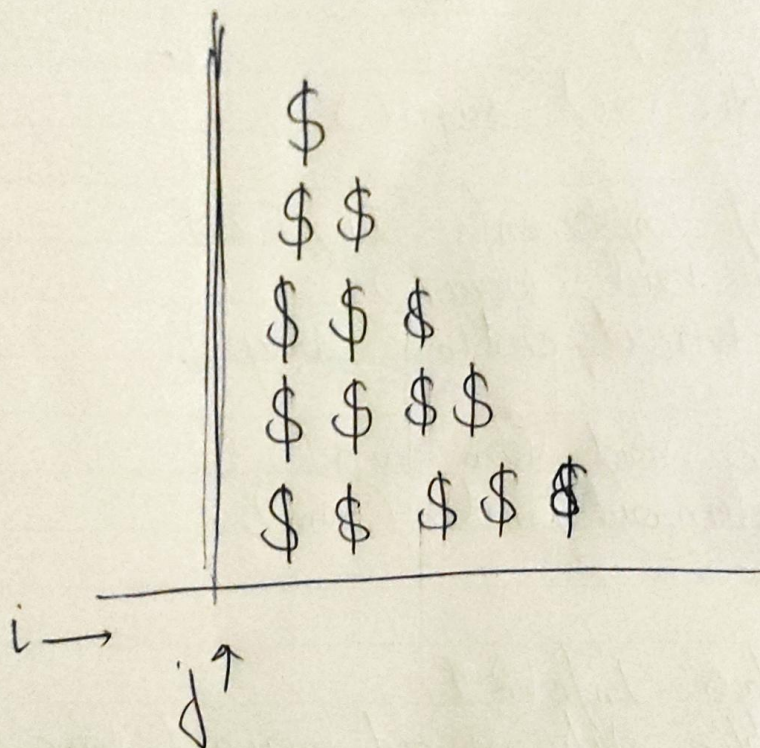
```
interface I2 {  
    public void sum();  
}
```

```
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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