

```
class Program14
```

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

```
        int m, n;
        m = 15;
        n = 30;
        int count = 0;
        do
```

```
        {
            if (m % 2 == 0)
            {
                // m is even
                count++;
            }
            m++;
        }
```

```
        while (m <= n); // if m becomes 31 stop
        // outside loop
```

```
        System.out.println("There are " + count + " even numbers ");
    }
}
```

m 15 16 17 18

n 30

count 1

1<sup>st</sup> if (  $15 \% 2 == 0$  ) - False  
X

m++

m <= n  
16 <= 30 - true

if (  $16 \% 2 == 0$  ) - T  
count++

m++

17 <= 30 - true

3<sup>rd</sup> if (  $17 \% 2 == 0$  ) - F  
X

m++

18 <= 30 - T

4<sup>th</sup>

31 <= 30 - F

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

```
{
    int n = 4;
    char ch = 'a';
    for (int i = 1; i <= n; i++)
    {
        for (int j = 1; j <= n; j++)
        {
            System.out.print( ch + " ")
        }
        System.out.println();
        ch++;
    } // end outer for -> update
}
```

a a a a

n 4

ch a

1

2

1 <= 4 - T

1 2 3 4 5

1 <= 4 2 <= 4 3 <= 4 4 <= 4 5 <= 4

2 <= 4 - T

1

1 <= 4

```
for (int i=1; i<=5; i++)
{
    char ch='a';
    for (int j=1; j<=5; j++)
    {
        if (i%2==0)
        {
            System.out.print(j);
        }
        else
        {
            System.out.print(ch++);
        }
    }
    System.out.println();
}
```

1

2

1 <= 5 - True

ch a

1 <= 5 - true

1 % 2 == 0 - F

2 <= 5 - t

1 % 2 == 0 - F

3 <= 5 - t

1 % 2 == 0 - F

4 <= 5 - t

1 % 2 == 0 - F

5 <= 5 - t

1 % 2 == 0 - F

6 <= 5 - F

1 2 3 4 5

a a a a a

1 2 3 4 5

a a a a a

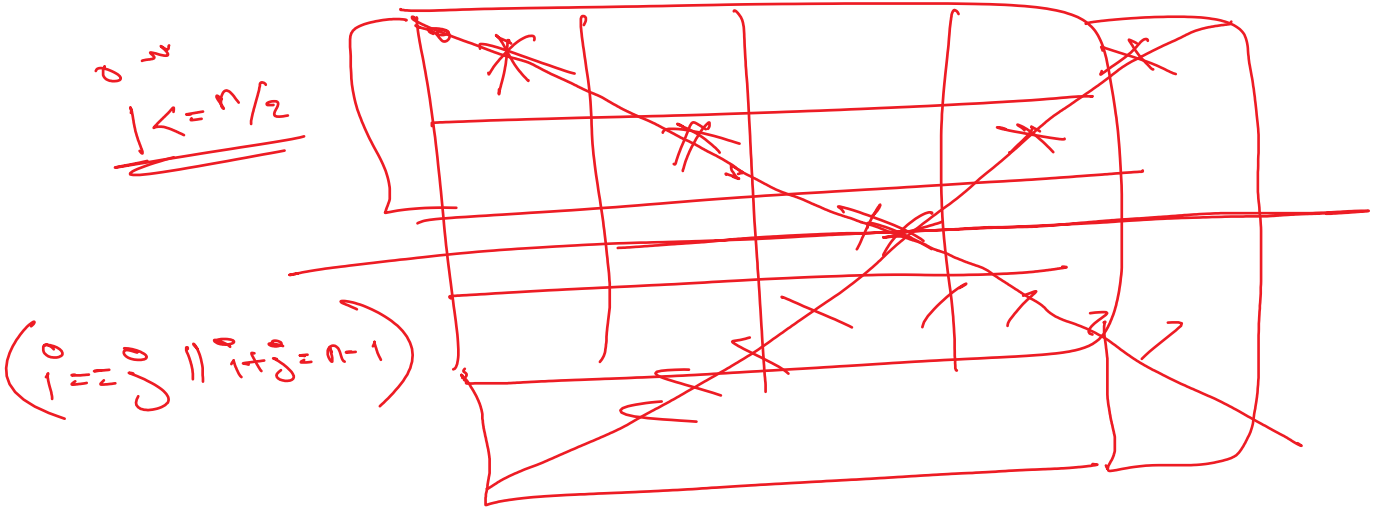
2 <= 5 - t

1 <= 5 - t

2 % 2 == 0 - t

2 <= 5 - t

2 % 2 == 0 - t

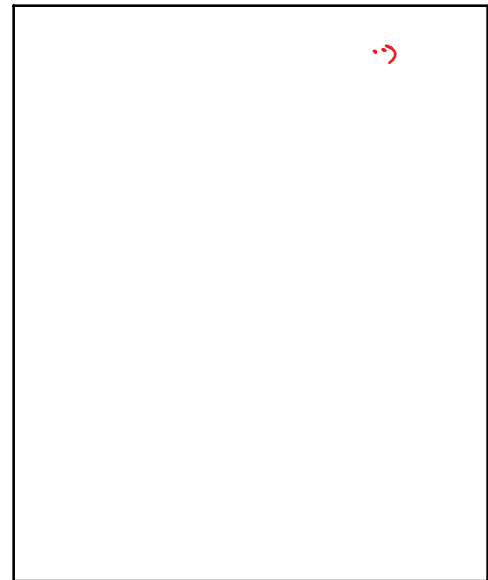


```
class Program3
{
    public static void main(String[] args)
    {
        System.out.println("Maing begin");// main begin
        martin() ; // method is called
        System.out.println("Maing end ");
    }
    public static void smith()
    {
        -> System.out.println("Hi i'm Smith() ");
        -> System.out.println("=====");
    }
    public static void martin()
    {
        System.out.println("Hi i'm Martin() "); //
        smith(); // method is called
        -> System.out.println("=====");
    }
}
```

Handwritten notes in a box:

```

    13
    14 I'm Martin
    15 I'm Smith
    -----
    ME
  
```



```
class P5
{
    public static void largestOfTwo( int num1 , int num2 )
    {
        100 > 20
        if (num1 > num2)
    }
```

Handwritten notes:

```

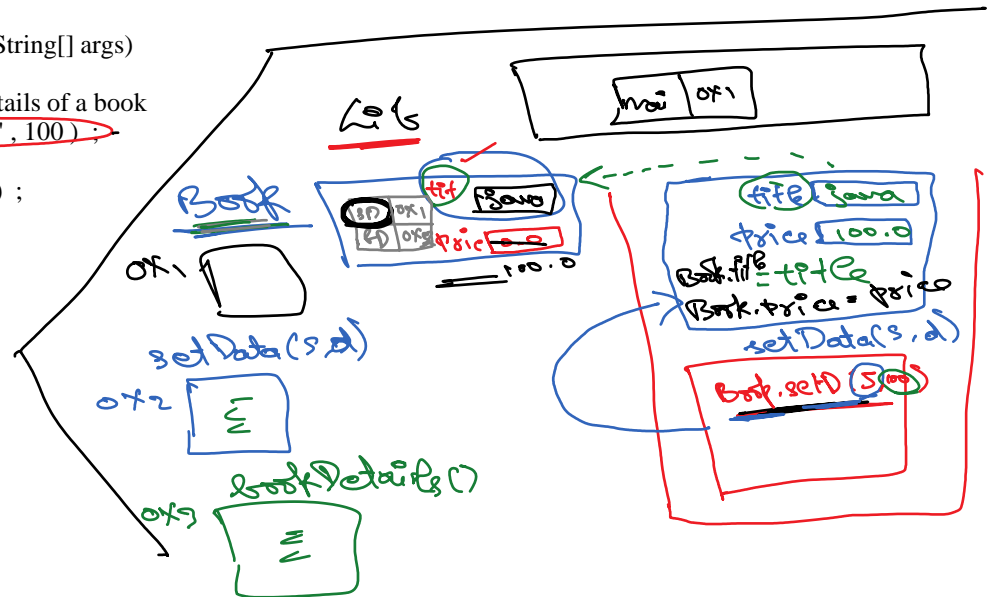
    1% 20, 100
    2% 100, 20
  
```



```

class Library
{
    public static void main(String[] args)
    {
        // i want to store details of a book
        Book.setData("C#", 100);
        // display detail
        Book.bookDetails();
    }
}

```



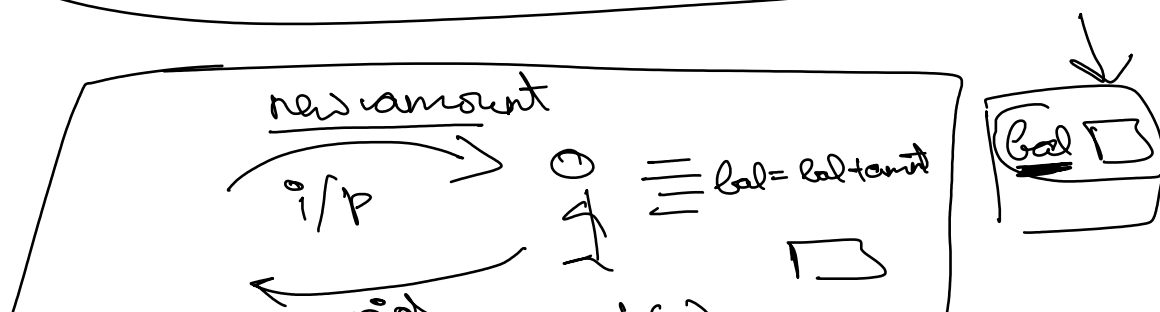
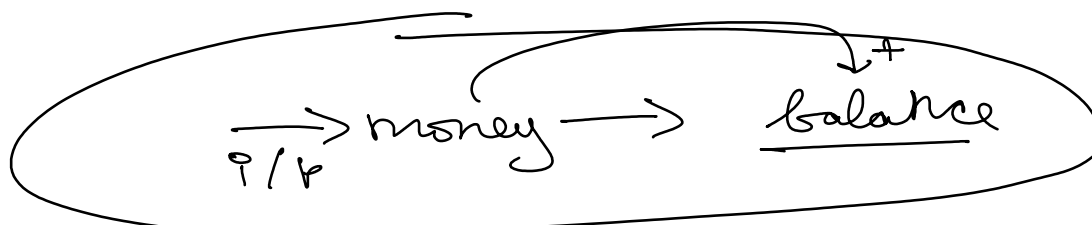
## Savings Account

```

accns
name
bal
// 1. set data
// 2. display data

```

1. > deposit → method



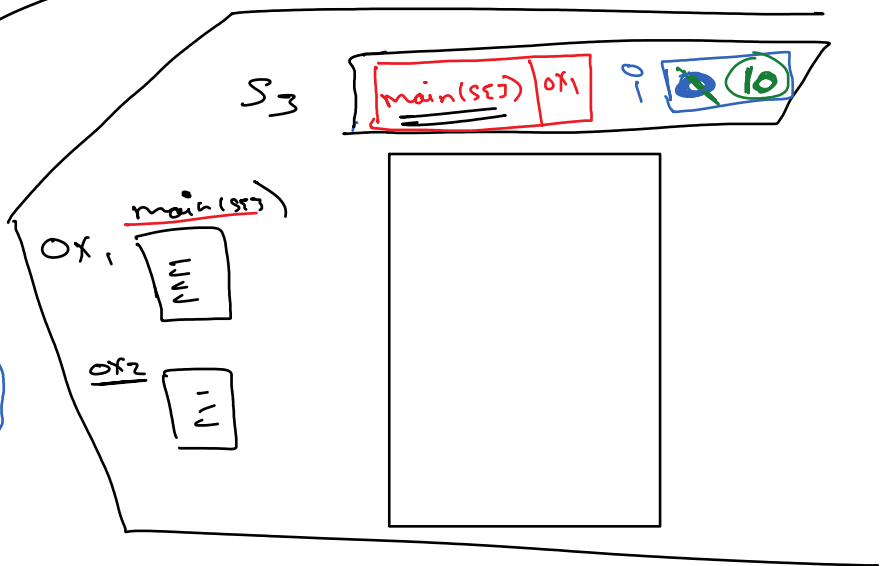


```

class S3
{
    static int i ;
    public static void main(String[] args)
    {
        i = 10 ;
        System.out.println("Main Begin ");
        System.out.println( "i : " + i );
        System.out.println("Main End ");
    }
    static
    {
        System.out.println("From SIB-1 ");
        System.out.println("i : " + i );
    }
}

```

F SIB-1  
 0 MB  
 10 ME



class S4

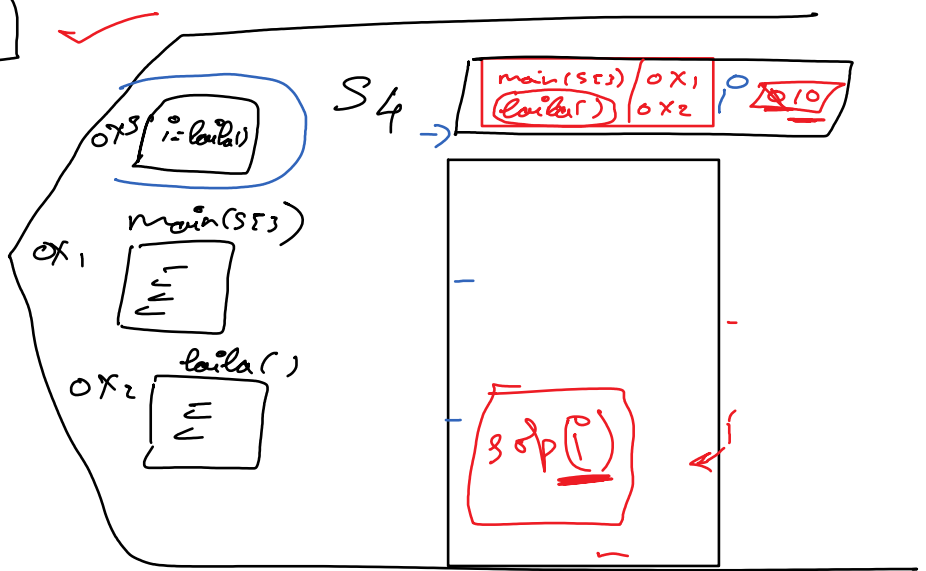
Java S4

```

{
    static int i = laila() ;
    public static void main(String[] args)
    {
        System.out.println("Main Begin");
        System.out.println("i : " + i );
        System.out.println("Main end ");
    }
    static int laila()
    {
        System.out.println("Laila begin..!!");
        System.out.println("i : " + i );
        System.out.println("Laila end..!!");
        return 10 ;
    }
}

```

<B  
 i: 0  
 2E  
 MB  
 i: 10  
 ME



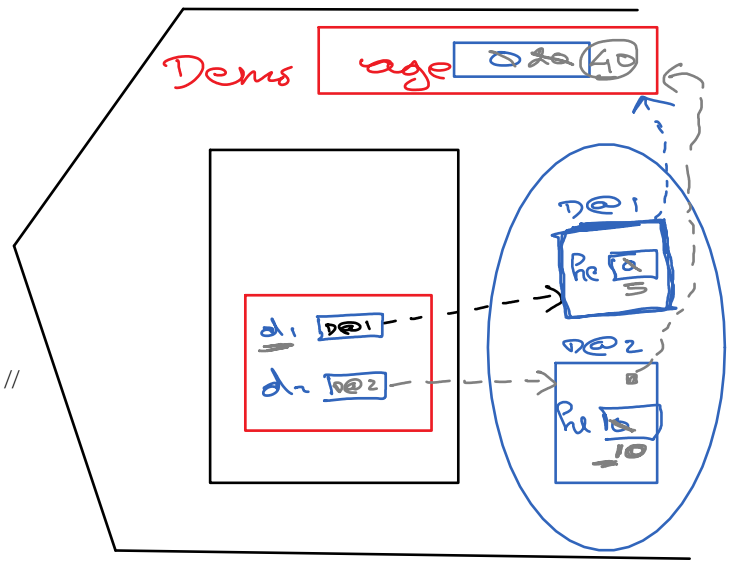
```

class Demo
{
    static int age ;
    int height ;
}

class P7
{
    public static void main(String[] args)
    {
        Demo d1 = new Demo() ;
        Demo d2 = new Demo() ;
        d1.age = 20 ;
        d1.height = 5 ;
        d2.age = 40 ;
        d2.height = 10 ;
        System.out.println("D2.age : " + d2.age ); // 40
        System.out.println("D2.height : " + d2.height ); // 10
        System.out.println("====="); //
        System.out.println("D1.age : " + d1.age ); // 40
        System.out.println("D1.height : " + d1.height ); // 5
    }
}

```

D2.age : 40  
 D2.height : 10  
 -----  
 D1.age : 40  
 D1.height : 5

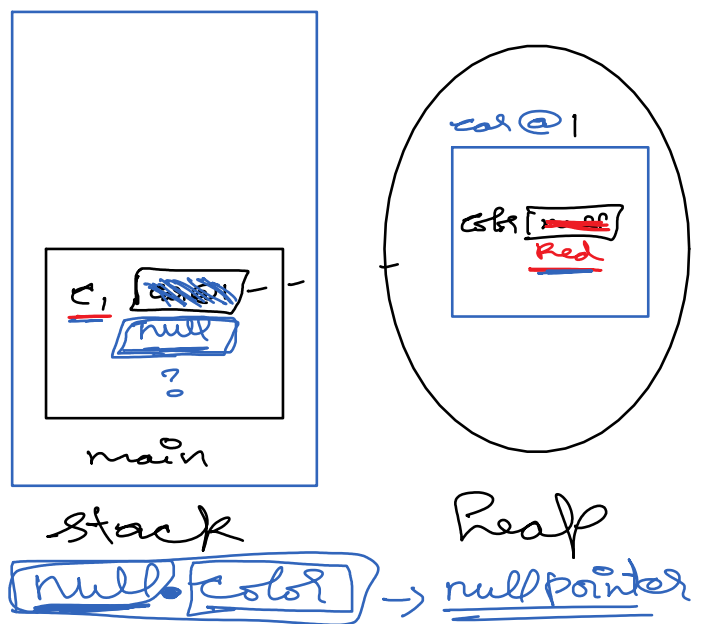


```

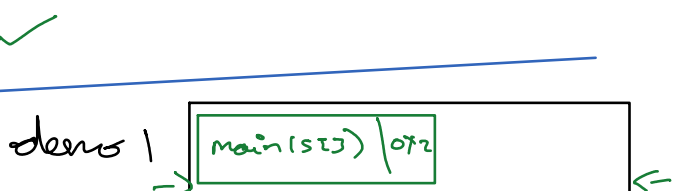
class Car
{
    String color ;
}

class DriverClass2
{
    public static void main(String[] args)
    {
        Car c1 ;
        c1 = new Car() ;
        c1.color = "red" ;
        System.out.println("c1:" + c1);
        System.out.println(c1.color); // red
        c1 = null ;
        System.out.println("c1:" + c1); // null
        System.out.println(c1 . color) ; //
    }
}

```



car@1  
 red  
 null



```

class Demo1
{
    public void laila()
    {
    }
}

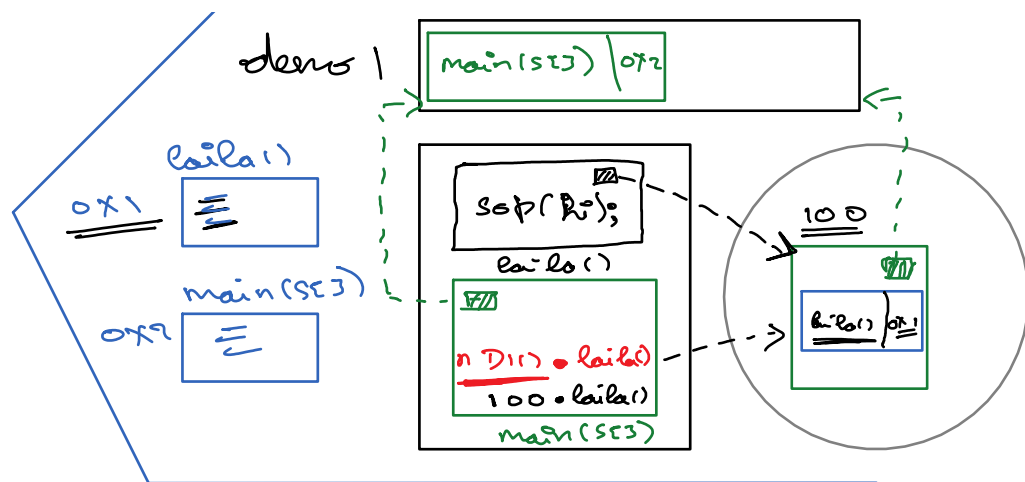
```

```

{
    public void laila()
    {
        System.out.println( "Hi..!!!" );
    }
}

public static void main(String[] args)
{
    System.out.println("Begin");
    new Demo1() . laila() ;
    System.out.println("End");
}

```



```

class Book
{
    int bid ;

    void setBid( int x )
    {
        bid = x ;
    }

    // create a method to print bid of the book
    void printBid()
    {
        System.out.println( "Book ID : " + bid );
    }

    public static void main(String[] args)
    {
        // create 2 book objects.
        // set bid as 1 for first book and 3 for the second book
        // display the bid of both the books
        Book b1 = new Book() ; ✓
        Book b2 = new Book() ; ✓
        b1.setBid( 1 ); ✓
        b2.setBid( 3 ); ✓
        b1.printBid();
        b2.printBid();
    }
}

```

