Today's agenda

- Classes and objects
- Constructors
- Nested Class
- LinkedList Intro

// classes & objects

int, float, char, boolean etc.

↳ int n = 10;

↳ int y = 20;

- tempP1 = (10, "A");
- tempP2 = (false, 10);

```
Public static class Pair {
    int n;
    char ch;
}
```

(name)

Pair P1 = new Pair();

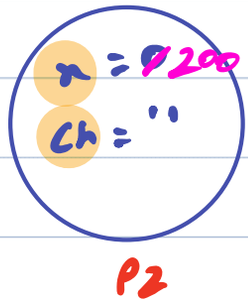
Pair P2 = new Pair();

P1.n = 100;

P2.n = 200;

S.O.P (P1.n); → 100

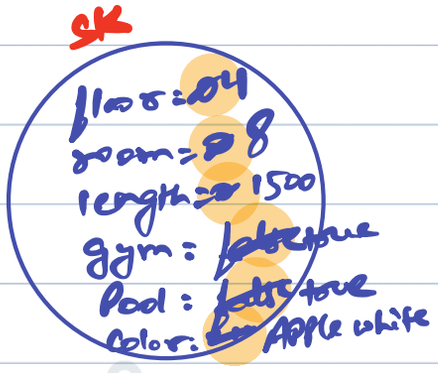
S.O.P (P2.y); → error



Class: It is a blueprint.

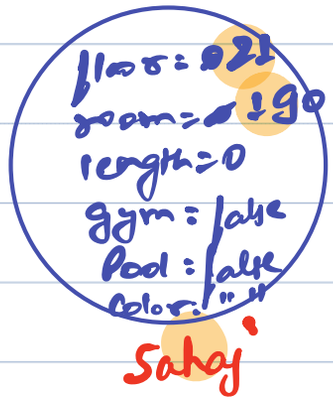
Object: Real instance of blueprint.

```
class home {
    int floor;
    int room;
    int length;
    boolean gym;
    boolean Pool;
    String color;
}
```



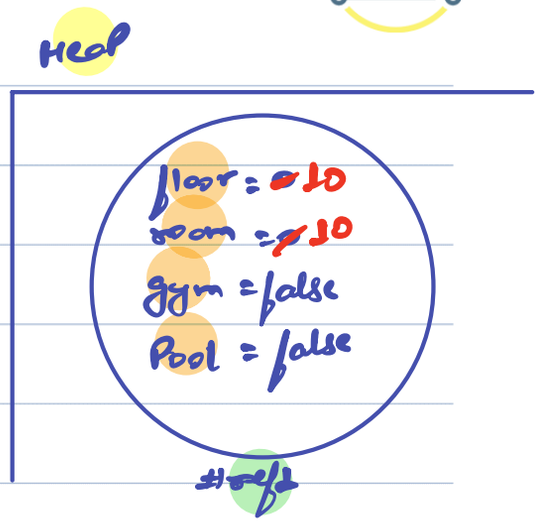

```
home SK = new home();
SK.floor = 4;
SK.room = 8;
SK.length = 1500;
SK.gym = true;
SK.Pool = true;
SK.Color = "Apple white";
```

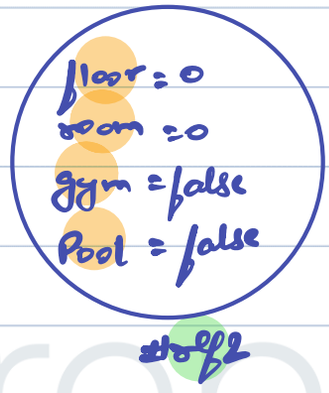
```
home Sahaj = new home();
Sahaj.floor = 21;
Sahaj.floor = 190;
```




```
sop(SK.floor + Sahaj.floor);
```

```
class home {
    int floor;
    int room;
    boolean gym;
    boolean Pool;
}
```






```
home SK = new home();
SK.floor = 10;
SK.room = SK.floor;
SK.gym = SK.room; → error
```

```
home Sahaj = 10; → error
```

```
home Sahaj = SK;
```

```
S.O.P(Sahaj.floor); → 10
```

```
home Kriti = new home();
```

```java
// "static void main" must be defined in a public class.
public class Main {
    public static void main(String[] args) {
        home sk = new home(); // sk = ref1
        sk.floor = 100; //ref1.floor = 100

        home sahaj = sk; // sahaj = ref1
        sahaj.floor = 20; //ref1.floor = 20

        System.out.println(sk.floor); //ref1.floor
        System.out.println(sk); //ref1

    }

    public static class home{
        int floor;
        int room;
        boolean gym;
        boolean pool;
    }
}
```

//Constructor

```
    public static class home{
        int floor; //v1
        int room; //v2
        boolean gym; //b1
        boolean pool; //b2

        //constructor1
        home(int v1, int v2, boolean b1, boolean b2){
            floor = v1;
            room = v2;
            gym = b1;
            pool = b2;
        }

        //constructor2
        home(){
        }

        //constructor3
        home(int v1, boolean b1){
            floor = v1;
            pool = b1;
        }

        //constructor4
        home(boolean b2, int v2){
            room = v2;
            gym = b2;
        }
    }
}
```

```
// "static void main" must be defined in a public class.
public class Main {
    public static void main(String[] args) {
        // home sk = new home(10,25,false,true);
        // home sahaj = new home(21,190,true,true);
        // sk.floor = 10;
        // sk.room = 25;
        // sk.gym = false;
        // sk.pool = true;

        home sk = new home(20,false);
        System.out.println(sk.room);

    }
```

Break till 10:30 Pm

Nested Class

```
class Node {
    int val;
    Node next;

    Node(int v1){
        val = v1;
    }
}
```

```
Node n1 = new Node(10);
```

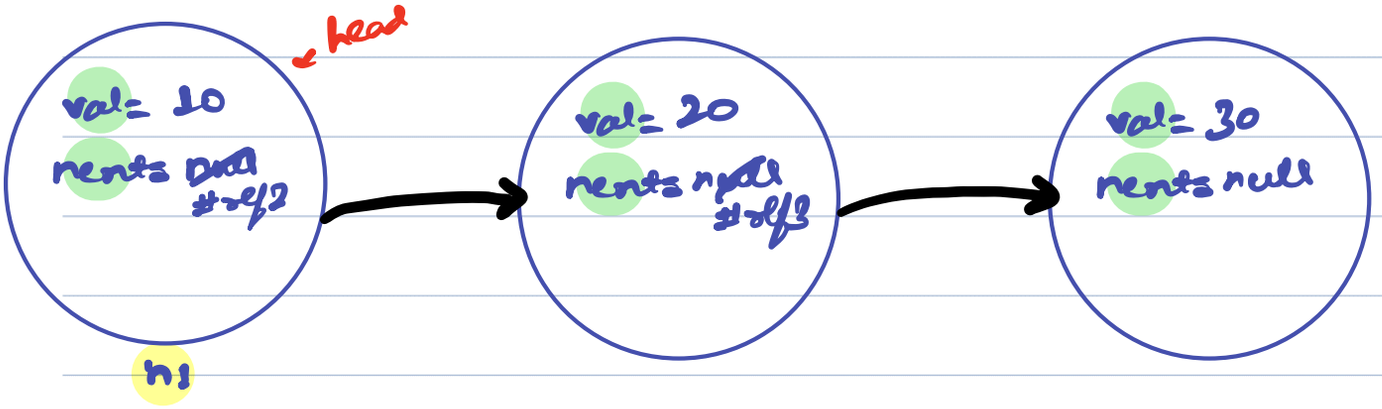

```
S.O.p(n1.val); → 10
n1.next = 100; → error
n1.next = n2;
S.O.p(n1.next.val); → 20
S.O.p(n1.next.next.val); → error
```

```
Node n2 = new Node(20);
```


```
n2.next = n3;
S.O.p(n1.next.next.val); → 30
```

```
Node n3 = new Node(30);
```

//LinkedList



How to create LL → xx