What is inheritance and describe the types of Inheritance

Inhonitance: -

The method to create a hierarchy between classes

by inheriting from other classes.

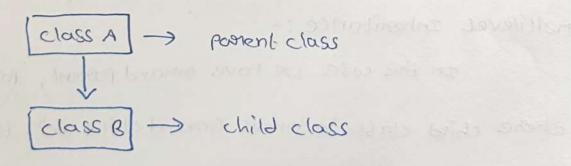
There one 5 types of Inhoritance

- \* single zhhaitance
- \* multilevel Inhonitance
- · multiple Inhonitance
- \* Hierarchial Inheritance
- · Hybrid Inhonitance

In this multiple Inhonitance does not support in Java to overcome we use Intenface

1. single Inhonitance :-

In this we have one poment class and child class
Both one intentinhed and child class is accessed by the
poment class



```
p910991am: -
     class 1 8
        public void dis_a() &
       system-out-println ("Base class is dorived");
  33
    class B extends A &
        public void dis- b() &
        system-out-println ("child class is created");
  class Main &
     public static void main (storing ways cs) &
         6 obi = new b();
        obi-dis-a():
        obj-dis-b();
 23
 output: base class is derived
           child class is created
multilevel Inhonitance: -
        In this case we have amand pament, parent and child class
where child class becomes Grand child for the Grand poment.
-class
```

class B ponent

class B child Genand child

paragaram:

class 1 &

public void dis1 () {

system out-paint (n("Hi");

33

class B exlends A &

public vold disz () &

system. out-printin ("Hello");

23

Class C extends B &

public void dis 3() {

system-out-println ("world");

23

class main {

public static void main (string CJ args) &

( 0 = hew( ( ) -

0. 801():

0.dis2();

0. dis 3 ();

output ]-

Hi

Hello

world

3

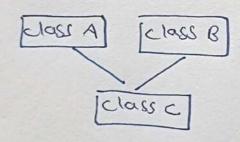
Hierachial Inhoritance: In this Inhonitance single posiont class have many child classes as follows parent A child c Ichild B pologolam: class A & public void dist() } system-out- parintly ("powent class derived") -23 class B extends 1 & public void dis 2 () { system out painteln ("child is donived"); 23 class c extends A & public void disa() 9 system out - println ("child is derived"); 23 class main & 3 (20100 [3 grinds) rison bion state silder 6 01= new 6 (); output-COZ = new CC) porent class derived 01. 01:10 child I is derived 01. dis2() child 2 is donived 02-dis3()-

```
Hybrid Zhhonitonce:
      24 this inhanitance is done when combination of 2
 anheritance as follows
                  closs B
                           C 1045 D
            closse
Program:
  class a &
    public void dui () {
   system-out-println ("Hi") -
class 6 extends as
 public void dis 2() &
  system-out. parintho ("Hello");
23
class c extends & &
  public void dis 3 () 9
   system-out-painten ("Hi!")-
  class of extends b §
    public void disu() {
    system-out. parinthn ("king") -
   3
 3
```

class main & public static void main ( uning c ) conge) & cobje = newc(). datid = new d(1: · () 136. 2 NO outpub: obj c - dis2()+ Hi obic-disac): Hello obid - disic): Hi! abid - dieze) -His stor 543 K nello obid - dis 7(): King

multiple Inhonitance.

In this Inhonitance 2 poolent class combines and forms on single child class whome in Java it is not possible for overcoming we use Inlenface.



class A & inta;
Ac) & a=s;

3 & Markart. Wal

Signification and modes

- (coming ) collains - Rus - R

```
void dis 1 () }
       system-out-println (a);
  interface B &
      int b=10;
     vord diez ( ) &
      system.out-partition (6);
 3 3
 class c extends & im plements B &
     int- c= 15;
    void disa ( ) ?
   system-out-parint-in (c);
public class main &
     public static void main (staning C) age) ¿
                                             Catholic To L
       cobj=newc():
      060°-dis1()-
       obur disz();
       Obi-dis3():
                                       out-put:
                                        5
  3
                                       10
                                       15
```

```
of Toursenichn
```

```
class Main &
   public static void main (storing c) ongs) {
    By & 6469
     int a= 50 10;
     system-out-parint-Ln ("Those is no earnors"):
 catch (Exception c) {
    system out-pointin (e.get Hessage())"
3
finally
system-out-parintln ("This is a finally Block");
 3
output:
      1 64 2010
     This is a finally block
```