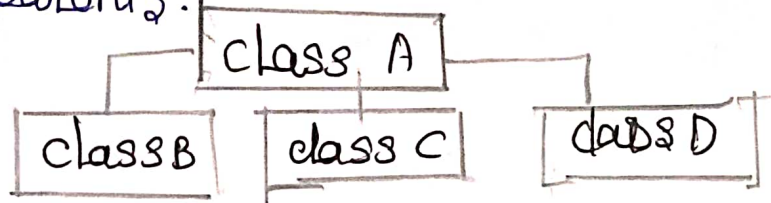1] what is inheritance?

Inheritance is a Mechanism of which one class acquires the property of another class. Ex chid inherits the traits of his/her parents.


```
            class A
      
   class B    class C        class D
```
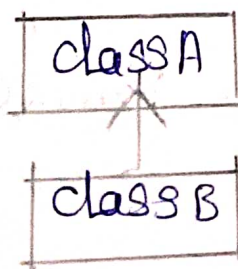
In Java a class can inherit attributes and methods from another class. The class that inherits the properties is known as the sub-class or the child class.
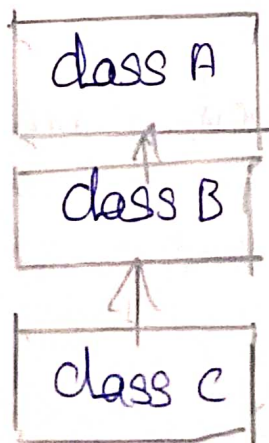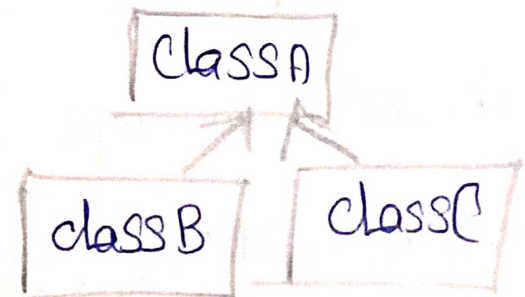
Keyword = extends

2] Types of Inheritance?

Single   Multilevel   Hierarchical
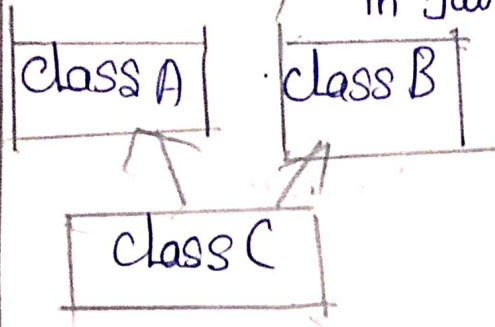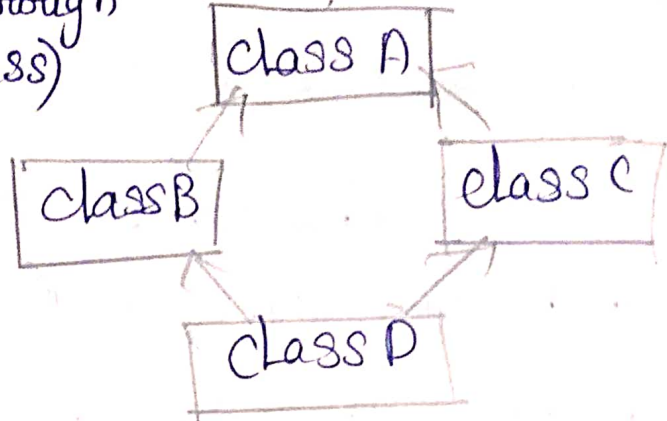


```
  class A          class A                          class A
     ↑                ↑                              ↗ ↖
  class B          class B                      class B    class C

                   class C
```

Multiple(It is not supported Hybrid
in Java through
class)

| Class A | Class B |

Class C

Class A

Class B   class C

Class D

3] Benifits of Inheritance?

To use Code reuse.

Inheritance can save time and effort as the main code need not be written again.

Inheritance provides a clear model Structure which is easy to understand.

4] Inheritance example of selenium

chromeDriver is inherited from the chromiumDriver inherited from the Remote webDriver.

F3 = key press

5] Method Overloading in Java

If a class has multiple methods having same but different in arguments / parameters, It is known as Method Overloading.

Ex:- By changing Number of arguments

By changing the data type.

```
Class MethodOverloading {
    public static void display (int a) {
        syso ("Arguments : " + a);
    }
    public static void display (int a, int b) {
        syso ("Arguments; " + a + "and" + b);
    }
    PSVM ()
    {
        display (1);
        display (1, 4);
    }
}
```

output
___

1

1 and 4

b) Method Overriding in Java

If subclass (child class) has the same method as declared in the parent class.

It is known as method overriding in Java.

Usage of this

Method overriding is used to provide the specific implementation of a method which is already provided by its superclass

It is used for runtime polymorphism.

Ex without overriding

```
class Vechicle {
    void run() {syso ("Running");}
}
class Bike extends Vechicle {
    public static void main (St arg) {
        Bike obj = new Bike();
        Obj.run ();
    }
}
```