```
class Parent
                                                                           class Child extends Parent

\begin{vmatrix}
i &= 0 \\
j &= 0
\end{vmatrix}
 RIWO 
\begin{vmatrix}
i &= 100 \\
j &= 200
\end{vmatrix}
 R&W
                                                                                                                                                               Child.class Parent.class
                                                                           4 int i= 100; 12
 1 int x= 10;
 2 {
                                                                                                                                                                                    main()
                                                                                                                                                                  main()
         methodOne(); 8
                                                                                   methodTwo(); 13
         System.out.println("Parent fist instance block...");
                                                                                   System.out.println("Child fist instance block...");
                                                                              Child() 16
    Parent() 11
                                                                                   System.out.println("Child class constructor...");
         System.out.println("Parent class constructor...");
                                                                               public static void main(String... args)
     public static void main(String... args)
                                                                                   Child c = new Child();
        Parent p = new Parent();
                                                                                   System.out.println("Child class main method..."); 17
         System.out.println("Parent class main method...");
                                                                               public void methodTwo()
     public void methodOne()
                                                                                   System.out.println(j); 14
         System.out.println(y); 9
                                                                             6 int j =200; 15
3 int y =20; 10
Output
                                         D:\OctBatchMicroservices>java Child
Parent First Instance Block
Parent class constructor
                                                                                       :\OctBatchMicroservices>java Parent
                                         Parent fist instance block...
                                         Parent class constructor...
                                                                                                                                   D:\OctBatchMicroservices>java Test
                                                                                     Parent fist instance block..
Child First Instance Block
                                                                                     Parent class constructor...
                                         Child fist instance block...
Child class constructor...
                                                                                     Parent class main method...
Child class constructor
                                         Child class main method..
child class main method
 class Base
                                                             class Derived extends Base
   1 static int i = 10; 11
                                                               6 static int x = 100; 15
   2 static{
                                                              7 static{
         methodOne(); 12
                                                                     methodTwo(); 16
         System.out.println("base static block");
                                                                     System.out.println("Derived static block");
   3 public static void main(String... args)
                                                               8 public static void main(String... args)
         methodOne();
                                                                      methodTwo(); 19
         System.out.println("Base main");
                                                                      System.out.println("Derived main"); 20
   4 static void methodOne()
                                                              9 static void methodTwo()
         System.out.println(j); 13
                                                                     System.out.println(y);17
                                    i = 0

j = 0 RIWO
   5 static int j = 20; 14
                                                              10 static int y = 200; 18
                                    i = 10

j = 20 R&W
              main()
                                                                                    main()
            Base.class
                                                                                Derived.class
 Output
                                  D:\OctBatchMicroservices>java Derived
 Base static block
                                                                                        D:\OctBatchMicroservices>java Base
                                  base static block
 Derived static block
                                                                                       base static block
                                  Derived static block
                                 Derived main
 Derived main
                                                                                        Plane ref;
       instantiation is not possible (object creation)
                                                            Plane (abstract)
                                                                                            (creating a reference is possible)
                                                   (abstract)takeOff() : void
                                                   (abstract)fly() : void
     methods without implementation only signature is available
                                                   (abstract)carry() : void
(abstract)land() : void
                                                                      extends
                                                                        Fighter
                                                                                                               Cargo
                                   Passenger
                                                                   takeOff() : void
                                                                                                         takeOff() : void
                                takeOff() : void
             Specific
                                                                   fly() : void
                                                                                                         fly() : void
                                           : void
          implementation
                                                                                                         carry() : void
                                                                   carry() : void
                                carry() : void
                                                                   land()
                                                                              : void
                                                                                                         land() : void
                                           : void
                                       For all these 3 classes object should be created, so give body for all the abstract methods then methods would be "Concrete methods" and the class would become "Concrete class".
                 Working with object called :: Cargo Cargo plane is carrying... Cargo plane is carrying goods... Cargo plane is flying... Cargo plane is landing...
                                                                                                                          Working with object called :: Fighter Fighter plane is taking off... Fighter plane is carrying weapons.. Fighter plane is flying... Fighter plane is landing...
                                                                  Working with object called :: Passenger
Passenger plane take off...
Passenger plane is carrying passengers...
Passenger plane is flying...
Passenger plane is landing...
```