

## Experiment No - 3

→ AIM - Write a program how class and object is wired in Java.

→ Resources Required - JDK 1.8 above, notepad

→ Theory -

- Class - A class is a group of object which have common properties. It is a template blueprint from which object are created. It is a logical entity. It can't be physical.

A class in Java can contain =

- Fields
- Methods
- Constructors
- Blocks
- Nested class and interface

SYNTAX to declare a class:

```
class < class-name >
{
    field;
    method;
}
```

- Object - An entity that has static and

```

Eg- class Vehicle {
    void main ()
    {
        System.out.println("Vehicle is running");
    }
}

class Bike < extends Vehicle >
{
    public-static-void-main (String args[]) {
        Bike obj = new Bike ();
        obj.run ();
    }
}
    
```

Q2 What is multiple inheritance using Interface with diagram.

A3 Java is an object oriented programming language that support Inheritance function. Inheritance is a process using which one class acquires the properties and behavior of another class. One special type of inheritance is multiple is special type of inheritance in which a class can inherit properties of more than one super class.

Q3 What is abstract method and Abstract class?

Abstract methods are those type of methods that don't require implementation for its declaration. These methods don't have a body which means no implementation. A few abstract method in Java. An abstract method in Java is declared through the keyword "abstract".

An abstract method in Java doesn't have curly braces but the end of method will have semicolon.

Abstract class - A class which is declared as abstract is known as abstract class. It can have abstract and non-abstract methods. It needs to be inherited and its method implemented cannot be instantiation.

Points to remember →

1. An abstract class must be declared with an abstract keyword.
2. It can have abstract and non-abstract method.
3. It cannot be instantiated.
4. It can have constructor and static method also.

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Super class ①

Subclass

Super class 2

Subclass

Here the subclasses are inheriting the properties and various from two parent classes.