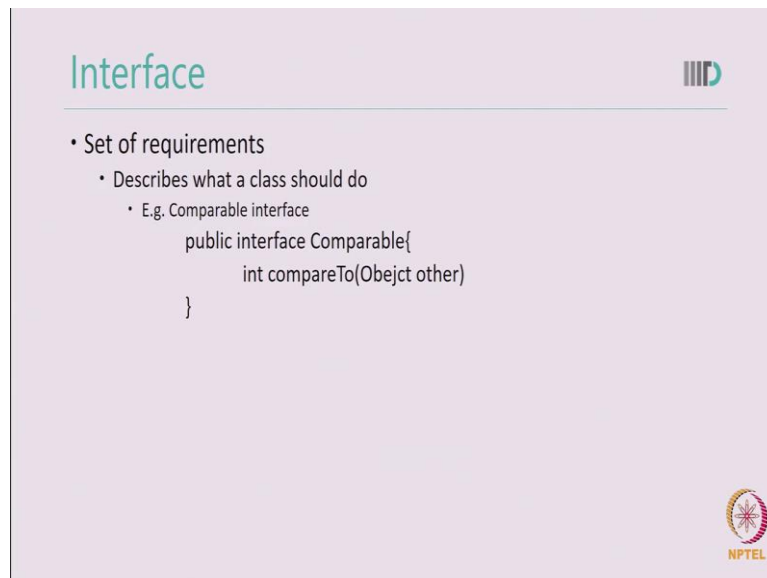


Mobile Computing
Professor Pushpedra Singh
Indraprasth Institute of Information Technology Delhi
Java Basics
Lecture 04

Similar to classes we also have a concept of interface in java. In java a class cannot be drive for more than one class. This is different than what we have in C plus plus where a sub class can be drive for more than one parent classes. An order to compensate for this java has the concept of interfaces.

Using interface we can define a set of requirement which then need to be implemented into the classes that implement that interface. Interface is very similar to abstract class however interface only defines the methods. And then unlike (())(0:49) classes a class may implement multiple interfaces.

(Refer Slide Time: 0:55)



The slide is titled "Interface" and features a light purple background. In the top right corner, there is a logo consisting of three vertical bars of varying heights. The main content includes a bulleted list and a code snippet. The list items are: "Set of requirements" and "Describes what a class should do", with a sub-bullet "E.g. Comparable interface". Below the list is a code snippet for the Comparable interface. In the bottom right corner, there is a circular logo with a star and the text "NPTEL" below it.

Interface

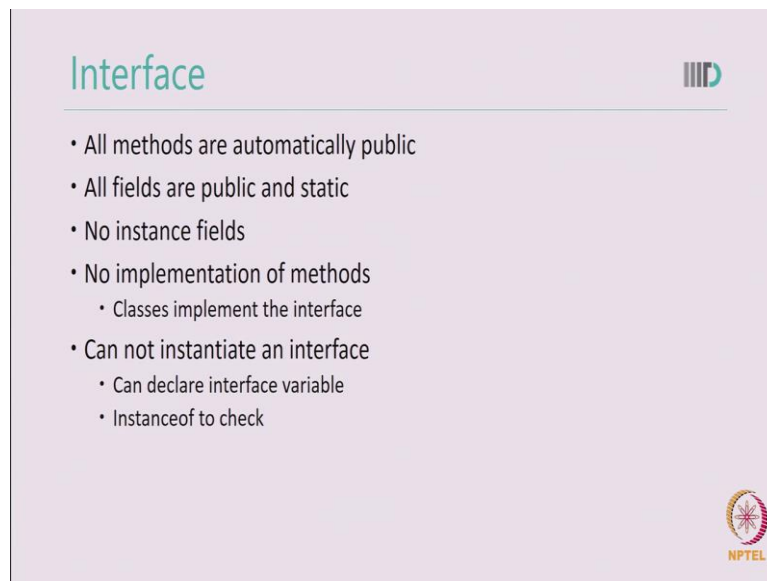
- Set of requirements
 - Describes what a class should do
 - E.g. Comparable interface

```
public interface Comparable{  
    int compareTo(Object other)  
}
```

NPTEL


So let see what the interface is? So interface defines a set of requirements which basically describe what a class could do. For example there is comparable interface we define a interface with a key word called interface. Each interface defines certain methods so the comparable interface which is available in java defines a method called compared to. Now any class that implements comparable interface must implement the method called compare to.

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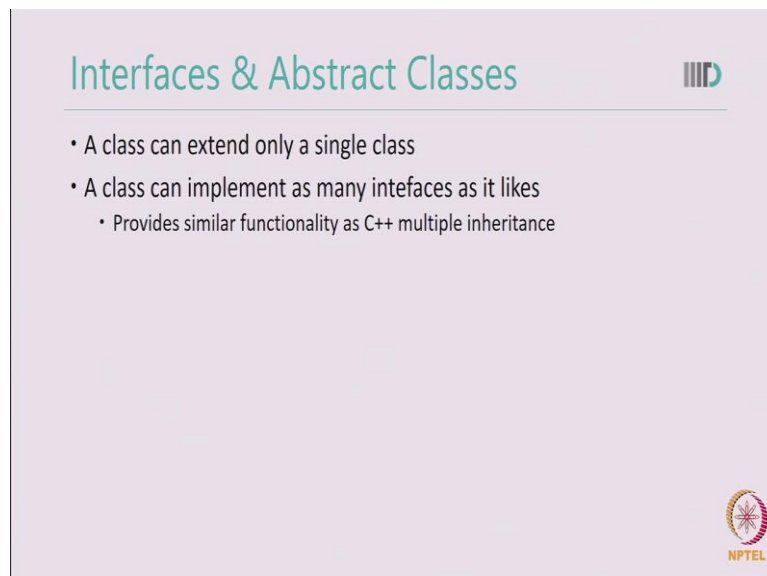
Interface

- All methods are automatically public
- All fields are public and static
- No instance fields
- No implementation of methods
 - Classes implement the interface
- Can not instantiate an interface
 - Can declare interface variable
 - Instanceof to check




In interfaces all the methods are public all the fields are public and static there are no instance fields there is no implementation of methods. And you cannot instantiate an interface. However you can declare interface variables.

(Refer Slide Time: 1:53)



Interfaces & Abstract Classes

- A class can extend only a single class
- A class can implement as many interfaces as it likes
 - Provides similar functionality as C++ multiple inheritance



Interfaces and abstract classes are very similar. As told earlier a class can extend only a single class but a class can implement as many interfaces as it likes. Interface provides similar functionality with C++ (2:10) to provide by multiple inheritance. Thank you!