OOPS

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## INHERITANCE:

Used for inheriting all the members and functions of parent class.

Keyword used is **“extends”.**

### TYPES::

SINGLE: Single child class inherits the property of a single parent class.

MULTILEVEL: A child class extends a parent class and the child class is a parent for another child class.

HIERARCHICAL: Many child class inherits the property of a single parent class.

MULTIPLE : Not supported. Can be achieved using interface.

HYBRID: combination of any of the above two interfaces and finally makes use of multiple inheritance which can be achieved using interface.

## INTERFACE:

Abstract class that have methods and variables,but all the methods will be unimplemented or in other words only method declaration is allowed.

### IMPLEMENTING INTERFACE:

Class uses an **“implement”** keyword to implement an interface.Once a class implements an interface it should have the method definition of all the unimplemented method in interface.

## ACCESSING CONSTANTS FROM A SEPARATE CLASS:

Declare the constants as public use Class\_name.constant for accessing.

# **Example Question Solved :**

# https://github.com/sruthiviswanathan/Zterns-19-Sruthi/tree/master/oops

1. Create 4 packages
   * 1. com.some\_name.bean
     2. com.some\_name.constants
     3. com.some\_name.implement
     4. com.some\_name.interface
2. Have the pojo(plain old java object) class inside bean package .This class should contain only the members of class and getters and setters.
3. Have all the constants defined separately in a class named constants and have it inside constants package.
4. Have one interface inside interface package which is an unimplemented method which should then be implemented in the class that implements this interface.
5. Have multiple classes inside implement package that implements the interface and each class has different functionality.
6. Create a new class that has main function which runs initially and gets redirected to the other classes or interfaces based on user input.