[Overriding / Polymorphism](http://59.162.104.101:25000/PBLApp/tmodule.action?module=OOPS%20/%20Inheritance&stream=Java&tm=TM2#T4)

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Create a base class Fruit with name ,taste and size as its attributes.  Create a method called eat() which describes the name of the fruit and its taste.  Inherit the same in 2 other classes Apple and Orange and override the eat() method to represent each fruit taste.  **package** B;  **class** fruitss  {  **int** size;  String taste;  **public** **void** eat()  {  System.***out***.println("name of the fruitss");  System.***out***.println("taste of fruitss");  }  }  **class** Apple **extends** fruitss  {  **public** **void** eat()  {  System.***out***.println("name of the fruit is APple");  System.***out***.println("taste of Apple");  }  }  **class** Orange **extends** fruitss  {  **public** **void** eat()  {    System.***out***.println("name of the fruit is Orange");  System.***out***.println("taste of Orange");  }  }  **public** **class** Fruit {  **public** **static** **void** main(String[] args) {  // **TODO** Auto-generated method stub  Orange o=**new** Orange();  o.eat();  Apple a=**new** Apple();  a.eat();  fruitss f=**new** fruitss();  f.eat();  }  } | Inheritance / Overriding |  |
| 2 | Write a program to create a class named shape. It should contain 2 methods, draw() and erase() that prints “Drawing Shape” and “Erasing Shape” respectively.  For this class, create three sub classes, Circle, Triangle and Square and each class should override the parent class functions - draw () and erase ().  The draw() method should print “Drawing Circle”, “Drawing Triangle” and “Drawing Square” respectively.  The erase() method should print “Erasing Circle”, “Erasing Triangle” and “Erasing Square” respectively.  Create objects of Circle, Triangle and Square in the following way and observe the polymorphic nature of the class by calling draw() and erase() method using each object.  Shape c=new Circle();  Shape t=new Triangle();  Shape s=new Square();  **package** B;  **class** Shape  {  **public** **void** draw()  {  System.***out***.println("DRawing shape");  }  **public** **void** erase()  {  System.***out***.println("Erasing shape");  }  }  **class** Circle **extends** Shape  {  **public** **void** draw()  {  System.***out***.println("Drawing circle");  }  **public** **void** erase()  {  System.***out***.println("Erasing circle");  }  }  **class** Triangle **extends** Shape  {  **public** **void** draw()  {  System.***out***.println("Drawing triangle");  }  **public** **void** erase()  {  System.***out***.println("erasing trianglr");  }  }  **class** Square **extends** Shape  {  **public** **void** draw()  {  System.***out***.println("Drawing square");  }  **public** **void** erase()  {  System.***out***.println("derasind square");  }  }  **public** **class** Shapeproblem {  **public** **static** **void** main(String[] args) {  // **TODO** Auto-generated method stub  Square s=**new** Square();  Triangle t=**new** Triangle();  Circle c=**new** Circle();  s.draw();  s.erase();  t.draw();  t.erase();  c.draw();  c.erase();  }  } |  |  |