

Next

- The program then prints out the following output:
 1. The number of objects is 100.
 2. The number of objects is 100.
 3. A constructor that prints the type of the object, the year and the number of wheels of the object.
 - The first object reference points to an object of the class `Car`. The year is 2010 and the number of wheels is 4.
 - The second object reference points to an object of the class `Truck`. The year is 2011 and the number of wheels is 6.
 4. A factory method that prints the name of the year and the number of wheels of the object.
 1. The first object reference points to an object of the class `Car`. The year is 2010 and the number of wheels is 4.
 2. The second object reference points to an object of the class `Truck`. The year is 2011 and the number of wheels is 6.
- Create a class program called `Employee` that prints out the year and the number of objects. The class should have a constructor that prints out the year and the number of objects. The class should have a factory method that prints out the year and the number of objects. The class should have a main method that prints out the year and the number of objects.

```

import java.util.*;

class Employee {
    int year;
    int wheels;

    Employee(int year, int wheels) {
        this.year = year;
        this.wheels = wheels;
    }

    Employee() {
        this.year = 2010;
        this.wheels = 4;
    }

    Employee(int year) {
        this.year = year;
        this.wheels = 4;
    }
}
    
```

Introduction to Java Frameworks & Callbacks



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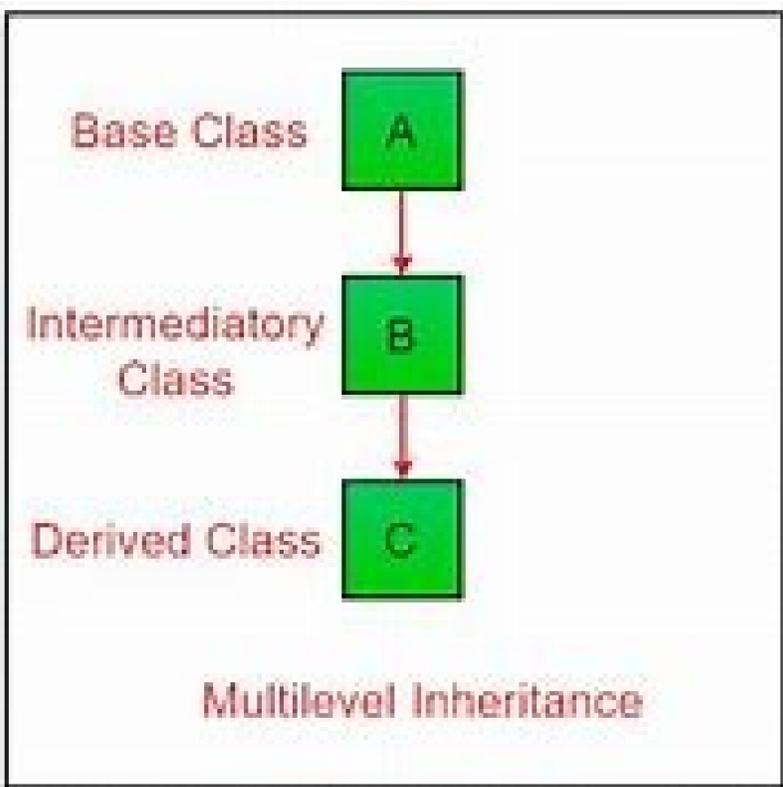
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Learning Objectives in this Lesson

- Understand the key object-oriented & generic programming features in Java pertaining to frameworks & callbacks



This course makes examples from the Java class libraries & collections framework



CLASS
 A class represents a template for several objects that have common properties.
 A class defines all the properties common to the object attributes and methods.
 A class is a set of attributes and operations that are performed on the attributes.
 A class is the blueprint from which individual objects are created.
 An object is an instance of a class.

Classes

- A class is a collection of fields (state) and methods (procedure or function) that operate on that data.
- The basic syntax for a class definition:

```

class <name> {
    <fields>
    <methods>
}
    
```

• Here, here: `class` - `name`, `fields`, `methods`



Java inheritance exercises and solutions pdf.

Do you know that in the Java programming language each class inherits the Object class, and you understand why each object has a mother @ all toString, equal, and hashCode. You know the concepts of inheritance, superstiton and subclass. You can create classes that inherit some of their properties from another class. You can call a builder or mother @ all that is @ defined in a superclass. Do you know how the mother @ all of execution of an object @ determined, and you are familiar with the concept of polymorphism. You can evaluate when using the inheritance, and you can come up with an example that @ unsuitable for heritage. Classes are used to clarify the concepts of problem mastery in object-oriented programming. Each class we create adds functionality to the programming language. This feature @ It would take to solve the problems we encountered. An idea @ was essential by three of the object-oriented programming @ that the solutions arise from the interactions between objects that are created from classes. An object in object-oriented programming @ an independent unit that has a state, that can be modified using the hands @ all that the object provides. Objects are used in cooperation; Everyone has his own responsibility. For example, our user interface classes have up to @ Now made use of Scanner objects. Every class Java extends the Class Object, which means that each class we create has its disposition all hands @ all defined in the Object class. If we want to change the way these hands @ all are defined in the function Object, they should be overlapped defining a new implementation for them in the next class @ m-maid. The objects we created receive the hands @ all equal and hashCode, among others, of the Object class. Each class derives from Object, but also @ m m @ It can be derived from other classes. When we examine the API (Application Program Interface) of the Java ArrayList, we notice that ArrayList has the of surpassing. The Summary List, in turn, has the Class Object as its java.lang Object java.util AbstractCollection java.util.AbstractList java.util.ArrayList Each class can extend directly only one class. However, a class inherits indirectly all the properties of the classes it extends. Thus, the ArrayList class derives from the AbstractList class, and indirectly derives from the AbstractCollection and Object classes. So, the ArrayList has all the variables and hands at its disposal @ all classes AbstractList, AbstractCollection, and Object. The keyword is extended to inherit the properties of a class. The class that gets the properties to @ called the subclass, and the class whose properties are inherited @ called the superclass. Let's take a look at a automotive manufacturing system that manages auto parts. A basic component of the management of parts @ the Part class, which defines the identifier, manufacturer, and description.public class Part {private String identifier; private String manufacturer; private String description; public Part(String identifier, String manufacturer, String description) {this.Identify= identifier; this.manufacturer= manufacturer; this.description= description;} public String getier() {return identifier;} public String getDescription(return description;) public String getManufacturer({return manufacturer;} Some part of the automaton @ the engine. How is it? @ the case of all parts, the engine too @ m has a manufacturer, an identifier, and a description. Hello. @ m of this, each engine has a type: for example, an internal fuel engine, an engine elves @ crtic, or a motor motor motor. The traditional way to implement the Motor class, without using heritage, would be this.Public Motor Class (private String engineType; private String identifier; private String manufacturer; private String; private description String; public engine(String engine, String identifier, String manufacturer, String description) {this.engineType= engineType; this.Identify= identifier; = manufacturer; manufacturer; = Description; } Public string GenEngineType () {Return EngineType; } String Public GetIdctifier () {return identifier; } String Public GetDescription () {return description; } Public string GetManufacturer () {Return Manufacturer; } } We note a significant amount of overlapping between the motor and part content. It can be reliately said that the engine is a special case case. The engine is a part, but also has properties that a piece does not have, that in this case it means that the mechanism type.Let re-create the class mechanism and, this time, use heritage in our implementation Q. We will create the class mechanism that inherits the part of the class: a motor is a special case of a class mechanism. Public motor (String EngineType, String Identifier, String Manufacturer, String Description) {Super (Identifier, Manufacturer, Description); this.type = EngineType; } Public string GenGineType () {Return EngineType; } } The class definition public class mechanism extends the part indicates that the class mechanism inherits the functionality of the class part. Also we set a variable engine object in the class engine. The engine class builder is worth some consideration. In your first line, we use the super keyword to call the superclass constructor. The super call (identifier, manufacturer, description) calls the public portion of the constructor (string identifier, string manufacturer, string description) that is defined in the part of the class. Through this process, the variables à €

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