



OBJECT ORIENTED PROGRAMMING

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Topic 7: Inheritance

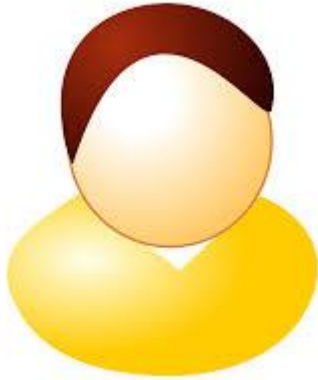
CONTENT

- ✓ Inheritance
- ✓ Super and subclass
- ✓ Extend key word
- ✓ Super key word

SUPER SHOP

- Find out three real world objects related to super shop
- Mention the two properties and one functionality of the objects

SUPER SHOP CONT...



Customer

ID

Name

accountType

Buy()



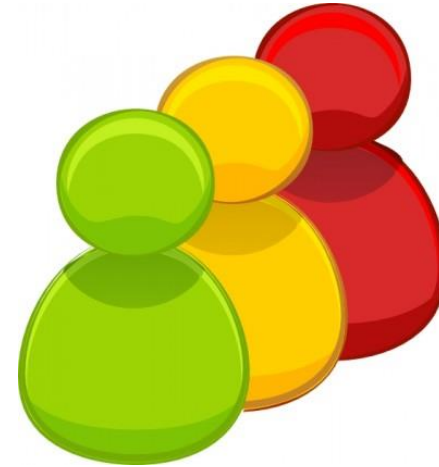
Manager

ID

Name

salary

BringProduct()



Employee

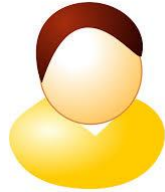
ID

Name

joiningDate

Cleaning()

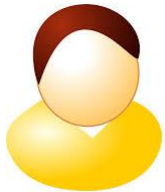
SUPER SHOP CONT...



Person

ID

Name



Customer

accountType

Buy()



Manager

salary

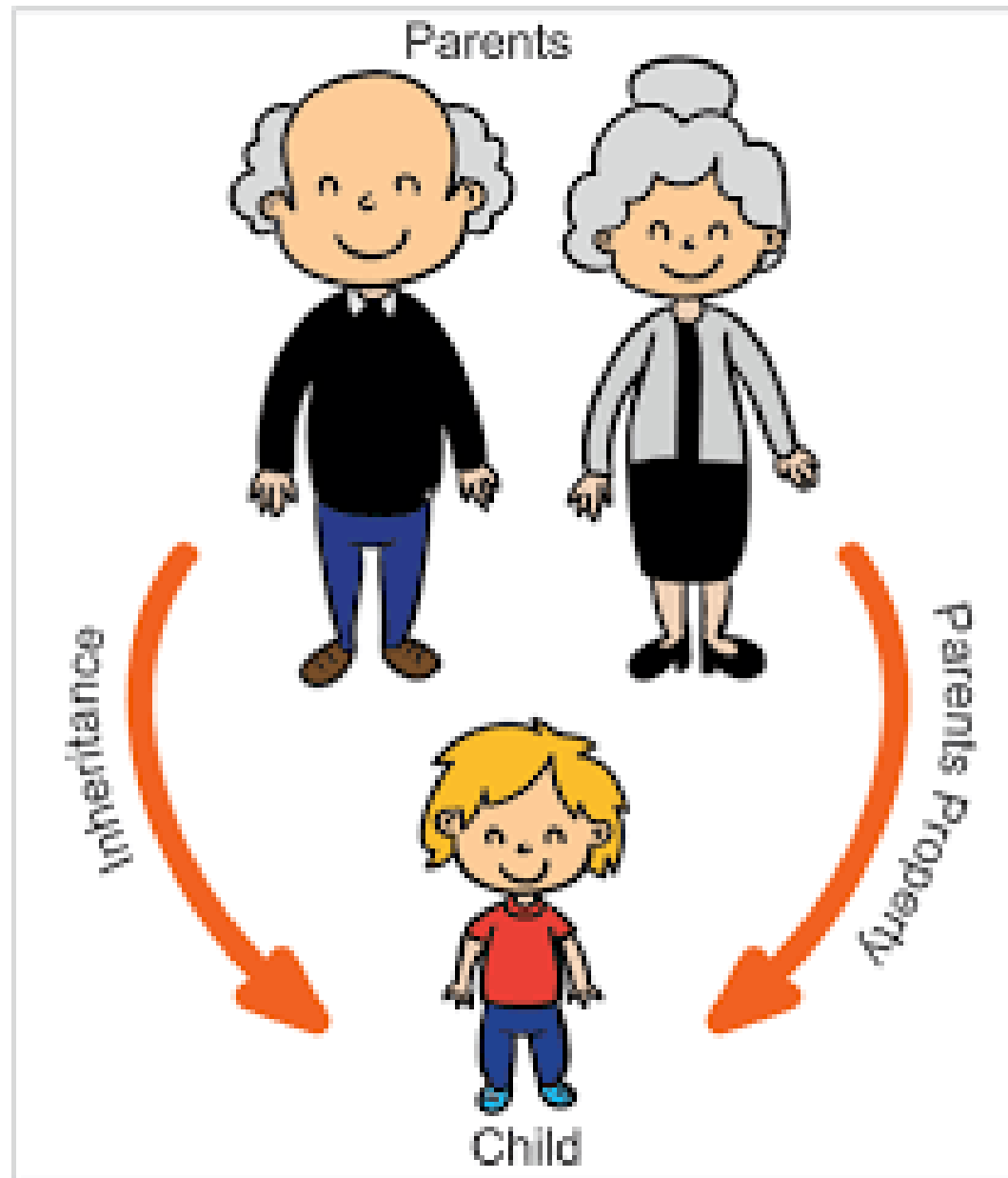
BringProduct()



Employee

joiningDate

Cleaning()



INHERITANCE: IN JAVA

- **Inheritance in java** is a mechanism in which **one object** acquires all the properties and behaviors of **parent object**.
- The idea behind inheritance in java is that you can create new classes that are built upon existing classes.
- When you inherit from an existing class, you can **reuse** methods and fields of parent class
- you can add new methods and fields also

WHY DO WE USE INHERITANCE

- Using inheritance, you can create a **general class** that defines common to a set of related items.
- This class can then be inherited by other classes, each adding those things that are unique to it.
- For code reusability
- For class reusability

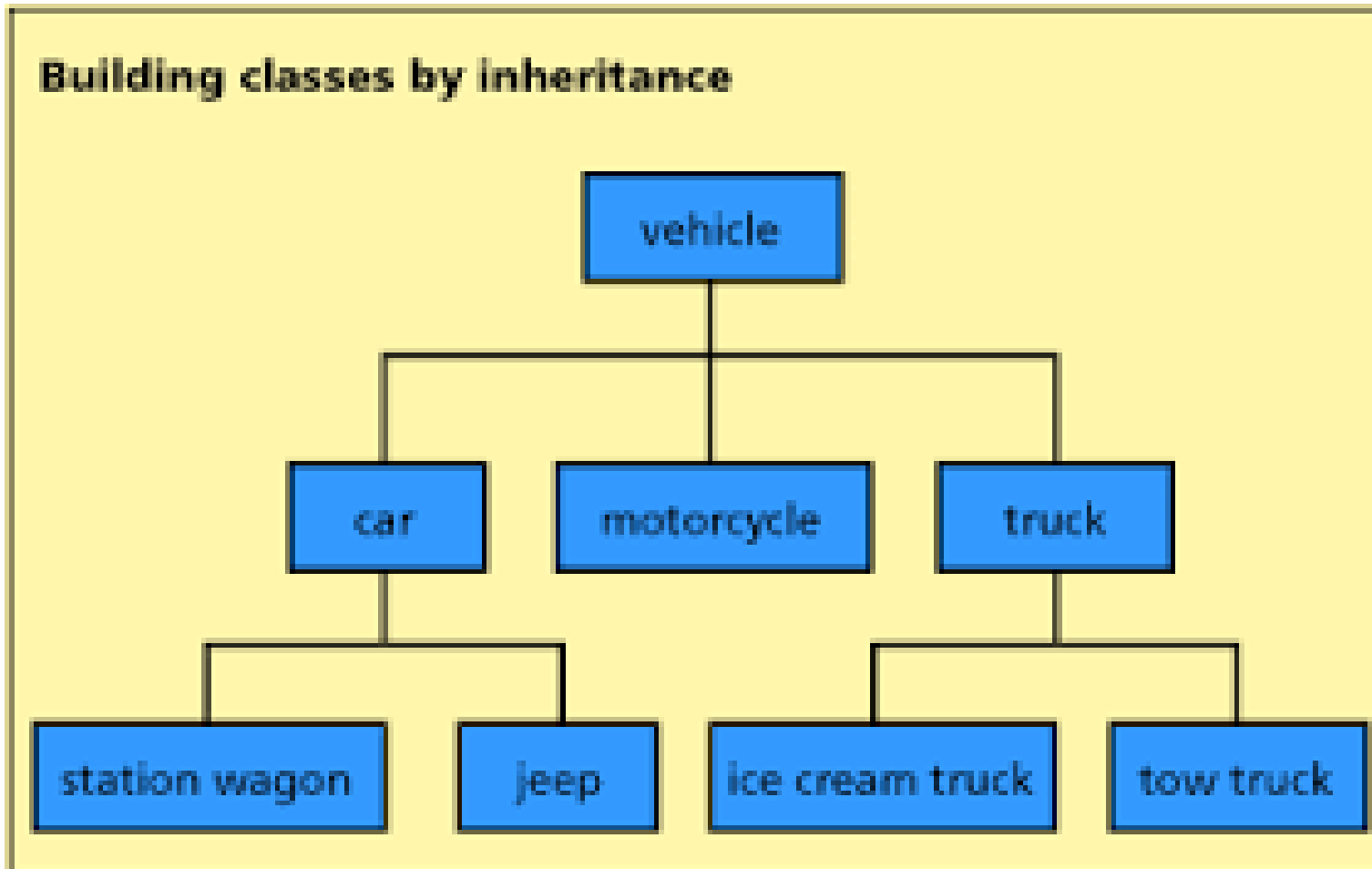
TERMS TO REMEMBER

- A class that is inherited is called a *super class/ parent class/ base class*.
- The class that does the inheriting is called a *subclass/ child class*
- A sub class inherits all of the instance variables and methods defined by the superclass and adds its own, unique elements.

HOW TO INHERIT

- To inherit a class, you simply incorporate the definition of one class into another by using the **extends** keyword.
- **extends keyword** indicates that you are making a new class that derives from an existing class

MULTIPLE INHERITANCE



MEMBER ACCESS AND INHERITANCE

- Although a subclass includes all of the members of its superclass, it cannot access those members of the superclass that have been declared as **private**.

Inheritance Examples

- Car, Cycle
- Rice, Soap
- Circle
- Saving Account, Current Account