LAB06 – INHERITANCE
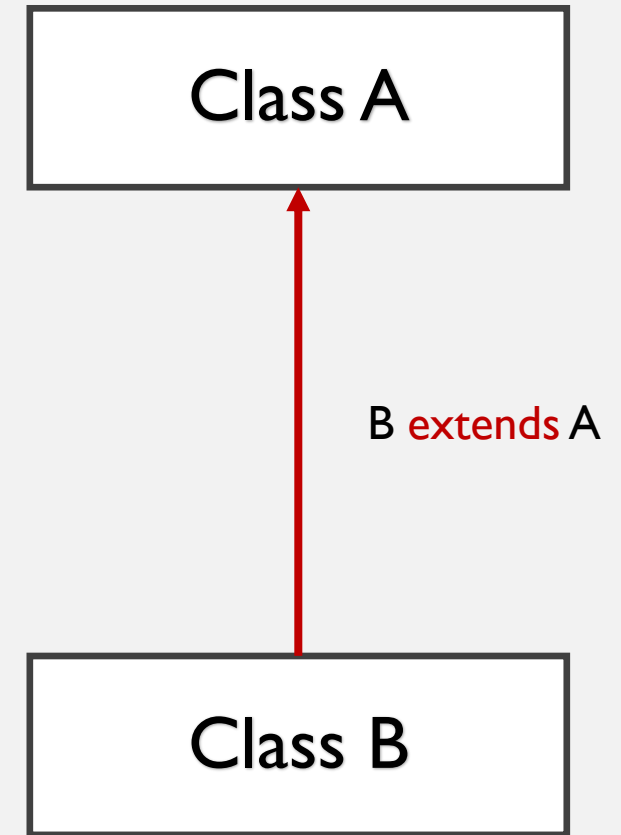
Teaching Assistant: **Ioan Solovastru**
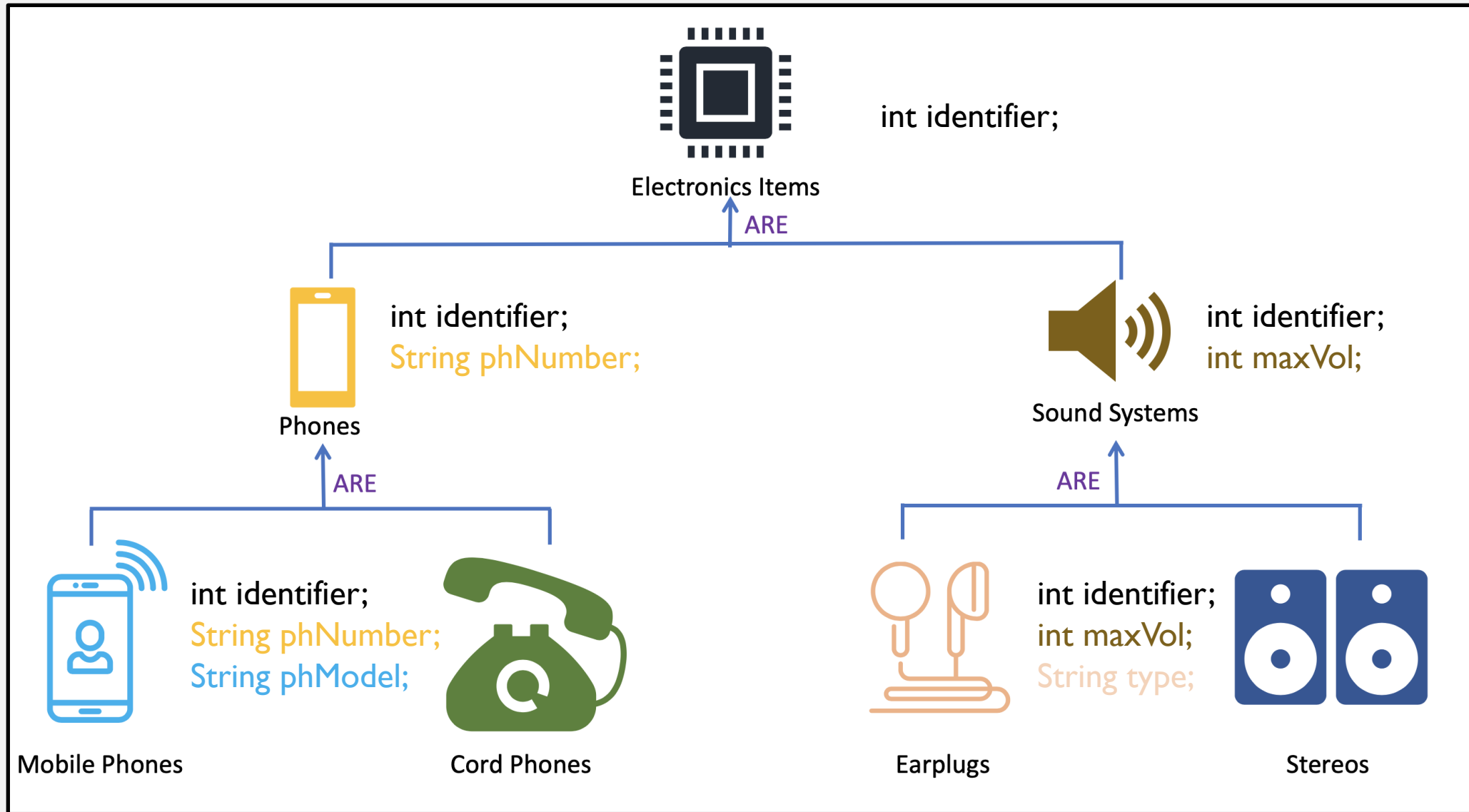
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INHERITANCE

- Definition
- Inheritance is a mechanism in which one class acquires the property of another class.

- One of the four OOP pillars

- With inheritance, we can reuse the fields and methods of the existing class.

- How to use Inheritance in java?

- The keyword in java is **extends**.

- Example

- We say that Class B is the child of Class A.
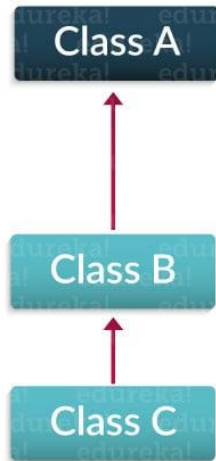
- Class A is the base class and B is the derived one.

Class A

B extends A

Class B

INHERITANCE

Electronics Items — int identifier;

Phones — int identifier; String phNumber;

ARE

Sound Systems — int identifier; int maxVol;

Mobile Phones — int identifier; String phNumber; String phModel;

Cord Phones

ARE

Earplugs — int identifier; int maxVol; String type;

Stereos

ARE

INHERITANCE

Types Of Inheritance

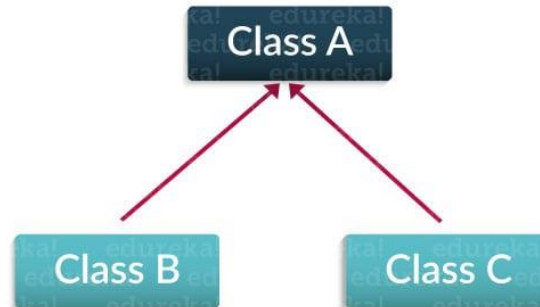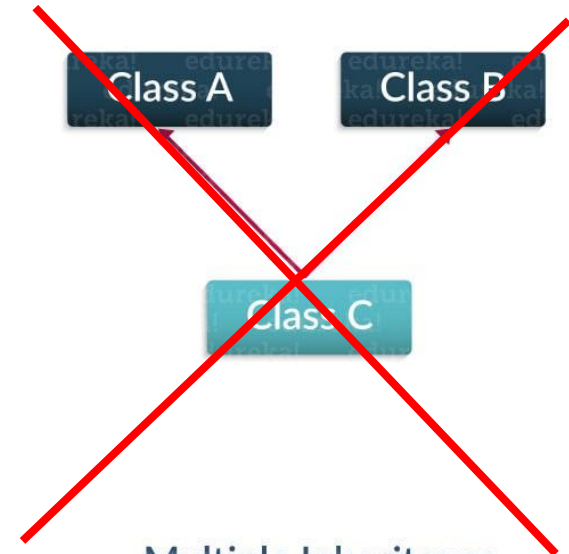|				
Class A	Class A	Class A	Class A	Class B
↑	↑	↗ ↖		
Class B	Class B	Class B Class C	Class C	
	↑			
	Class C			
Single Inheritance	Multilevel Inheritance	Hierarchical Inheritance	Multiple Inheritance	

OVERRIDING VS OVERLODING

Overriding: Due to Inheritance   **Overloading**: Due to change of signiture

INHERITANCE

- Why use Inheritance?
- Inheritance is used in order to enhance **Reusability**.
- Can we override and a static method?
- No, because the static keyword refers to an attribute of a Class not an object.
- Can we override a private method?
- No, you cannot a private method because it is not inherited by the subclass.
- Can a class extend multiple classes?
- No, multiple inheritance isn't allowed in Java.

QUESTIONS

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