

# ER MODEL IN DBMS

## Extended ER features

### Specialization

Specialization in the ER model is like categorizing entities based on common features.

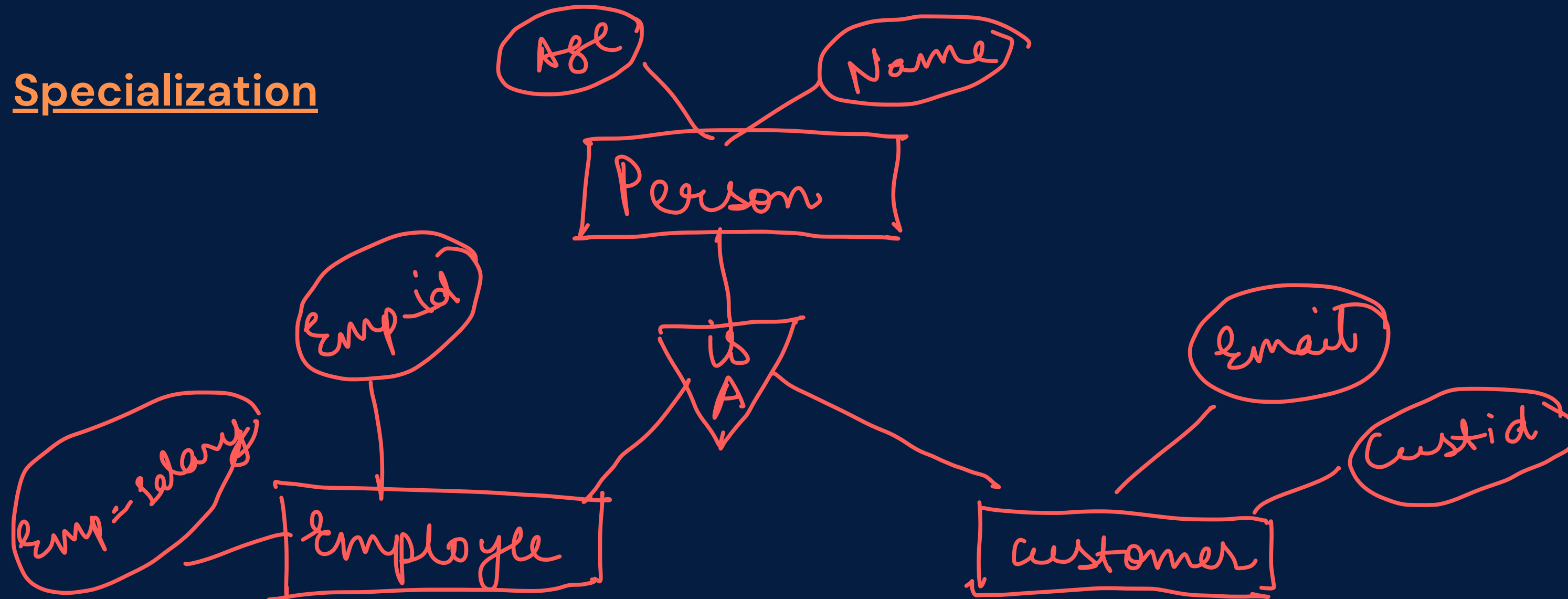
A "Supertype" groups entities with shared attributes and relationships, while "Subtypes" have their own unique attributes and relationships. It's a way to organize data efficiently. It is a **Top-Down approach**.

We have is-a relationship between superclass and subclass.

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### Generalization

Generalization is like finding things that are alike and putting them into a big group to represent what they have in common. It helps make things simpler and organized.

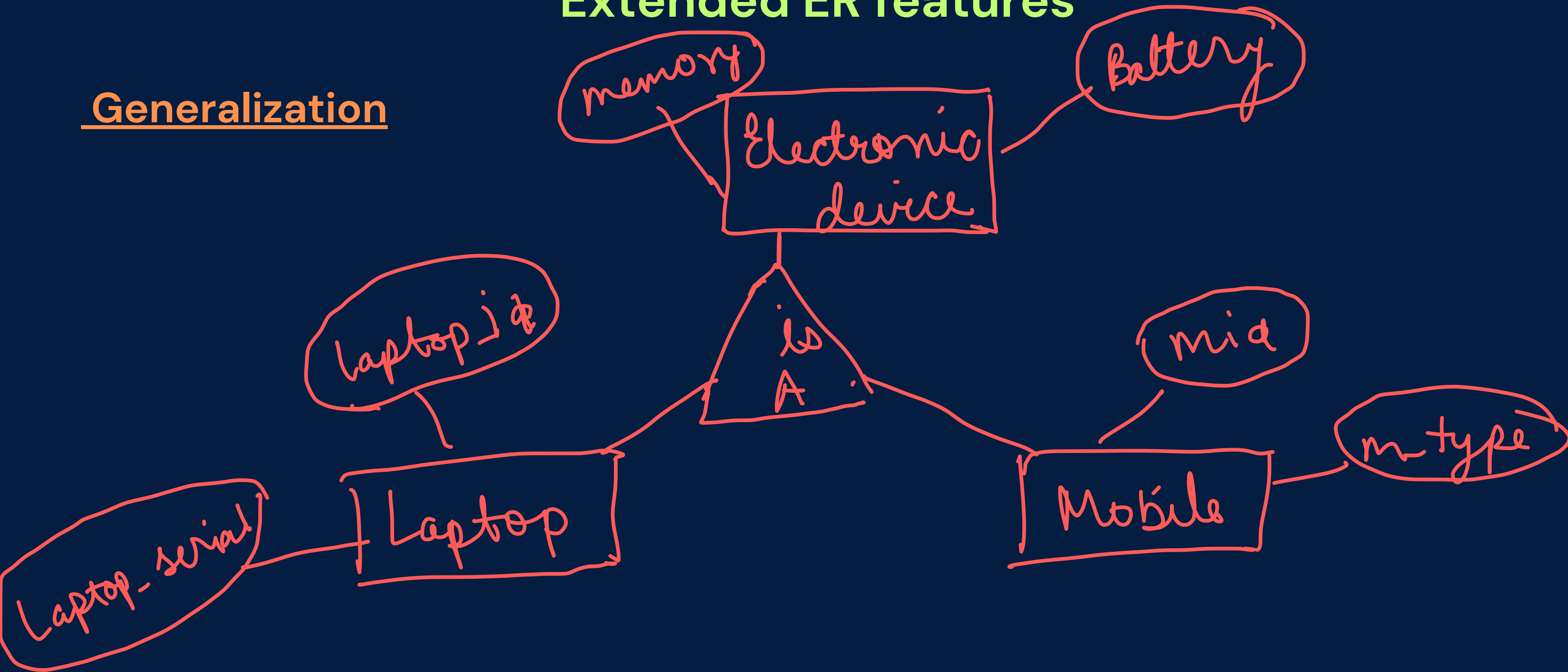
It is a **Bottom-Up approach**.

We have **is-a** relationship between subclass and superclass.

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### Inheritance

Attribute

Both specialization  
+  
generalization  
exhibit attribute  
inheritance

Participation

if parent → participate  
↓  
child → participate relation

inherits  
attributes ← Person  
    /    \  
employee student