



الجامعة السورية الخاصة
SYRIAN PRIVATE UNIVERSITY

Week 11

كلية الهندسة المعلوماتية

مقر تصميم نظم البرمجيات

Design Patterns: Iterator Pattern

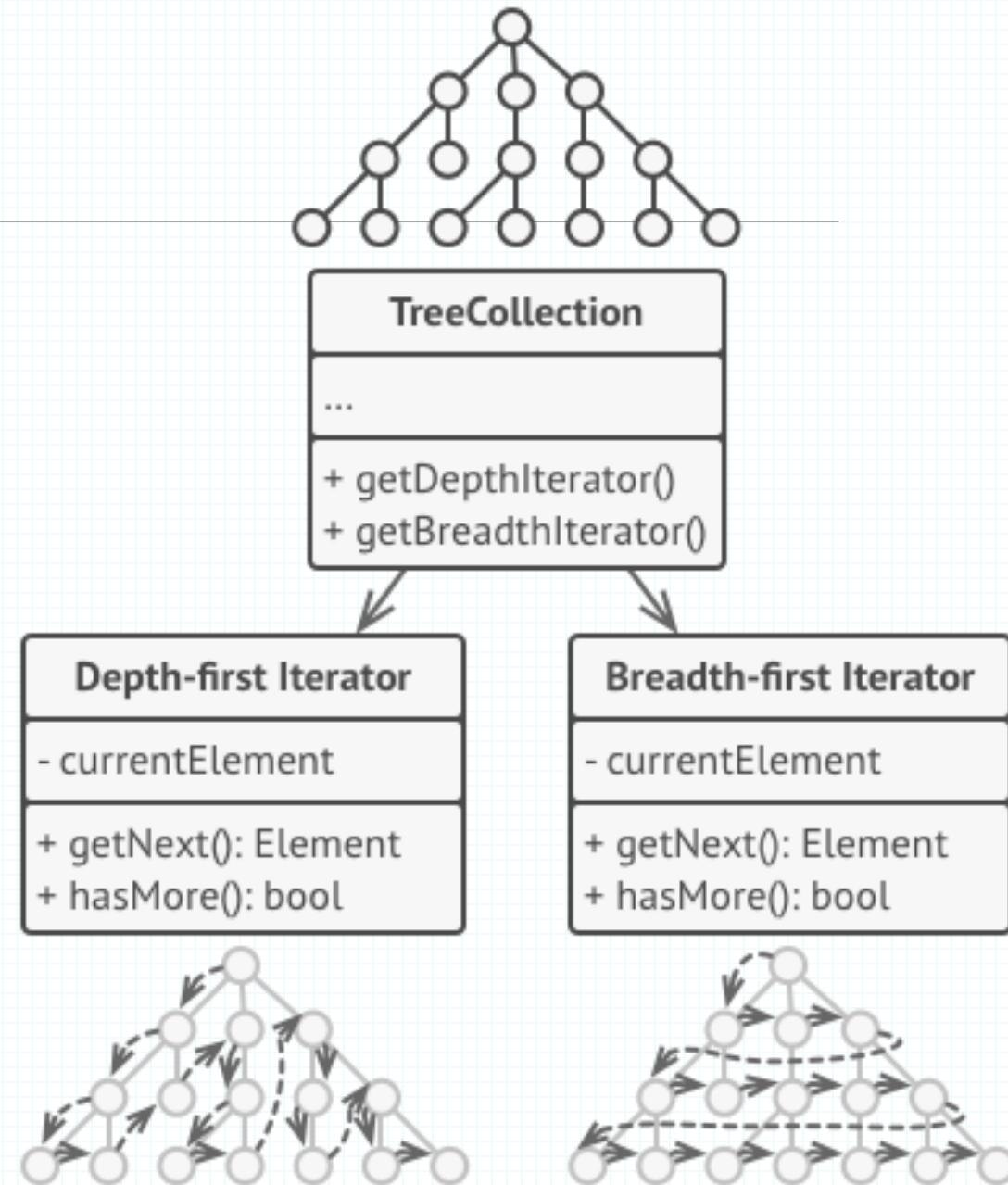
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Behavioral Patterns

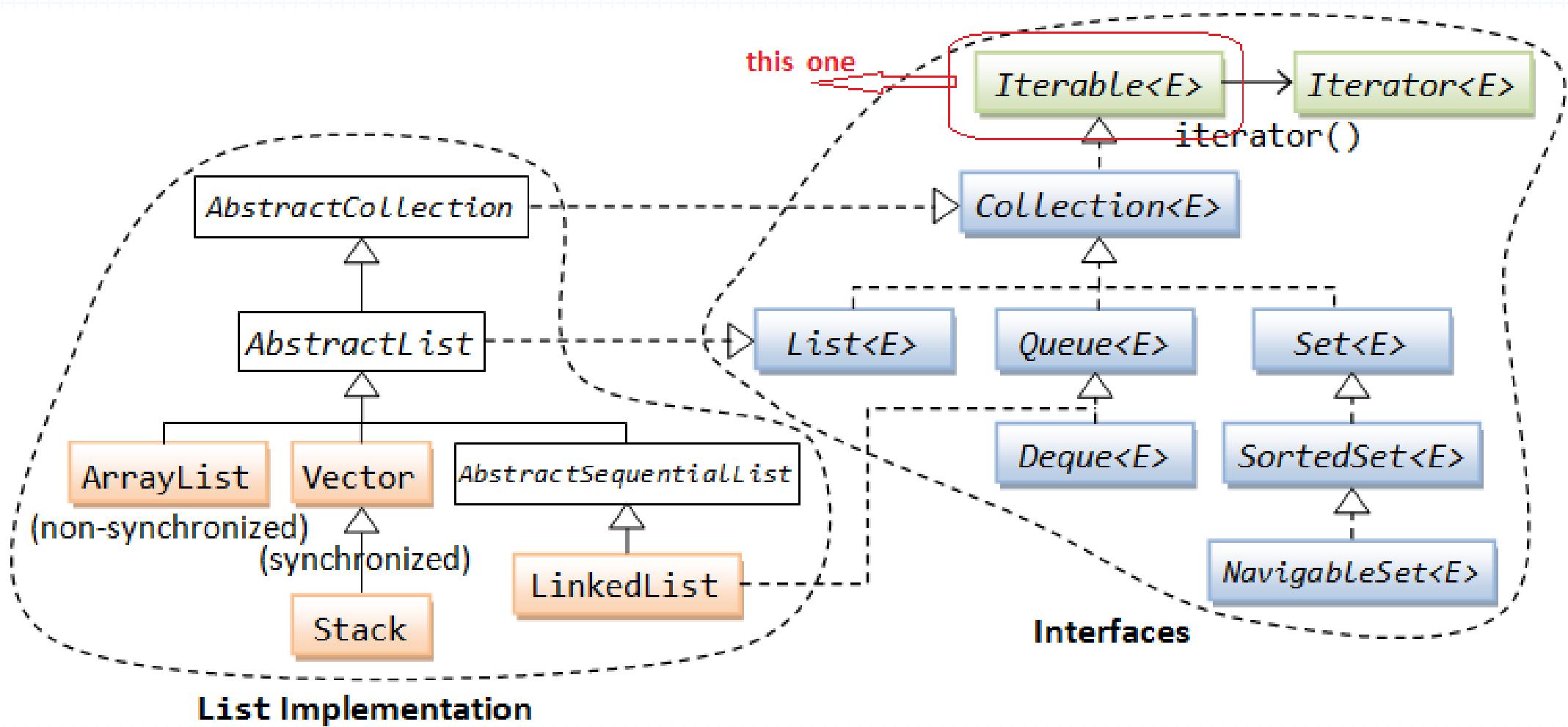
ITERATOR PATTERN

Iterator Pattern

- **Iterator** is a behavioral design pattern that lets you traverse elements of a collection without exposing its underlying representation (list, stack, tree, etc.).
- The main idea of the Iterator pattern is to **extract the traversal behavior of a collection into a separate object called an iterator.**

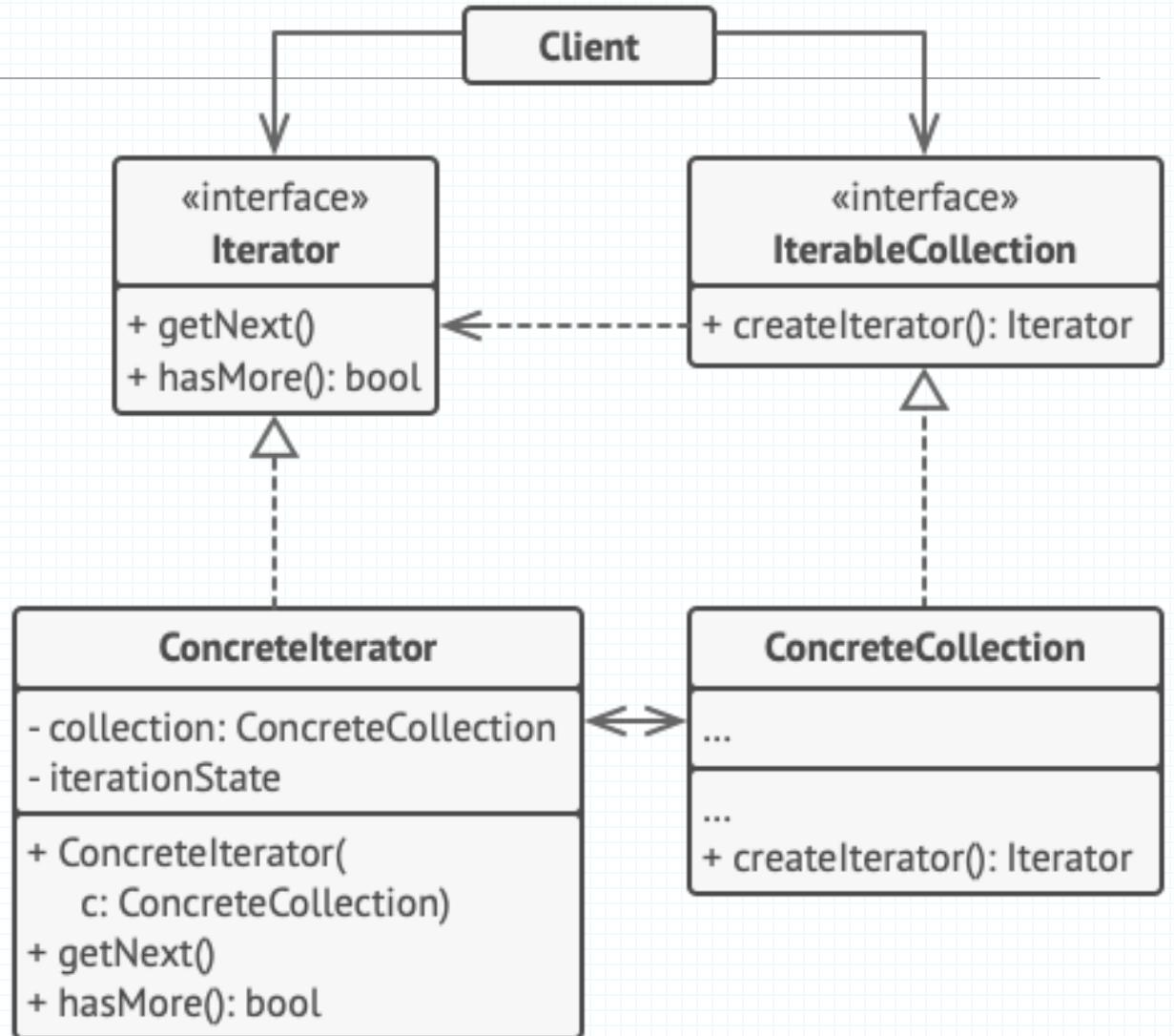


Iterator Pattern - Example



Iterator Pattern

Extract the traversal behavior
of a collection into a separate
object



Design Patterns

■ Creational Patterns

Factory Method

Builder

(abstracting the object-instantiation process)

Abstract Factory

Prototype

Singleton

■ Structural Patterns

Adapter

Decorator

Proxy

(how objects/classes can be combined)

Bridge

Facade

Composite

Flyweight

■ Behavioral Patterns

Command

Mediator

Strategy

Template Method

(communication between objects)

Interpreter

Observer

Chain of Responsibility

Iterator

State

Visitor