Implementing Generic Classes

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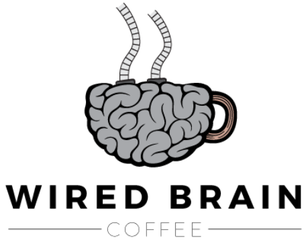
Module Outline

- Understand the scenario
- Implement a generic class
  - Inherit from a generic class
  - Use multiple type parameters
- Add generic type constraints



Understand the Scenario

They want a .NET console app to load and save employees and organizations

This app will be a prototype for their developers

It should show how to write C# code that works with any data storage

How can you write
C# code that works with
any data storage?

WIRED BRAIN
COFFEE

Understand the Scenario

Understand the Scenario

WIRED BRAIN
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Understand the Scenario

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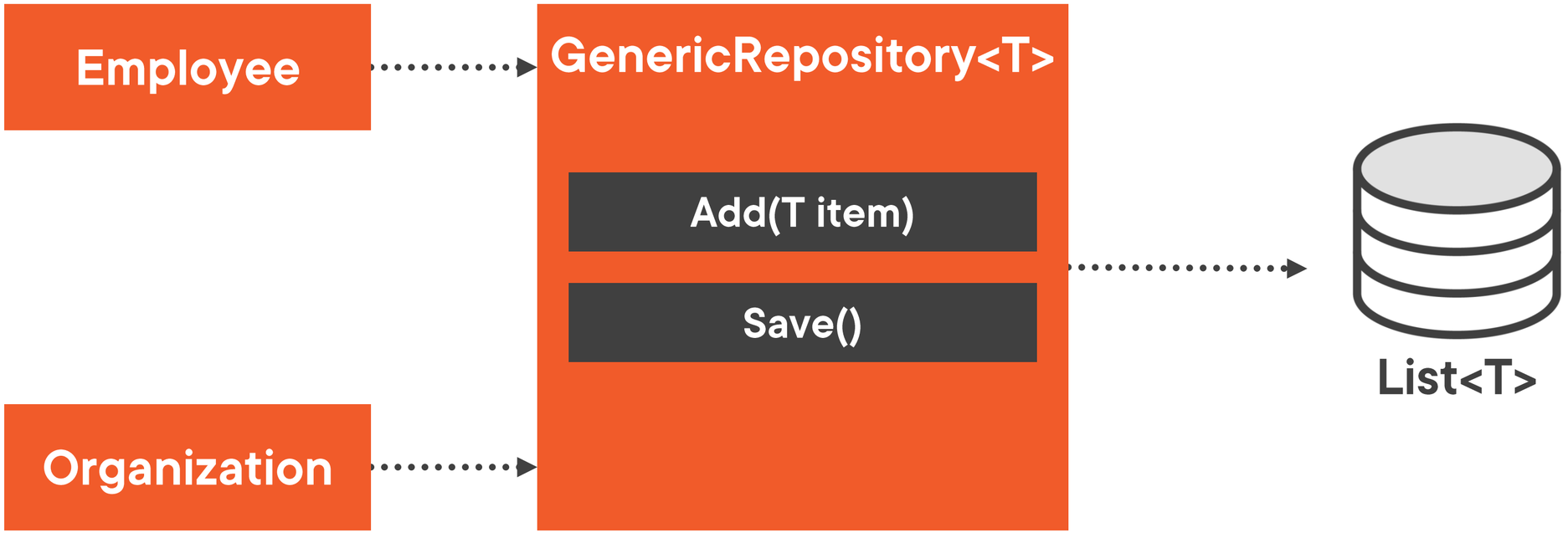
COFFEE

Understand the Scenario

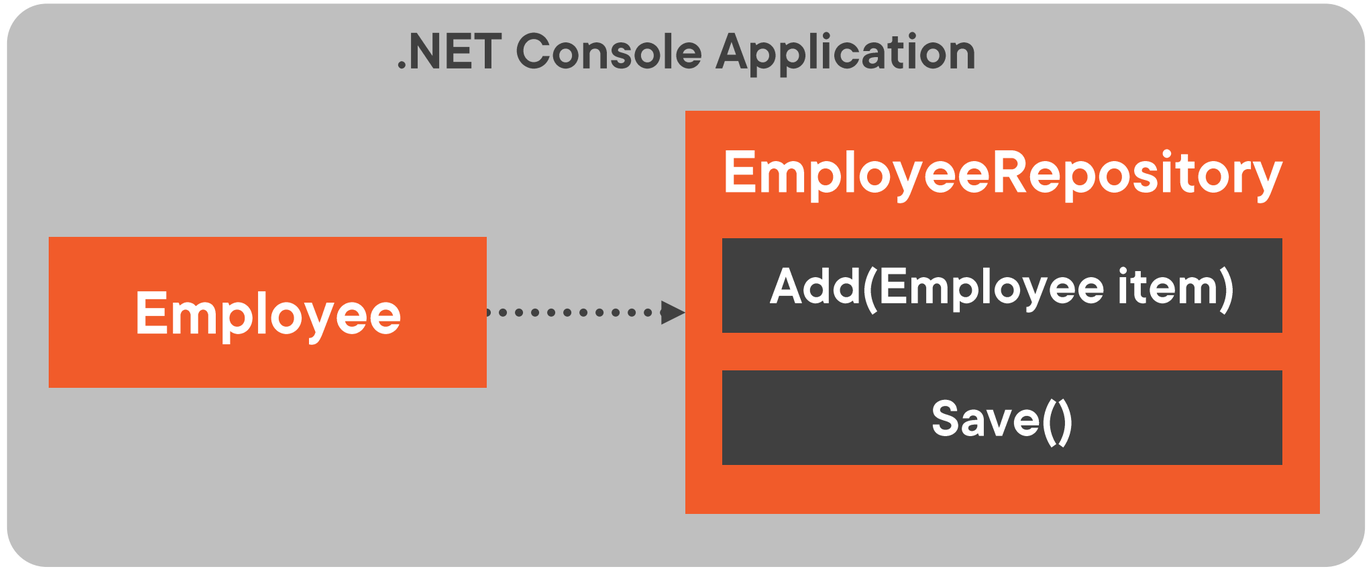


Demo

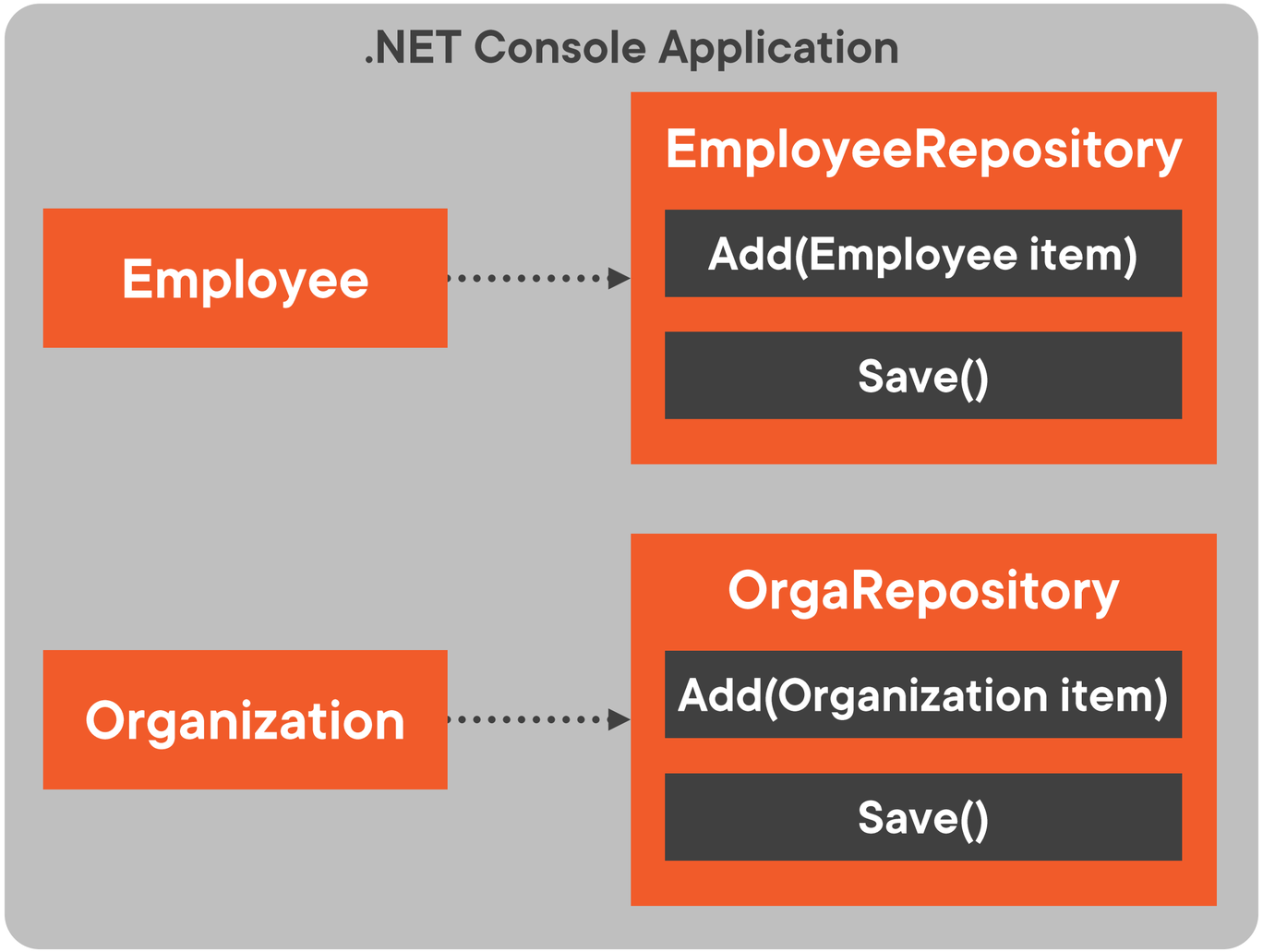
Create a .NET console app

- **Add an Employee class**
- **Build an EmployeeRepository class**

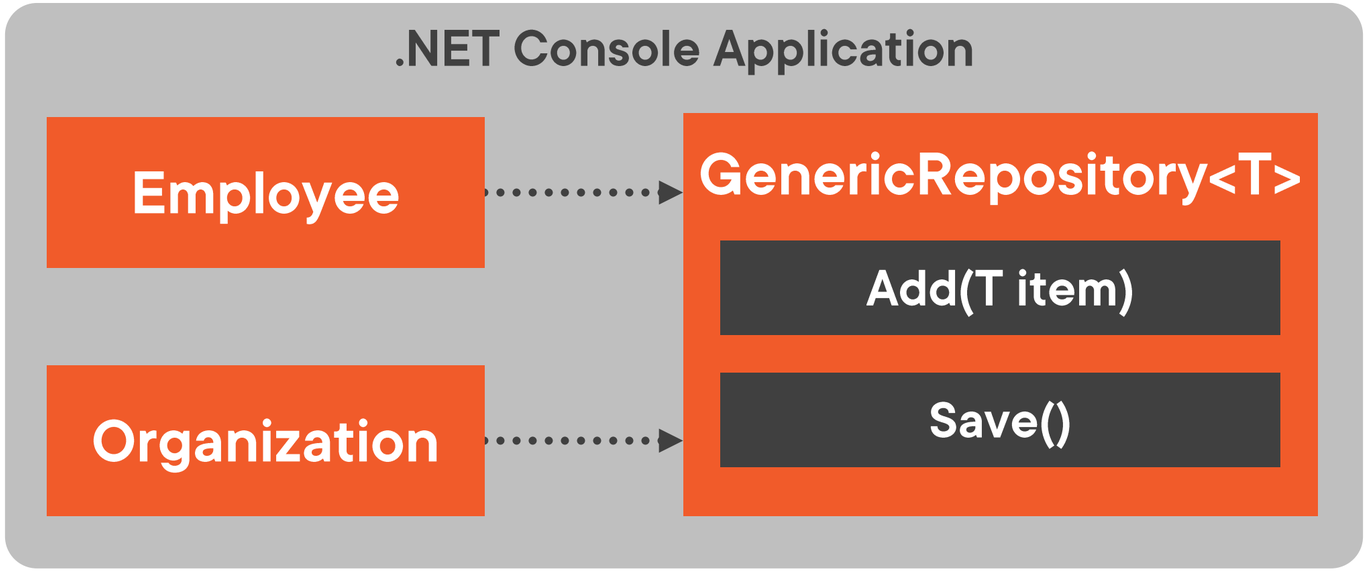
Implement a Generic Class



Implement a Generic Class



Implement a Generic Class



Demo

Implement a GenericRepository<T> class

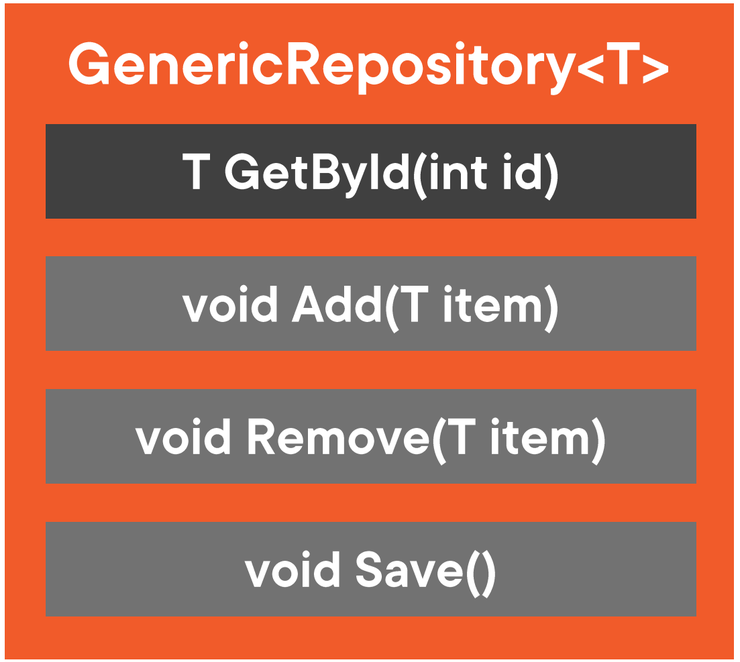
Demo

Inherit from a generic class

Demo

Use multiple type parameters

Add a Generic Type Constraint



Demo

Create the GetById method

Add a generic type constraint

Demo

Work with the class constraint

Demo

Use the new() constraint

Summary

- Implement a generic class
  - Inherit from a generic class
  - Use multiple type parameters
- Add generic type constraints
  - Use a concrete class (EntityBase)
  - Work with class and struct constraints
  - Call constructor with new() constraint
- Use the default keyword

Up Next:
Working with Generic Interfaces