

Creating the Infrastructure Project



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Overview



Understanding the goal of the infrastructure projects

Adding Entity Framework Core

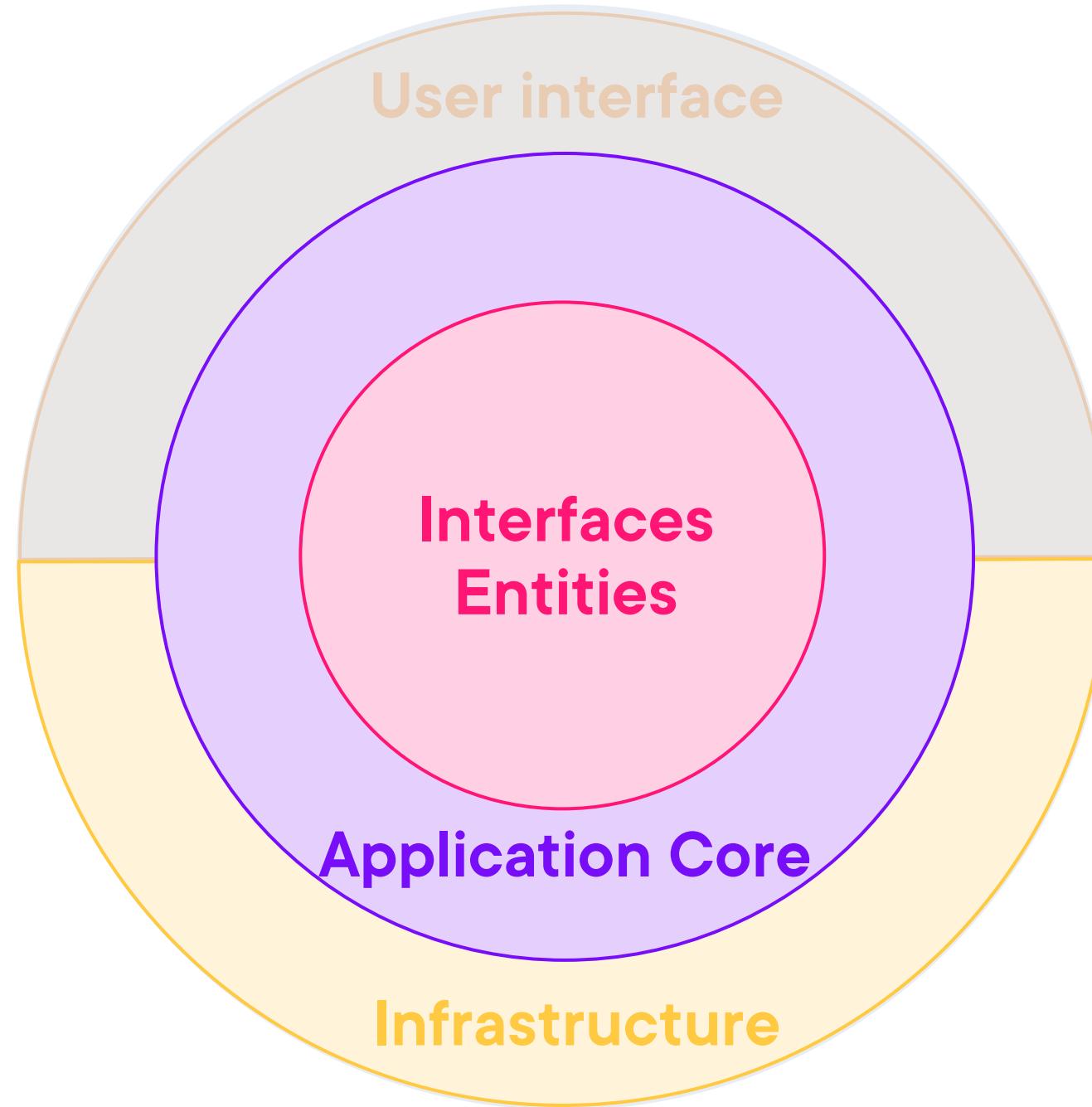
Implementing other infrastructure tasks





Understanding the Goal of the Infrastructure Projects

The Infrastructure Layer

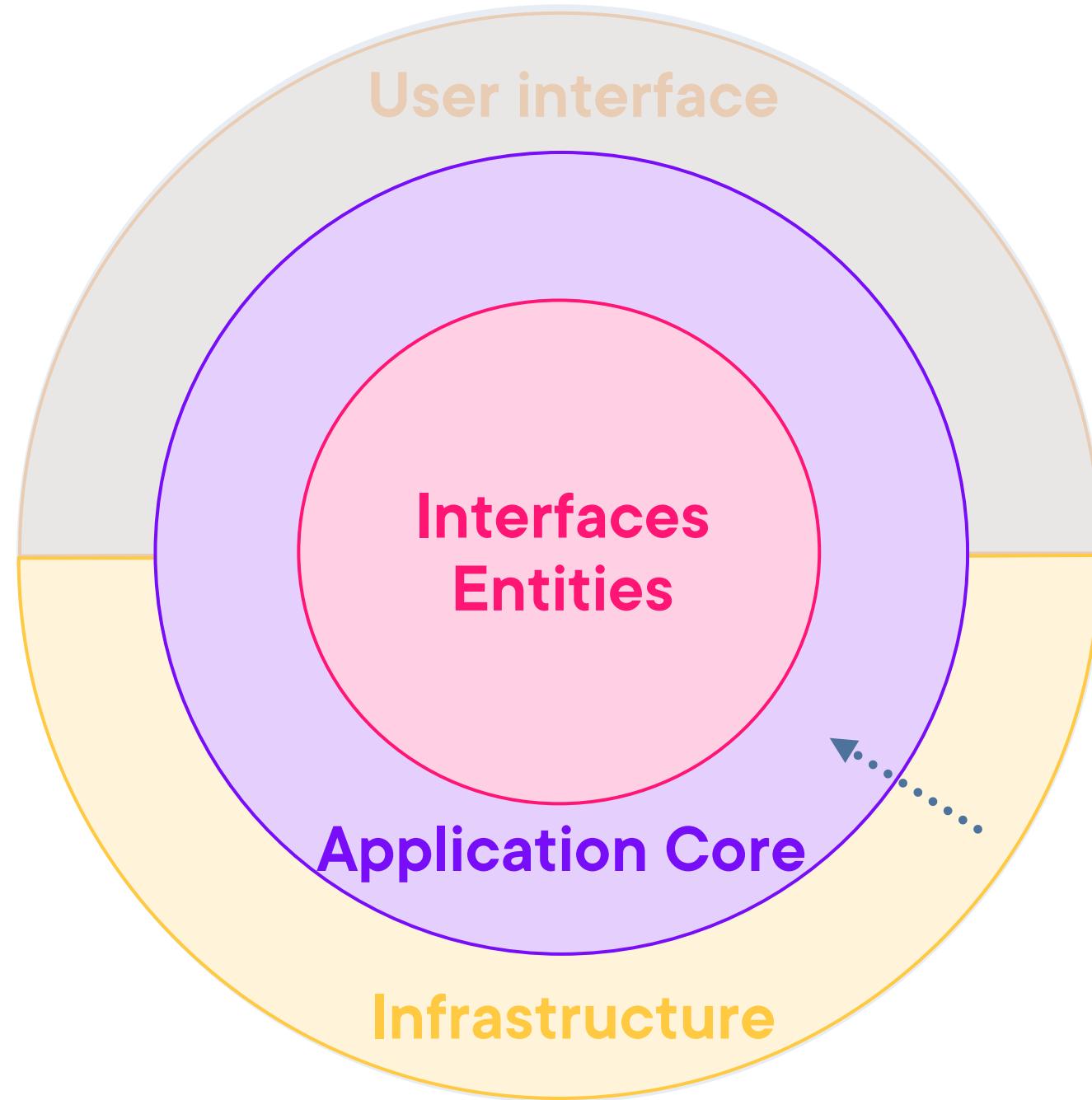


All external or I/O components

- Database
 - EF Core
 - DbContext
- Files
- Service bus
- Service client
- Logging



The Infrastructure Layer

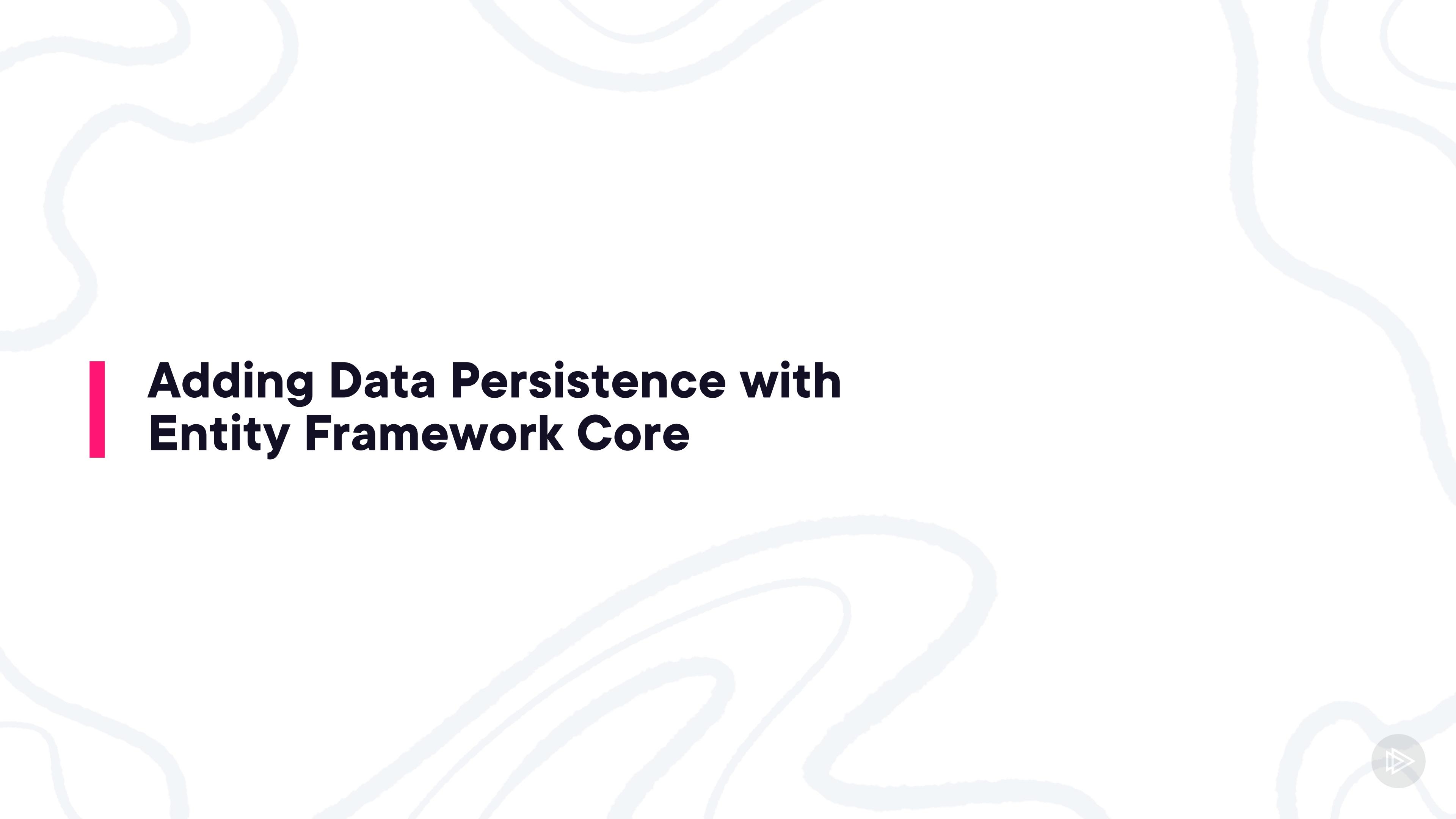


Implementations for contracts defined in the Core project

Reference to Core project

- Through dependency inversion and dependency injection, services get implemented

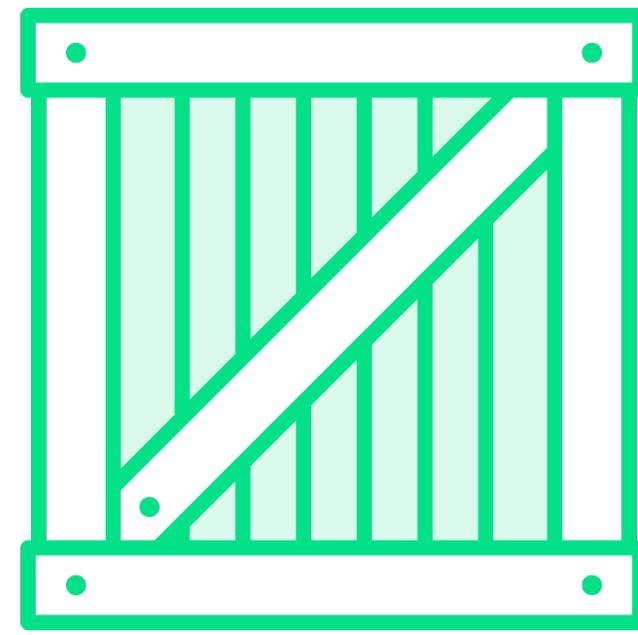




Adding Data Persistence with Entity Framework Core



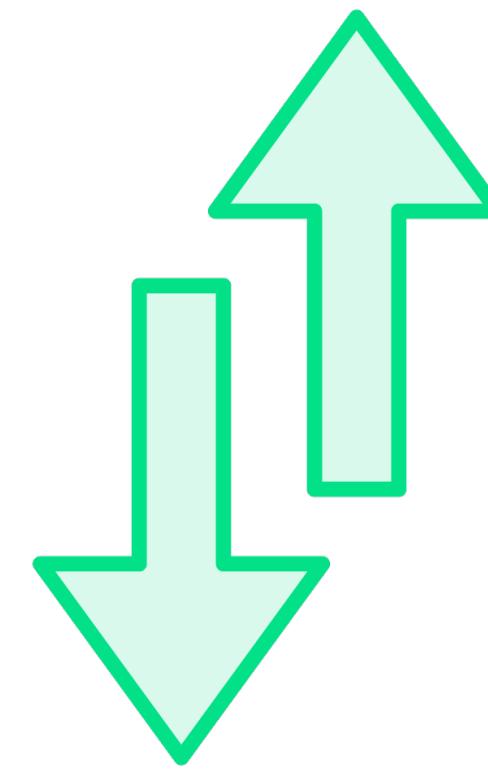
Adding EF Core



NuGet packages



DbContext



Migrations



Registrations





Repository implementations

Generic repository contract in Core
project

Base repository implementation

Specific repositories if needed



Base Repository

```
public class BaseRepository<T> : IAsyncRepository<T> where T : class
{
    protected readonly GloboTicketDbContext _dbContext;
    public BaseRepository(GloboTicketDbContext dbContext)
    {
        _dbContext = dbContext;
    }
    public virtual async Task<T> GetByIdAsync(Guid id)
    {
        return await _dbContext.Set<T>().FindAsync(id);
    }
}
```



Specific Repositories

```
public class CategoryRepository : BaseRepository<Category>, ICategoryRepository
{
    public CategoryRepository(GloboTicketDbContext dbContext) : base(dbContext)
    { }

    public async Task<List<Category>> GetCategoriesWithEvents ()
    {
        //TODO: include implementation here
    }
}
```



Demo



Adding the Persistence project
Bringing in support for EF Core



Demo



Adding the base repository implementation

Adding specific repositories

Registering services





**“Oh, I forgot to mention this
in the previous meeting...”**

**We’ll need to send a mail
when an event has been created.**

Can this be added?”



Implementing Other Infrastructure Tasks



Sending a Mail Through SendGrid

Infrastructure code to send a mail

NuGet package in Infrastructure

Interface in Core project

Implementation in Infrastructure



Demo



Creating the Infrastructure project

Writing the mail service using SendGrid API

**Using the code from the Application Core
code**

Registering the mail service



Summary



Infrastructure contains all configuration for external services

Split up in 2 projects, based on their target



Up Next:

Creating the API using ASP.NET Core

