**Proposed Architecture**

* **YourAppName.Api (ASP.NET Core Web API Project):**
  + **Role:** The entry point for HTTP requests. Handles routing, authentication/authorization, and delegates business logic to the Application layer.
  + **Contents:** Controllers, Program.cs (or Startup.cs), AutoMapper MappingProfile (as it maps between DTOs and Entities, and DTOs are consumed here), appsettings.json.
  + **References:** YourAppName.Application, YourAppName.Core.
* **YourAppName.Application (Class Library):**
  + **Role:** Contains the application's business logic and orchestrates operations. It defines and uses DTOs for data exchange with the API layer.
  + **Contents:** DTOs (Data Transfer Objects), Service Interfaces (IEmployeeService, IDepartmentService), Service Implementations (EmployeeService, DepartmentService).
  + **References:** YourAppName.Core, YourAppName.Infrastructure (for concrete repository implementations), AutoMapper.
* **YourAppName.Core (Class Library):**
  + **Role:** The heart of your domain. Contains core entities, shared interfaces, and common abstractions that are independent of any specific technology (like EF Core or ASP.NET).
  + **Contents:** Models (Entities: Employee, Department), Repository Interfaces (IGenericRepository<T>, IEmployeeRepository, IDepartmentRepository), Unit of Work Interface (IUnitOfWork).
  + **References:** None (or minimal, only for common utility libraries if absolutely necessary).
* **YourAppName.Infrastructure (Class Library):**
  + **Role:** Handles data access and external concerns. Implements the interfaces defined in YourAppName.Core.
  + **Contents:** ApplicationDbContext, Concrete Repository Implementations (GenericRepository<T>, EmployeeRepository, DepartmentRepository), Unit of Work Implementation (UnitOfWork).
  + **References:** YourAppName.Core, Microsoft.EntityFrameworkCore.\*.
* **YourAppName.Tests (xUnit Test Project):**
  + **Role:** Contains all unit and integration tests.
  + **Contents:** Test classes for Controllers, Services, Repositories.
  + **References:** YourAppName.Api, YourAppName.Application, YourAppName.Infrastructure (for testing concrete implementations), xunit, Moq, Microsoft.EntityFrameworkCore.InMemory.