# Using Entity Framework Core in our Controllers



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### Coming Up



Introducing the Repository Pattern

Reading, Creating, Updating and Deleting Resources via Entity Framework Core

**Using AutoMapper** 



### Introducing the Repository Pattern

#### No Repository Pattern

**Code duplication** 

More error-prone code

Harder to test the consuming class

#### **Repository Pattern**



# The Repository Pattern

An abstraction that reduces complexity and aims to make the code, safe for the repository implementation, persistence ignorant



### Introducing the Repository Pattern

#### No Repository Pattern

**Code duplication** 

More error-prone code

Harder to test the consuming class

#### **Repository Pattern**

No duplication

Less error-prone code

Better testability of the consuming class

Persistence ignorant: switching out the persistence technology is not the main purpose. Choosing the best one for each repository method is.





Introducing the repository pattern





Returning data from the repository when requesting resources





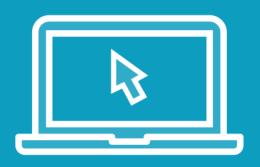
Using AutoMapper to map between entities and DTOs





**Creating a resource** 





**Updating a resource** 





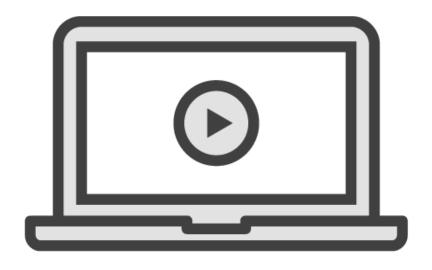
Partially updating a resource





**Deleting a resource** 





#### Building a RESTful API in ASP.NET Core 3

- Basic concerns like CRUD, RESTful contract design, content negotiation, data validation ...

# Implementing Advanced RESTful Concerns in ASP.NET Core 3

- Advanced concerns like HATEOAS, media types, caching, concurrency, ...





#### Building an Async API with ASP.NET Core

 Focus on correctly implementing asynchronicity for APIs

# Securing ASP.NET Core 2 with OAuth2 and OpenID Connect

 Learn how to secure an ASP.NET Core web application and API



#### Summary



The repository pattern is an abstraction that reduces complexity and aims to make the code, safe for the repository implementation, persistence ignorant

Using AutoMapper greatly reduces errorprone mapping code





