Episode 6

UNDERSTANDING MODELS IN ASP.NET CORE

1. What are Models?
2. Why are they important?
3. How to use them in an ASP.NET Core application?

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WHAT IS A MODEL?

1. A Model is just a C# class that holds data.
2. It represents real-world objects like Products, Users, Orders, etc.
3. Models help store, retrieve, and process data in a structured way.

Think of a model like a blueprint for an object!
Example: A Product model stores details of a product (ID, Name, Price).

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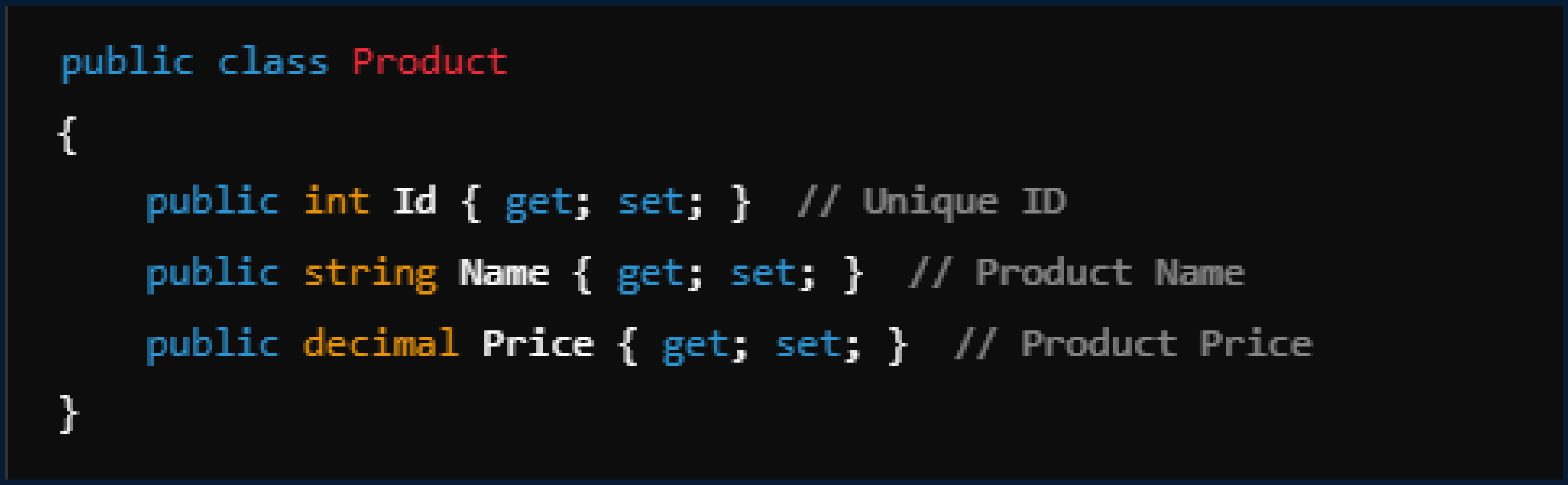
WHY DO WE NEED MODELS?

1. Keeps data organized – Everything is structured in one place.
2. Separation of Concerns – Keeps logic away from UI (good coding practice).
3. Works with the Database – Helps store and retrieve data easily.
4. Validation & Security – Ensures correct and safe data before processing.
5.
6. Without models, our code would be messy and hard to manage!

CREATING A SIMPLE MODEL

Here’s how we define a Product Model in C#:



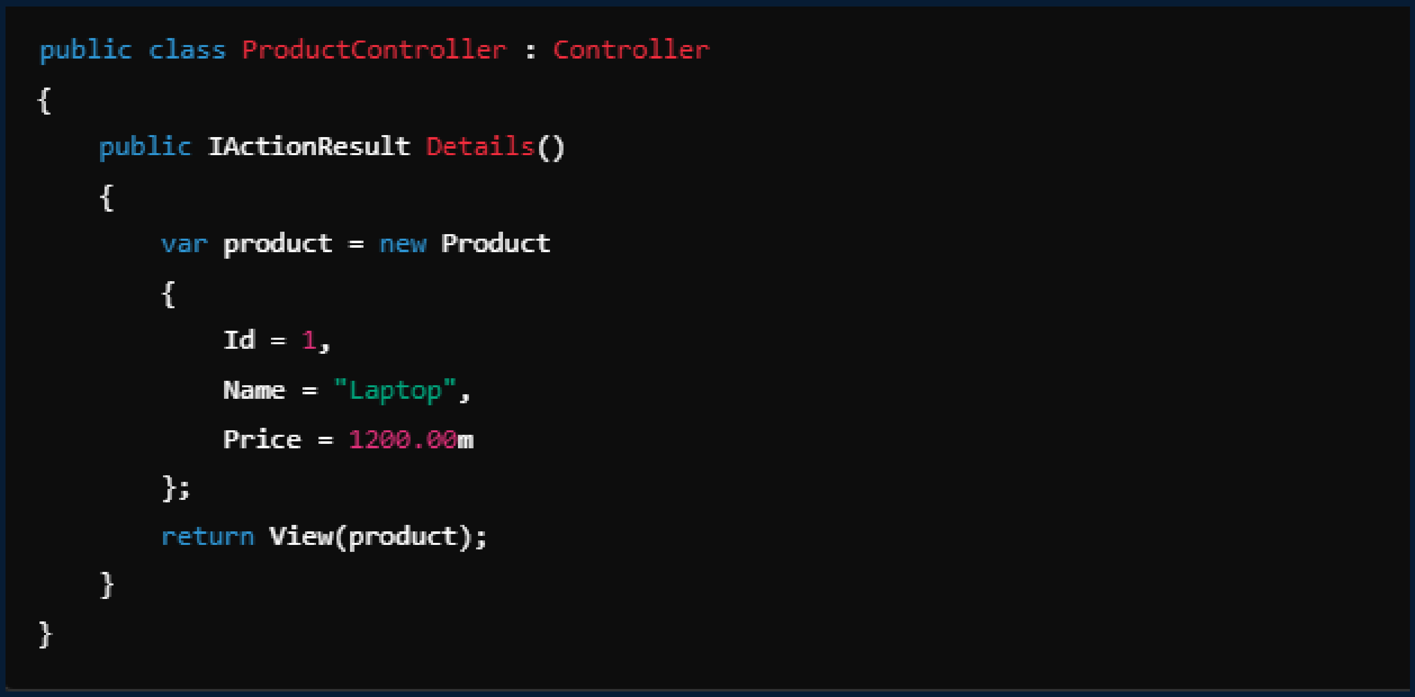
```
public class Product
{
    public int Id { get; set; }  // Unique ID
    public string Name { get; set; }  // Product Name
    public decimal Price { get; set; }  // Product Price
}
```

1. This model will store product details in our app.
2. Id, Name, and Price are properties of the Product.

Think of it like an Excel row with columns: Id | Name | Price.

USING A MODEL IN A CONTROLLER

We can use our Product Model in a Controller to send data to a web page.



```
public class ProductController : Controller
{
    public IActionResult Details()
    {
        var product = new Product
        {
            Id = 1,
            Name = "Laptop",
            Price = 1200.00m
        };
        return View(product);
    }
}
```

What’s Happening?

- We create a Product object inside the Controller.
- We fill it with sample data (Laptop, Price = $1200).
- We send it to the View for display.

SUMMARY & NEXT STEPS

1. Models store and organize data.
2. Used in Controllers & Views to handle and display data.
3. EF Core connects models to a database.
4. Coming Next: Model Validation in ASP.NET Core!

🔗 Any Feedback? Comment Below.

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