

Getting Started With MVC

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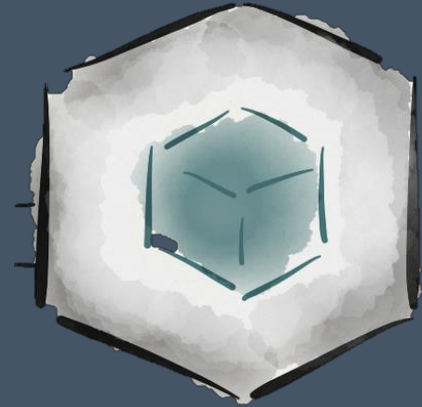
What is MVC?



MODEL



VIEW



CONTROLLER

Software architecture pattern which separates the model, the user interface and the control of logic into three distinct components

MVC

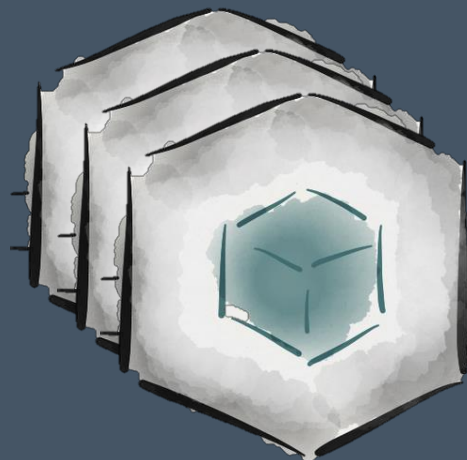
What does that actually mean?



Many Views



One model



Many Controllers

MVC



Model

Representation of domain data.

Business logic

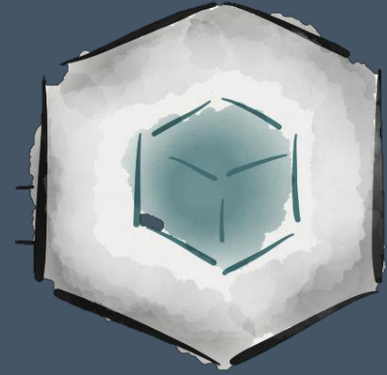
Persistence mechanism



View

User Interface

Interaction elements



Controller

Intermediary between Model and View It maps user actions - model actions
Select the view and provide information to itself

MVC



Model

UserModel

ID : int
Name : string
Surname : string
BirthDate : datetime

C# Model of a Table

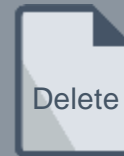
MVC



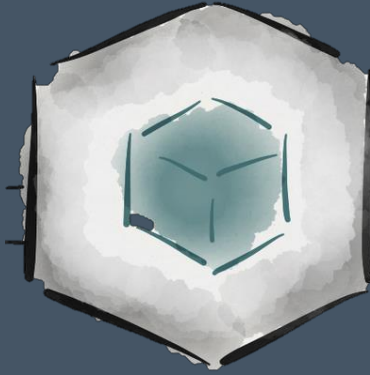
View

HTML + Razor (with CSS and JS)

User Interface



MVC



Controller

C# Logic Controller



SOLID Principles



Single Responsibility Principle



Open / Closed Principle



Liskov Substitution Principle



Interface Segregation Principle



Dependency Inversion Principle

Design Patterns

Types of Design Patterns:

- Factory Pattern
- **Singleton Pattern**
- Builder Pattern
- Prototype Pattern
- Adapter Pattern
- Filter Pattern
- Composite Pattern
- Decorator Pattern
- Facade Pattern
- Flyweight Pattern
- Proxy Pattern
- Chain of Responsibility Pattern
- Command Pattern
- Interpreter Pattern
- Iterator Pattern
- Mediator Pattern
- Observer Pattern
- **Repository Pattern**

Repository Pattern

Presentation



View

Logic



Controller



Domain Logic /
Business Logic

Data



Repository



DbContext



Database



Table



Model

renders

calls

calls

utilises

represents

contains

Maps to

represents

Repository Pattern

Presentation



View

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Domain Logic /
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Model



JSON

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Maps to

Other Concepts

What is

LINQ

LINQ (Language Integrated Query) is uniform query syntax in C# and VB.NET to retrieve data from different sources and formats.

Other Concepts

What is

ASYNC

Short for asynchronous programming, it refers to the occurrence of events independent of the main program flow.

Other Concepts

What is

RAZOR

Razor is an ASP.NET markup syntax used to create dynamic web pages with the C# or VB.NET programming languages.

Other Concepts

What is

EF

Entity Framework is an object-relational mapper (O/RM) that enables .NET developers to work with a database using .NET objects. It eliminates the need for most of the data-access code that developers usually need to write.

That's All Folks!

Thank you

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