

The ASP.NET Core MVC framework is an open-source framework for building web applications and APIs using the Model-View-Controller (MVC) design pattern. This framework offers a clean separation of concerns, making it easier to manage and test web applications (Microsoft, 2024).

Model-View-Controller (MVC) Architectural Pattern

The Model-View-Controller (MVC) architectural pattern divides an application into three interconnected components: Models, Views, and Controllers. This separation of concerns helps in organizing code and improving maintainability (Fowler, 2002).

Model Responsibilities

The Model is responsible for managing the data and business logic of the application. It handles data retrieval, storage, and manipulation, implementing the core functionality and rules of the application (Evans, 2004).

View Responsibilities

The View is responsible for presenting the data to the user. It generates the user interface and displays the data provided by the Model. The View should contain minimal logic and focus primarily on presentation (Microsoft, 2024).

Controller Responsibilities

The Controller acts as an intermediary between the Model and the View. It receives user input, processes it (often by interacting with the Model), and selects the appropriate View to render the response (Fowler, 2002).

References

Evans, E. (2004). *Domain-Driven Design: Tackling Complexity in the Heart of Software*. Addison-Wesley.

Fowler, M. (2002). *Patterns of Enterprise Application Architecture*. Addison-Wesley.

Microsoft. (2024). *ASP.NET Core Documentation*. Retrieved from Microsoft Docs.