

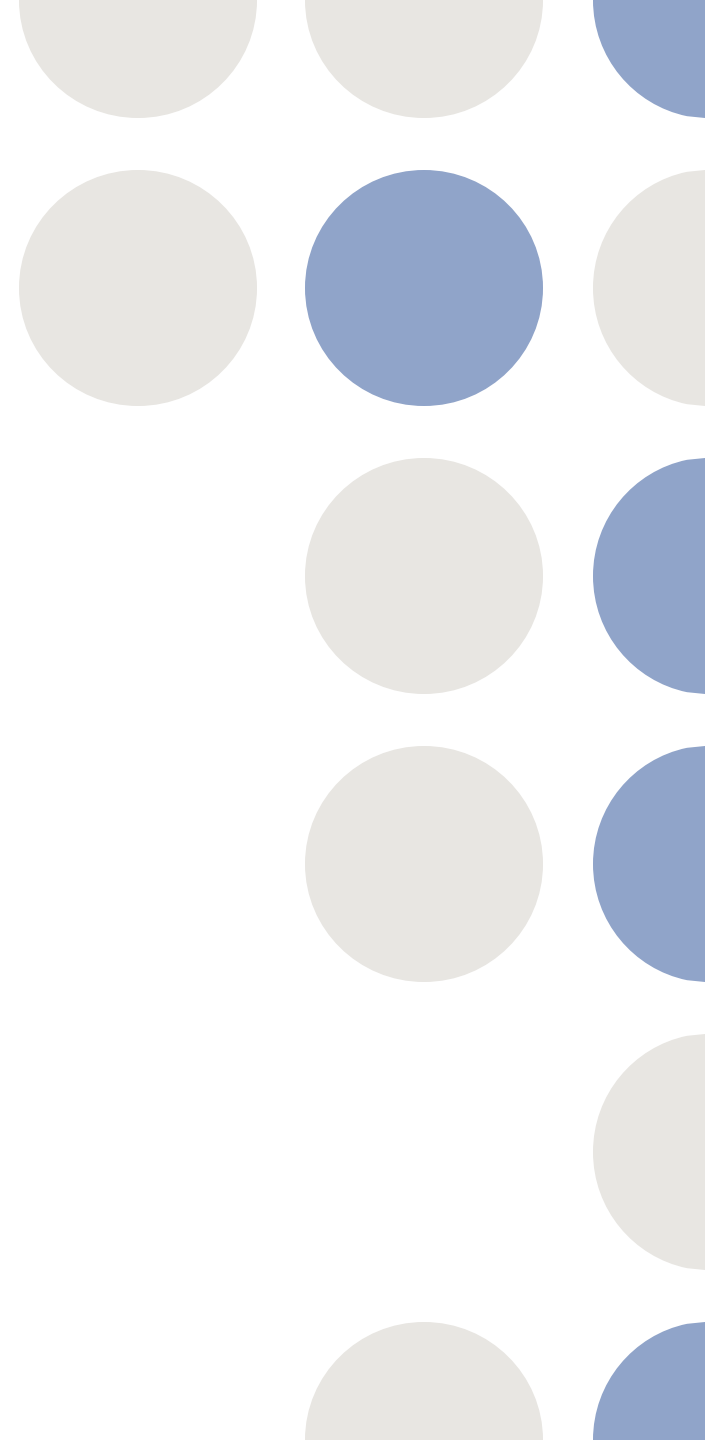
Multi-File Programming

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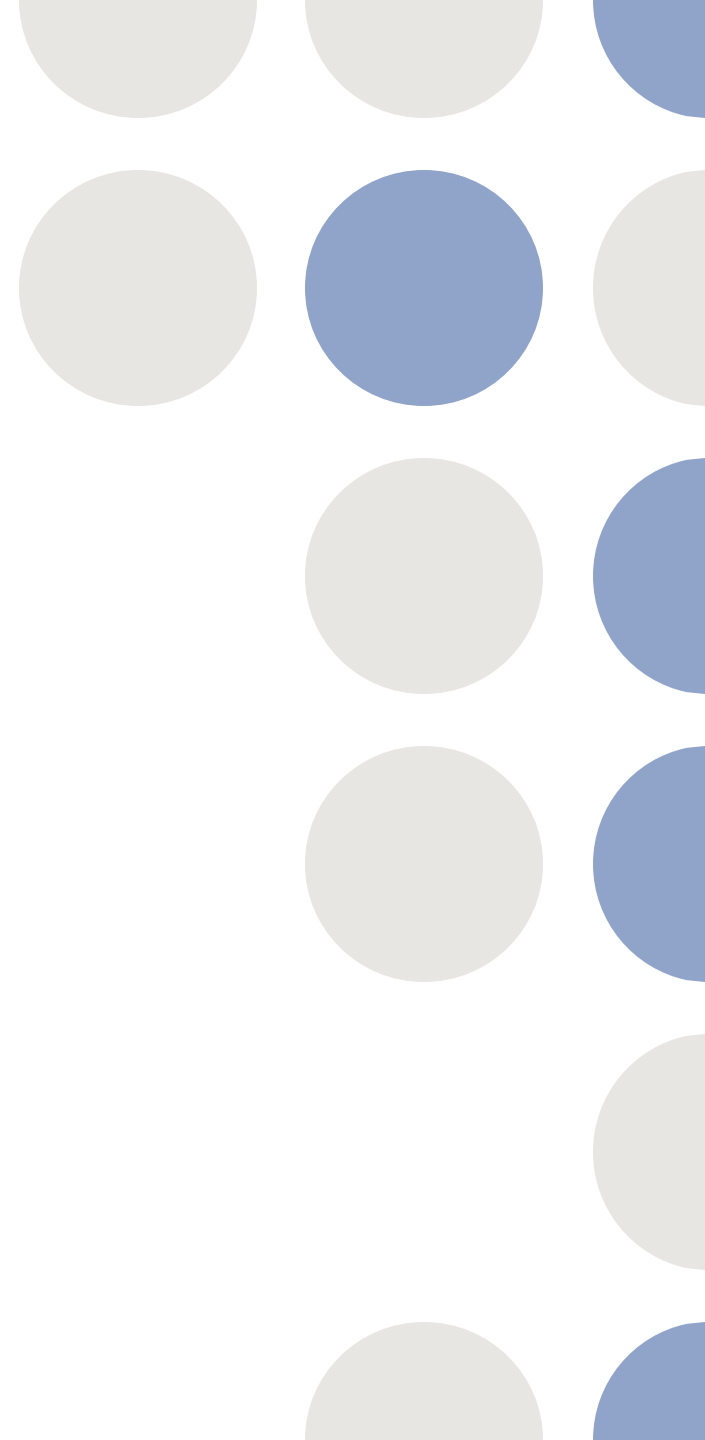
INTRODUCTION

- In software development, code organization and separation of concerns are crucial for building scalable, maintainable, and reusable applications.



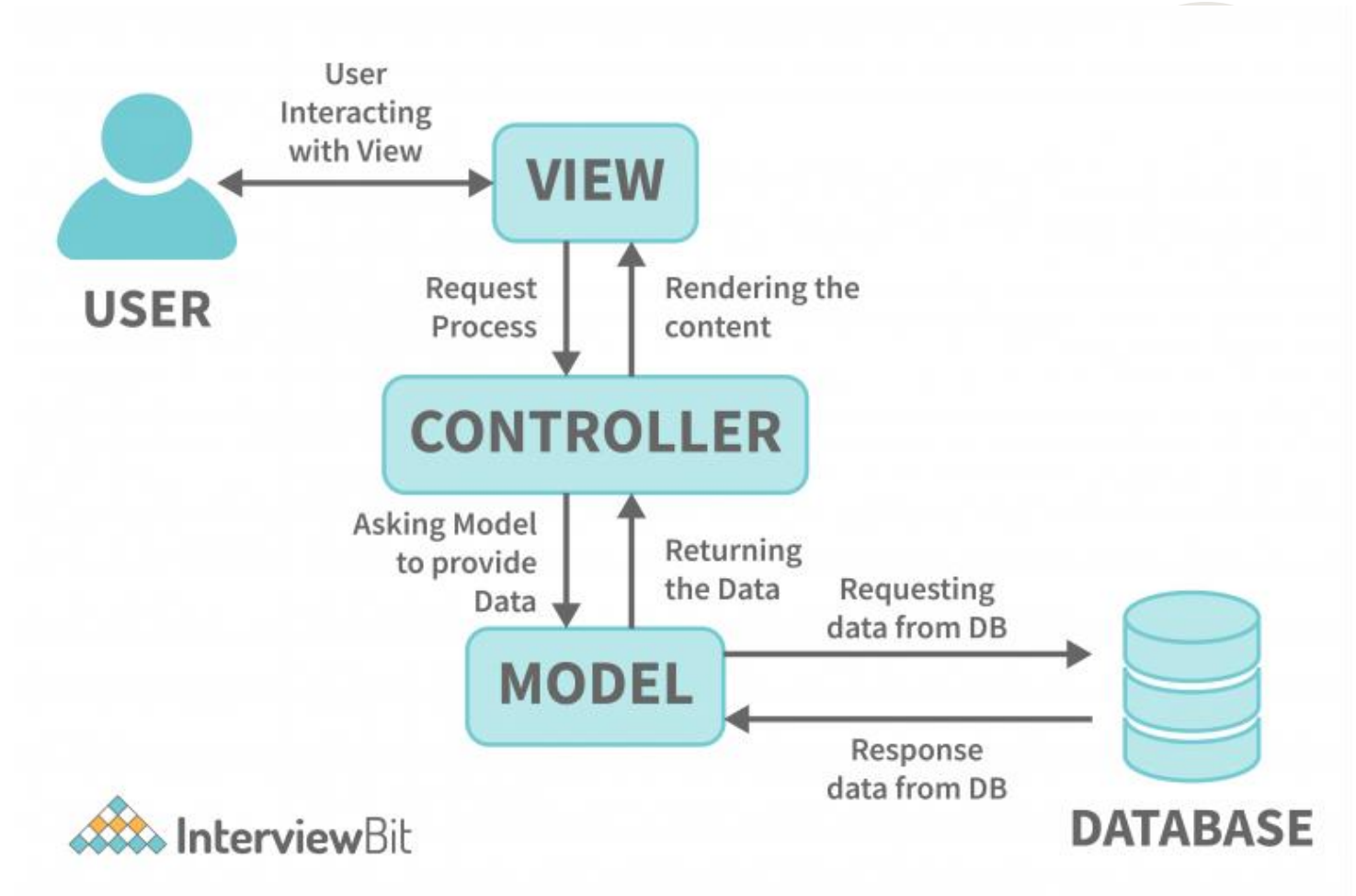
Multifile Programming

- Multifile programming allows developers to break down complex programs into smaller, more manageable parts. By separating code into different files, it becomes easier to understand, modify, and maintain.



MVC

The Model-View-Controller (MVC) architectural pattern separates an application into three interconnected components: the model, view, and controller.



Model

The model component in the MVC architecture is responsible for managing the application's data and business logic. It represents the underlying data and provides methods for accessing and manipulating that data. In multfile programming, the model is often separated into its own file or set of files to keep it organized and modular.

By separating the model from the view and controller components, developers can make changes to the application's data and business logic without affecting the user interface or application behavior. This separation of concerns makes it easier to maintain and update the application over time.

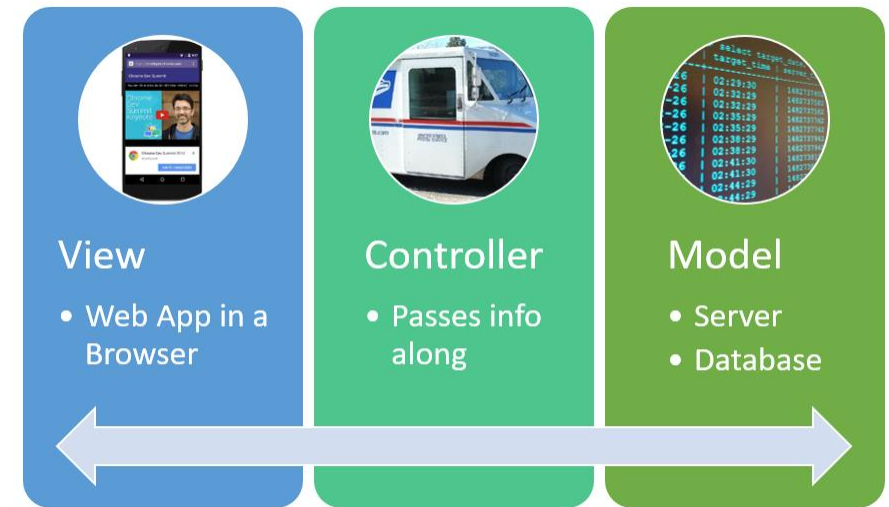
View

- The view component in the MVC architecture is responsible for rendering data to the user interface. It receives input from the controller and uses it to generate the appropriate output for the user. In multifile programming, the view can be separated into its own file, allowing for easier maintenance and reuse of code.



Controller

- The controller component in the MVC architecture acts as an intermediary between the model and view components. Its primary role is to receive input from the user and update the model accordingly. Once the model has been updated, the controller then notifies the view to update its display. In this way, the controller helps to ensure that the model and view remain separate and independent.



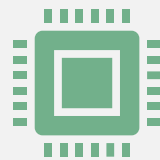
Spring Boot



Spring Boot is a powerful framework that provides many features to simplify the development of Java-based applications.

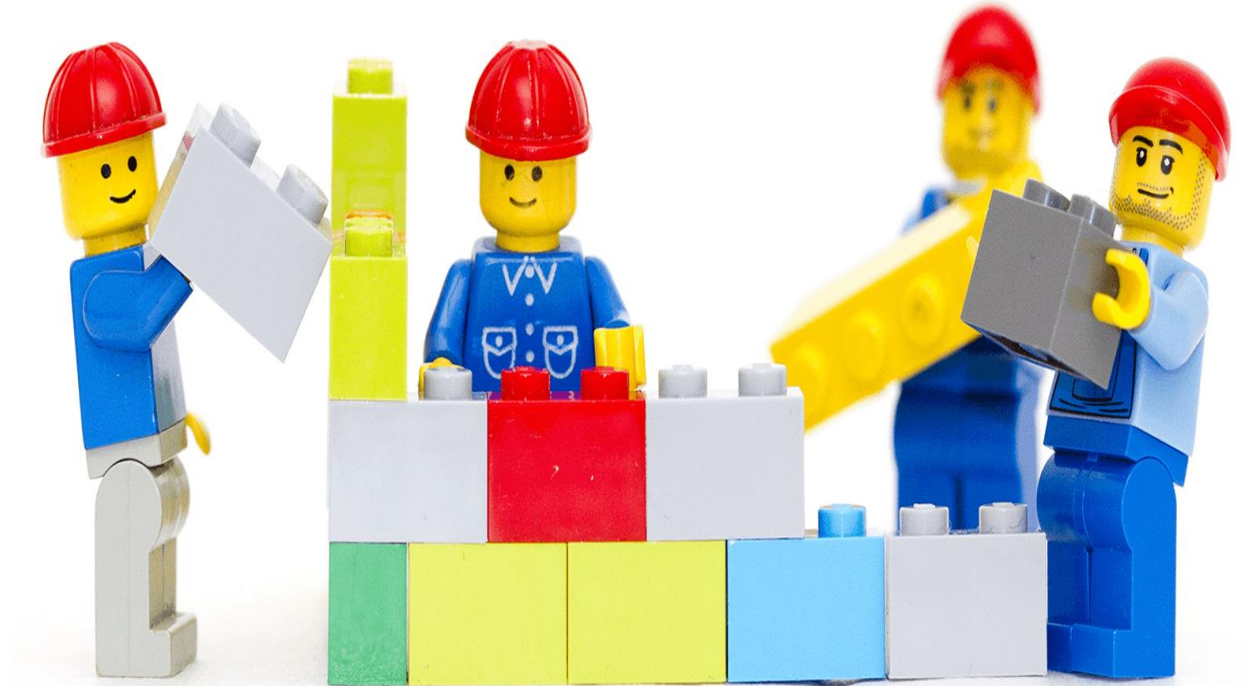
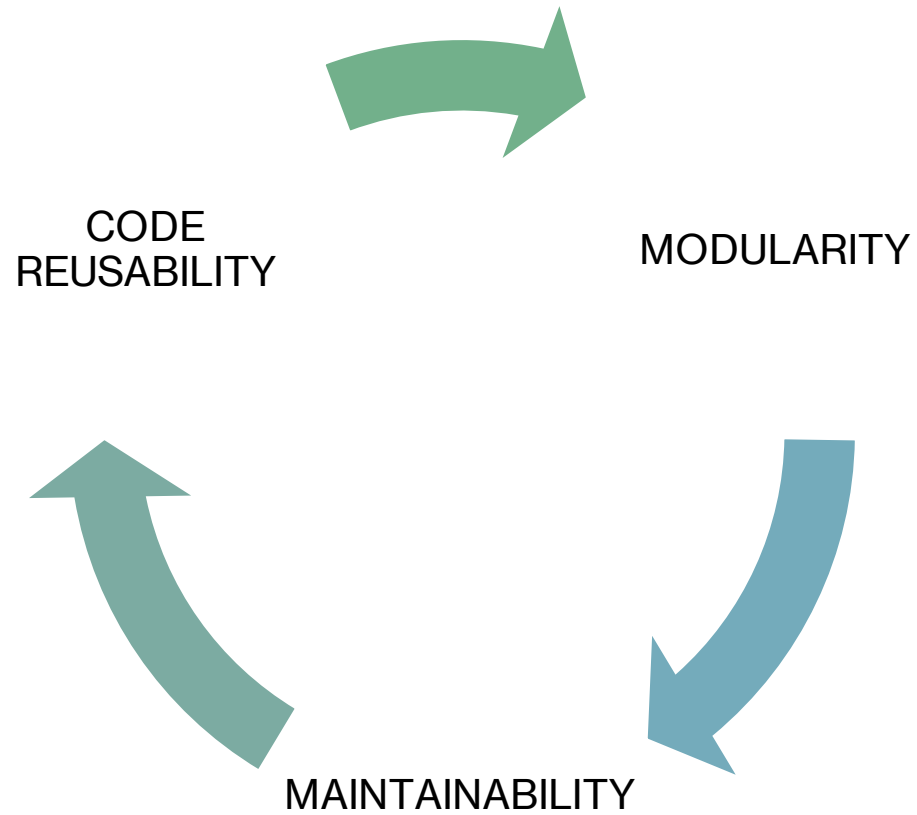


Key features : the ability to create standalone, production-grade Spring-based applications with minimal configuration required.



An ideal choice for those who want to focus on writing code rather than configuring complex infrastructure.

Benefits



An aerial photograph of a multi-lane highway bridge spanning a body of turquoise water. The bridge has several lanes in each direction, with white lane markings. Several vehicles, including cars and trucks, are visible on the bridge. A large black rectangular overlay covers the right side of the image, containing the text "THANK YOU" in white. In the top right corner, there are several white-outlined circles of varying sizes, some of which are partially cut off by the edge of the image.

THANK YOU