

Architecture Pattern



Course Name: Software Development Project

Course No: CSE 3106

Submitted to:

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Project Title: Minimalistic Sketch

Decision: Using Model View Controller Architecture

Reason:

We are using the MVC architecture pattern because the architecture has better scalability, easier maintenance, more flexibility and higher testability. By separating the data, the logic, and the presentation layers, you can make changes to one component without affecting the others. This also allows for scalability of components according to the demand. In addition, decoupling these layers provides more flexibility in reusing them for various purposes. Finally, isolating them increases testability by allowing for separate tests of each layer.

Here's how we are going to organize our code according to the MVC architecture:

Model:

Drawing: Manages the drawing data, including the lines drawn on the canvas.

Brush: Defines the properties and behavior of the brush used for drawing.

Eraser: Defines the properties and behavior of the eraser used for erasing.

View:

gui: Represents the main GUI window containing the canvas and buttons for drawing, erasing, and saving.

Controller:

Mouse listeners: Handle mouse events (e.g., pressed, dragged, released) on the canvas for drawing and erasing actions.

Button action listeners: Handle button clicks for drawing, erasing, and saving actions.

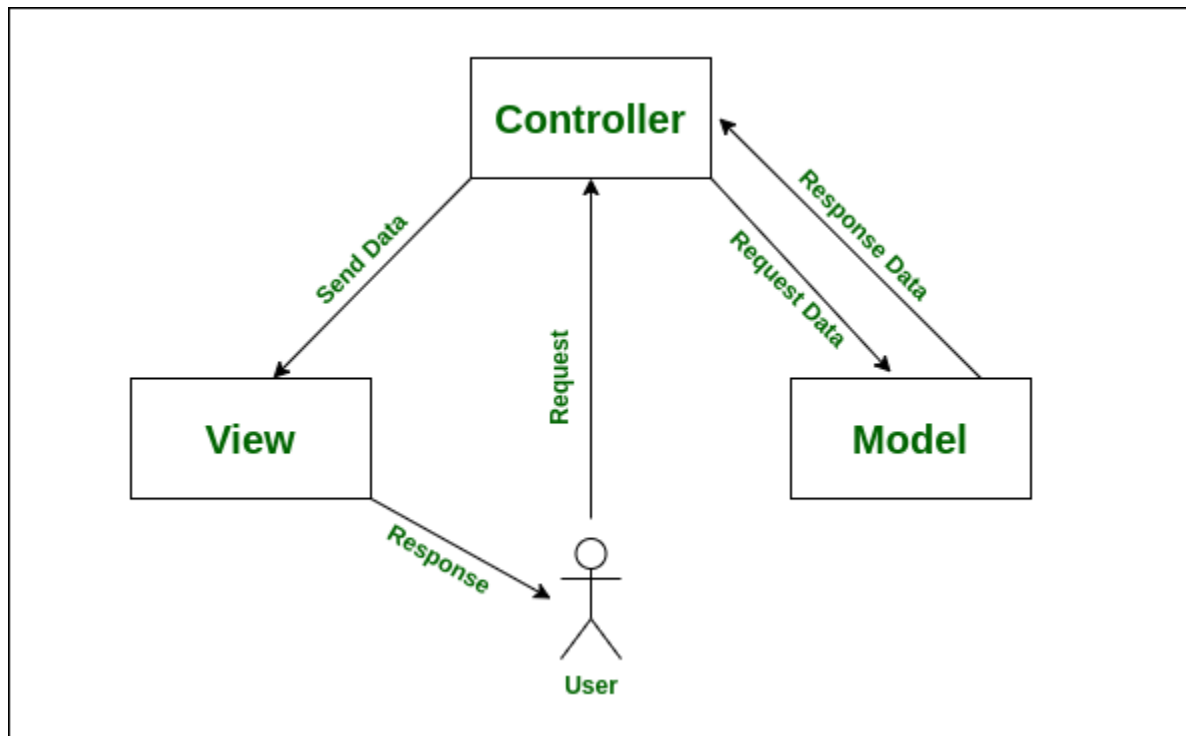


Figure: MVC Architecture