MVC:

**Other name (if any)**

placeholder

**What it does**

MVC Pattern stands for Model-View-Controller Pattern. It is behavioral design pattern + architecture. This pattern is used to separate application's concerns. It is used by Spring boot, Django. The user interacts with the View, such as clicking a button or entering text into a form. The View receives the user input and forwards it to the Controller. The Controller receives the user input from the View. It interprets the input, performs any necessary operations (such as updating the Model), and decides how to respond. The Controller updates the Model based on the user input or application logic. If the Model changes, it notifies the View. The View requests data from the Model to update its display. The Controller updates the View based on the changes in the Model or in response to user input. The View renders the updated UI based on the changes made by the Controller.

**Where to use**

placeholder

**Steps**

1. Model Class: This class will contain every property the model needs. All the properties will be private. There will be setter and getter method for every properties.  
2. View Class: It will only console the those properties whose are passed through  constructor.  
3. Controller Class: It will have object of model class and view class. It will have setter and getter for model's properties. It will call setter and getter of model class through these functions. It will also have updateView function to call the function of the view class.  
4. Client Code: It will create object of model class, view class and controller class. Object of model class and view class will be passed to the constructor of the controller class. Necessary functions of controller will be called only.

**Special cases (if any)**

placeholder

**Advantages**

1. **Better separation of concerns**

**Disadvantages**

1. Implementing the MVC pattern can add complexity to the code, especially for simpler applications, leading to overhead in development.  
2. Developers need to understand the concept of MVC and how to implement it effectively, which may require additional time and resources.  
3. MVC can result in a larger number of files and classes compared to simpler architectures, which may make the project structure more complex and harder to navigate.

**Code**

Geekforgeeks

**Difference with similar pattern**

placeholder

**Diagram**

Geekforgeeks + Tutorialspoint