Model View Controllers

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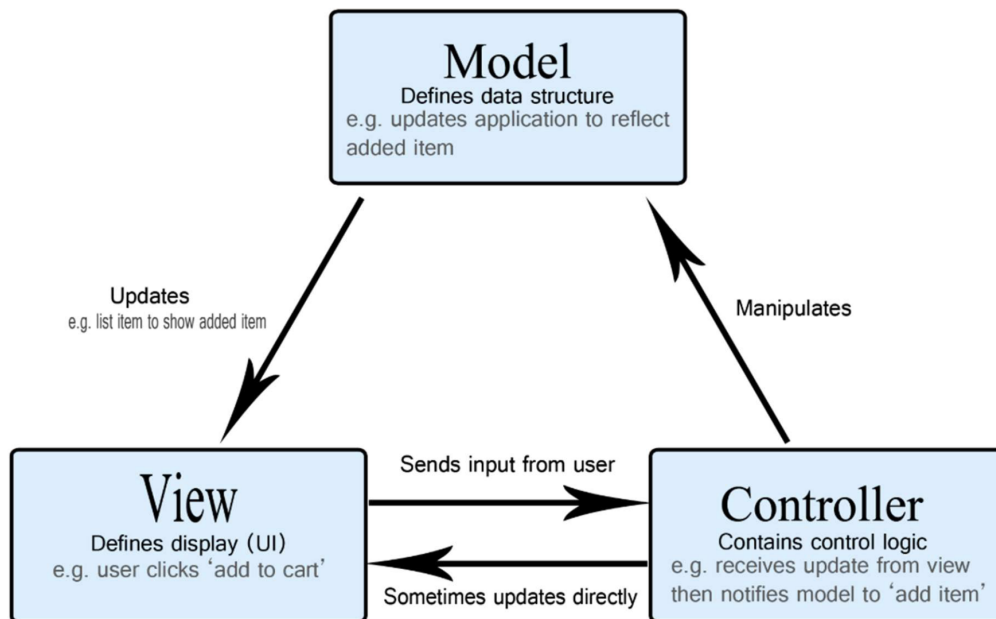
Model View Controller

Overview

- The model view controller is a **software engineering pattern** that separates an application into three interconnected components:
    - **Model**
        - Underlying data structures
        - The logic - How actions from the user changes the data
    - **View**
        - The user interface
    - **Controller**
        - The connection of the Model and Views

ObservableList

What is the Observable List

- ObservableList is a special list interface in JavaFX that can notify listeners of changes
  - When items are added, removed, or updated, it notifies all registered listeners
  - Commonly used to bind data between the Model and View
  - Perfect for updating UI elements automatically when data changes
  - Can be created using `FXCollections.observableArrayList()`
- Useful for:
  - TableView data
  - ListView contents
  - ComboBox items
  - Any UI element that displays a collection of data

Relation ot MVC

- `ObservableList` is a **model component** that stores data