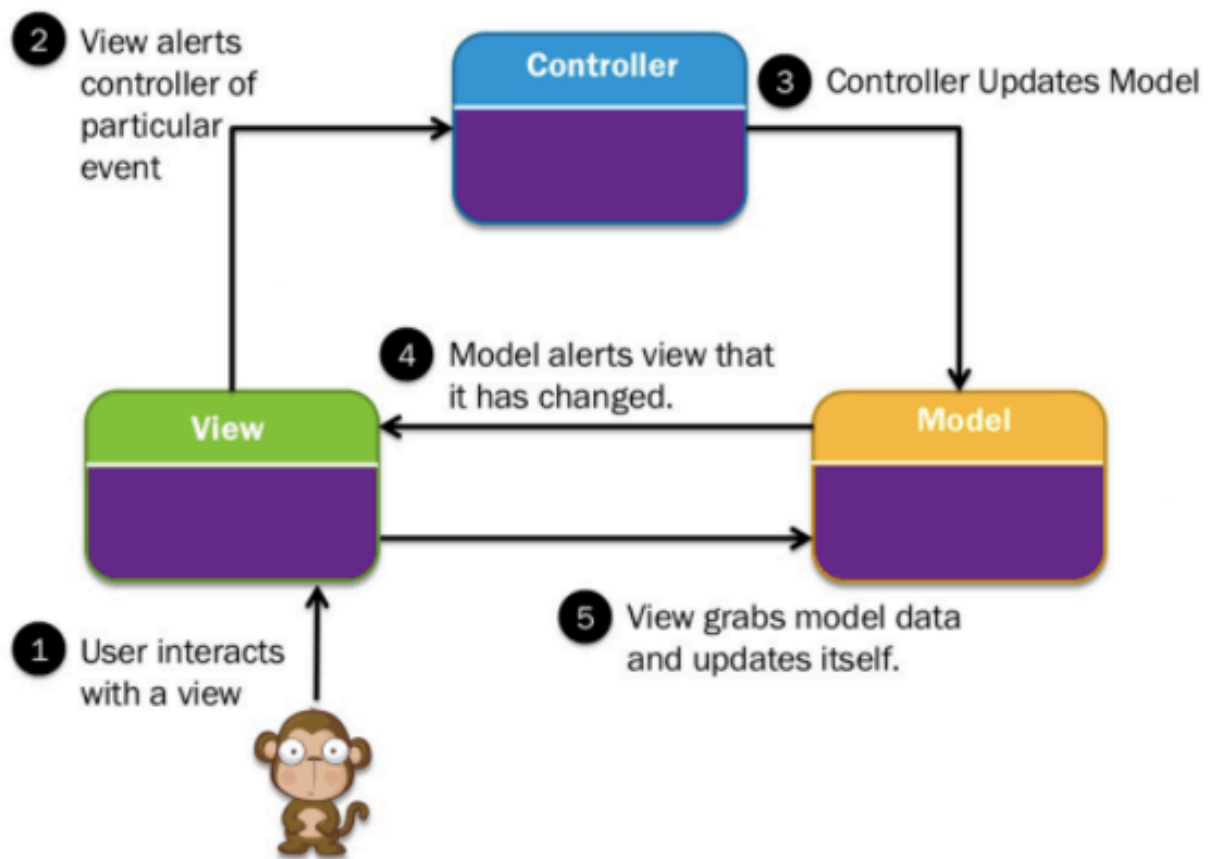# MVC Architecture

MVC Framework?
The model-View-Controller (MVC) framework is an architectural pattern that separates an application into three main logical components Model, View and Controller.

- Each architecture component is built to handle specific development aspect of an application.
- MVC separates the business logic and presentation layer from each other.

MVC Architecture Diagram

Three important MVC components are:

1. Model: It includes all the data and its related logic
2. View: Present data to the user or handles user interaction
3. Controller: An interface between Model and View components

MVC in detail

View:
- A view is that part of the application that represents the presentation of data.
- Views are created by the data collected from the model data.
- A view requests the model to give information so that it resents the output presentation to the user.

Controller:
- The controller is that part of the application that handles the user interaction.
- The controller interpret the mouse and keyboard inputs from the user, informing model and the view to change as appropriate.
- A controller sends commands to the model to update its state. The controller also sends commands to its associated view to change the view's presentation.

Model:
- The model component stores data and its related logic.
- It represents data that is being transferred between controller components or any other related business logic. For example, a Controller object will retrieve the customer info from the database.
- It manipulates data and send back to the database or use it to render the same data.
- It responds to the request from the views and also responds to instructions from the controller to update itself.
- It is also the lowest level of the pattern which is responsible for maintaining data.

Advantages of MVC
- MVC Model component can be tested separately from the user
- Easier support for new type of clients
- Development of the various components can be performed parallelly.
- It helps you to avoid complexity by dividing an application into the three units. Model, view, and controller
- Easy code maintenance easy to extend and grow

Some MVC web Frameworks are:
- Ruby on Rails
- Django
- Zend Framework
- Laravel

Note: Flask is not based on MVC framework.