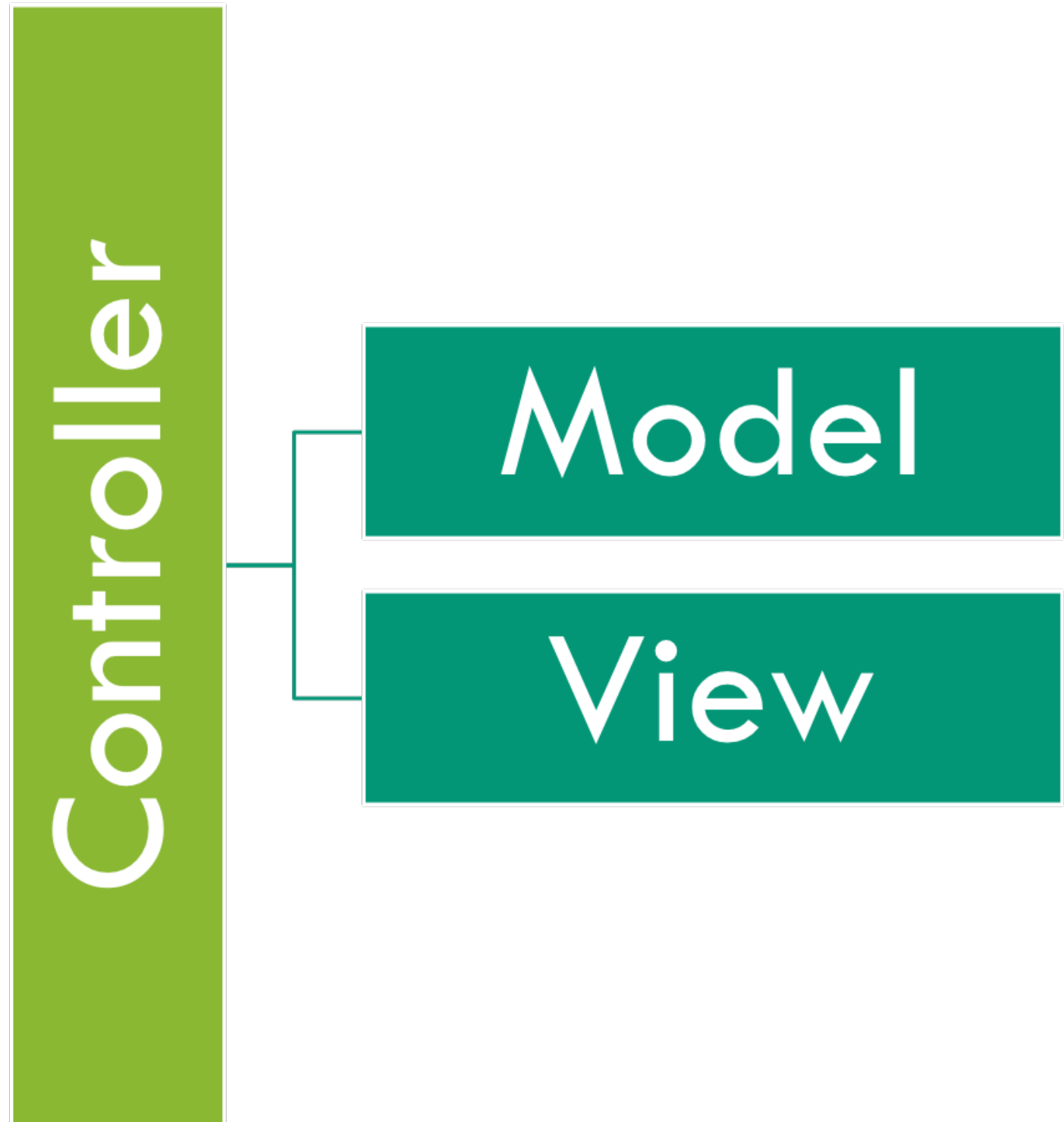


دوره آموزشی MVC

مدرس: اسماعیل صادقی



Introduction

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications.

MVC is a software architecture pattern which separates the representation of information from the users interaction with it

History

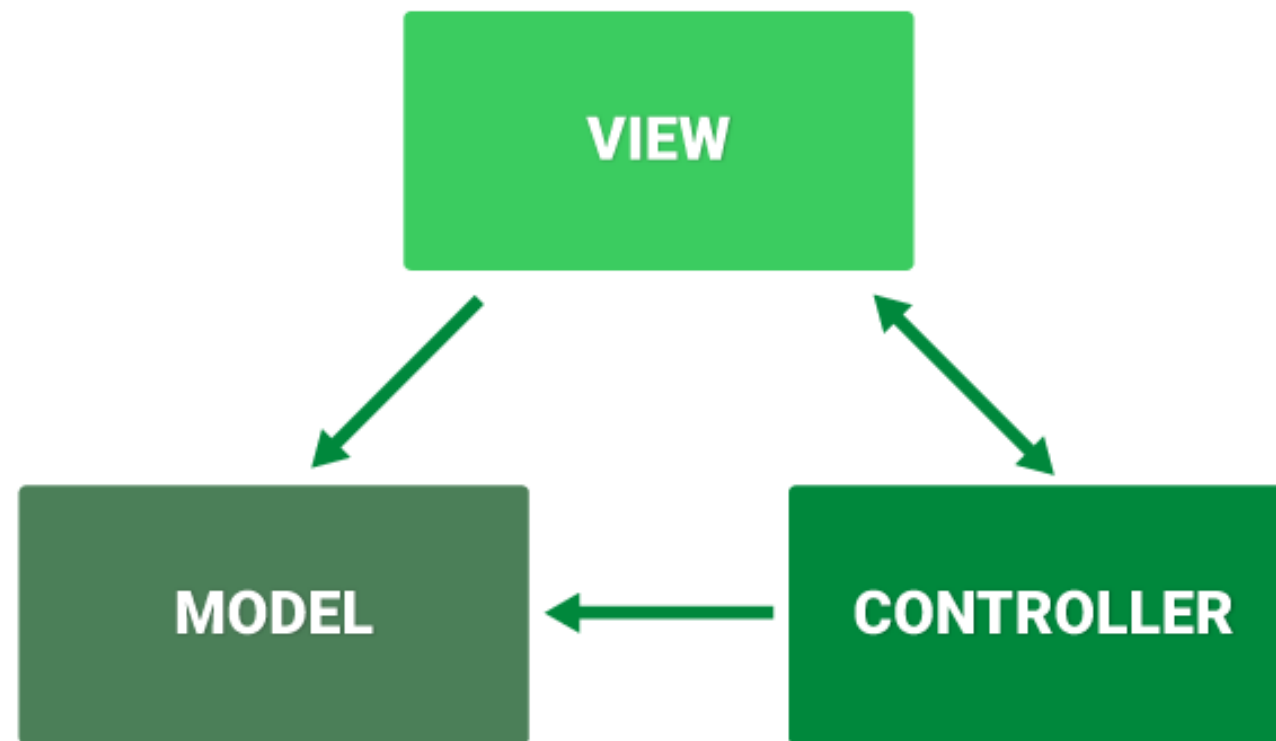
Presented by Trygve Reenskaug in 1979

First used in the Smalltalk-80 framework – Used in making Apple interfaces (Lisa and Macintosh)

Parts of MVC

A Model View Controller pattern is made up of the following three parts:

Model View Controller



Parts of MVC

The MVC model defines webapplications with 3 logiclayers:

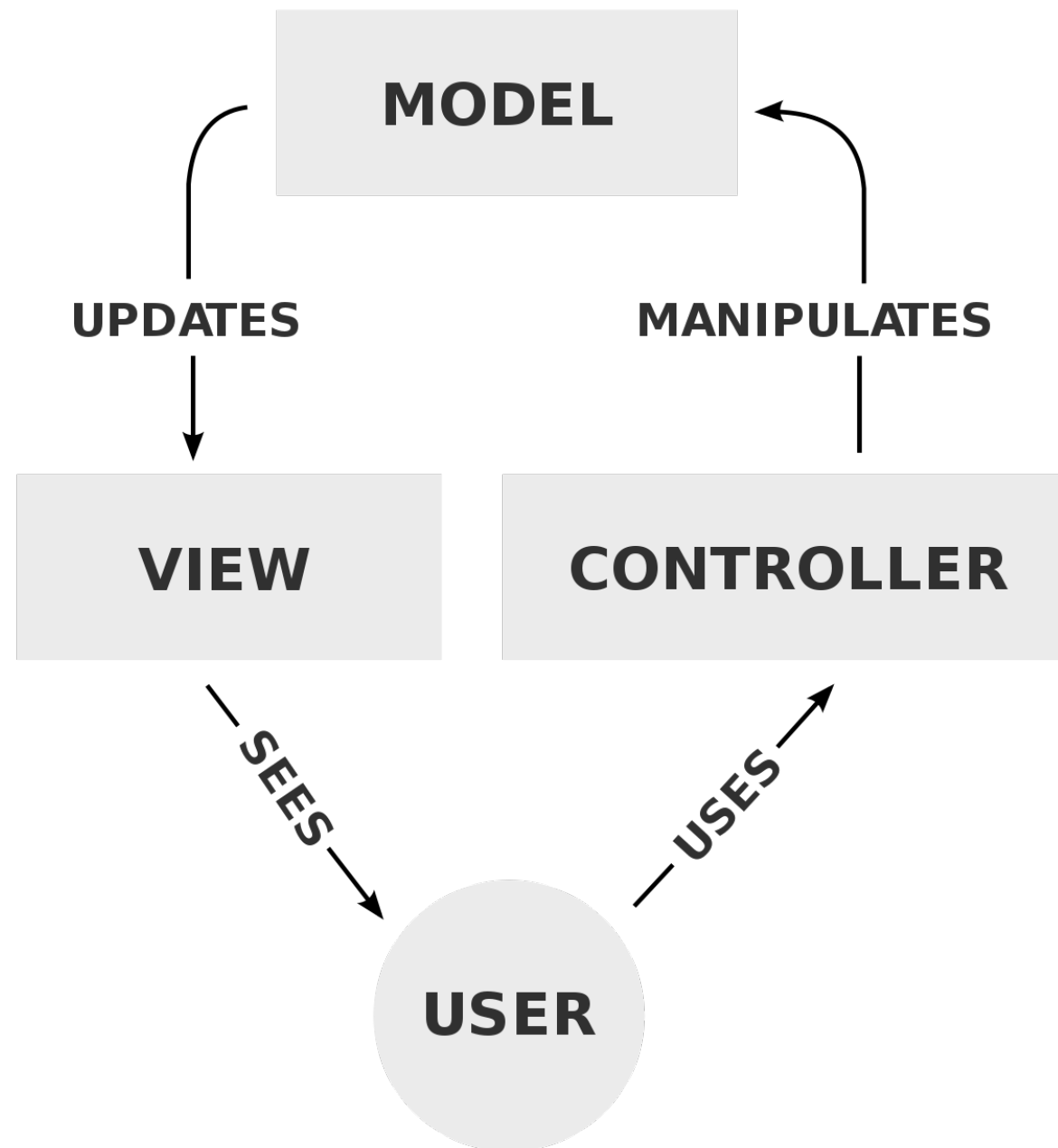
The business layer (Modellogic)

The display layer (View logic)

The input control (Controllerlogic)



Parts of MVC



Model

The model is responsible for managing the data of the application.

It responds to the request from the view and it also responds to instructions from the controller to update itself

It is the lowest level of the pattern which is responsible for maintaining data.

The Model represents the application core (for instance a list of database records).

It is also called the domain layer

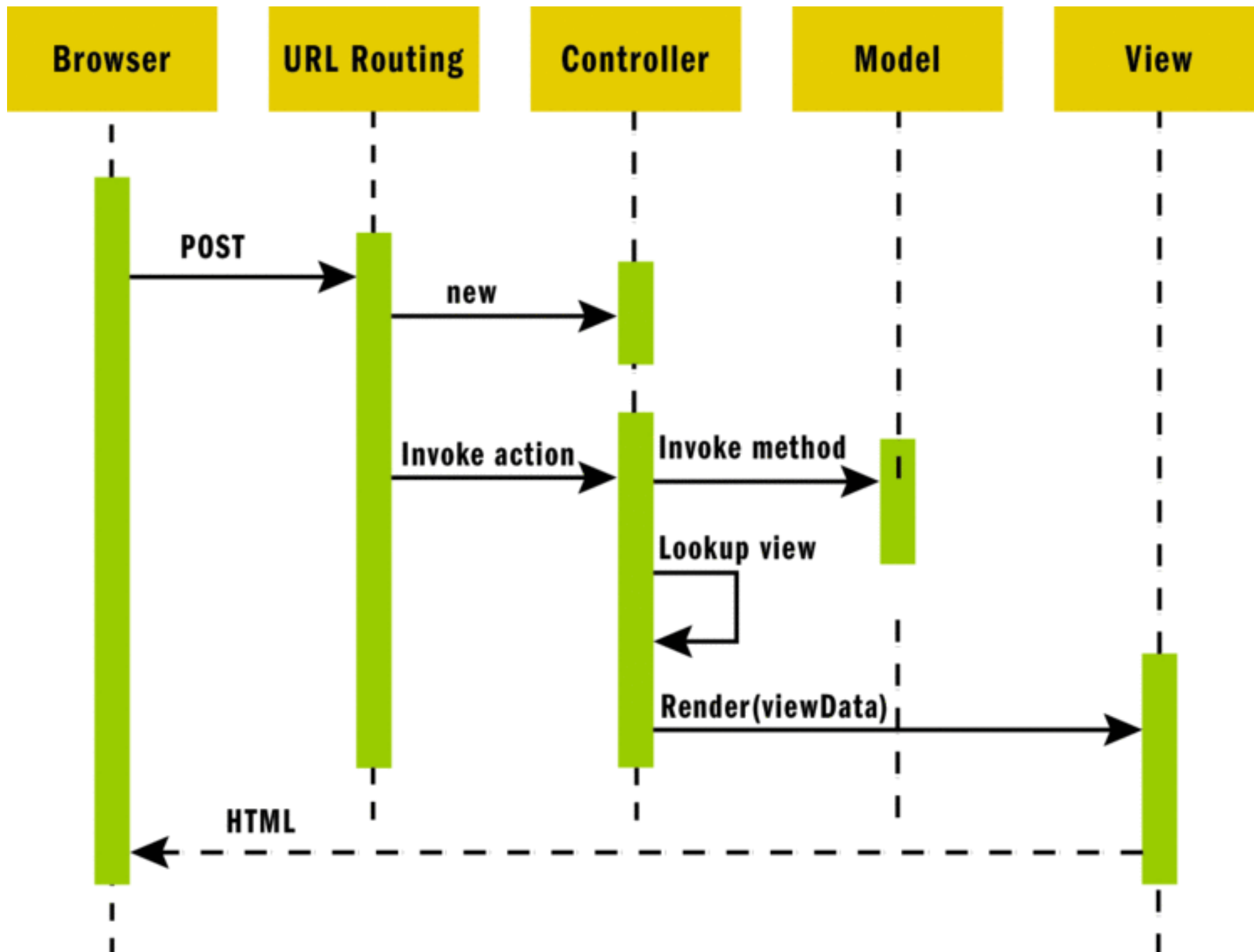
View

The View displays the data (the database records).

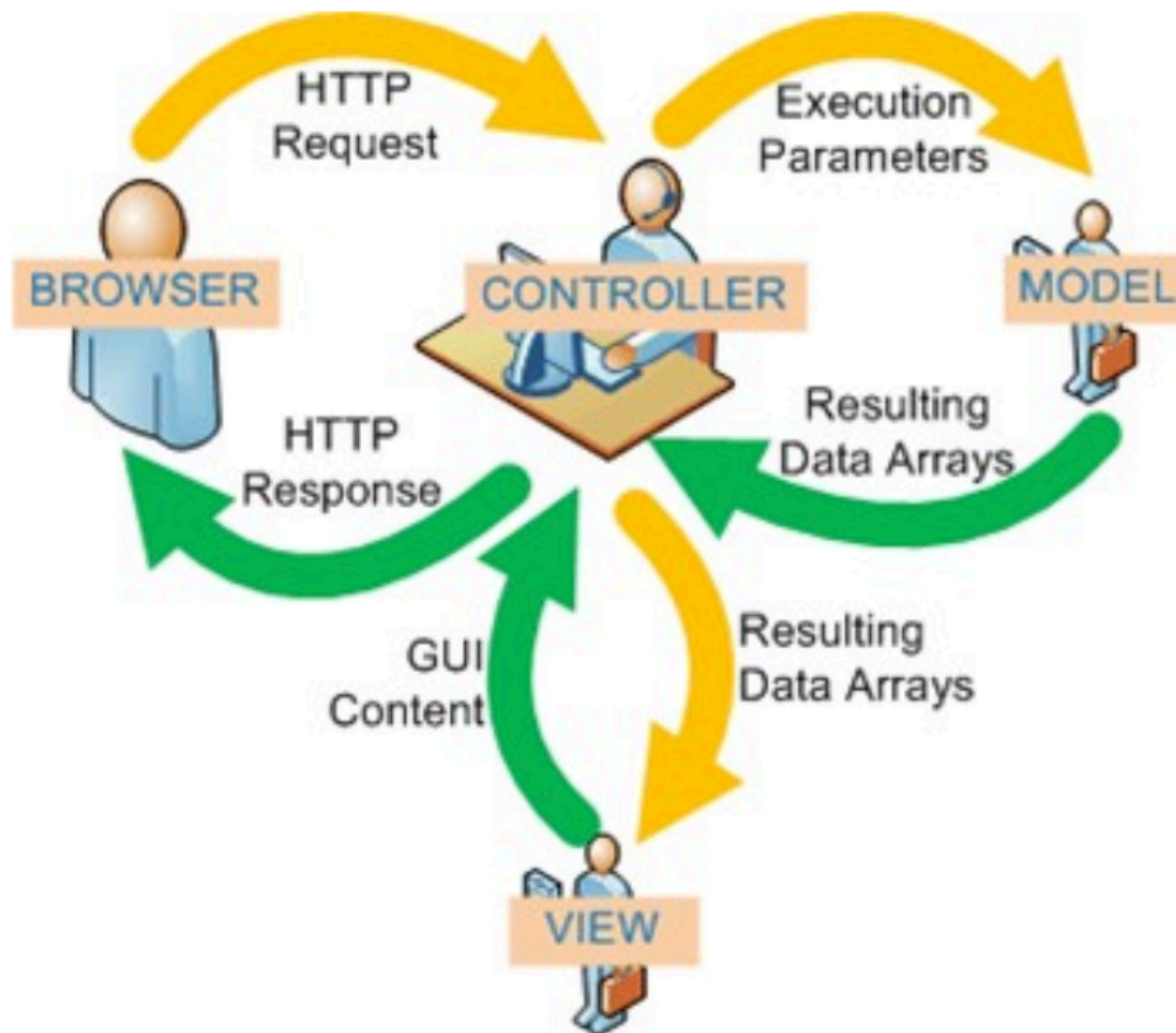
A **view** requests information from the model, that it needs to generate an output representation.

It presents data in a particular format like JSP, ASP, PHP. • MVC is often seen in web applications, where the view is the HTML page.

Sequence Diagram



Working of MVC in web application



Normal Web Page vs. MVC

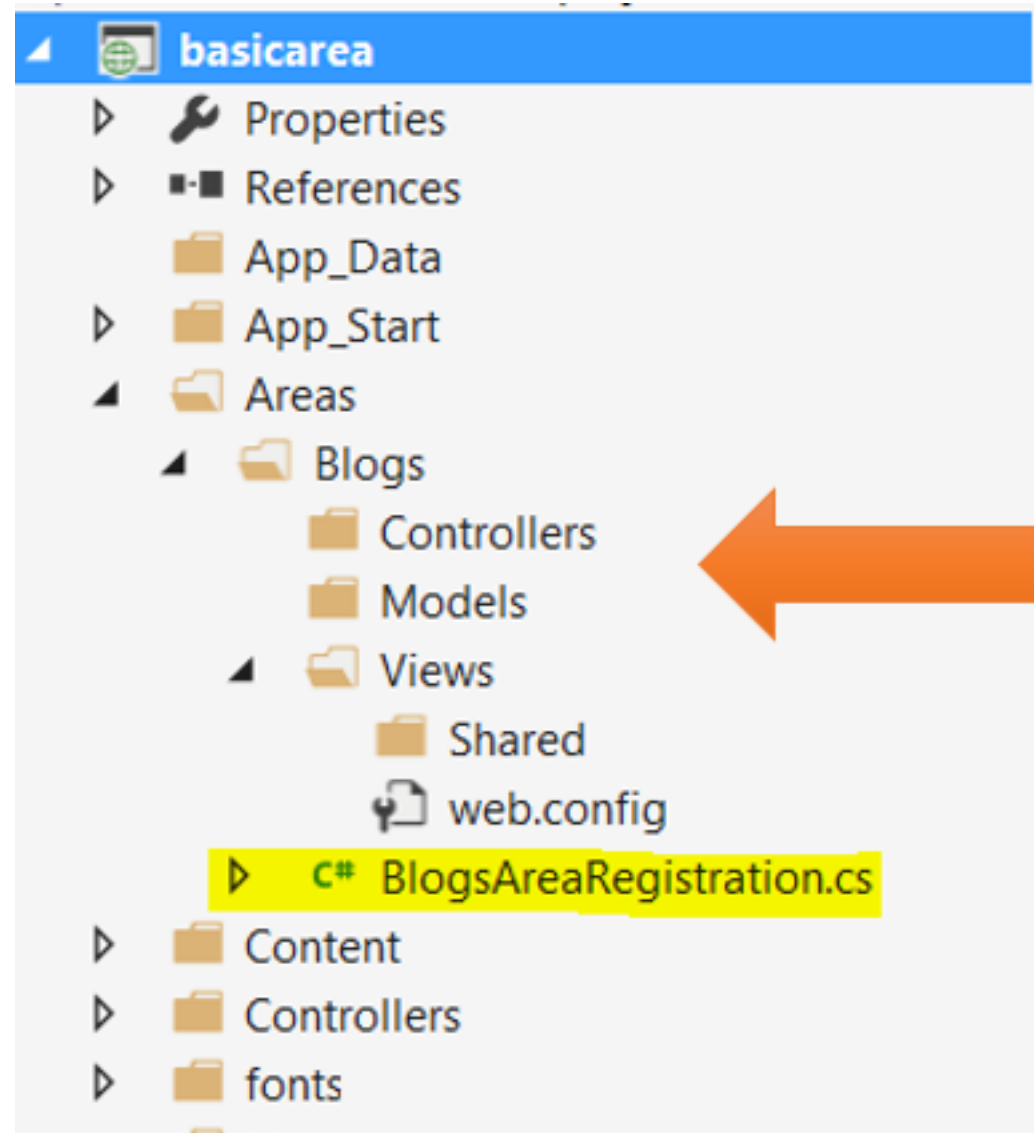
The MVC programming model is a lighter alternative to traditional Web Page/Forms.

It is a lightweight, highly testable framework, integrated with all existing features, such as Security, and Authentication.

MVC

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MVC Folders



Advantages

Clear separation between presentation logic and business logic.

Each object in mvc have distinct responsibilities.

All objects and classes are independent of each other.

easy to maintain and future enhancements

parallel development



Disadvantages

Increased complexity

Inefficiency of data access in view

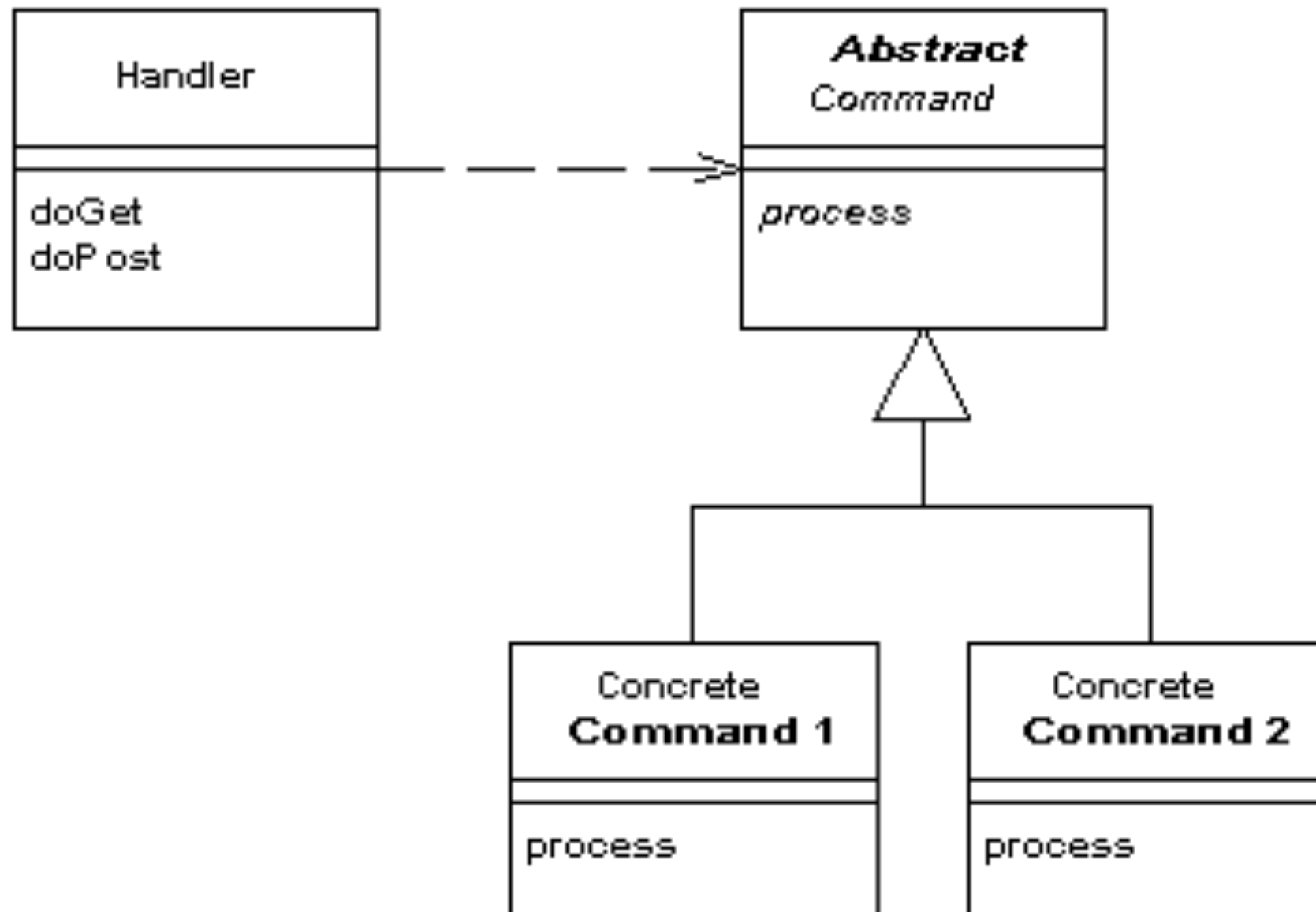
Difficulty of using MVC with modern user interface too.

For parallel development there is a needed multiple programmers.

Knowledge on multiple technologies is required.



Front Controller





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