

Module 2 Day 13

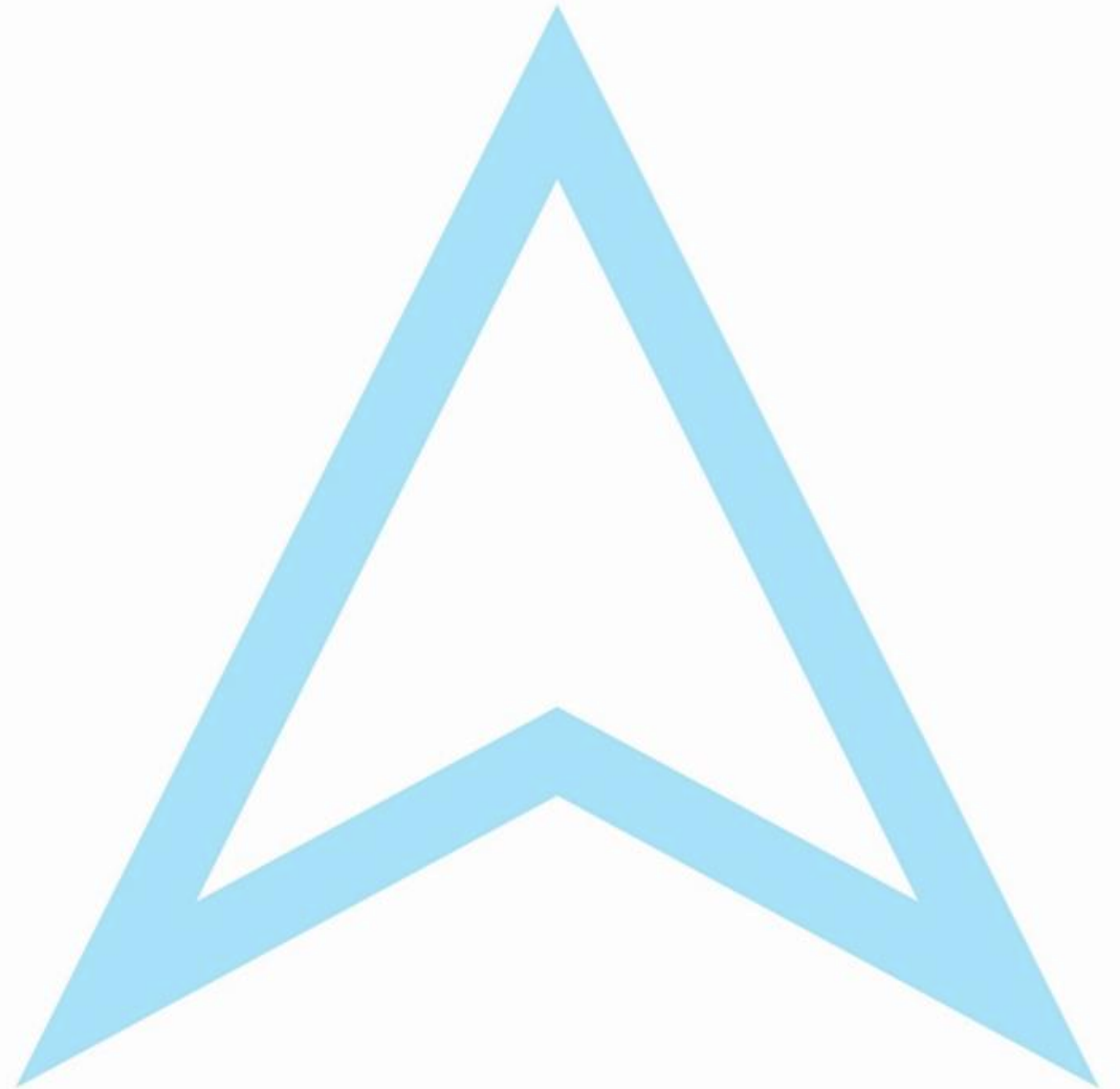
Creating APIs - Part 1

ASP.Net Core MVC

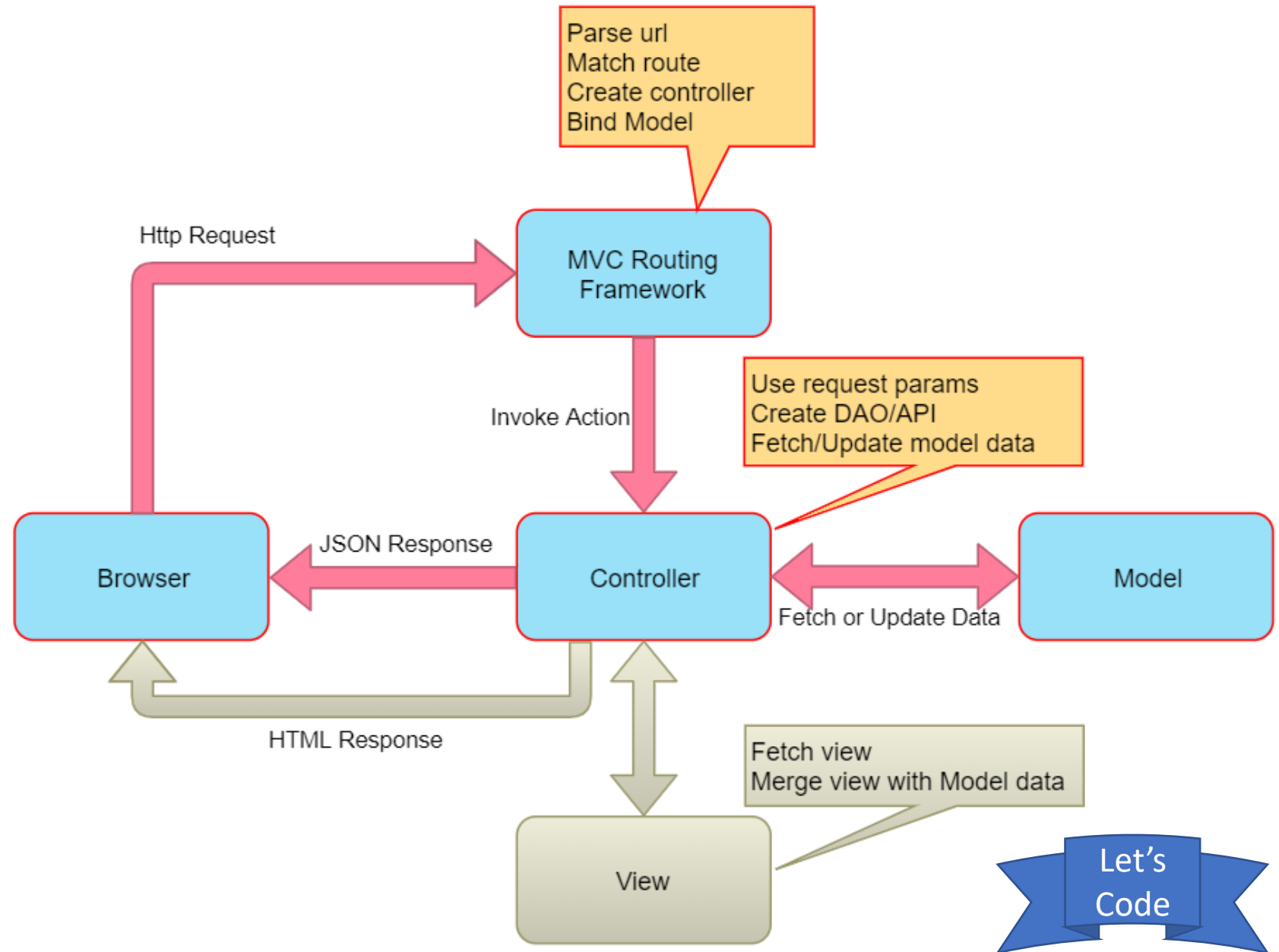
- Active Server Pages (ASP)
 - Framework for dynamic web applications
 - Initially released in 1996
 - ASP.Net released in 2002
 - ASP.Net Core first released 2016
 - Open-source, cross platform
 - Model-View-Controller (MVC)
 - Architectural design pattern used in 1970's and 1980's, and formalized in 1988
 - Many frameworks use this design pattern
 - Web API is based on ASP.NET MVC
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- https://en.wikipedia.org/wiki/Design_Patterns
 - <https://exceptionnotfound.net/tag/designpatterns/>

MVC, classic definition

- Model
 - Business data
 - POJO
- View
 - Presents data to user
 - Presents model in different ways
 - “Knows about” Model
- Controller
 - Glue / mediator / orchestrator
 - Gets model data, selects view
 - “Knows about” Model, View



MVC Workflow



Model

- POCO – "Plain ol' CLR object" or "Plain ol' C# object"
- Your application's data
- Properties, Methods and Data Validation
- Usually accessed using a DAO or API

Controller

- Inherits from ControllerBase
- Attributes
 - [ApiController]
 - [Route]
 - On class
 - On method
 - [HttpGet(sub-route)], [HttpPost], [HttpPut], [HttpDelete]
 - Can include a route or sub-route
- Actions
 - Public Methods that can be invoked by clients



Let's
Code

Model Binding

- Done by the framework
- Finds data in Request Body, Route, Query string (and Form fields)
- "Maps" this data to controller arguments
 - Converts data types
 - Handles case differences
 - Handles complex types



Let's
Code