

## Controllers in ASP.NET Core MVC | Action Methods in ASP.NET Core MVC

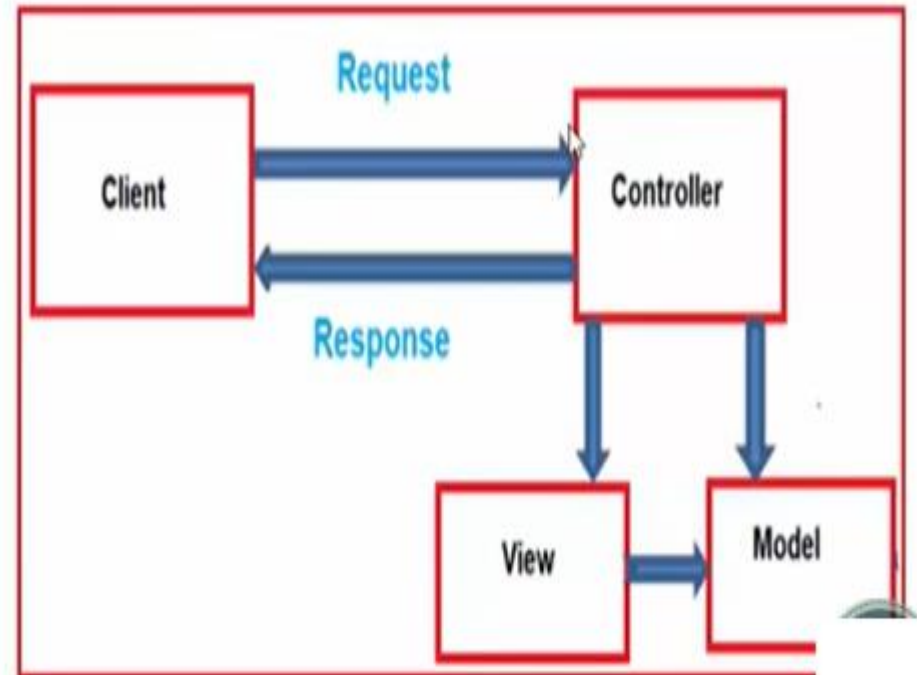
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# What are Controllers in ASP.NET Core MVC Application?

- ▶ The Controllers in ASP.NET Core MVC application are the classes having a set of public methods.
- ▶ These public methods are called as actions (action methods). These action methods are the methods of a Controller which is actually going to handle the incoming HTTP Requests.
- ▶ The Controllers in MVC application logically group similar types of actions together. This aggregation of actions or grouping similar types of action together allows us to define sets of rules such as caching, routing, and authorization which is going to be applied collectively.

# Role of Controller

- ❖ Manages the flow of the application.
- ❖ Is responsible for intercepting incoming requests and executing the appropriate application code.
- ❖ Communicates with the models of the application and selects the required view to be rendered for the request.





# Controllers

- ▶ By convention, the controller classes in ASP.NET Core MVC application should reside in the project's root-level **Controllers** folder and inherits from the **Microsoft.AspNetCore.Mvc.Controller** base class.
- ▶ We can consider a class as a Controller when at least one of the following conditions is true.
- ▶ The class name is suffixed with the word "**Controller**" or if the class inherits from a class whose name is suffixed with the word "Controller"
- ▶ The class is decorated with the **[Controller]** attribute.

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# Action Method

- ▶ A controller class can contains one or more action methods, also known as controller actions
- ▶ Are responsible for processing the requests that are sent to the controller.
- ▶ Typically returns an ActionResult object that encapsulates the result of executing the method.
- ▶ Can be used to return View, File, Json, Partial View etc

# Calling Action Method from Browser

Domain/Controller/ActionMethod



localhost:xxxx/Home/Index



# Parameters in Action Method

- ▶ Sometimes you may need to provide input other than the Web page name while requesting for a Web page.
- ▶ Example: You want to return Students Details by its IDs so you pass the paramters in Url.

# New/Existing Controller

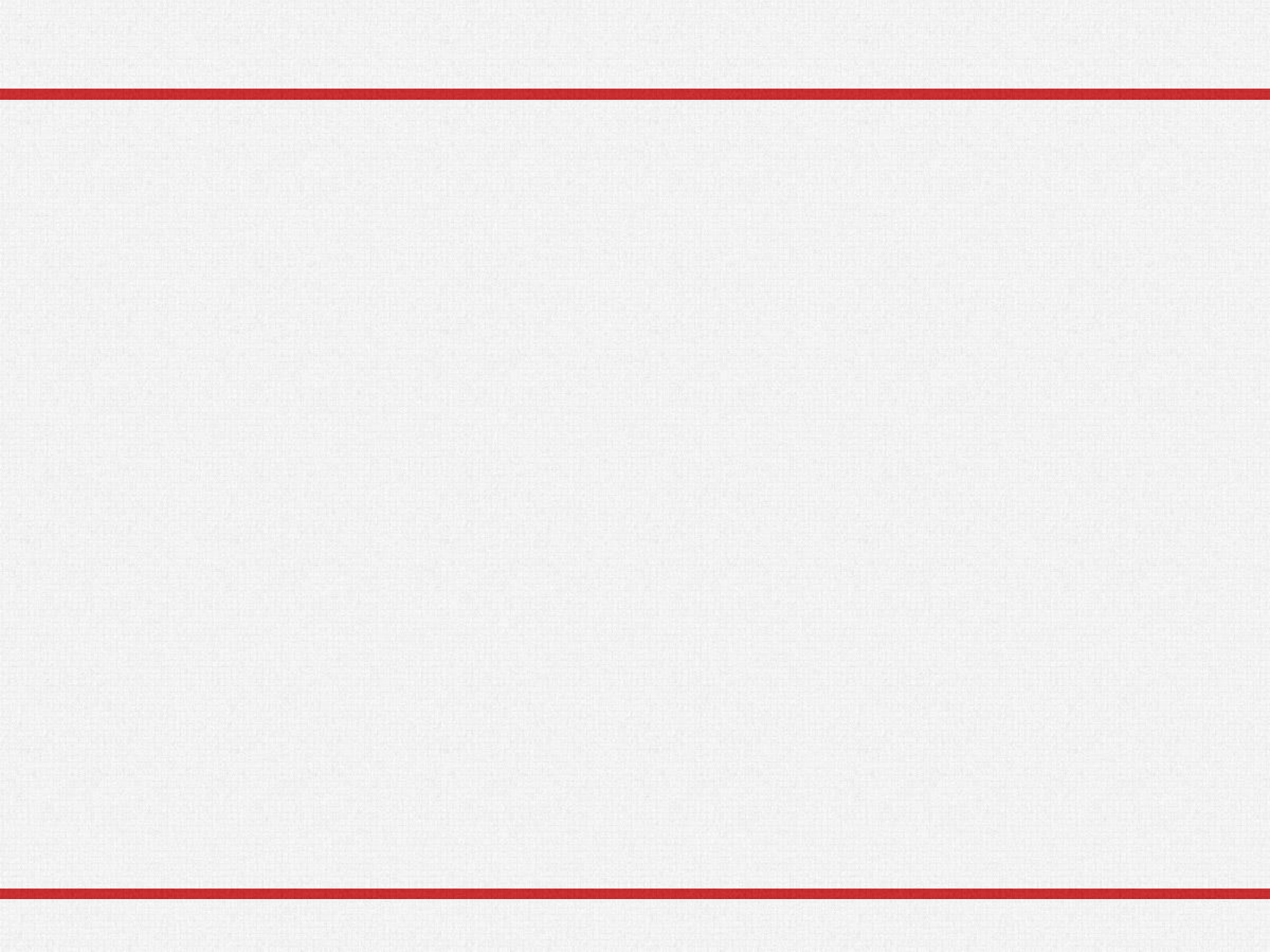
- ▶ A controller should represent an entity.
- ▶ All the operations related this entity should be in that Controller



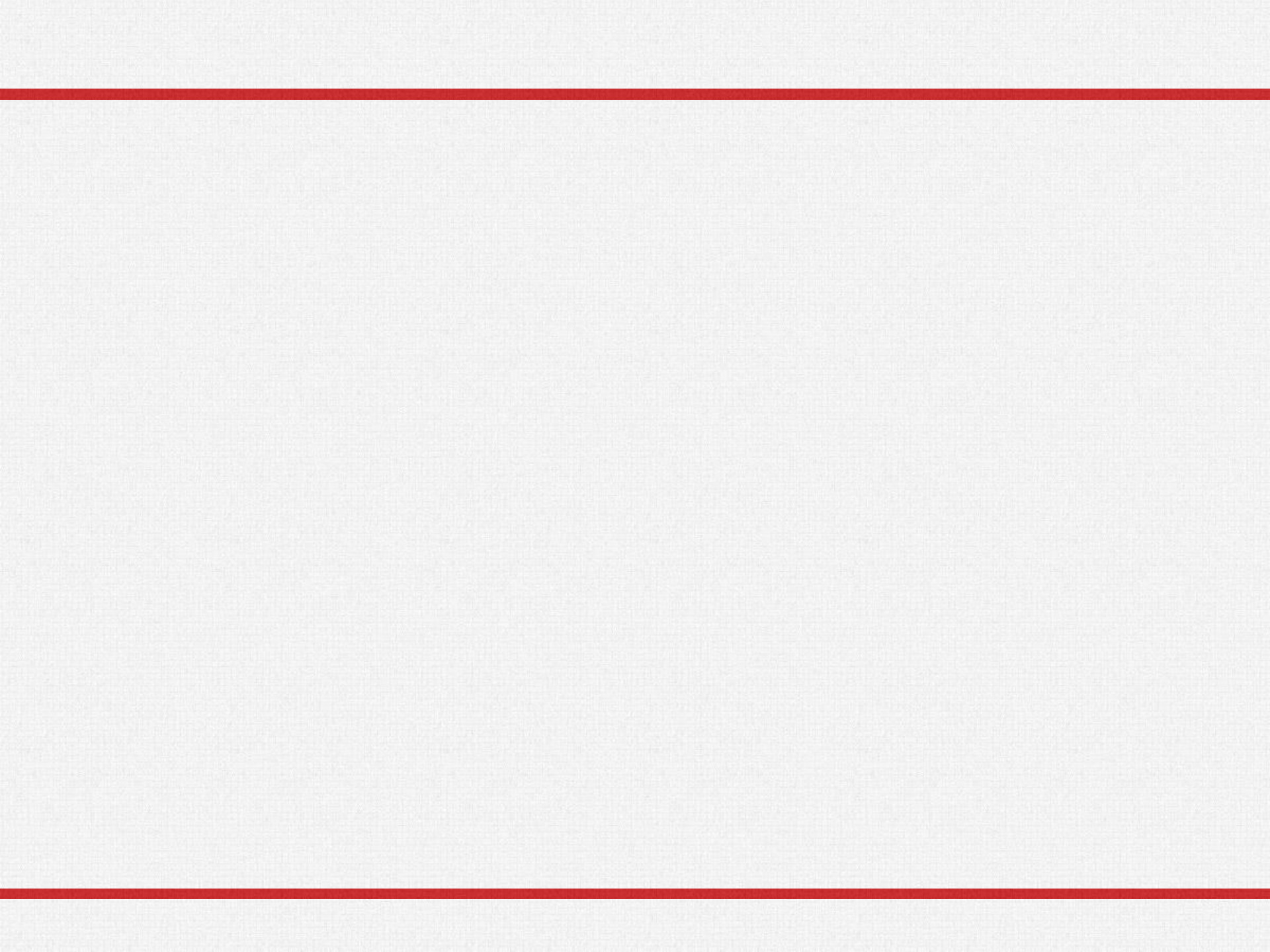
# Return the data in diff format.

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- `public ObjectResult GerEmployeeId(int id)`
- `{`
- `Employee emp = _repo.GetEmployee(id);`
- `return new ObjectResult(emp);`
- `}`
- `services.AddMvc().AddXmlSerializerFormatters();`









Thanks