Module-4 ActionResults

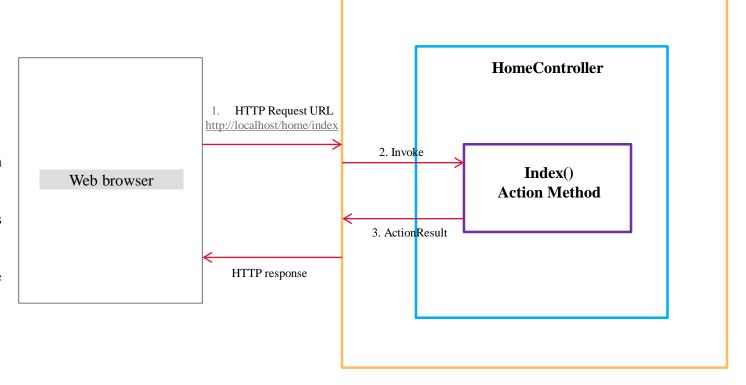
What are Action method?

- The tasks of controller like communicate with models, get data from database, return a view, etc. are done by controllers action method
- A controller class can contains one or more action methods, also known as controller actions.
- Action methods are public methods in controller classes.
- 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.
- By, default, it generates a response in the form of ActionResult

Steps followed -

- 1. The browser send a http request in the form of home/index.
- 2. The MVC framework invokes the controller action method based on the request URL.
- 3. The action method executes and returns an ActionResult object. This object encapsulates the result of the action method execution.
- 4. The MVC framework converts an ActionResult to HTTP response and sends the response back to the browser.

Note: In this module we will use Employee controller instead of Home controller



MVC Framework

Rules to follow while creating Action Methods -

- They must be declared as public
- Action method must be public. It cannot be private or protected
- They cannot be declared as static
- They cannot have overloaded versions based on parameters.

Invoking Action Methods –

- In an ASP.NET MVC application, we can create multiple action methods in a controller.
- We can invoke an action method by specifying a URL in the web browser containing the name of the controller and action method to invoke
- Eg http://localhost/home/index. (Here home is a controller and index is the action method)
- In order for the Action Method to return result, a view with same name as the action method must be created in that controller name folder else we will get an error shown below:

Server Error in '/' Application.

The view 'Index' or its master was not found or no view engine supports the searched locations. The following locations were searched:

~/Views/Home/Index.aspx

~/Views/Home/Index.ascx

~/Views/Shared/Index.aspx

~/Views/Shared/Index.ascx

~/Views/Home/Index.cshtml

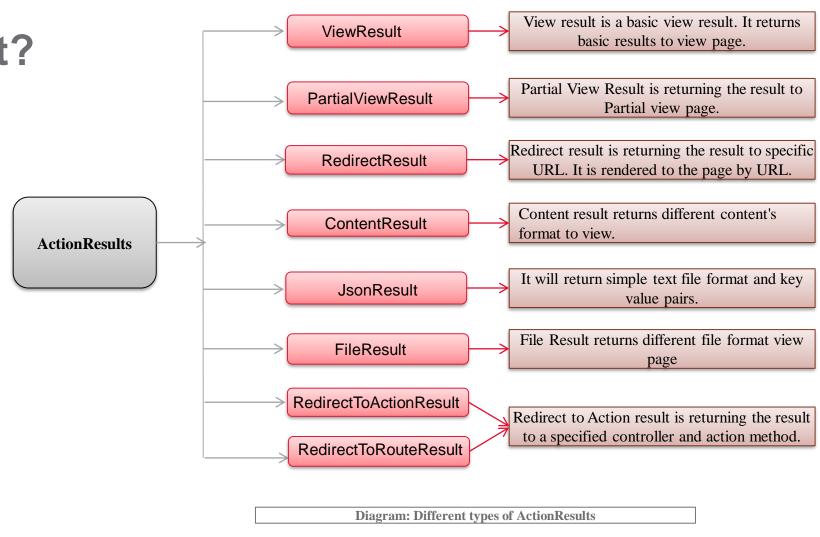
~/Views/Home/Index.vbhtml

~/Views/Shared/Index.cshtml

~/Views/Shared/Index.vbhtml

What is ActionResult?

- ActionResult is an abstract base class for all implementing classes that provides different types of results.
- It consists of HTML in combination with server-side and client-side scripts to respond to user actions.
- ActionResult is a result of action method/pages or return types of action methods/pages handlers.
- Action result is a parent class of many of the derived classes that have associated helpers.
- The IActionResult return type is appropriate when multiple ActionResult return types are possible in an action.



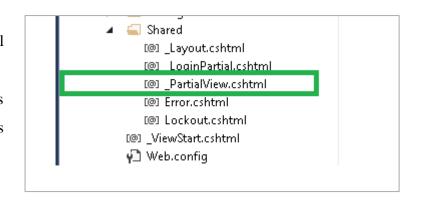
View Results –

View result is a basic view result. It returns basic results to view page. View result can return data to view page through which class is defined in the model. View page is a simple HTML page. Here view page has ".cshtm" extension.

Partial View Results –

Partial View Result is returning the result to Partial view page. Partial view is one of the views that we can call inside Normal view page.

We should create a Partial view inside shared folder, otherwise we cannot access the Partial view. The diagram is shown above the Partial view page and Layout page because layout page is a Partial view. Partial View Result class is also derived from Action Result.



Redirect Results –

Redirect result is returning the result to specific URL. It is rendered to the page by URL. If it gives wrong URL, it will show 404 page errors.

```
Oreferences
public RedirectResult Index1()
{
    return Redirect("Home/Index");
}
```

Redirect to Action Results –

Redirect to Action result is returning the result to a specified controller and action method. Controller name is optional in Redirect to Action method. If not mentioned, Controller name redirects to a mentioned action method in current Controller. Suppose action name is not available but mentioned in the current controller, then it will show 404 page error.

public ActionResult Index2() { return RedirectToAction("Login", "Account"); }

JSON Results –

Json result is a significant Action Result in MVC. It will return simple text file format and key value pairs. If we call action method, using Ajax, it should return Json result.

```
public ActionSesuit Index()

| return Jace(employeeList, JoseSequentSchauler.AllamSet);
|
```

```
← → C  localhost:44337/employee/index
Apps  JPG to PDF - Conve...
[{"EmpId":1001, "Name": "Sam Handel", "Age":24}, {"EmpId":1002, "Name": "Ace Hardwood", "Age":29}, {"EmpId":1003, "Name": "Jasper Queen", "Age":26}, {"EmpId":1004, "Name": "Alessio Ivanshov", "Age":30}]
```

Content Results –

Content result returns different content's format to view. MVC returns different format using content return like HTML format, Java Script format and any other format.



File Results –

File Result returns different file format view page when we implement file download concept in MVC using file result.

```
// GET: Employee
Oreferences
public ActionResult Index()
{
   return File("Web.config", "text");
}
```

```
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```

localhost:44337 says

This is Alert

THANK YOU