1. **MVC:**

MVC stands for Model, View and Controller. MVC separates application into three components - Model, View and Controller.

* Model: Model represents shape of the data and business logic. It maintains the data of the application. Model objects retrieve and store model state in a database.
* Model is a data and business logic.
* View: View is a user interface. View display data using model to the user and also enables them to modify the data.
* View is a User Interface.
* Controller: Controller handles the user request. Typically, user interact with View, which in-turn raises appropriate URL request, this request will be handled by a controller. The controller renders the appropriate view with the model data as a response.
  1. **ActionResult**

| Result Class | Description |
| --- | --- |
| ViewResult | Represents HTML and markup. |
| EmptyResult | Represents No response. |
| ContentResult | Represents string literal. |
| FileContentResult/FilePathResult/ FileStreamResult | Represents the content of a file |
| JavaScriptResult | Represent a JavaScript script. |
| JsonResult | Represent JSON that can be used in AJAX |
| RedirectResult | Represents a redirection to a new URL |
| RedirectToRouteResult | Represent another action of same or other controller |
| PartialViewResult | Returns HTML from Partial view |
| HttpUnauthorizedResult | Returns HTTP 403 status |

* 1. **Action verbs:**

| **Http method** | **Usage** |
| --- | --- |
| GET | To retrieve the information from the server. Parameters will be appended in the query string. |
| POST | To create a new resource. |
| PUT | To update an existing resource. |
| HEAD | Identical to GET except that server do not return message body. |
| OPTIONS | OPTIONS method represents a request for information about the communication options supported by web server. |
| DELETE | To delete an existing resource. |
| PATCH | To full or partial update the resource. |

* 1. **ViewData VS ViewBag VS TempData:**

|  |  |  |
| --- | --- | --- |
| ViewData | ViewBag | TempData |
| It is Key-Value Dictionary collection | It is a type object | It is Key-Value Dictionary collection |
| ViewData is a dictionary object and it is property of ControllerBase class | ViewBag is Dynamic property of ControllerBase class. | TempData is a dictionary object and it is property of controllerBase class. |
| ViewData is Faster than ViewBag | ViewBag is slower than ViewData | NA |
| ViewData is introduced in MVC 1.0 and available in MVC 1.0 and above | ViewBag is introduced in MVC 3.0 and available in MVC 3.0 and above | TempData is also introduced in MVC1.0 and available in MVC 1.0 and above. |
| ViewData also works with .net framework 3.5 and above | ViewBag only works with .net framework 4.0 and above | TempData also works with .net framework 3.5 and above |
| Type Conversion code is required while enumerating | In depth, ViewBag is used dynamic, so there is no need to type conversion while enumerating. | Type Conversion code is required while enumerating |
| Its value becomes null if redirection has occurred. | Same as ViewData | TempData is used to pass data between two consecutive requests. |
| It lies only during the current request. | Same as ViewData | TempData only works during the current and subsequent request |

In the case of the MVC internal DynamicViewDataDictionary class - it ultimately ends up binding to this:

public override bool TryGetMember(GetMemberBinder binder, out object result)

{

result = this.ViewData[binder.Name];

return true;

}

For var a = ViewBag.Foo

And

public override bool TrySetMember(SetMemberBinder binder, object value)

{

this.ViewData[binder.Name] = value;

return true;

}

For ViewBag.Foo = Bar;

In other words - the statements are effectively being rewritten to wrappers around the dictionary indexer.

Because of that, there's certainly no way it could be faster than doing it yourself.

**Tempdata** – peek and keep

* Peek – reads it and mark it for non deletion
* Keep – mark it for non deletion.
* Just read tempdata it will mark it for deletion.