



# Passing data from Controller to View in ASP.NET MVC

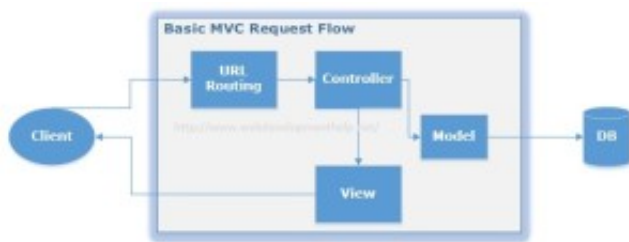


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**ASP.NET MVC** is a framework that facilitates building web applications based on MVC (Model-View-Controller) design pattern. Request coming from client reaches the *Controller* through URL Rewriting Module. *Controller* decides which model to use in order to fulfill the request. Further passing the *Model* data to *View* which then transforms the *Model* data and renders response to client as shown in following basic level request flow diagram.



In this ASP.NET MVC Tutorial, we will discuss and implement different options to pass data from ASP.NET MVC *Controller* to *View*. Following are the available options to pass data from a *Controller* to *View* in ASP.NET MVC:

- ViewBag
- ViewData
- TempData

If we want to maintain state between a *Controller* and corresponding *View*- **ViewData** and **ViewBag** are the available options but both of these options are limited to a single server call (meaning it's value will be null if a redirect occurs). But if we need to maintain state from one *Controller* to another (redirect case), then **TempData** is the other available option.

It's common that initially it might be a bit difficult for a ASP.NET WebForms developer to digest above flow and need for options to pass data from *Controller* to *View*. Because in WebForms approach, Controller and View are tightly coupled to each other. Please follow the link for a detailed comparison of the [differences between ASP.NET WebForms and ASP.NET MVC](#) here.

For the purpose of implementation, we will take earlier [ASP.NET MVC tutorial](#) on this blog as base and implement with different options. If you haven't gone through the article, please read "[Building your first ASP.NET MVC application in 4 simple steps](#)" first.

## ViewBag Example

As we discussed earlier that **ViewBag** and **ViewData** serves the same purpose but **ViewBag** is basically a dynamic property (a new C# 4.0 feature) having advantage that it doesn't have typecasting and null checks.

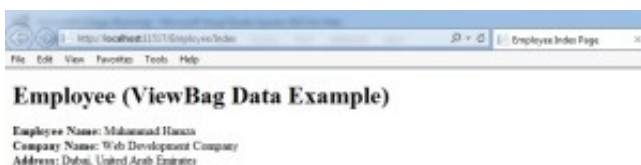
So, In order to pass data from Controller to View using **ViewBag**, we will modify our **EmployeeController** code as follows:

```
public class EmployeeController : Controller
{
    // GET: /Employee/
    public ActionResult Index()
    {
        ViewBag.EmployeeName = "Muhammad Hamza";
        ViewBag.Company = "Web Development Company";
        ViewBag.Address = "Dubai, United Arab Emirates";
        return View();
    }
}
```

And to get Employee details passed from Controller using **ViewBag**, View code will be as follows:

```
<body>
<div>
    <h1>Employee (ViewBag Data Example)</h1>
    <div>
        <b>Employee Name:</b> @ViewBag.EmployeeName<br />
        <b>Company Name:</b> @ViewBag.Company<br />
        <b>Address:</b> @ViewBag.Address<br />
    </div>
</div>
</body>
```

In order to see the above changes in action run the solution, we will find the following output.



## ViewData Example

As compared to **ViewBag**, **ViewData** is a dictionary object which requires typecasting as well as null checks. Same above implementation using **ViewData** can be achieved as follows:

```
public class EmployeeController : Controller
{
    // GET: /Employee/
    public ActionResult Index()
    {
        ViewData["EmployeeName"] = "Muhammad Hamza";
        ViewData["Company"] = "Web Development Company";
        ViewData["Address"] = "Dubai, United Arab Emirates";
        return View();
    }
}
```

And to get Employee details passed from Controller using **ViewBag**, View code will be as follows:

```
<body>
  <div>
    <h1>Employee (ViewBag Data Example)</h1>
    <div>
      <b>Employee Name:</b> @ViewData["EmployeeName"]<br />
      <b>Company Name:</b> @ViewData["Company"]<br />
      <b>Address:</b> @ViewData["Address"]<br />
    </div>
  </div>
</body>
```

Run the application to view the following output.



Hopefully, this ASP.NET MVC Tutorial will provide reader with a better understanding of passing data from *Controller* to *View* in ASP.NET MVC using ViewBag and ViewData. Please follow the link for detailed understanding about [Using TempData in ASP.NET MVC](#).

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Imran Abdul Ghani has more than 10 years of experience in designing/developing enterprise level applications. He is Microsoft Certified Solution Developer for .NET(MCSD.NET) since 2005. You can reach his blogging at [WCF Tutorials](#), [Web Development](#), [SharePoint for Dummies](#).

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