HABIB UL REHMAN

01

API VERSIONING

IN ASP.NET CORE



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Types of API Versioning

There are four types of versioning in APIs which are as follows.

- 1. URL Versioning
- 2. Query Parameter Versioning
- 3. Header Versioning
- 4. Media Type Versioning

Why Versioning?

Maintain backward compatibility if you have following changes.

- Changing the type of DTO property
- Removing a DTO property or endpoint
- Renaming a DTO property or endpoint
- Adding a required field on the request

Required Packages

For versioning requirements to NuGet package are required. **Asp.Versioning.Mvc** and **Asp.Versioning.Mvc.ApiExplorer**



1 PM> Install-Package Asp.Versioning.Mvc

2

3 PM> Install-Package Asp.Versioning.Mvc.ApiExplorer

Configuration

Let's setup the basic configuration for versioning.

```
• • •
 1 var apiVersioningBuilder = builder.Services.AddApiVersioning(o ⇒
 2 {
       o.AssumeDefaultVersionWhenUnspecified = true;
       o.DefaultApiVersion = new ApiVersion(1, 0);
       o.ReportApiVersions = true;
       o.ApiVersionReader = ApiVersionReader.Combine(
 6
           new QueryStringApiVersionReader("api-version"),
           new HeaderApiVersionReader("X-Version"),
           new MediaTypeApiVersionReader("ver"));
10 });
11
12 apiVersioningBuilder.AddApiExplorer(
       options ⇒
13
14
           options.GroupNameFormat = "'v'VVV";
15
           options.SubstituteApiVersionInUrl = true;
16
       });
17
```

Query String Parameter Versioning

The default versioning scheme is Query String Parameter Versioning. Query string parameters is **apiversion** which is used to send versioning information.

```
1 [ApiController]
2 [Route("api/[controller]")]
3 [ApiVersion("1.0")]
4 public class StringListController : ControllerBase
5 {
6    [HttpGet()]
7    public IEnumerable<string> Get()
8    {
9        return Data.Summaries.Where(x ⇒ x.StartsWith("B"));
10    }
11 }
```

Header API Versioning

In this type of versioning, the versioning information is provided inside request header. **X-Version**

```
1 [ApiController]
2 [Route("api/[controller]")]
3 [ApiVersion("2.0")]
4 public class StringListController : Controller
5 {
6    [HttpGet()]
7    public IEnumerable<string> Get()
8    {
9       return Data.Summaries.Where(x ⇒ x.StartsWith("S"));
10   }
11 }
```

URI Versioning

In this type of versioning, the versioning information is provided inside URI.

```
1 [ApiController]
2 [Route("api/v{version:apiVersion}/StringList")]
3 [ApiVersion("3.0")]
4 public class StringListController : Controller
5 {
6    [HttpGet()]
7    public IEnumerable<string> Get()
8    {
9       return Data.Summaries.Where(x ⇒ x.StartsWith("C"));
10    }
11 }
```

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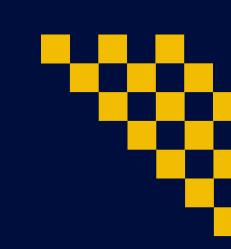


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