

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 {
3     o.AssumeDefaultVersionWhenUnspecified = true;
4     o.DefaultApiVersion = new ApiVersion(1, 0);
5     o.ReportApiVersions = true;
6     o.ApiVersionReader = ApiVersionReader.Combine(
7         new QueryStringApiVersionReader("api-version"),
8         new HeaderApiVersionReader("X-Version"),
9         new MediaTypeApiVersionReader("ver"));
10 });
11
12 apiVersioningBuilder.AddApiExplorer(
13     options =>
14     {
15         options.GroupNameFormat = "'v'VVV";
16         options.SubstituteApiVersionInUrl = true;
17     });
```

Query String Parameter Versioning

The default versioning scheme is Query String Parameter Versioning. Query string parameters is **api-version** 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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