

Passing Parameters



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Touch Points



- Michelangelo Buonarroti via Wikimedia Commons

<https://www.flickr.com/photos/34409164@N06/4277702120>



Retrieving Data

Filtering, Shaping, Querying Data

Saving Data

Error Handling

User Authentication

User Authorization

Passing Parameters

Query Strings

```
http://www.amazon.com/gp/product?pf_rd_m=ATV&  
    pf_rd_s=desktop-1&pf_rd_r=0R&pf_rd_t=36701&pf_rd_p=19705  
http://localhost:52293/api/products?search=GDN
```

URL Path

```
http://stackoverflow.com/questions/26372408/angular-time-  
validation-not-working  
http://localhost:52293/api/products/GDN
```

Module Objectives

Defining
Query Strings

Extending the
URL Path

Query Strings
or
URL Path

A query string is the part of a URL containing data that does not fit conveniently into a hierarchical path structure.

— Wikipedia

api/products/5/transactions?search=returns

`http://www.amazon.com/gp/product?pf_rd_m=ATV&
pf_rd_s=desktop-1&pf_rd_r=0R&pf_rd_t=36701&pf_rd_p=19705`

`http://localhost:52293/api/products?search=GDN`

Query Strings

<http://localhost:52293/api/products?search=GDN>

Angular Application

HTML

Angular/
JavaScript

Web API Service

```
public class ProductsController : ApiController
{
    public IEnumerable<Product> Get()
    {
        ...
    }

    public IEnumerable<Product> Get(string search)
    {
        ...
    }
}
```

```
function productResource($resource, appSettings) {  
    return $resource(appSettings.serverPath + "/api/products")  
}  
  
productResource.query(function (data) {  
    vm.products = data;  
}))
```

Angular Client


```
function productResource($resource, appSettings) {  
    return $resource(appSettings.serverPath + "/api/products")  
}  
  
productResource.query({search: 'GDN'}, function (data) {  
    vm.products = data;  
}))
```

Angular Client

Add parameters as first argument of the \$resource method

<http://localhost:52293/api/products?search=GDN>

```
public IEnumerable<Product> Get(string search)
{
    var productRepository = new ProductRepository();
    var products = productRepository.Retrieve();
    return products.Where(p => p.ProductCode.Contains(search));
}
```

Web API Service

Define an overload with a parameter name that exactly matches the query string parameter

`http://stackoverflow.com/questions/26372408/angular-time-validation-not-working`

`http://localhost:52293/api/products/GDN`

URL Path

<http://localhost:52293/api/products/GDN>

Angular Application

HTML

Angular/
JavaScript

Web API Service

```
config.Routes.MapHttpRoute(  
    name: "DefaultApi",  
    routeTemplate: "api/{controller}/{id}",  
    defaults: new  
    {  
        id = RouteParameter.Optional  
    }  
);
```

<http://localhost:52293/api/products/GDN>

Angular Application

HTML

Angular/
JavaScript

Web API Service

```
config.Routes.MapHttpRoute(  
    name: "DefaultApi",  
    routeTemplate: "api/{controller}/{search}",  
    defaults: new  
    {  
        search = RouteParameter.Optional  
    }  
);
```

```
function productResource($resource, appSettings) {  
    return $resource(appSettings.serverPath +  
                      "/api/products/:search ")  
}  
productResource.query({search: 'GDN'}, function (data) {  
    vm.products = data;  
}))
```

Angular Client

Add the parameter to the \$resource path

Add parameters as first argument of the \$resource method

`http://localhost:52293/api/products/GDN`

```
config.Routes.MapHttpRoute(  
    name: "DefaultApi",  
    routeTemplate: "api/{controller}/{search}",  
    defaults: new  
    { search = RouteParameter.Optional }  
);
```

Web API Service

Modify the route template parameters

http://localhost:52293/api/products/GDN

"api/{controller}/{search}"

```
public IEnumerable<Product> Get(string search)
{
    var productRepository = new ProductRepository();
    var products = productRepository.Retrieve();
    return products.Where(p => p.ProductCode.Contains(search));
}
```

Web API Service

Modify the route template parameters

Define an overload with parameters that match the route

Query Strings or URL Path?

Angular Code

Query Strings

```
productResource.query({search: vm.searchCriteria},  
  function (data) {  
    vm.products = data;  
  })  
  
function productResource($resource, appSettings) {  
  return $resource(appSettings.serverPath +  
    "/api/products")  
}
```

<http://localhost:52293/api/products?search=GDN>

URL Path

```
productResource.query({search: vm.searchCriteria},  
  function (data) {  
    vm.products = data;  
  })  
  
function productResource($resource, appSettings) {  
  return $resource(appSettings.serverPath +  
    "/api/products/:search")  
}
```

<http://localhost:52293/api/products/GDN>

Web API Code

Query Strings

http://localhost:52293/api/products?search=GDN

```
public IEnumerable<Product> Get(string search) {  
    var productRepository = new ProductRepository();  
    var products = productRepository.Retrieve();  
    return products.Where(p =>  
        p.ProductCode.Contains(search));  
}
```

routeTemplate: "api/{controller}/{id}"

URL Path

http://localhost:52293/api/products/GDN

```
public IEnumerable<Product> Get(string search) {  
    var productRepository = new ProductRepository();  
    var products = productRepository.Retrieve();  
    return products.Where(p =>  
        p.ProductCode.Contains(search));  
}
```

routeTemplate: "api/{controller}/{search}"

Query Strings or URL Path

Query Strings

- Filters
- `api/products?search=GDN`

URL Path

- Locators
- `api/products/5`
- `api/products/5/sizes`

`api/products/5/transactions?search=returns`

This Module Covered



Defining Query Strings

Extending the URL Path

Query Strings or URL Path?

Touch Points



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