**简介**

OData在[odata.org](http://www.odata.org/" \t "http://www.cnblogs.com/kid1412/p/_blank)上的定义是：“一个开放的协议,允许创建和使用可查询、可互操作的RESTful api的简单的标准方式”。你可以在ABP里使用OData，Abp.Web.Api.OData的nuget包简化了它的使用方式。

**安装**

**安装Nuget包**

在我们的WebApi项目里，先安装Abp.Web.api.Odata的nuget包：

Install-Package Abp.Web.Api.OData

**设置模块依赖**

在我们的模块上设置对AbpWebApiOdataModule的依赖，例如：

**[DependsOn(typeof(AbpWebApiODataModule))]**public class MyProjectWebApiModule : AbpModule

{

...

}

**配置你的实体**

OData需要声明哪个实体作为它的资源，我们应当在我们模块的[PreInitialize](http://www.cnblogs.com/kid1412/p/5973274.html" \l "PreInitialize" \t "http://www.cnblogs.com/kid1412/p/_blank)方法里指定，如下所示：

[DependsOn(typeof(AbpWebApiODataModule))]public class MyProjectWebApiModule : AbpModule

{

public override void PreInitialize()

{

var builder = Configuration.Modules.AbpWebApiOData().ODataModelBuilder;

//Configure your entities here...

**builder.EntitySet<Person>("Persons");**

}

...

}

此处，我们ODataModelBuilder的引用，并给它设置了Person实体，类似地，你可以使用EntitySet来添加其它实体，查看[OData文档](http://www.asp.net/web-api/overview/odata-support-in-aspnet-web-api/odata-v4/create-an-odata-v4-endpoint" \t "http://www.cnblogs.com/kid1412/p/_blank)获取更多信息。

**创建控制器**

Abp.Web.Api.OData的nuget包包括了AbpODataEntityController基类（它扩展了标准的ODataController），用它可更容易地创建你自己的控制器，如下是一个为Person实体创建一个OData端点的例子：

public class PersonsController : **AbpODataEntityController<Person>**

{

public PersonsController(**IRepository<Person> repository**)

: base(repository)

{

}

}

这很简单，AbpODataEntityController的所有方法都是virtual，也就是说你可以重写Get、Post、Put、Patch、Delete和其它Action来添加自己的逻辑。

**获取实体列表**

获取所有person。

**请求**

GET http://localhost:61842/odata/Persons

**响应**

{

"@odata.context":"http://localhost:61842/odata/$metadata#Persons","value":[

{

"Name":"Douglas Adams","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":1

},{

"Name":"John Nash","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":2

}

]

}

**获取单个实体**

获取Id=2的person。

**请求**

GET http://localhost:61842/odata/Persons(2)

**响应**

{

"@odata.context":"http://localhost:61842/odata/$metadata#Persons/$entity","Name":"John Nash","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":2

}

**获取单个实体及导航属性**

获取Id=1的person包含它的电话号码。

**请求**

GET http://localhost:61842/odata/Persons(1)?$expand=Phones

**响应**

{

"@odata.context":"http://localhost:61842/odata/$metadata#Persons/$entity","Name":"Douglas Adams","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":1,"Phones":[

{

"PersonId":1,"Type":"Mobile","Number":"4242424242","CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":1

},{

"PersonId":1,"Type":"Mobile","Number":"2424242424","CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":2

}

]

}

**查询**

这里列举一个稍微复杂点的查询，包含过滤，排序和获取最前面2条结果。

**请求**

GET http://localhost:61842/odata/Persons?$filter=Name eq 'Douglas Adams'&$orderby=CreationTime&$top=2

**响应**

{

"@odata.context":"http://localhost:61842/odata/$metadata#Persons","value":[

{

"Name":"Douglas Adams","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2015-11-07T20:12:39.363+03:00","CreatorUserId":null,"Id":1

},{

"Name":"Douglas Adams","IsDeleted":false,"DeleterUserId":null,"DeletionTime":null,"LastModificationTime":null,"LastModifierUserId":null,"CreationTime":"2016-01-12T20:29:03+02:00","CreatorUserId":null,"Id":3

}

]

}

**创建一个新实体**

接下来的例子，我们创建一个新person。

**请求**

**POST** http://localhost:61842/odata/Persons

{

Name: "Galileo Galilei"

}

此处，“Content-Type"头是”application/json“。

**响应**

{

"@odata.context": "http://localhost:61842/odata/$metadata#Persons/$entity",

"Name": "Galileo Galilei",

"IsDeleted": false,

"DeleterUserId": null,

"DeletionTime": null,

"LastModificationTime": null,

"LastModifierUserId": null,

"CreationTime": "2016-01-12T20:36:04.1628263+02:00",

"CreatorUserId": null,

"Id": 4

}