SharePoint 2010 exposes list data via OData.  This post contains four super-small code snippets that show how to Create, Read, Update, and Delete items in a SharePoint list using the OData Rest API.

This post is one in a series on using the OData REST API to access SharePoint 2010 list data.

1. [Getting Started using the OData REST API to Query a SharePoint List](http://blogs.msdn.com/b/ericwhite/archive/2010/12/09/Getting-Started-using-the-OData-REST-API-to-Query-a-SharePoint-List.aspx)
2. [Using the OData Rest API for CRUD Operations on a SharePoint List](http://blogs.msdn.com/b/ericwhite/archive/2010/12/17/Using-the-OData-Rest-API-for-CRUD-Operations-on-a-SharePoint-List.aspx)

These snippets work as written with the [2010 Information Worker Demonstration and Evaluation Virtual Machine](http://www.microsoft.com/downloads/en/details.aspx?FamilyID=751fa0d1-356c-4002-9c60-d539896c66ce&displaylang=en).  That VM is a great way to try out SharePoint 2010 development.  Also see [How to Install and Activate the IW Demo/Evaluation Hyper-V Machine](http://blogs.msdn.com/b/ericwhite/archive/2010/12/13/how-to-install-and-activate-the-iw-demo-evaluation-hyper-v-machine.aspx).

See the first post in this series, [Getting Started using the OData REST API to Query a SharePoint List](http://blogs.msdn.com/b/ericwhite/archive/2010/12/09/getting-started-using-the-odata-rest-api-to-query-a-sharepoint-list.aspx), for detailed instructions on how to build an application that uses OData to query a list.  These snippets use the list that I describe how to build in that post.

**Query a List**

using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Net;  
using Gears.Data;  
   
class Program  
{  
    static void Main(string[] args)  
    {  
        // query  
        TeamSiteDataContext dc =  
            new TeamSiteDataContext(new Uri("http://intranet/\_vti\_bin/listdata.svc"));  
        dc.Credentials = CredentialCache.DefaultNetworkCredentials;  
        var result = from d in dc.Inventory  
                     select new  
                     {  
                         Title = d.Title,  
                         Description = d.Description,  
                         Cost = d.Cost,  
                     };  
        foreach (var d in result)  
            Console.WriteLine(d);  
    }  
}

**Create an Item**

using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Net;  
using Gears.Data;  
   
class Program  
{  
    static void Main(string[] args)  
    {  
        // create item  
        TeamSiteDataContext dc =  
            new TeamSiteDataContext(new Uri("http://intranet/\_vti\_bin/listdata.svc"));  
        dc.Credentials = CredentialCache.DefaultNetworkCredentials;  
        InventoryItem newItem = new InventoryItem();  
        newItem.Title = "Boat";  
        newItem.Description = "Little Yellow Boat";  
        newItem.Cost = 300;  
        dc.AddToInventory(newItem);  
        dc.SaveChanges();  
    }  
}

**Update an Item**

using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Net;  
using Gears.Data;  
   
class Program  
{  
    static void Main(string[] args)  
    {  
        // update item  
        TeamSiteDataContext dc =  
            new TeamSiteDataContext(new Uri("http://intranet/\_vti\_bin/listdata.svc"));  
        dc.Credentials = CredentialCache.DefaultNetworkCredentials;  
        InventoryItem item = dc.Inventory  
            .Where(i => i.Title == "Car")  
            .FirstOrDefault();  
        item.Title = "Car";  
        item.Description = "Super Fast Car";  
        item.Cost = 500;  
        dc.UpdateObject(item);  
        dc.SaveChanges();  
    }  
}

**Delete an Item**

using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Net;  
using Gears.Data;  
   
class Program  
{  
    static void Main(string[] args)  
    {  
        // delete item  
        TeamSiteDataContext dc =  
            new TeamSiteDataContext(new Uri("http://intranet/\_vti\_bin/listdata.svc"));  
        dc.Credentials = CredentialCache.DefaultNetworkCredentials;  
        InventoryItem item = dc.Inventory  
            .Where(i => i.Title == "Car")  
            .FirstOrDefault();  
        dc.DeleteObject(item);  
        dc.SaveChanges();  
    }  
}