(T14)討論ActionSelectors的HttpGet、HttpPost  
CourseGUID: 8503b39c-5887-4634-8291-facfb3117924  
=======================================================================  
(T14)討論ActionSelectors的HttpGet、HttpPost  
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0. Summary

In this tutorial, we will discuss

\* Action selectors

    \* [AcceptVerbs(HttpVerbs.Get)]

    \* [HttpGet]

    \* [AcceptVerbs(HttpVerbs.Post)]

    \* [HttpPost]

    \* [NonAction]

\* 第11章: Action Selectors之簡單寫法HttpGet。HttpPost。

    \* [AcceptVerbs(HttpVerbs.Get)]和[HttpGet]的關係

    \* [AcceptVerbs(HttpVerbs.Post)]和[HttpPost]的關係。

    \* [NonAction]有啥用?

1. OnlineGame DB

1.1. TSQL

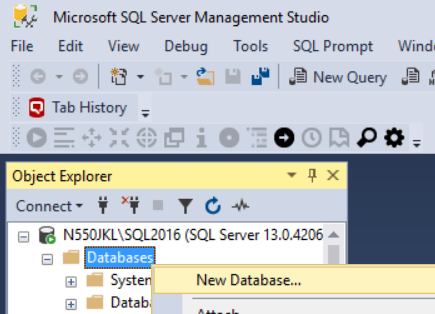
In SQL server Management Studio (SSMS)

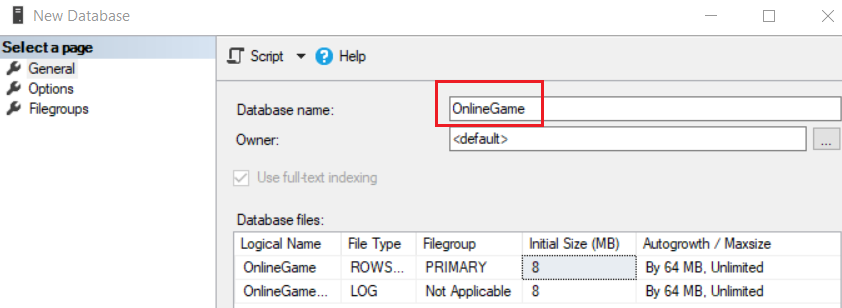
Database --> Right Click --> New Database -->

In General Tab -->

Name: **OnlineGame**

In options Tab --> Recovery model : **Simple**





Graphical user interface, text, application

Description automatically generated

--1. Drop if it exists

--Drop Table if it exists.

IF ( EXISTS ( SELECT    \*

              FROM      INFORMATION\_SCHEMA.TABLES

              WHERE     TABLE\_NAME = 'Gamer' ) )

    BEGIN

        TRUNCATE TABLE Gamer;

        DROP TABLE Gamer;

    END;

GO -- Run the previous command and begins new batch

--2. Create Table

CREATE TABLE Gamer

(

   Id INT PRIMARY KEY

             IDENTITY(1, 1)

             NOT NULL ,

   [Name] NVARCHAR(100) NOT NULL ,

   Gender NVARCHAR(10) NOT NULL,

   EmailAddress nvarchar(100) NOT NULL,

)

--3. Insert Data

INSERT  Gamer

VALUES  ( N'Name01 ABB', N'Male', '[1@AAA.com](mailto:1@AAA.com)');

INSERT  Gamer

VALUES  ( N'Name02 CDDE', N'Female', '[2@BBB.com](mailto:2@BBB.com)');

INSERT  Gamer

VALUES  ( N'Name03 FIJK', N'Female', '[3@CCCC.com](mailto:3@CCCC.com)');

INSERT  Gamer

VALUES  ( N'Name04 LMOPPQ', N'Male', '[4@DD.com](mailto:4@DD.com)');

INSERT  Gamer

VALUES  ( N'Name05 QRSTT', N'Male', '[5@EEE.com](mailto:5@EEE.com)');

INSERT  Gamer

VALUES  ( N'Name06 TUVVX', N'Female', '[6@FF.com](mailto:6@FF.com)');

INSERT  Gamer

VALUES  ( N'Name07 XYZZXX', N'Female', '[7@GGGG.com](mailto:7@GGGG.com)');

INSERT  Gamer

VALUES  ( N'Name08 ABBCDE', N'Male', '[8@HH.com](mailto:8@HH.com)');

INSERT  Gamer

VALUES  ( N'Name09 QRSTTUVXX', N'Male', '[9@IIII.com](mailto:9@IIII.com)');

INSERT  Gamer

VALUES  ( N'Name10 GGAAEE', N'Male', '[10@XXWFFS.com](mailto:10@XXWFFS.com)');

INSERT  Gamer

VALUES  ( N'Name11 HFSASER', N'Male', '[11@AAA.com](mailto:11@AAA.com)');

INSERT  Gamer

VALUES  ( N'Name12 ESVSADC', N'Female', '[12@BBB.com](mailto:12@BBB.com)');

INSERT  Gamer

VALUES  ( N'Name13 REDSVF', N'Female', '[13@CCCC.com](mailto:13@CCCC.com)');

INSERT  Gamer

VALUES  ( N'Name14 BBGVDD', N'Male', '[14@DD.com](mailto:14@DD.com)');

INSERT  Gamer

VALUES  ( N'Name15 WWVFSSQ', N'Male', '[15@EEE.com](mailto:15@EEE.com)');

INSERT  Gamer

VALUES  ( N'Name16 TTVSS', N'Female', '[16@FF.com](mailto:16@FF.com)');

INSERT  Gamer

VALUES  ( N'Name17 AAQERR', N'Female', '[17@GGGG.com](mailto:17@GGGG.com)');

INSERT  Gamer

VALUES  ( N'Name18 BBFSAQ', N'Male', '[18@HH.com](mailto:18@HH.com)');

INSERT  Gamer

VALUES  ( N'Name19 QRSTTUVXX', N'Male', '[19@IIII.com](mailto:19@IIII.com)');

INSERT  Gamer

VALUES  ( N'Name20 HHFWSWQ', N'Male', '[20@XXWFFS.com](mailto:20@XXWFFS.com)');

GO -- Run the previous command and begins new batch

1.2. Security login

In SQL server

Object Explorer --> Security --> Logins --> New Logins

-->

General Tab

Login Name :

**Tester**

Password:

**1234**

Default Database:

**OnlineGame**

-->

Server Roles Tab

Select

**sysadmin**

-->

User Mapping Tab

Select **OnlineGame**

Select every single role.









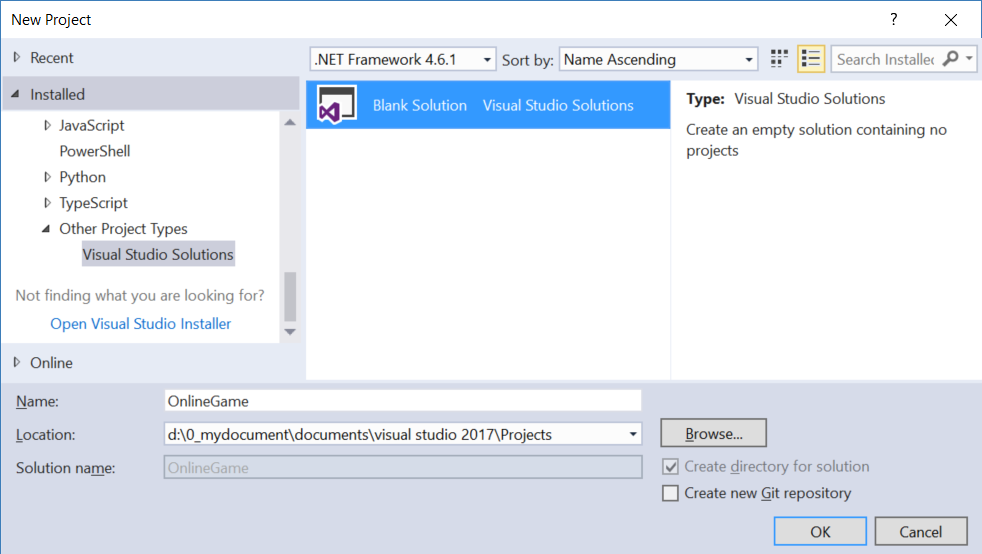
2. New Project - OnlineGame

File --> New --> Project... -->

Other Project Types --> Visual Studio Solutions -->  Blank Solution

-->

Name: **OnlineGame**



2.1. New Project - OnlineGame.Web

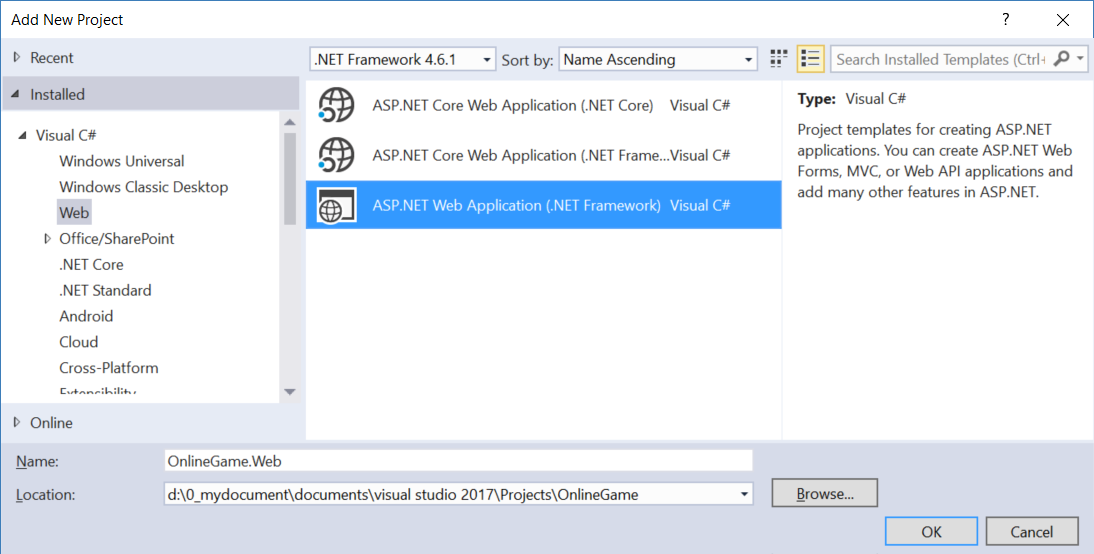
Solutions Name --> Add --> New Project -->

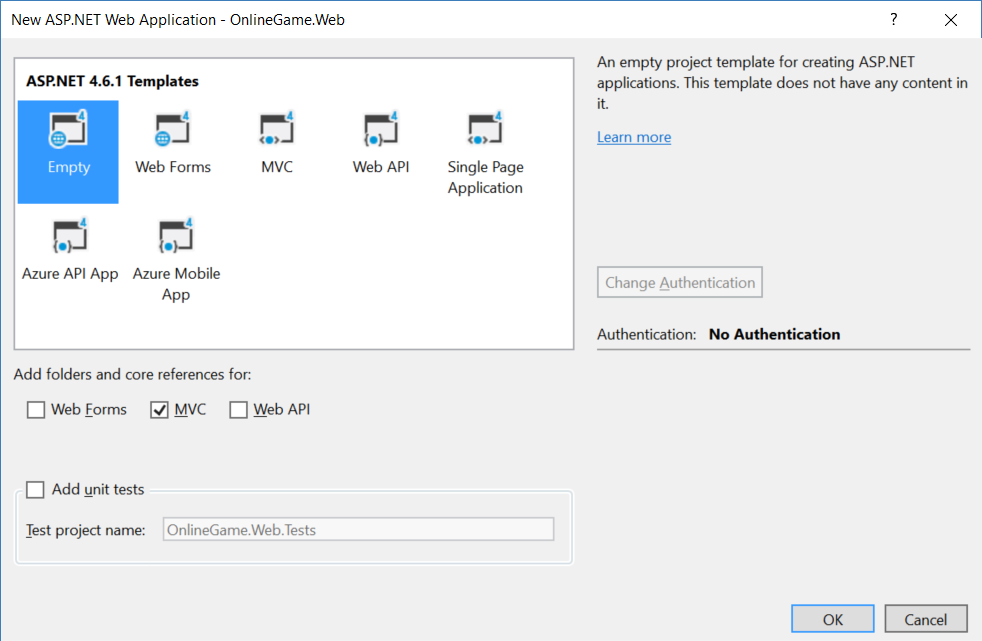
Visual C# --> Web --> [ASP.NET](http://asp.net/)Web Application (.Net Framework)

-->

Name: **OnlineGame.Web**

Empty --> Select "MVC" --> OK





2.1.1. Global.asax.cs

using System.Web.Mvc;

using System.Web.Routing;

namespace OnlineGame.Web

{

    public class MvcApplication : System.Web.HttpApplication

    {

        //Application\_Start() is the magic start point of this application

        protected void Application\_Start()

        {

            AreaRegistration.RegisterAllAreas();

            //1.

            //Register Route Configure in RouteConfig.cs

            //If you want to see route configuration,

            //you may find it in RouteConfig.cs

            //2.

            //System.Web.Routing.RouteCollection Routes { get; }

            //Gets a collection of objects that derive from the System.Web.Routing.RouteBase class.

            RouteConfig.RegisterRoutes(RouteTable.Routes);

        }

    }

}

2.1.2. App\_Start/RouteConfig.cs

using System.Web.Mvc;

using System.Web.Routing;

namespace OnlineGame.Web

{

    public class RouteConfig

    {

        public static void RegisterRoutes(RouteCollection routes)

        {

            //Handle the Route of the axd request file.

            //E.g. [ASP.Net](http://asp.net/) Tracing

            routes.IgnoreRoute("{resource}.axd/{\*pathInfo}");

            //Handle the Route called "Default".

            //The mapping URL is "{controller}/{action}/{id}"

            //Set the default value of Controller, action, and id.

            routes.MapRoute(

                name: "Default",

                url: "{controller}/{action}/{id}",

                defaults: new { controller = "Home", action = "Index", id = UrlParameter.Optional }

            );

        }

    }

}

/\*

1.

//routes.MapRoute(

//    name: "Default",

//    url: "{controller}/{action}/{id}",

//    defaults: new { controller = "Home", action = "Index", id = UrlParameter.Optional }

//);

1.1.

When a request comes in,

it's trying to do a pattern match based on

all the templates it sees in these mapped routes.

A route is some instructions for

how to take a URI coming into a request

and map it to some code,

normally a controller.

In this case,

look at defaults parameter,

when user request <http://localhost:PortNumber/>

IIS Express will run

HomeController Index action.

It will map to Controllers/HomeController.cs

and   map to Index Method

1.2.

By convention in MVC.

All controllers will have Controller suffix.

This suffix is not required in the URL.

So, if you want to invoke Home controller,

you specify /Home and not /HomeController.

-----------------------------------

2.

//routes.IgnoreRoute("{resource}.axd/{\*pathInfo}");

2.1.

Reference:

<https://stackoverflow.com/questions/9016650/what-is-routes-ignorerouteresource-axd-pathinfo>

This line can handle the axd file request route,

E.g. trace.axd

.axd files don't exist physically.

[ASP.NET](http://asp.net/) uses URLs with .axd extensions

(ScriptResource.axd and WebResource.axd) internally,

and they are handled by an HttpHandler.

Therefore, you should keep this rule,

to prevent [ASP.NET](http://asp.net/) MVC from trying to handle the request

instead of letting the dedicated HttpHandler do it.

2.2.

trace.axd

Reference:

<https://msdn.microsoft.com/en-us/library/wwh16c6c.aspx>

trace.axd trace details for a specific request.

If you want to enable trace.axd,

then you have to go to Web.config

Add <trace enabled="true" pageOutput="false"/> under <system.web>

Then run the project, type the following URL

<http://localhost/OnlineGame.Web/trace.axd>

This will return [ASP.NET](http://asp.net/) trace, trace.axd.

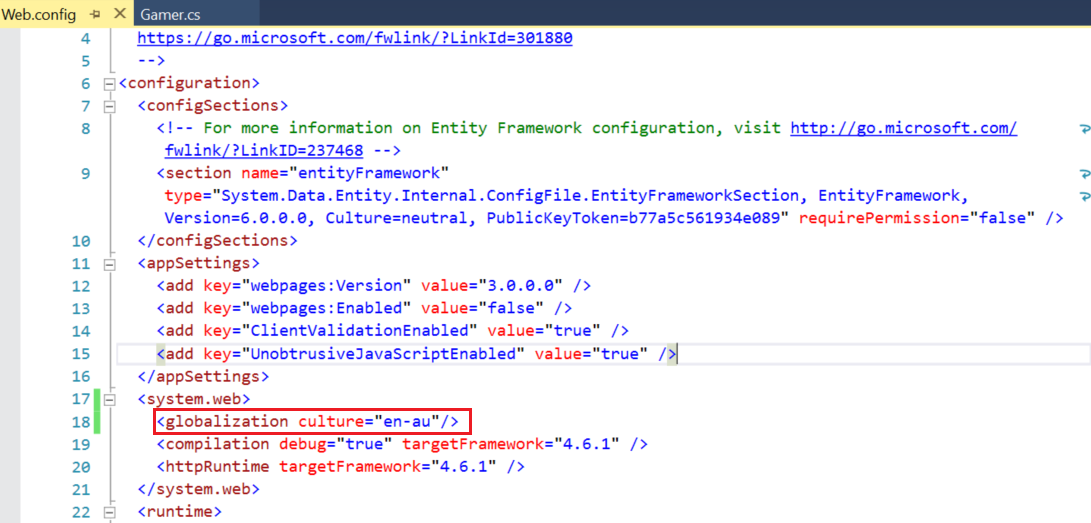
If you do not have

// routes.IgnoreRoute("{resource}.axd/{\*pathInfo}");

then you can not enable the trace.axd.

\*/

2.1.3. Web.config



  <system.web>

    <globalization culture="en-au"/>

3. OnlineGame.Web

3.1. ADO.Net Entity Data Model - Entity Framework

In Visual Studio 2017

**Models** folder --> Right Click --> Add --> New Item

--> Visual C# --> Data  -->  ADO.Net Entity Data Model

Name:

**OnlineGameDataModel**

-->

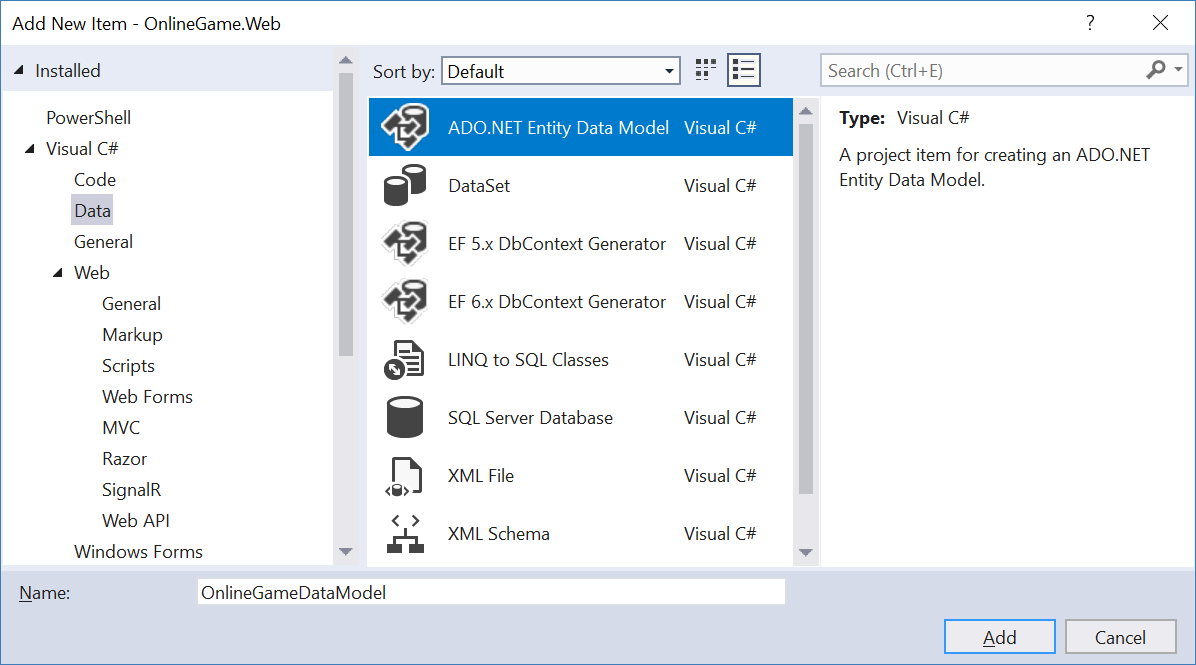
EF Designer from database

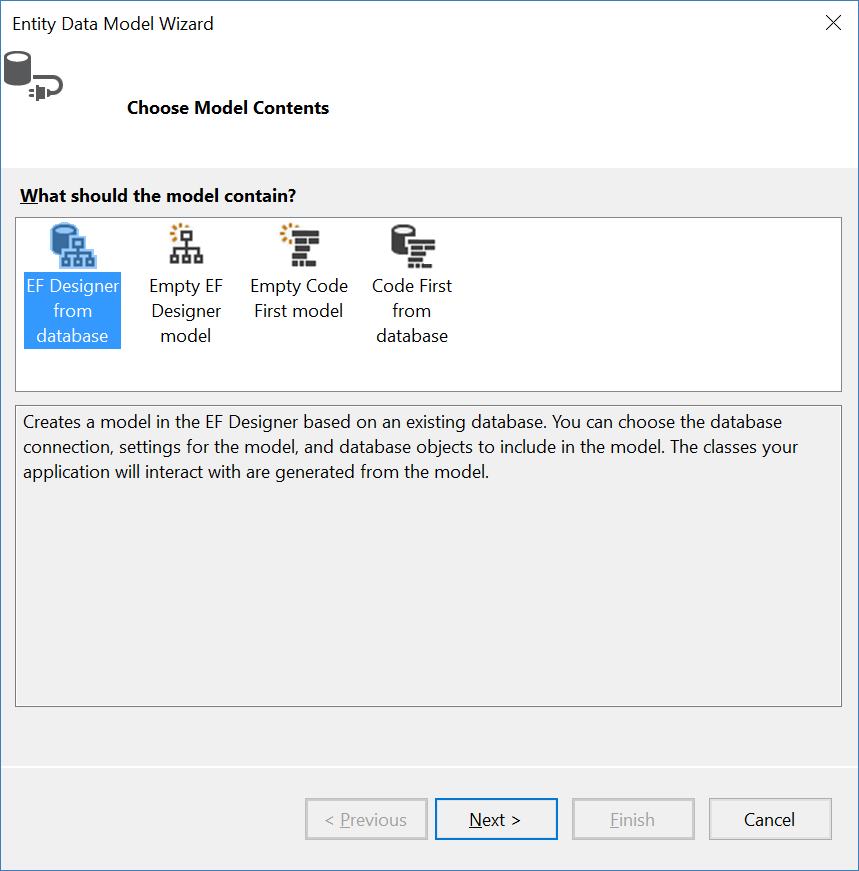
....

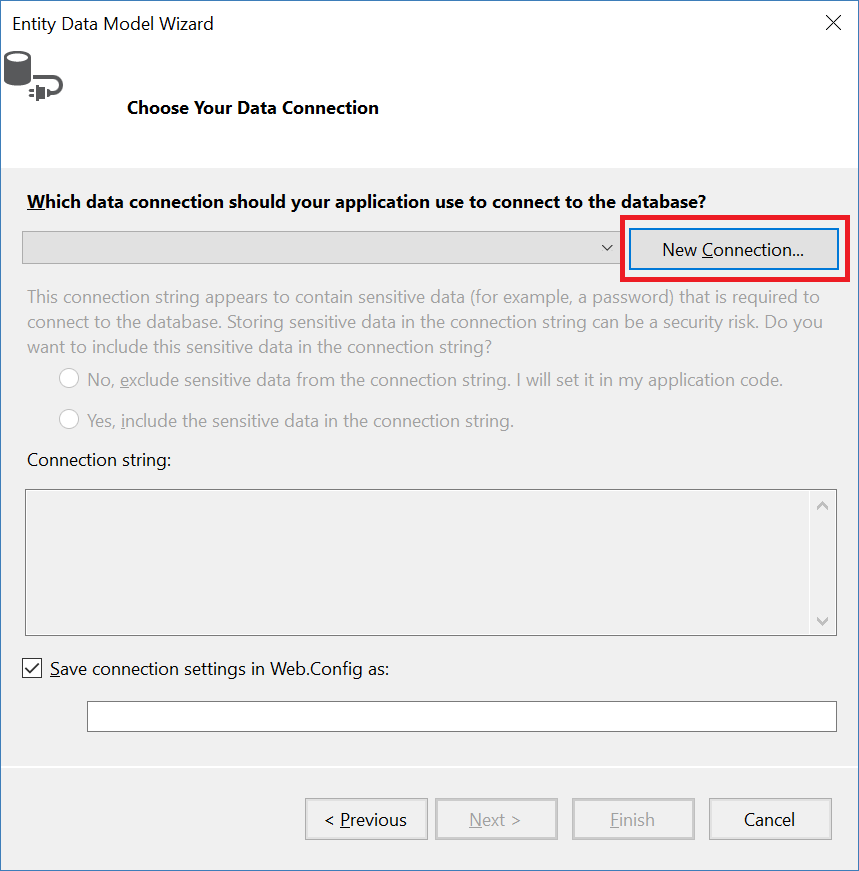
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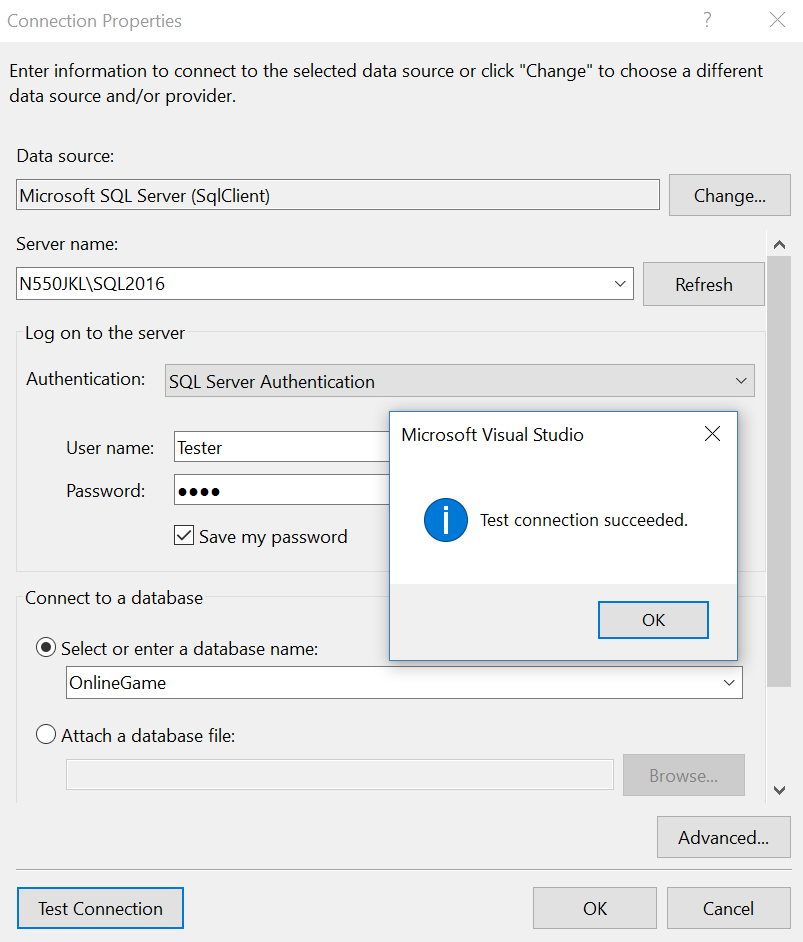
Save Connection settings in Web.Config as:

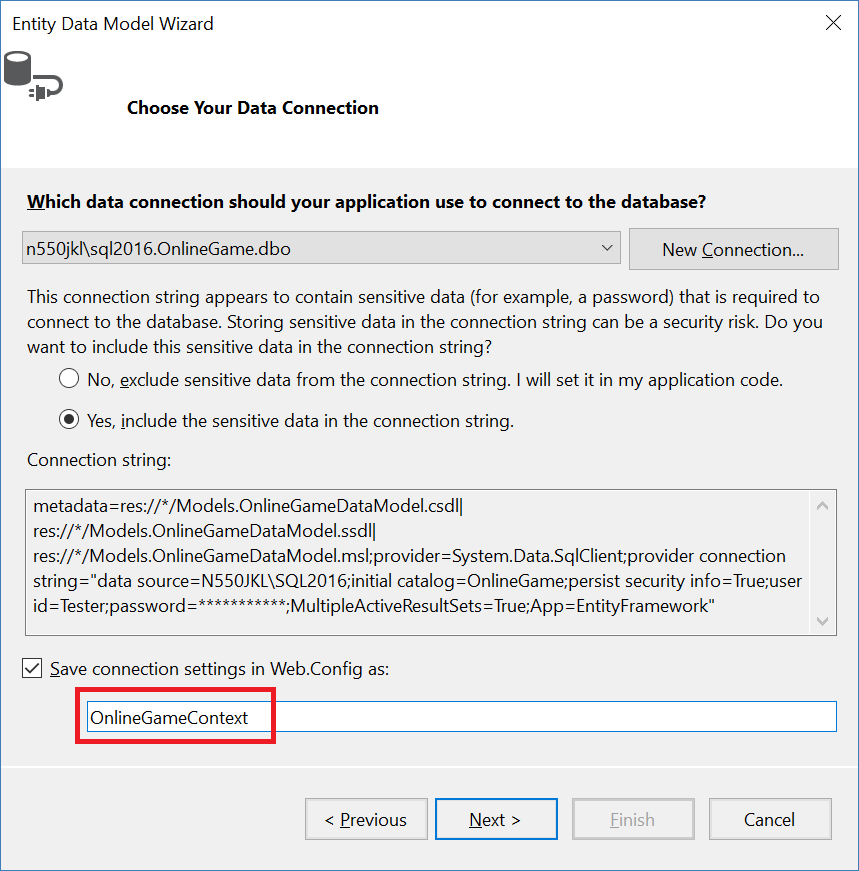
**OnlineGameContext**

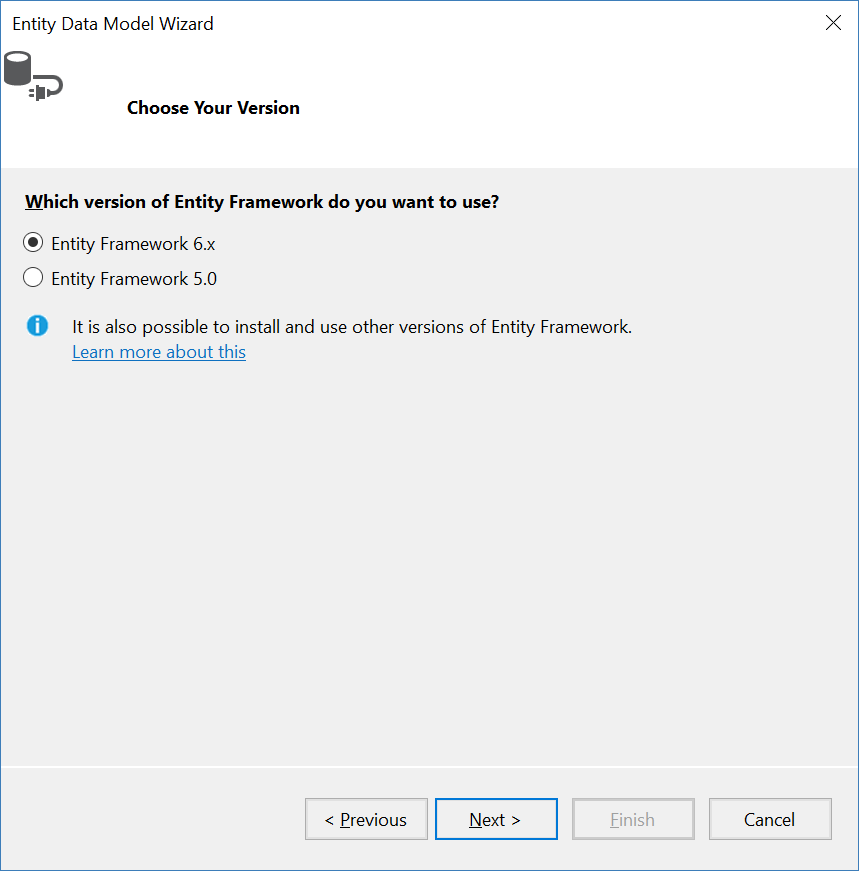


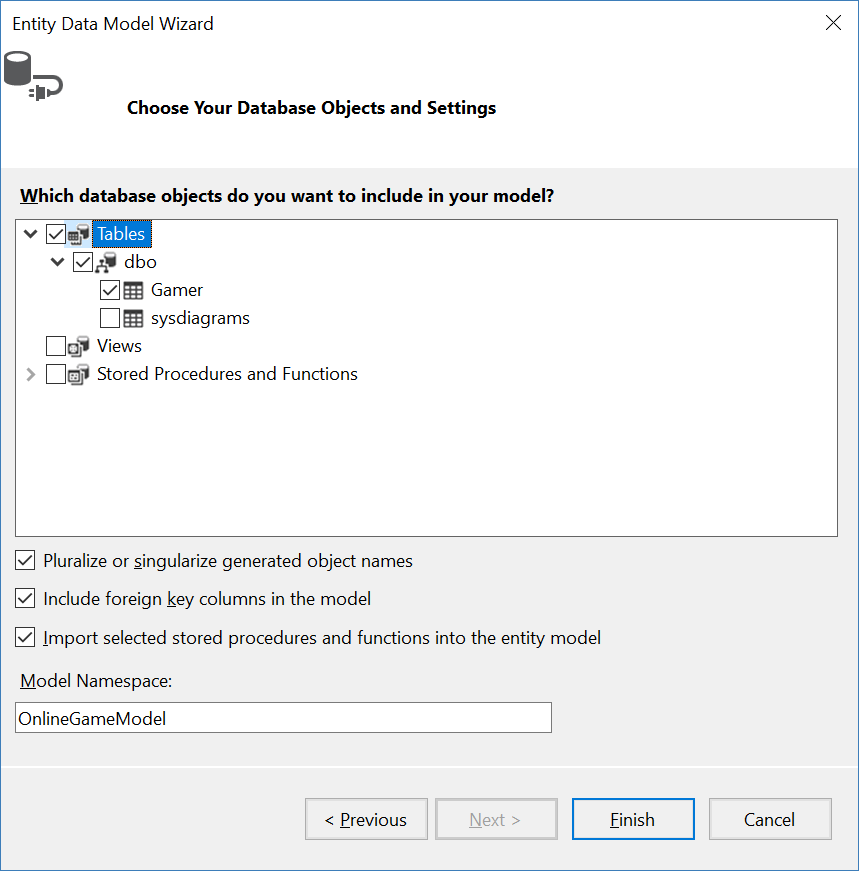


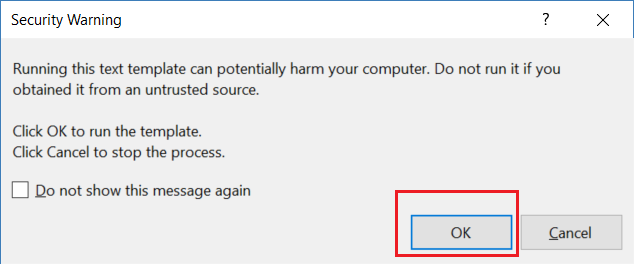












Graphical user interface, application

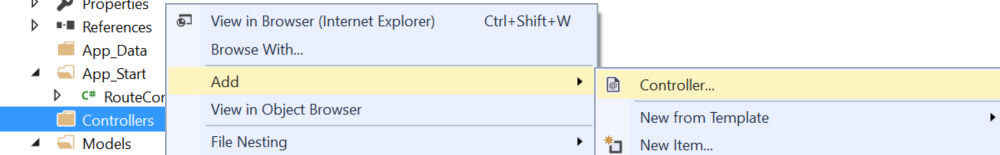
Description automatically generated

3.2. Controllers/GamersController.cs

Controllers --> Right click --> Add --> Controller

-->

**MVC 5 Controller with views, using Entity Framework**



Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

If you see the following error message, then you have to re-build solution before you create the controller.

Graphical user interface, text, application

Description automatically generated with medium confidence

It will automatically generate the controller, views, and several javascript and css files.

Table

Description automatically generated

4. OnlineGame.Web

4.1. Controllers/GamerController.cs

using System.Data.Entity;

using System.Threading.Tasks;

using System.Net;

using System.Web.Mvc;

using OnlineGame.Web.Models;

namespace OnlineGame.Web.Controllers

{

    public class GamerController : Controller

    {

        private OnlineGameContext db = new OnlineGameContext();

        // GET: Gamer

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public async Task<ActionResult> Index()

        {

            return View(await db.Gamers.ToListAsync());

        }

        // GET: Gamer/Details/5

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public async Task<ActionResult> Details(int? id)

        {

            if (id == null)

            {

                return new HttpStatusCodeResult(HttpStatusCode.BadRequest);

            }

            Gamer gamer = await db.Gamers.FindAsync(id);

            if (gamer == null)

            {

                return HttpNotFound();

            }

            return View(gamer);

        }

        // GET: Gamer/Create

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public ActionResult Create()

        {

            return View();

        }

        // POST: Gamer/Create

        // To protect from overposting attacks, please enable the specific properties you want to bind to, for

        // more details see <https://go.microsoft.com/fwlink/?LinkId=317598>.

        //[AcceptVerbs(HttpVerbs.Post)]

        [HttpPost]

        [ValidateAntiForgeryToken]

        public async Task<ActionResult> Create([Bind(Include = "Id,Name,Gender,EmailAddress")] Gamer gamer)

        {

            if (ModelState.IsValid)

            {

                db.Gamers.Add(gamer);

                await db.SaveChangesAsync();

                return RedirectToAction("Index");

            }

            return View(gamer);

        }

        // GET: Gamer/Edit/5

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public async Task<ActionResult> Edit(int? id)

        {

            if (id == null)

            {

                return new HttpStatusCodeResult(HttpStatusCode.BadRequest);

            }

            Gamer gamer = await db.Gamers.FindAsync(id);

            if (gamer == null)

            {

                return HttpNotFound();

            }

            return View(gamer);

        }

        // POST: Gamer/Edit/5

        // To protect from overposting attacks, please enable the specific properties you want to bind to, for

        // more details see <https://go.microsoft.com/fwlink/?LinkId=317598>.

        //[AcceptVerbs(HttpVerbs.Post)]

        [HttpPost]

        [ValidateAntiForgeryToken]

        public async Task<ActionResult> Edit([Bind(Include = "Id,Name,Gender,EmailAddress")] Gamer gamer)

        {

            if (ModelState.IsValid)

            {

                db.Entry(gamer).State = EntityState.Modified;

                await db.SaveChangesAsync();

                return RedirectToAction("Index");

            }

            return View(gamer);

        }

        // GET: Gamer/Delete/5

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public async Task<ActionResult> Delete(int? id)

        {

            if (id == null)

            {

                return new HttpStatusCodeResult(HttpStatusCode.BadRequest);

            }

            Gamer gamer = await db.Gamers.FindAsync(id);

            if (gamer == null)

            {

                return HttpNotFound();

            }

            return View(gamer);

        }

        // POST: Gamer/Delete/5

        //[AcceptVerbs(HttpVerbs.Post)]

        [HttpPost, ActionName("Delete")]

        [ValidateAntiForgeryToken]

        public async Task<ActionResult> DeleteConfirmed(int id)

        {

            Gamer gamer = await db.Gamers.FindAsync(id);

            db.Gamers.Remove(gamer);

            await db.SaveChangesAsync();

            return RedirectToAction("Index");

        }

        protected override void Dispose(bool disposing)

        {

            if (disposing)

            {

                db.Dispose();

            }

            base.Dispose(disposing);

        }

    }

}

4.2. Controllers/HomeController.cs

using System.Web.Mvc;

namespace OnlineGame.Web.Controllers

{

    public class HomeController : Controller

    {

        // GET: Home

        //home/index

        //[AcceptVerbs(HttpVerbs.Get)]

        [HttpGet]

        public ActionResult Index()

        {

            return View();

        }

        //home/list2

        [ActionName("List2")]

        public ActionResult Index2()

        {

            return View();

        }

        //home/List3

        [ActionName("List3")]

        public ActionResult Index3()

        {

            return View("Index3");

        }

        //home/Index4

        public string Index4()

        {

            return "<h1>Index4</h1>";

        }

        //home/Index5

        [NonAction] // It is a bad design to use [NonAction] attribute

        public string Index5()

        {

            return "<h1>Index5</h1>";

        }

        //home/Index6

        private string Index6()

        {

            return "<h1>Index6</h1>";

        }

    }

}

4.3. Views/Home/Index.cshtml

@{

    ViewBag.Title = "Index";

}

<h2>Home Index</h2>

4.4. Views/Home/List2.cshtml

Graphical user interface, text, application, email

Description automatically generated

@{

    ViewBag.Title = "List2";

}

<h2>Home List2</h2>

4.5. Views/Home/Index3.cshtml

Graphical user interface, text, application, email

Description automatically generated

@{

    ViewBag.Title = "Index3";

}

<h2>Home Index3</h2>