cus
Blazor - One of the newest techno
C# Corner
Location Dynamically ASK A QUESTION CONTRIBUTE
Farhan Ahmed Apr 27 2018 Article
10 11 16.1k

Download Free Office API

Introduction

This article will demonstrate how to create a Google map and add location dynamically by inserting latitude and longitude of a location. I will save the name of the location, latitude, longitude and some description about location in SQL server database table. I will call saved data through JavaScript and display it in the Google map.

Step 1

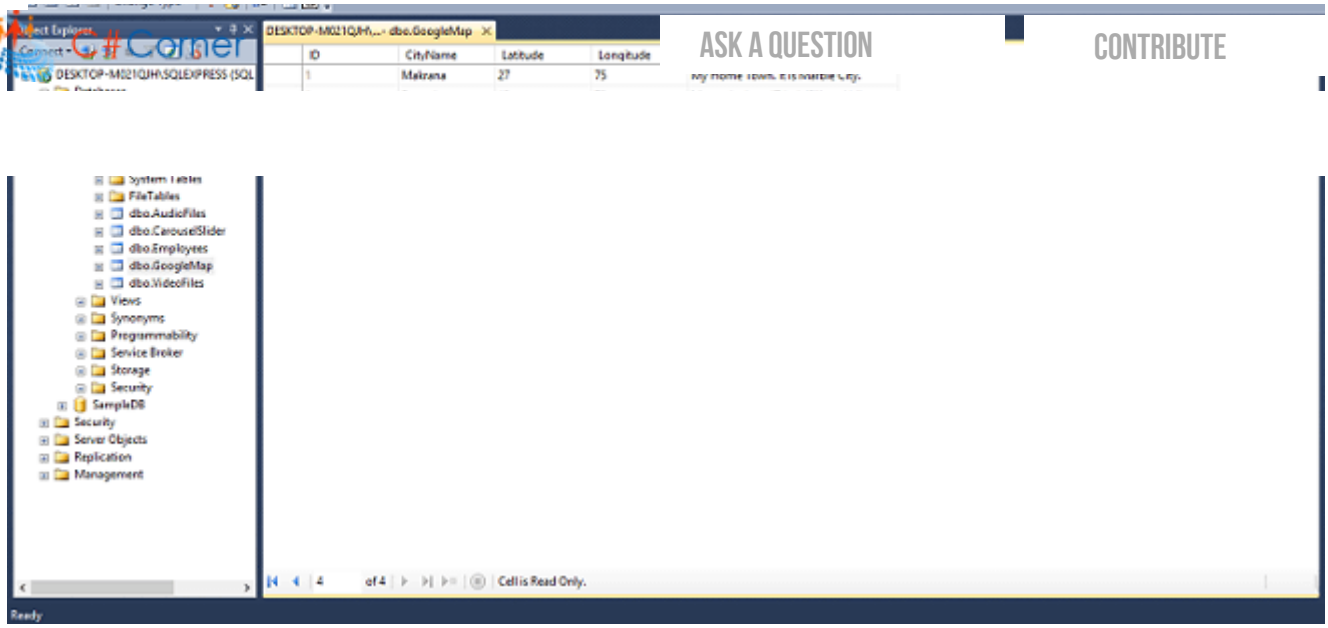
Open MS SQL server 2014 or choice create database table.

```
CREATE TABLE [dbo].[GoogleMap](
    [ID] [int] IDENTITY(1,1) NOT NULL,
    [CityName] [nvarchar](50) NULL,
    [Latitude] [numeric](18, 0) NULL,
    [Longitude] [numeric](18, 0) NULL,
    [Description] [nvarchar](100) NULL,
 CONSTRAINT [PK_GoogleMap] PRIMARY KEY CLUSTERED
(
    [ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = (
) ON [PRIMARY]

GO

CREATE procedure [dbo].[spAddNewLocation]
(
@CityName nvarchar(50),
@Latitude numeric(18, 0),
@Longitude numeric(18, 0),
@Description nvarchar(100)
)
as
begin
insert into [dbo].[GoogleMap](CityName,Latitude,Longitude,Description)
values(@CityName,@Latitude,@Longitude,@Description)
end

CREATE procedure [dbo].[spGetMap]
as
begin
select CityName,Latitude,Longitude,Description from [dbo].[GoogleMap]
end
```

Screenshot of database table with inserted data.

cus

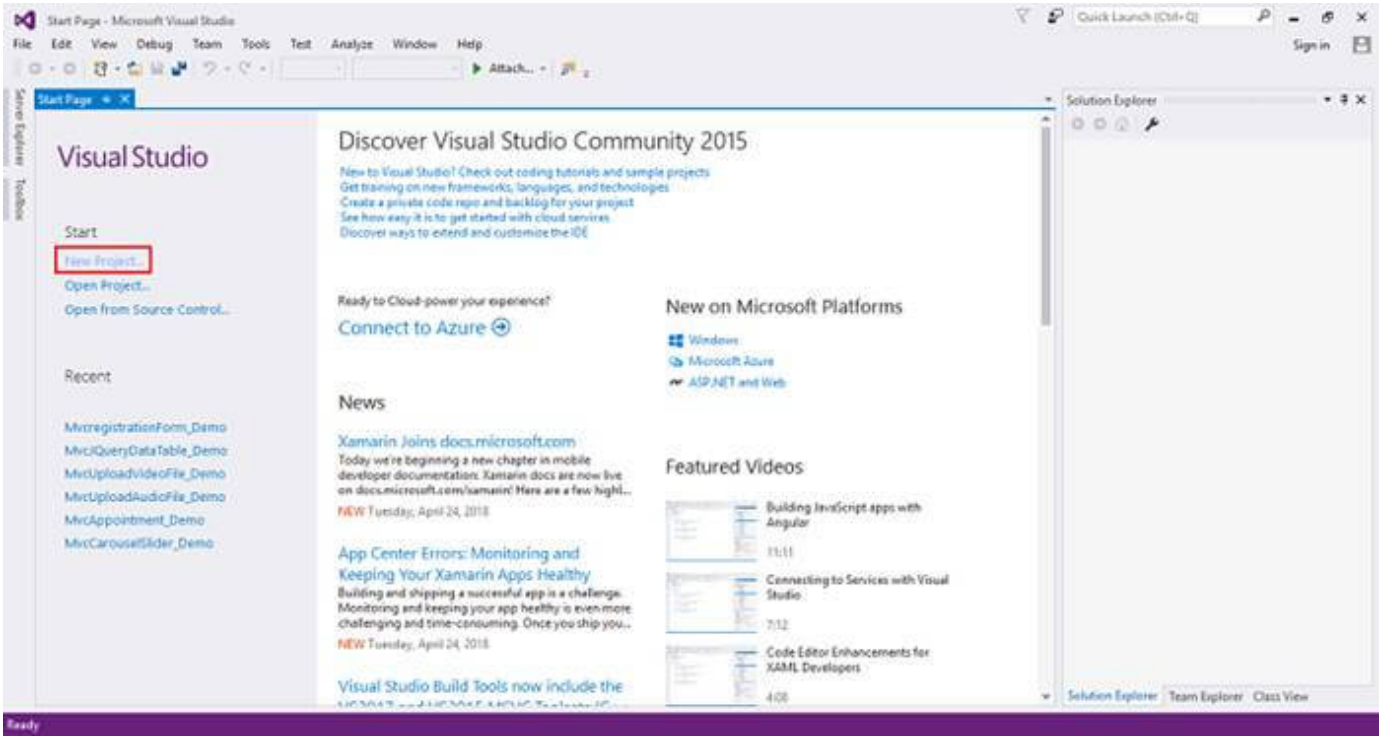
Blazor - One of the newest techno



Step 2

Open visual studio 2015 or your choice and click on New Project.

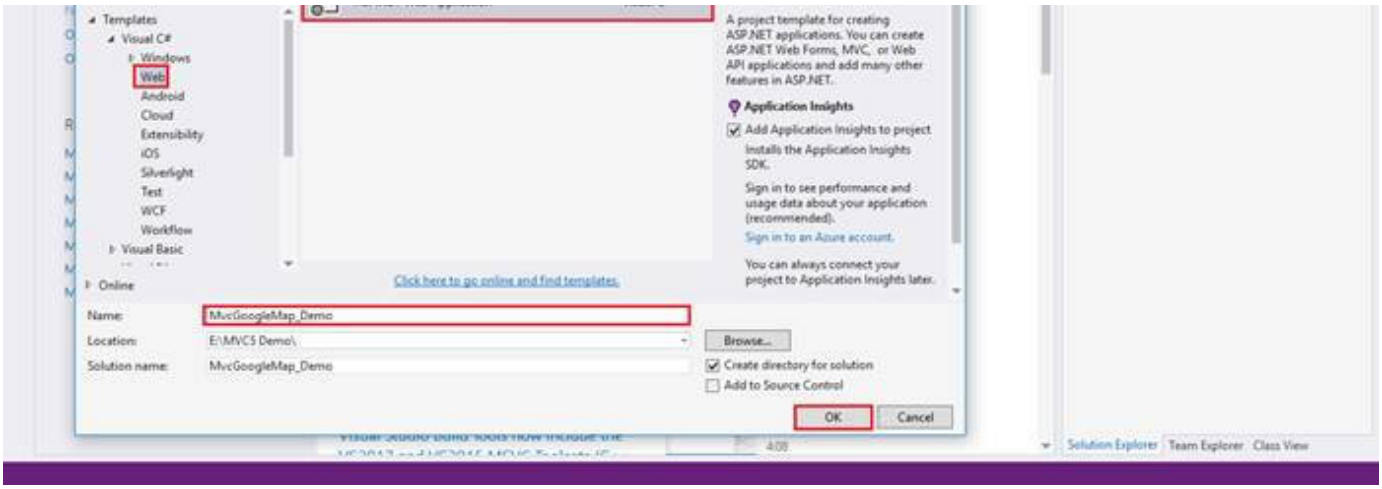
Screenshot for creating new project-1



After that one window will appear; select web from left panel choose ASP.NET Web Application, give a meaningful name to your project then click on OK as shown in the below screenshot.

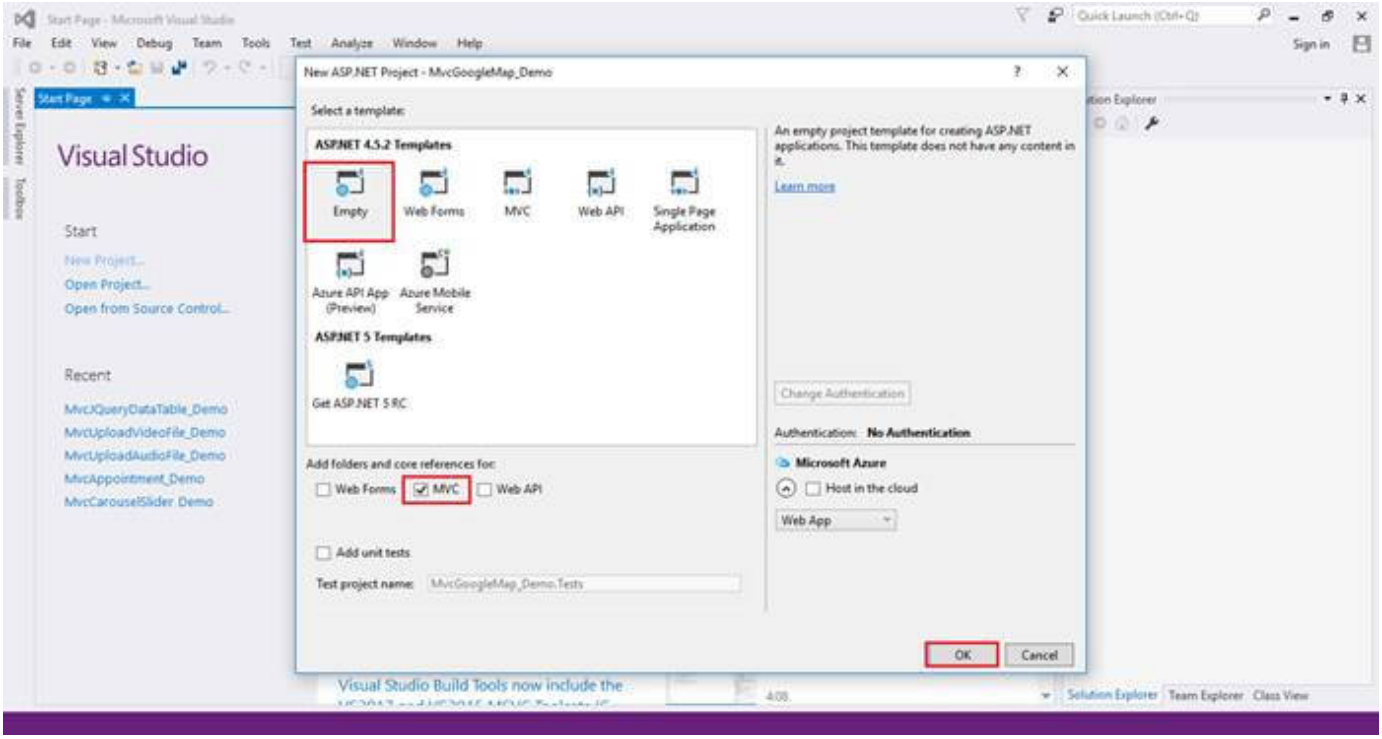
Screenshot for creating new project-2

cus
Blazor - One of the newest techno
C# Corner Visual Studio
Discover Visual Studio Community
ASK A QUESTION
CONTRIBUTE



After clicking on OK one more window will appear choose Empty check on MVC checkbox and click on OK as shown in the below screenshot.

Screenshot for creating new project-3



Step 3

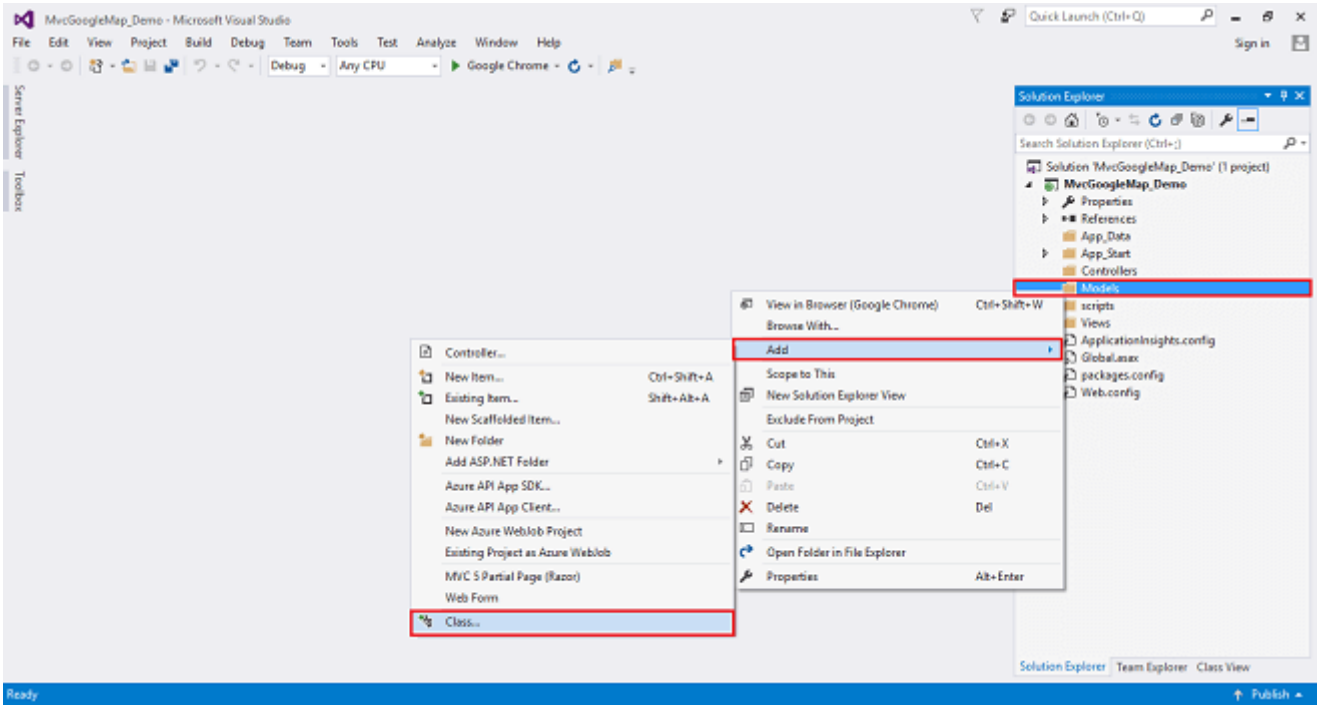
Double click on webconfig file in created project and add the following line of code for database connection.

```
01. <connectionStrings>
```

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE

Step 4

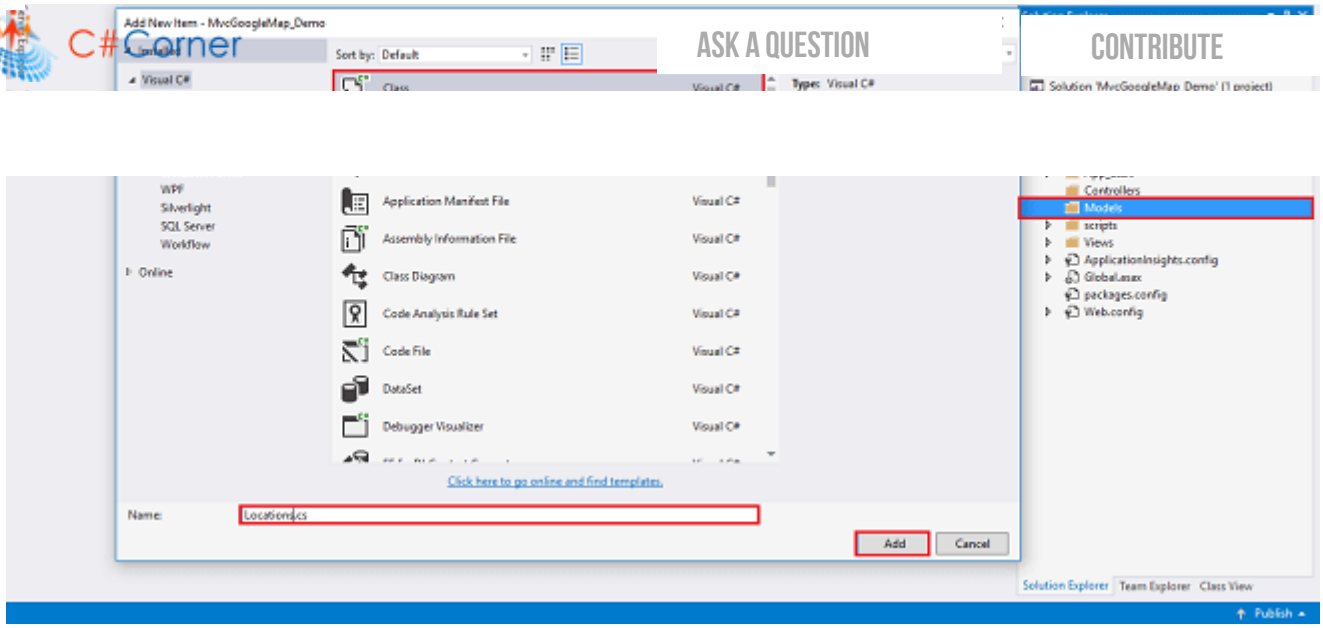
Screenshot for creating Model class-1



After selecting class click on it. One window will appear, choose class and give it the name Locations then click on Add. A class will be added under models folder with name Locations.cs as shown in the below screenshot**.**

Screenshot for creating Model class-1

cus
Blazor - One of the newest techno



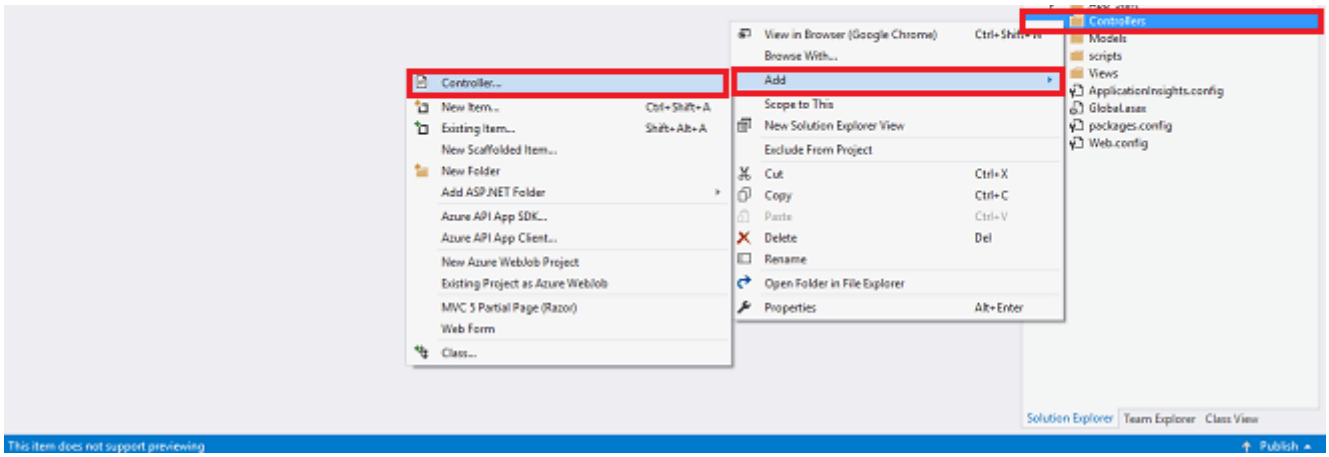
Write a class field and properties as we have done in the database table.

```
using System;
using System.Collections.Generic;
using System.ComponentModel.DataAnnotations;
using System.Linq;
using System.Web;

namespace MvcGoogleMap_Demo.Models
{
    public class Locations
    {
        public int ID { get; set; }
        [Required(ErrorMessage ="Please enter city name")]
        [Display(Name ="City Name")]
        public string CityName { get; set; }
        [Required(ErrorMessage = "Please enter city latitude")]
        public double Latitude { get; set; }
        [Required(ErrorMessage = "Please enter city longitude ")]
        public double Longitude { get; set; }
        public string Description { get; set; }
    }
}
```

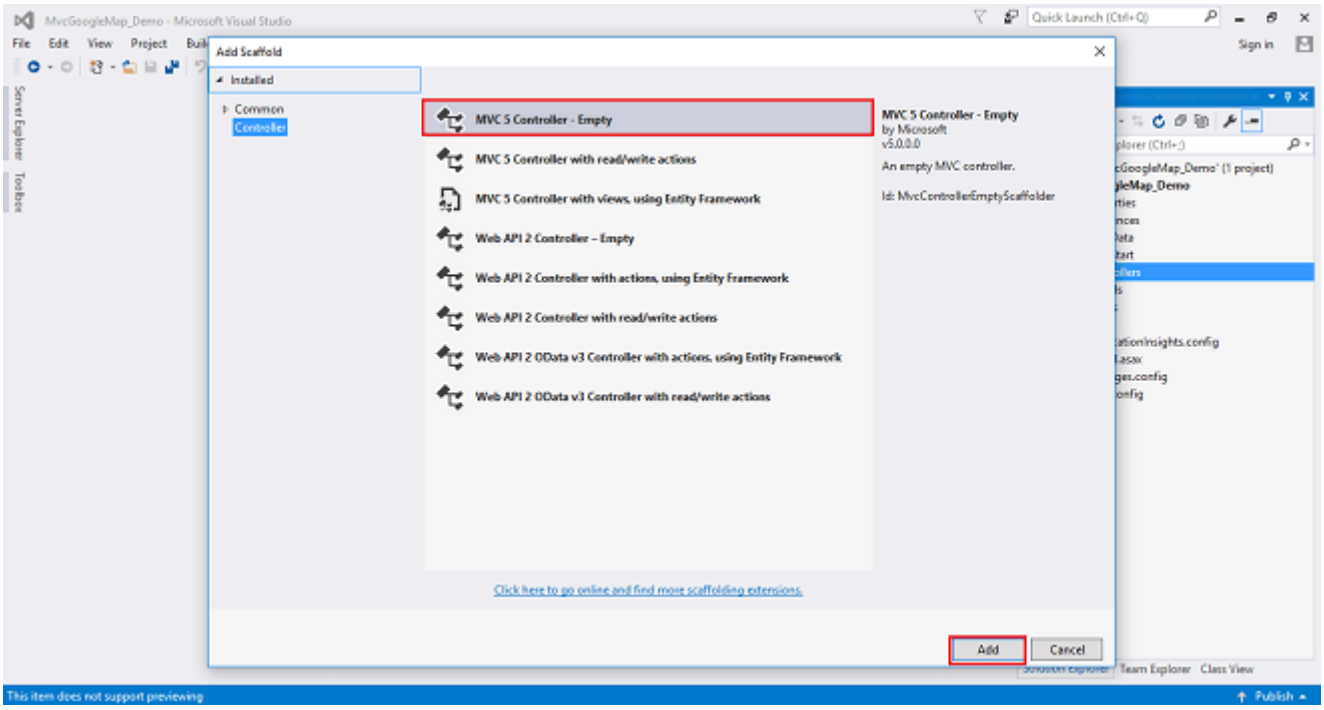
Step 5

Right click on Controllers folder select Add then choose Controller as shown in the below screenshot.

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE

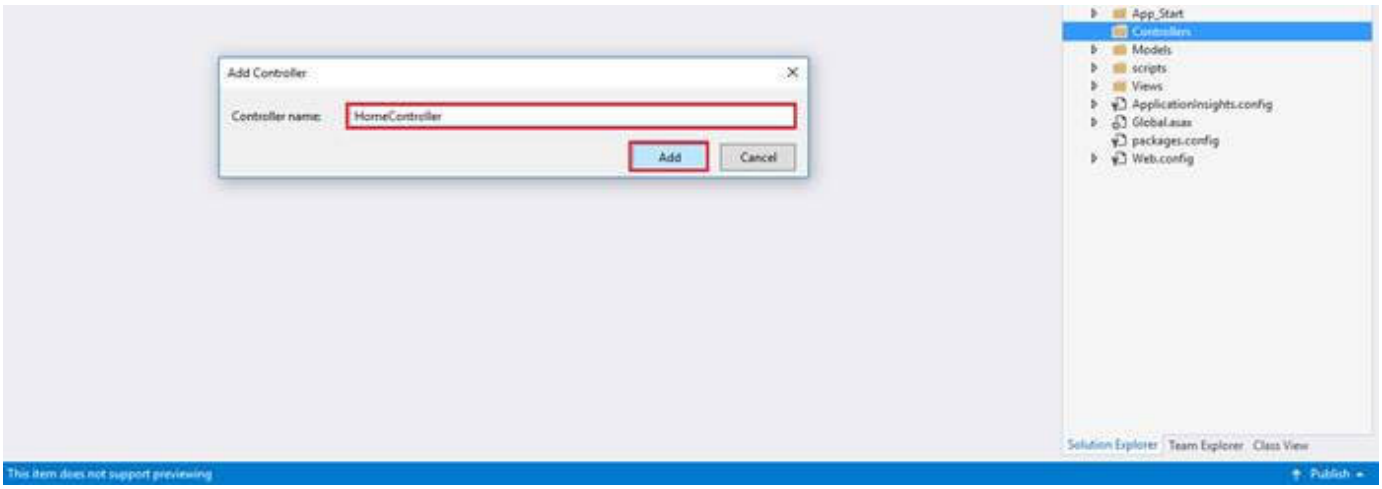


After clicking on controller a window will appear choose MVC5 Controller-Empty an click on Add.



After clicking on Add another window will appear with DefaultController. Change the name HomeController then click on Add. HomeController will be added under Controllers folder. See the below screenshot.

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE



Add the following namespace in controller

```
using MvcGoogleMap_Demo.Models;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
```

Create action method with name Location to get data.

```
public ActionResult Location()
        {
            string markers = "[";
            string CS = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
            using (SqlConnection con = new SqlConnection(CS))
            {
                SqlCommand cmd = new SqlCommand("spGetMap", con);
                cmd.CommandType = CommandType.StoredProcedure;
                con.Open();
                SqlDataReader sdr = cmd.ExecuteReader();
                while (sdr.Read())
                {
                    markers += "{";
                    markers += string.Format("'title': '{0}',", sdr["CityName"]);
                    markers += string.Format("'lat': '{0}',", sdr["Latitude"]);
                    markers += string.Format("'lng': '{0}',", sdr["Longitude"]);
                    markers += string.Format("'description': '{0}'", sdr["Description"]);
                    markers += "},";
                }
            }
            markers += "];";
            ViewBag.Markers = markers;
            return View();
        }
```

Create action method with name Location to insert data.

```
public ActionResult Location(Locations location)
        {
            if (ModelState.IsValid)
            {
                string CS = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
```

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE

```
                cmd.CommandType = Comma
                con.Open();
                cmd.Parameters.AddWithValue("@CityName", location.CityName);



                cmd.ExecuteNonQuery();
            }
        }
        else
        {

        }
        return RedirectToAction("Location");
    }
```

Complete code for controller

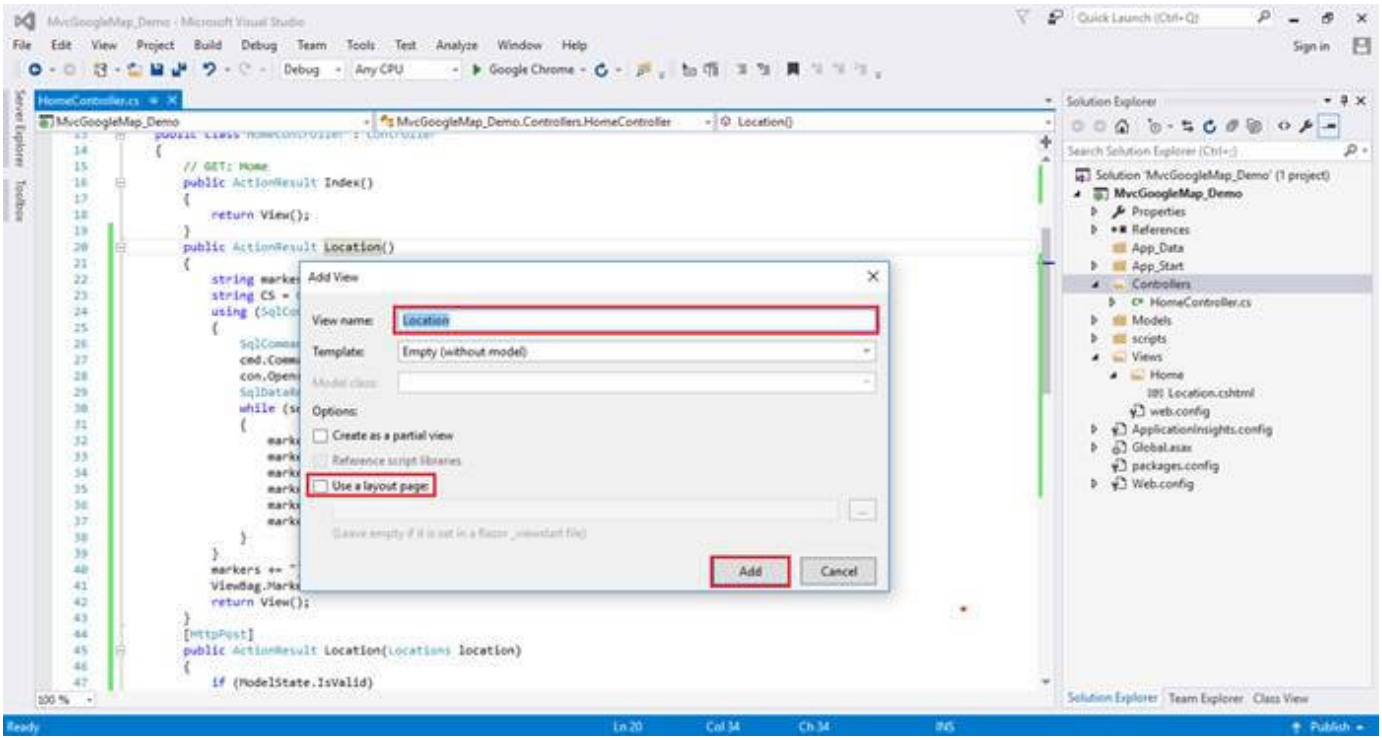
```
using MvcGoogleMap_Demo.Models;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Web.Mvc;

namespace MvcGoogleMap_Demo.Controllers
{
    public class HomeController : Controller
    {
        // GET: Home
        public ActionResult Index()
        {
            return View();
        }
        public ActionResult Location()
        {
            string markers = "[";
            string CS = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
            using (SqlConnection con = new SqlConnection(CS))
            {
                SqlCommand cmd = new SqlCommand("spGetMap", con);
                cmd.CommandType = CommandType.StoredProcedure;
                con.Open();
                SqlDataReader sdr = cmd.ExecuteReader();
                while (sdr.Read())
                {
                    markers += "{";
                    markers += string.Format("'title': '{0}',", sdr["CityName"]);
                    markers += string.Format("'lat': '{0}',", sdr["Latitude"]);
                    markers += string.Format("'lng': '{0}',", sdr["Longitude"]);
                    markers += string.Format("'description': '{0}'", sdr["Description"]);
                    markers += "},";
                }
            }
            markers += "];";
            ViewBag.Markers = markers;
            return View();
        }
        [HttpPost]
        public ActionResult Location(Locations location)
        {
            if (ModelState.IsValid)
            {
                string CS = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
                using (SqlConnection con = new SqlConnection(CS))
                {
                    SqlCommand cmd = new SqlCommand("spAddNewLocation", con);
                    cmd.CommandType = CommandType.StoredProcedure;
                    con.Open();
                    cmd.Parameters.AddWithValue("@CityName", location.CityName);
                    cmd.Parameters.AddWithValue("@Latitude", location.Latitude);
```

cus
Blazor - One of the newest techno
C# Corner ASK A QUESTION CONTRIBUTE

```
            }
        }
        else
        {
            return RedirectToAction("Location");
        }
    }
}
```

Step 6

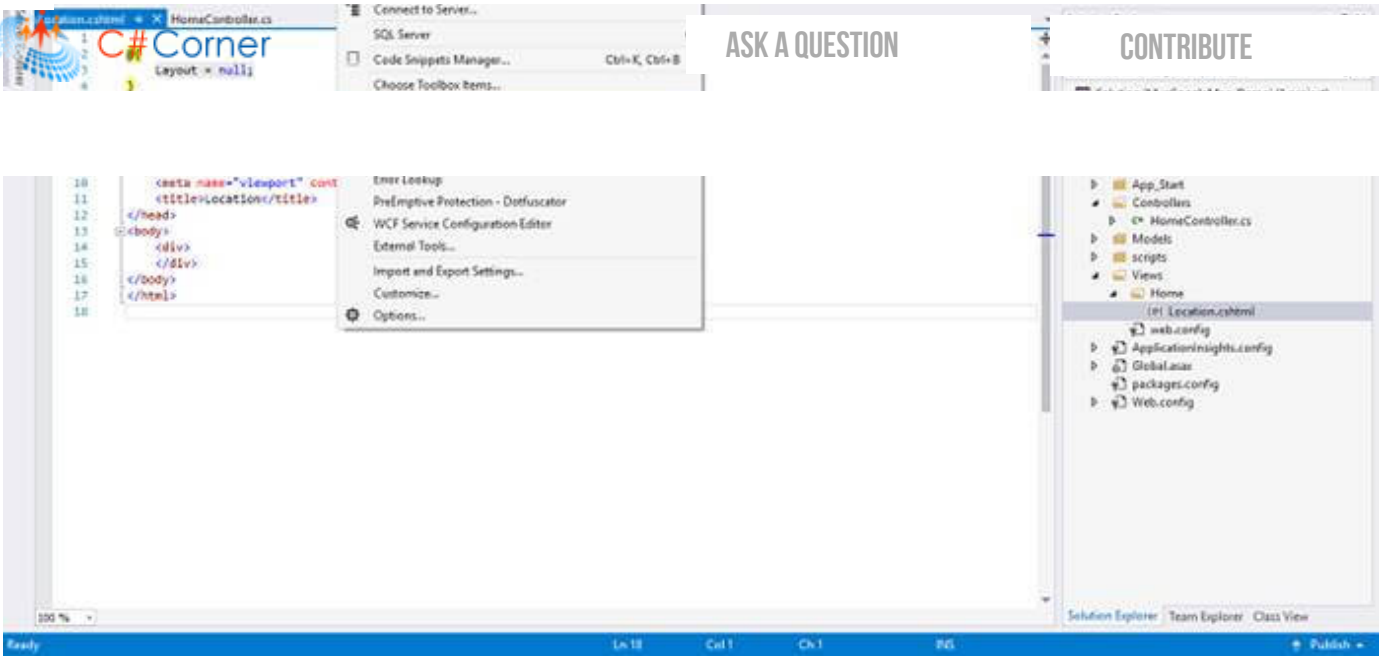
Right click on Location action method in controller. Add view window will appear with default Location name, click on Add as shown in the below screenshot. View will be added in views folder under Home folder.



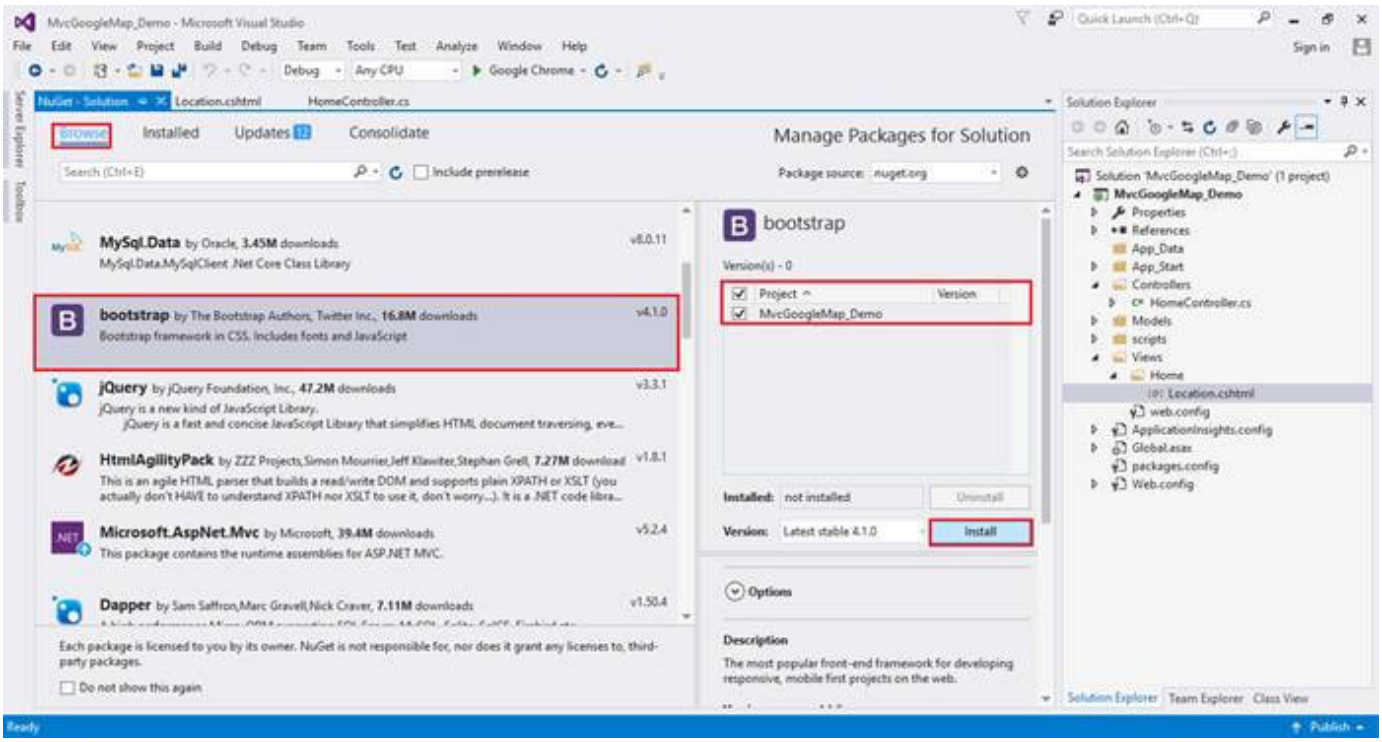
Step 7

Click on Tools, select NuGet Package Manager, then choose Manage NuGet Packages for Solution and click on it.

cus
Blazor - One of the newest techno

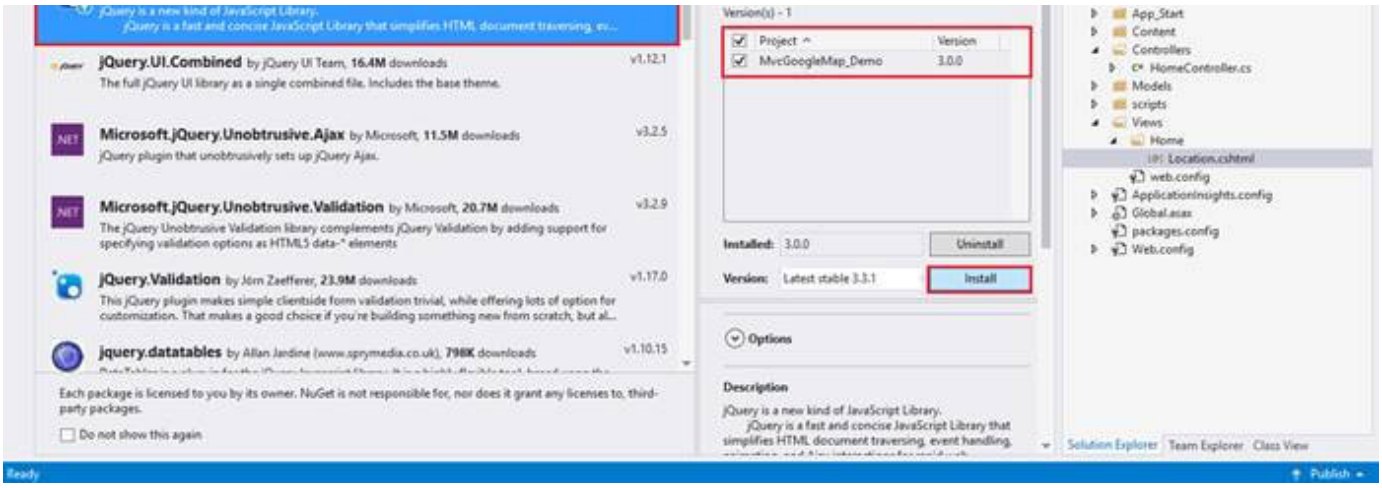


After that a window will appear. Choose Browse type bootstrap and install package in project as shown.

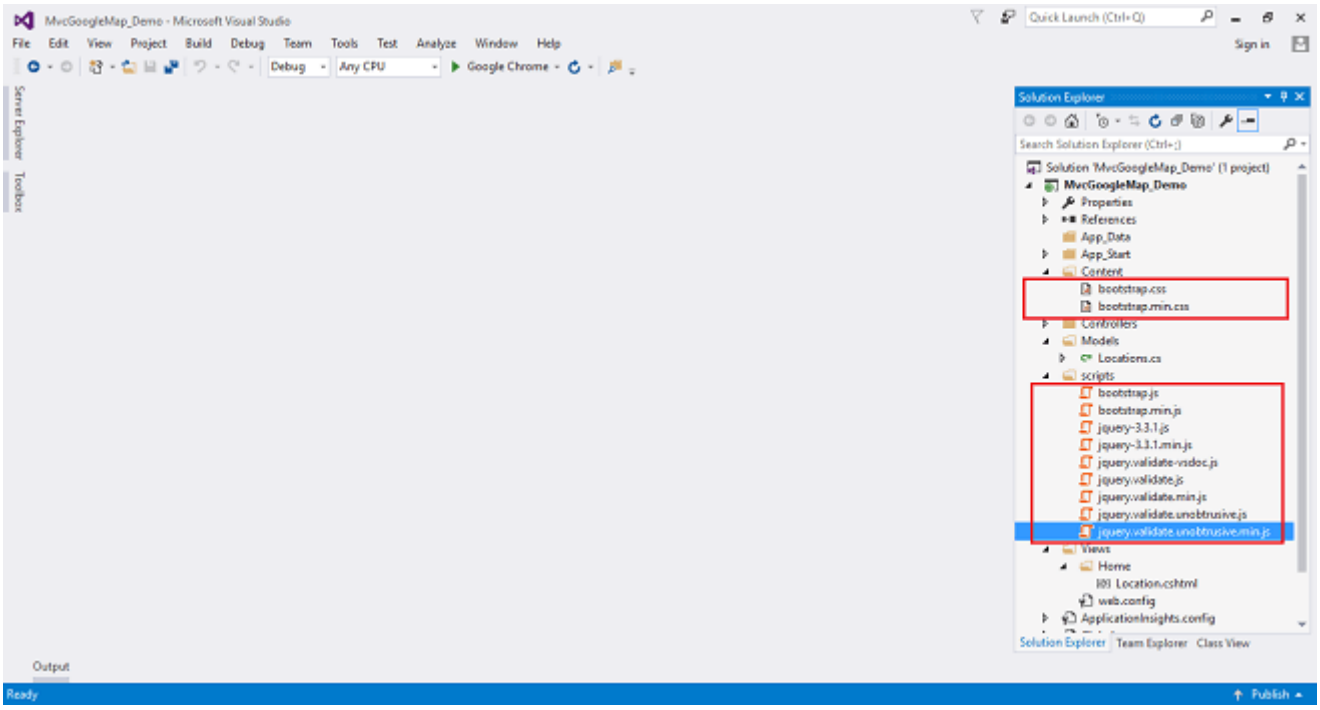


Similarly type JQuery and install latest version of JQuery package in project and jquery validation file from NuGet then close NuGet Solution.

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE



Keep require bootstrap and jQuery file and delete remaining file if not using. Or you can download from and add in project.



Step 8

Add required script and style in head section of view.

```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
 <script type="text/javascript" src="https://maps.googleapis.com/maps/api/js?key=API ">
</script>
 <link href="~/Content/bootstrap.min.css" rel="stylesheet" />
<script src="~/scripts/jquery-3.3.1.min.js"></script>
 <script src="~/scripts/bootstrap.min.js"></script>
 <script src="~/scripts/jquery.validate.min.js"></script>
<script src="~/scripts/jquery.validate.unobtrusive.min.js"></script>
```

cus
Blazor - One of the newest techno
C#Corner ASK A QUESTION CONTRIBUTE
https://developers.google.com/maps/documentatio

```
<script type="text/javascript">
        var markers = @Html.Raw(ViewBag.Markers);
        window.onload = function () {
            var mapOptions = {
                center: new google.maps.LatLng(markers[0].lat, markers[0].lng),
                zoom: 4,
                mapTypeId: google.maps.MapTypeId.ROADMAP
            };
            var infoWindow = new google.maps.InfoWindow();
            var map = new google.maps.Map(document.getElementById("dvMap"), mapOptions);
            for (i = 0; i < markers.length; i++) {
                var data = markers[i]
                var myLatlng = new google.maps.LatLng(data.lat, data.lng);
                var marker = new google.maps.Marker({
                    position: myLatlng,
                    map: map,
                    title: data.title
                });
                (function (marker, data) {
                    google.maps.event.addListener(marker, "click", function (e) {
                        infoWindow.setContent(data.description);
                        infoWindow.open(map, marker);
                    });
                })(marker, data);
            }
        }
    </script>
```

Complete view code

```
@model MvcGoogleMap_Demo.Models.Locations
@{
    Layout = null;
}

<!DOCTYPE html>

<html>
<head>
    <meta name="viewport" content="width=device-width" />
    <title>Location</title>
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
    <script type="text/javascript" src="https://maps.googleapis.com/maps/api/js?key=API Key"></script>
    <link href="~/Content/bootstrap.min.css" rel="stylesheet" />
    <script src="~/scripts/jquery-3.3.1.min.js"></script>
    <script src="~/scripts/bootstrap.min.js"></script>
    <script src="~/scripts/jquery.validate.min.js"></script>
    <script src="~/scripts/jquery.validate.unobtrusive.min.js"></script>
    <script type="text/javascript">
        var markers = @Html.Raw(ViewBag.Markers);
        window.onload = function () {
            var mapOptions = {
                center: new google.maps.LatLng(markers[0].lat, markers[0].lng),
                zoom: 4,
                mapTypeId: google.maps.MapTypeId.ROADMAP
            };
            var infoWindow = new google.maps.InfoWindow();
            var map = new google.maps.Map(document.getElementById("dvMap"), mapOptions);
            for (i = 0; i < markers.length; i++) {
                var data = markers[i]
                var myLatlng = new google.maps.LatLng(data.lat, data.lng);
```

cus
Blazor - One of the newest techno
C# Corner ASK A QUESTION CONTRIBUTE

```
                    title: data.title
                });
                (function (marker, data) {



                    });
                })(marker, data);
            }
        }
    </script>
</head>
<body>
    @using (Html.BeginForm("Location", "Home", FormMethod.Post))
    {
        <div class="container py-4">
            <h5 class="text-center">HOW TO CREATE GOOGLE MAP AND ADD LOCATION DYNAMICALLY USING ASP.NET MVC 5</h5>
            <div class="card">
                <div class="card-header bg-danger">
                    <h6 class="card-title text-uppercase text-white">Google Map Location</h6>
                </div>
                <div class="card-body">
                    <button style="margin-bottom:10px;" type="button" data-target="#myMap" data-toggle="modal" class="btn btn-danger btn-sm rounded-0"><i class="fa fa-plus-circle"></i> Add New Location</button>

                    <div class="modal fade" id="myMap">
                        <div class="modal-dialog modal-lg">
                            <div class="modal-content">
                                <div class="modal-header">
                                    <h4 class="modal-title">Add New Location</h4>
                                    <button type="button" class="close" data-dismiss="modal">×</button>
                                </div>
                                <div class="modal-body">
                                    <div class="row">
                                        <div class="col-sm-4 col-md-4 col-xs-12">
                                            <div class="form-group">
                                                <label>City Name:
</label>
                                                @Html.EditorFor(model =>model.CityName, new { l
control" } })
                                                @Html.ValidationMessageFor(model => model.CityN
danger" })
                                            </div>
                                        </div>
                                        <div class="col-sm-4 col-md-4 col-xs-12">
                                            <div class="form-group">
                                                <label>Latitude:</label>
                                                @Html.EditorFor(model => model.Latitude, new {
control" } })
                                                @Html.ValidationMessageFor(model => model.Latit
danger" })
                                            </div>
                                        </div>
                                        <div class="col-sm-4 col-md-4 col-xs-12">
                                            <div class="form-group">
                                                <label>Longitude:</label>
                                                @Html.EditorFor(model => model.Longitude, new
control" } })
                                                @Html.ValidationMessageFor(model => model.Longi
danger" })
                                            </div>
                                        </div>
                                    </div>
                                    <div class="row">
                                        <div class="col-sm-12 col-md-12 col-xs-12">
                                            <div class="form-group">
                                                <label>Description:</label>
```

cus
Blazor - One of the newest techno
C# Corner ASK A QUESTION CONTRIBUTE

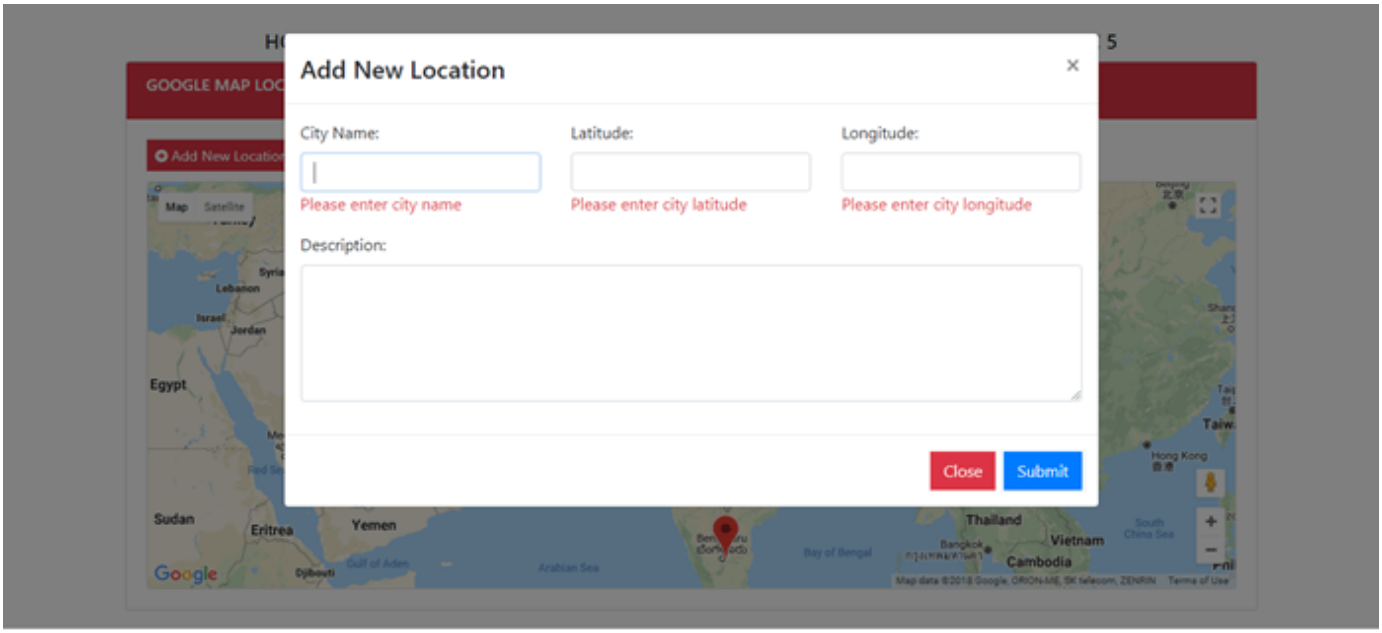
```
                                    danger" })
                                </div>
```

```
                                    <button type="button" class="btn btn-danger rounded-0" data-dismiss="modal">Close</button>
                                    <button class="btn btn-primary rounded-0">Submit</button>
                                </div>
                            </div>
                        </div>
                    </div>
                    <div id="dvMap" class="card" style="width: 100%; height: 400px">
                    </div>
                </div>
            </div>
        </div>
    }
</body>
</html>
```

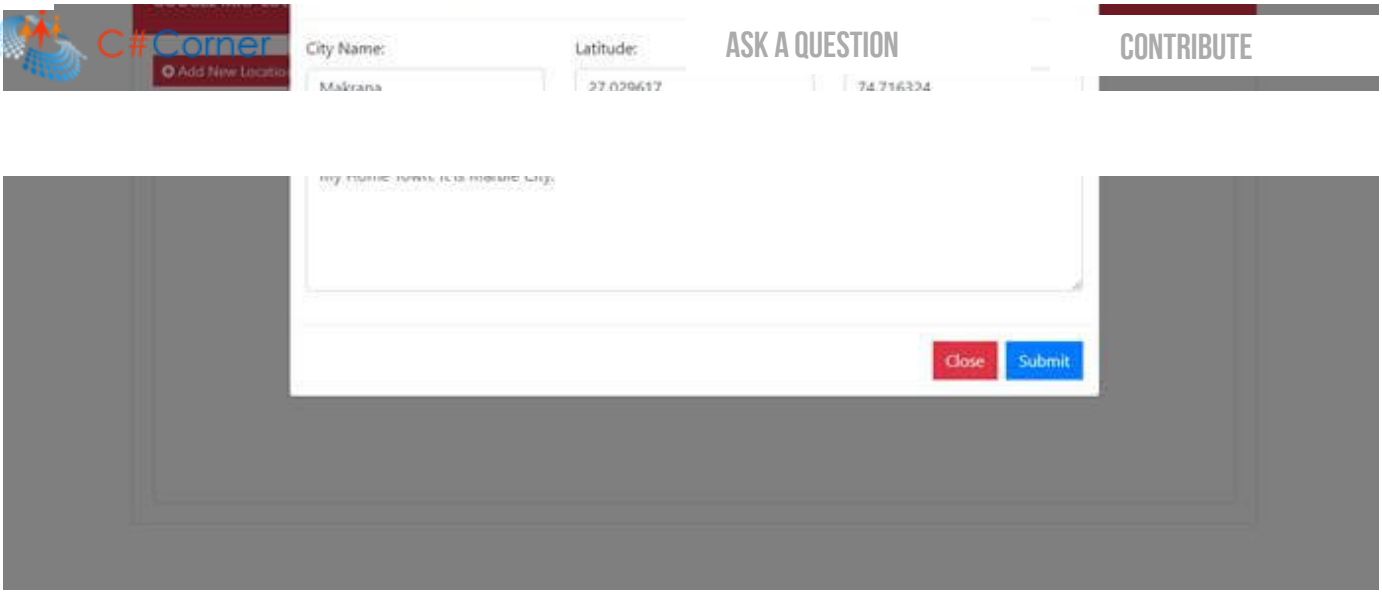
Step 9

Build and Run Project ctrl + F5

Screenshot of Final output-1



Screenshot of Final output-2



Screenshot of Final output-3

Conclusion

In this article I have explained how we integrated a Google map in mvc5 using Google API key dynamically.

We can add city name, latitude and longitude by clicking on Add New Location button. We have understand step by step. I hope it will be useful in your upcoming projects.

Add Location Dynamically | ASP.NET | Implement Google Map | MVC | MVC 5

Farhan Ahmed TOP 500

cus
Blazor - One of the newest techno

10 11

Type your comment here and press Enter Key (Minimum 10 characters)

Thank you for your tutorial. how can i implement this using code first?
Sithembiso Goqo
1696 48 0
Sep 25, 2018
0 0 Reply

Nice one bro
onais ahmer
1475 269 941
Sep 24, 2018
1 0 Reply

Sir i have question i need mega menu but i have mega menu but i add the third sub menu but not span so plz tell me
Prakash Vasaikar
1711 33 295
Sep 22, 2018
0 1 Reply

I didnt get you.
Farhan Ahmed
208 8.2k 607.3k
Sep 24, 2018
0

Thank u sir
Prakash Vasaikar
1711 33 295
Sep 22, 2018
1 0 Reply

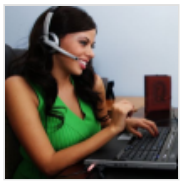
Nice one, it is really helpful, thanks greatly
Jaff Banjo
1729 15 0
Sep 03, 2018
3 2 Reply

You are welcome....
Farhan Ahmed
208 8.2k 607.3k
Sep 03, 2018
0

Great tutorial, thanks a lot! but need pls how to make search and edit and delete from database to view in this map
Ahmed Jamal
1726 18 0
Sep 11, 2018
0

Good afternoon sir, can you please show me how to do it with code first in the controller classes. because my project is code first
Sithembiso Goqo
1696 48 0
Jul 19, 2018
1 0 Reply

cus
Blazor - One of the newest techno
C# Corner 1675 69 0 ASK A QUESTION CONTRIBUTE
208 8.2k 607.3k
1



Hire a blockchain developer
Want to get your applications built on Blockchain technology? Come, meet the blockchain experts and hire a team or individuals as per your need.

TRENDING UP

01 SharePoint Framework - Multilingual Support (Localization)

02 SharePoint Framework - Project Upgrade

03 SharePoint Framework - Implementing Separation of Concerns (SoC)

04 Azure IoT - Good Security Practices

05 Create And Build FAQ Chatbot Using Azure Bot Service Without Any Coding

06 SharePoint Framework - CSS Considerations

07 SharePoint Framework - Theme Colors

08 Change HTML Attribute Of DOM Element Using Custom Attribute Directives In Angular 6

09 Working With "Static" In C#

10 How To Create ASP.NET Web API GET, POST, PUT, and DELETE

View All

cus

Blazor - One of the newest techno

C# Corner

ASK A QUESTION CONTRIBUTE

Philadelphia
New York
London
Delhi

JOIN C# CORNER

and millions of developer friends worldwide.

Enter your email address Sign Up

Learn ASP.NET MVC Learn ASP.NET Core Learn Python Learn JavaScript Learn Xamarin
Learn Oracle More...

Home Consultants Jobs Career Advice Stories Partners C# Tutorials

cus

Blazor - One of the newest techno

©2018 C# Corner. All contents are copyright of their authors.

C#Corner ASK A QUESTION CONTRIBUTE