

## Add New Item - StudentManagement

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Name:

StudentRepository.cs

Add

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs

StudentManagement

StudentManagement.Models.StudentRepository

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

namespace StudentManagement.Models
{
    public class StudentRepository
    {
    }
}
```

Solution Explorer

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Solution 'MVCTesting' (3 projects)

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Amaneep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

Debug Any CPU Google Chrome

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository
    {
    }
}
```

Solution Explorer

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

\_db

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository
    {
        private DBModelContainer _db = new DBModelContainer();
    }
}
```

Solution Explorer

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Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

Add(Student s)

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository
    {
        private DBModelContainer _db = new DBModelContainer();
        public int Add(Student s)
        {
            _db.Students.Add(s);
            _db.SaveChanges();
            return s.Id;
        }
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

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Test Explorer

StudentRepository.cs\* | StudentManagement | StudentManagement.Models.StudentRepository | Edit(Student s)

```
public class StudentRepository
{
    private DBModelContainer _db = new DBModelContainer();
    public int Add(Student s)...
    public int Edit(Student s)
    {
        _db.Entry(s).State = System.Data.Entity.EntityState.Modified;
        _db.SaveChanges();
        return s.Id;
    }
}
```

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Test Explorer

StudentRepository.cs\* | StudentManagement | StudentManagement.Models.StudentRepository | Delete(int id)

```
private DBModelContainer _db = new DBModelContainer();
public int Add(Student s)...
public int Edit(Student s)...
public Student Delete(int id)
{
    Student s = _db.Students.Find(id);
    _db.Students.Remove(s);
    _db.SaveChanges();
    return s;
}
```

Solution Explorer

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* | StudentManagement.Models.StudentRepository | Detail(int id)

```
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository
    {
        private DBModelContainer _db = new DBModelContainer();

        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)
        {
            Student s = _db.Students.Find(id);
            return s;
        }
    }
}
```

Solution Explorer

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* | StudentManagement | StudentManagement.Models.StudentRepository | All()

```
namespace StudentManagement.Models
{
    public class StudentRepository
    {
        private DBModelContainer _db = new DBModelContainer();
        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()
        {
            return _db.Students.ToList();
        }
    }
}
```

Solution Explorer

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

\_db

```
namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable
    {
        private DBModelContainer _db = new DBModelContainer();
        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
    }
}
```

Solution Explorer

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Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

All()

namespace StudentManagement.Models

```
public class StudentRepository : IDisposable
{
    private DBModelContainer _db = new DBModelContainer();
    public int Add(Student s)...
    public int Edit(Student s)...
    public Student Delete(int id)...
    public Student Detail(int id)...
    public IEnumerable<Student> All()...
}
```

Implement interface

- Implement interface with Dispose pattern
- Implement interface through '\_db'
- Implement interface explicitly
- Implement interface explicitly with Dispose pattern

CS0535 'StudentRepository' does not implement interface member 'IDisposable.Dispose()'

```
public void Dispose()
{
    throw new NotImplementedException();
}
```

Preview changes

Fix all occurrences in: Document | Project | Solution

Solution Explorer

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Amaneep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository Dispose()

```
namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable
    {
        private DBModelContainer _db = new DBModelContainer();
        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
        public void Dispose()
        {
            throw new NotImplementedException();
        }
    }
}
```

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Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository Dispose()

```
namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable
    {
        private DBModelContainer _db = new DBModelContainer();
        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
        public void Dispose()
        {
            _db.Dispose();
        }
    }
}
```

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Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

Edit(Student s)

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable
    {
        private DBModelContainer _db = new DBModelContainer();

        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
        public void Dispose()...
    }
}
```

Solution Explorer

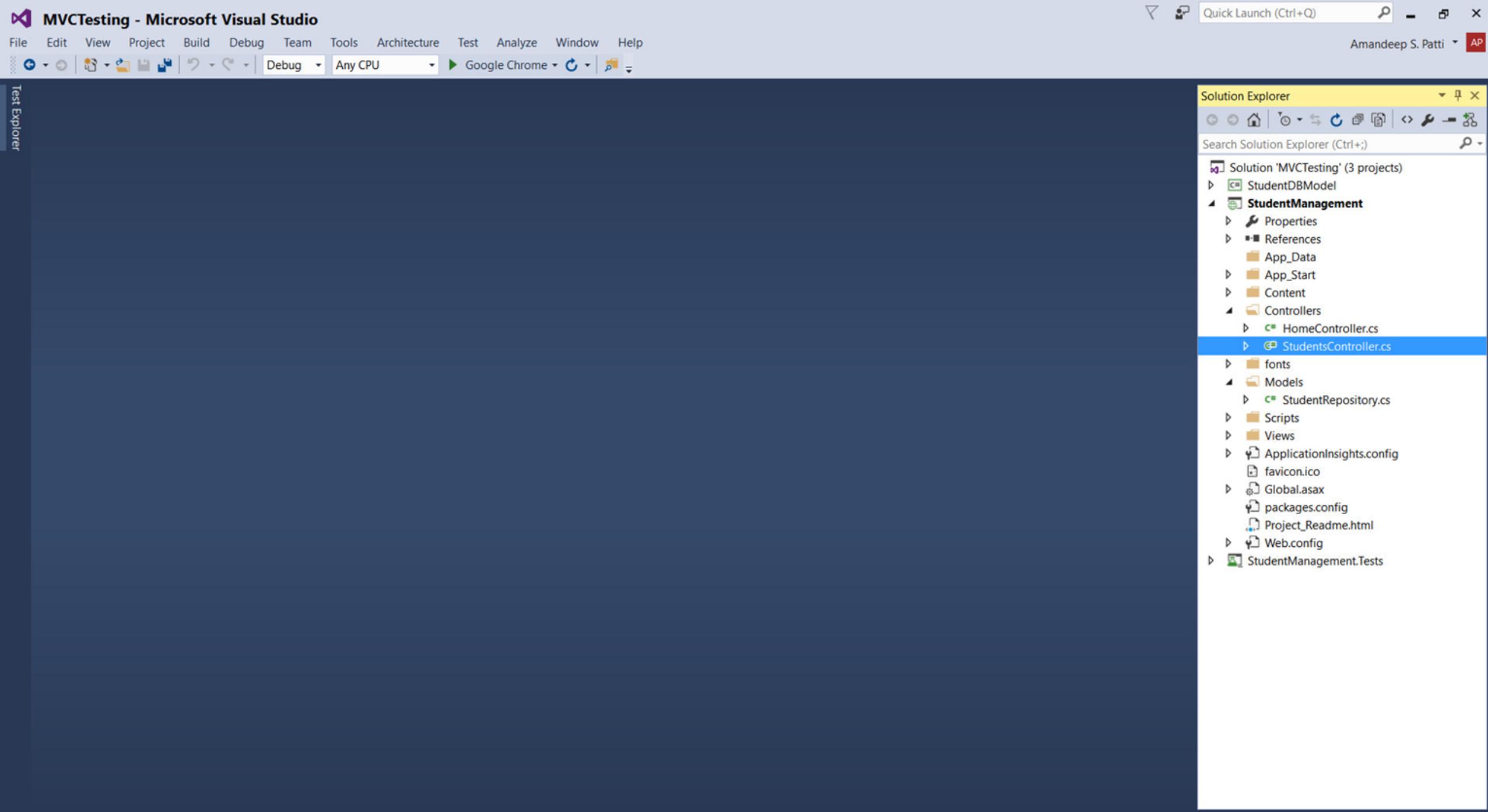
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MVCTesting - Microsoft Visual Studio

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Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* X

StudentManagement

StudentManagement.Controllers.StudentsController

db

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Data.Entity;
using System.Linq;
using System.Net;
using System.Web;
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        private DBModelContainer db = new DBModelContainer();

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            return View("Index", db.Students.ToList());
        }

        // GET: Students/Details/5
        public ActionResult Details(int? id)
        {
            if (id == null)

```

Solution Explorer

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Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* X

StudentManagement

StudentManagement.Controllers.StudentsController Index()

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Data.Entity;
using System.Linq;
using System.Net;
using System.Web;
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        private StudentRepository sr = new StudentRepository();

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            return View("Index", db.Students.ToList());
        }

        // GET: Students/Details/5
        public ActionResult Details(int? id)
        {
            ...
        }
    }
}
```

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MVCTesting - Microsoft Visual Studio

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Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* | StudentManagement | StudentManagement.Controllers.StudentsController | Index()

```
using StudentManagement.Models;
namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        private StudentRepository sr = new StudentRepository();

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            //return View("Index", db.Students.ToList());
            return View("Index", sr.All());
        }

        // GET: Students/Details/5
        public ActionResult Details(int? id)
        {
            if (id == null)
            {
                return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
            }
            Student student = db.Students.Find(id);
            if (student == null)
            {
                return HttpNotFound();
            }
        }
    }
}
```

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Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* | StudentManagement.Controllers.StudentsController | Details(int? id)

```
StudentManagement.Controllers.StudentsController
{
    //return View(db.Students.ToList());
    //return View("Index", db.Students.ToList());
    return View("Index", sr.All());
}

// GET: Students/Details/5
3 references
public ActionResult Details(int? id)
{
    if (id == null)
    {
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }

    //Student student = db.Students.Find(id);
    Student student = sr.Detail(Convert.ToInt32(id));

    if (student == null)
    {
        return HttpNotFound();
    }
    return View(student);
}

// GET: Students/Create
0 references
public ActionResult Create()
{
    return View();
}
```

Solution Explorer

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MVCTesting - Microsoft Visual Studio

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Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* ▾

StudentManagement

```
// To protect from overposting attacks, please enable the specific properties you want to bind to, for
// more details see http://go.microsoft.com/fwlink/?LinkId=317598.
[HttpPost]
[ValidateAntiForgeryToken]
0 references
public ActionResult Create([Bind(Include = "Id,FirstName,LastName,RegistrationNumber")] Student student)
{
    if (ModelState.IsValid)
    {
        //db.Students.Add(student);
        //db.SaveChanges();
        sr.Add(student);

        return RedirectToAction("Index");
    }

    return View(student);
}

// GET: Students/Edit/5
0 references
public ActionResult Edit(int? id)
{
    if (id == null)
    {
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }
    Student student = db.Students.Find(id);
    if (student == null)
    {
        return HttpNotFound();
    }
}
```

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StudentsController.cs\* | Debug Any CPU | Google Chrome

```
StudentsController.cs* | StudentManagement.Controllers.StudentsController | Edit(int? id)
```

```
        return View(student);
    }

// GET: Students/Edit/5
public ActionResult Edit(int? id)
{
    if (id == null)
    {
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }
    //Student student = db.Students.Find(id);
    Student student = sr.Detail(Convert.ToInt32(id));

    if (student == null)
    {
        return HttpNotFound();
    }
    return View(student);
}

// POST: Students/Edit/5
// To protect from overposting attacks, please enable the specific properties you want to bind to, for
// more details see http://go.microsoft.com/fwlink/?LinkId=317598.
[HttpPost]
[ValidateAntiForgeryToken]
public ActionResult Edit([Bind(Include = "Id,FirstName,LastName,RegistrationNumber")] Student student)
{
    if (ModelState.IsValid)
    {
        db.Entry(student).State = EntityState.Modified;
        db.SaveChanges();
        return RedirectToAction("Index");
    }
    return View(student);
}
```

Test Explorer

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Test Explorer

StudentsController.cs\* | X

StudentManagement

StudentManagement.Controllers.StudentsController

Edit(Student student)

```
// POST: Students/Edit/5
// To protect from overposting attacks, please enable the specific properties you want to bind to, for
// more details see http://go.microsoft.com/fwlink/?LinkId=317598.
[HttpPost]
[ValidateAntiForgeryToken]
public ActionResult Edit([Bind(Include = "Id,FirstName,LastName,RegistrationNumber")] Student student)
{
    if (ModelState.IsValid)
    {
        //db.Entry(student).State = EntityState.Modified;
        //db.SaveChanges();
        sr.Edit(student);

        return RedirectToAction("Index");
    }
    return View(student);
}

// GET: Students/Delete/5
public ActionResult Delete(int? id)
{
    if (id == null)
    {
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }
    Student student = db.Students.Find(id);
    if (student == null)
    {
        return HttpNotFound();
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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    - Global.asax
    - packages.config
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108 %

Ln 96 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* | StudentManagement.Controllers.StudentsController | Delete(int? id)

```
        }
        return View(student);
    }

    // GET: Students/Delete/5
    public ActionResult Delete(int? id)
    {
        if (id == null)
        {
            return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
        }
        //Student student = db.Students.Find(id);
        Student student = sr.Detail(Convert.ToInt32(id));

        if (student == null)
        {
            return HttpNotFound();
        }
        return View(student);
    }

    // POST: Students/Delete/5
    [HttpPost, ActionName("Delete")]
    [ValidateAntiForgeryToken]
    public ActionResult DeleteConfirmed(int id)
    {
        Student student = db.Students.Find(id);
        db.Students.Remove(student);
        db.SaveChanges();
    }
}
```

Solution Explorer

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Ln 112 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* | StudentManagement.Controllers.StudentsController | DeleteConfirmed(int id)

```
return View(student);  
}  
  
// POST: Students/Delete/5  
[HttpPost, ActionName("Delete")]  
[ValidateAntiForgeryToken]  
public ActionResult DeleteConfirmed(int id)  
{  
    //Student student = db.Students.Find(id);  
    //db.Students.Remove(student);  
    //db.SaveChanges();  
    Student student = sr.Delete(Convert.ToInt32(id));  
  
    return RedirectToAction("Index");  
}  
  
protected override void Dispose(bool disposing)  
{  
    if (disposing)  
    {  
        db.Dispose();  
    }  
    base.Dispose(disposing);  
}
```

1 reference

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

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Ln 127 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* | StudentManagement.Controllers.StudentsController | Dispose(bool disposing)

```
//Student student = db.Students.Find(id);
//db.Students.Remove(student);
//db.SaveChanges();
Student student = sr.Delete(Convert.ToInt32(id));

return RedirectToAction("Index");
}

1 reference
protected override void Dispose(bool disposing)
{
    if (disposing)
    {
        //db.Dispose();
        sr.Dispose();
    }
    base.Dispose(disposing);
}
```

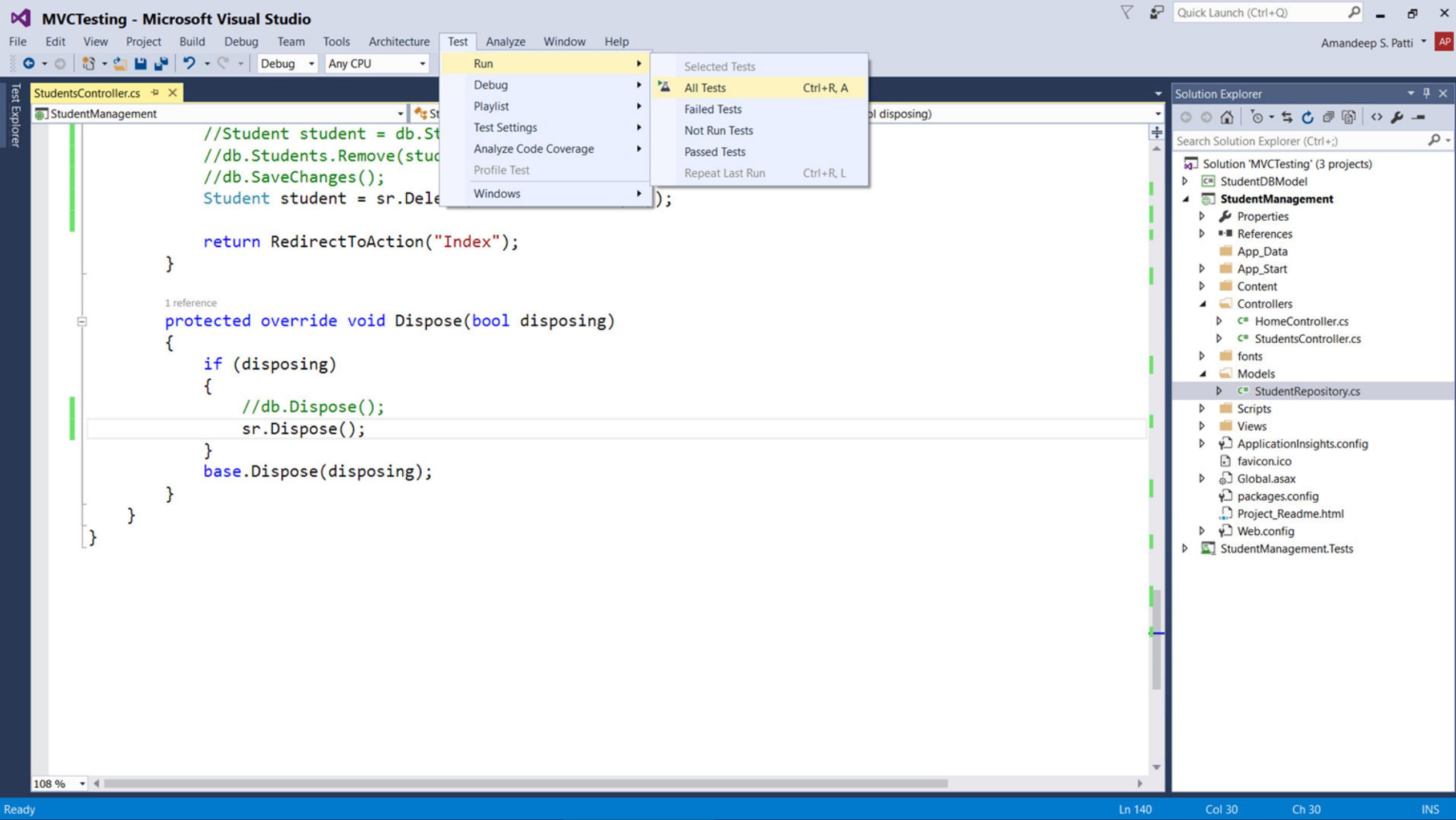
Solution Explorer

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Ln 139 Col 1 Ch 1 INS



MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

Streaming Video: Configure continuous integration

Run All | Run... | Playlist : All Tests

Passed Tests (7)

- About 1 sec
- Contact 3 ms
- DetailAction\_Returns\_StudentModel 963 ms
- DetailsAction\_InvalidID\_NotFoundHTTP 4 ms
- DetailsAction\_NullID\_BADHTTP 3 ms
- Index 1 ms
- IndexAction\_Returns\_IndexView 10 sec

StudentsController.cs

```
//Student student = db.Students.Find(id);
//db.Students.Remove(student);
//db.SaveChanges();
Student student = sr.Delete(Convert.ToInt32(id));

return RedirectToAction("Index");
}

1 reference
protected override void Dispose(bool disposing)
{
    if (disposing)
    {
        //db.Dispose();
        sr.Dispose();
    }
    base.Dispose(disposing);
}
```

Solution Explorer

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Output

Show output from: Tests

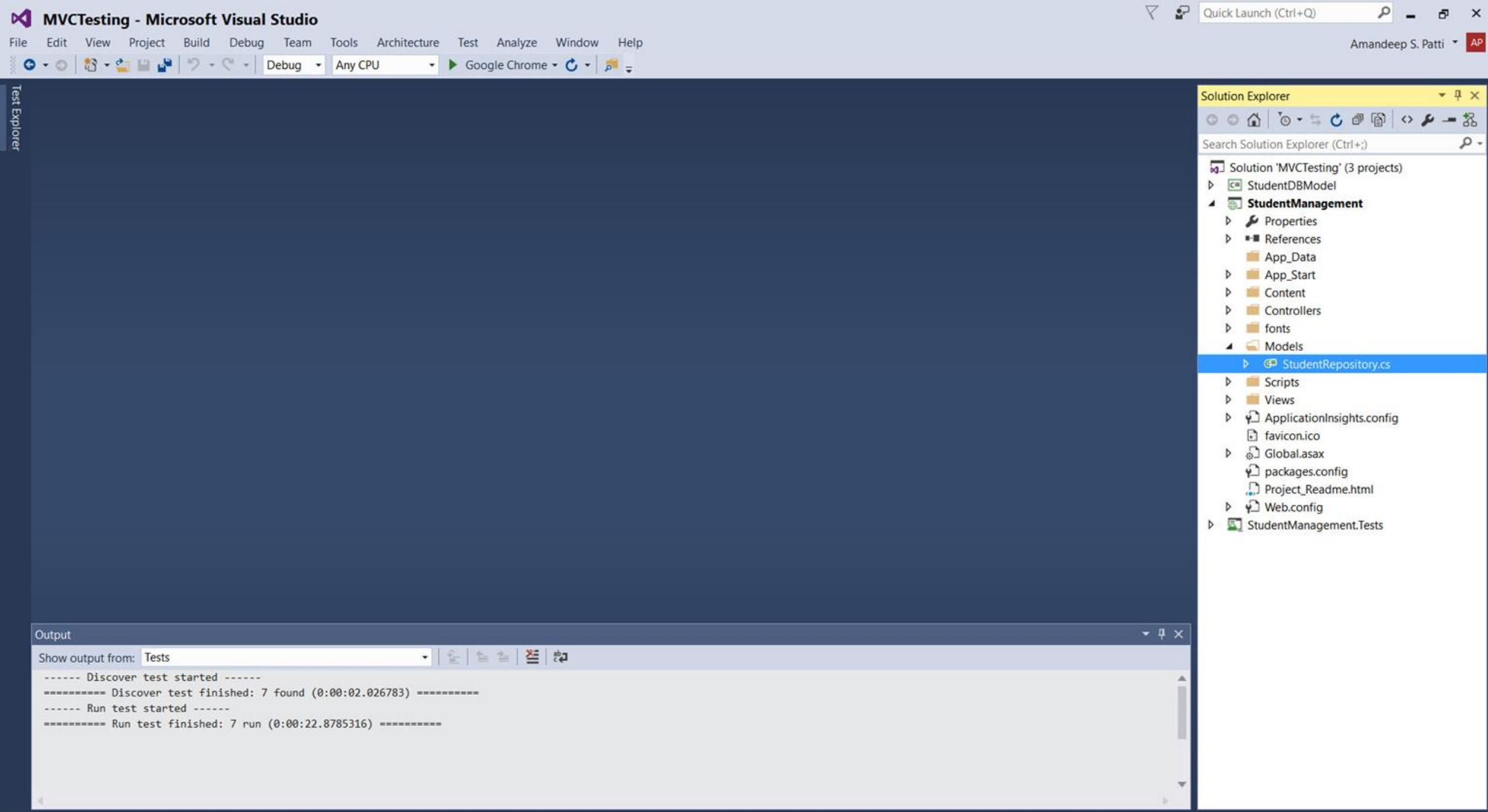
```
----- Discover test started -----
----- Discover test finished: 7 found (0:00:02.026783) -----
----- Run test started -----
----- Run test finished: 7 run (0:00:22.8785316) -----
```

Summary

Last Test Run Passed (Total Run Time 0:00:23)

7 Tests Passed

Build succeeded



MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Test Explorer

StudentRepository.cs

StudentManagement

StudentManagement.Models.StudentRepository

\_db

Quick Actions... Ctrl+.  
Rename... Ctrl+R, Ctrl+R  
Organize Usings  
Show on Code Map Ctrl+`  
Find All References on Code Map  
Show Related Items on Code Map  
Create Unit Tests  
Create IntelliTest  
Run IntelliTest  
Run Tests Ctrl+R, T  
Debug Tests Ctrl+R, Ctrl+T  
Insert Snippet... Ctrl+K, Ctrl+X  
Surround With... Ctrl+K, Ctrl+S  
Peek Definition Alt+F12  
Go To Definition F12  
Go To Implementation  
Find All References Shift+F12  
View Call Hierarchy Ctrl+K, Ctrl+T  
Breakpoint  
Run To Cursor Ctrl+F10  
Run Flagged Threads To Cursor  
Cut Ctrl+X  
Copy Ctrl+C  
Paste Ctrl+V  
Insert Comment  
Outlining  
Find Matching Clones in Solution

Solution Explorer

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StudentManagement.Tests

Output

Show output from: Tests

----- Discover test started -----  
----- Discover test finished: 7 found (0:00:02.026783) -----  
----- Run test started -----  
----- Run test finished: 7 run (0:00:22.8785316) -----

108 %

No quick actions available here

Ln 9 Col 35 Ch 35 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

StudentRepository.cs

StudentManagement

StudentManagement.Models.StudentRepository

\_db

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable
    {
        private DBModelContainer _db = new DBModelContainer();

        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
        public void Dispose()...
    }
}
```

Extract Interface...

108 %

Solution Explorer

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Output

Show output from: Tests

```
----- Discover test started -----
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----- Run test started -----
----- Run test finished: 7 run (0:00:22.8785316) -----
```

No quick actions available here

Ln 9 Col 35 Ch 35 INS

## Extract Interface

?

X

New interface name:

IStudentRepository

Generated name:

StudentManagement.Models.IStudentRepository

New file name:

IStudentRepository.cs

Select public members to form interface

- Add(Student)
- All()
- Delete(int)
- Detail(int)
- Dispose()
- Edit(Student)

Select All

Deselect All

OK

Cancel

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Quick Launch (Ctrl+Q)

Test Explorer

IStudentRepository.cs StudentRepository.cs\*

StudentManagement

```
using System.Collections.Generic;
using StudentDBModel;

namespace StudentManagement.Models
{
    public interface IStudentRepository
    {
        int Add(Student s);
        IEnumerable<Student> All();
        Student Delete(int id);
        Student Detail(int id);
        int Edit(Student s);
    }
}
```

1 reference  
2 references  
2 references  
2 references  
4 references  
2 references  
2 references

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

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Output

Show output from: Tests

```
----- Discover test started -----
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```

No quick actions available here

Ln 1 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Test Explorer

StudentRepository.cs\* X

StudentManagement

StudentManagement.Models.StudentRepository

\_db

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class StudentRepository : IDisposable, IStudentRepository
    {
        private DBModelContainer _db = new DBModelContainer();

        public int Add(Student s)...
        public int Edit(Student s)...
        public Student Delete(int id)...
        public Student Detail(int id)...
        public IEnumerable<Student> All()...
        public void Dispose()...
    }
}
```

108 %

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

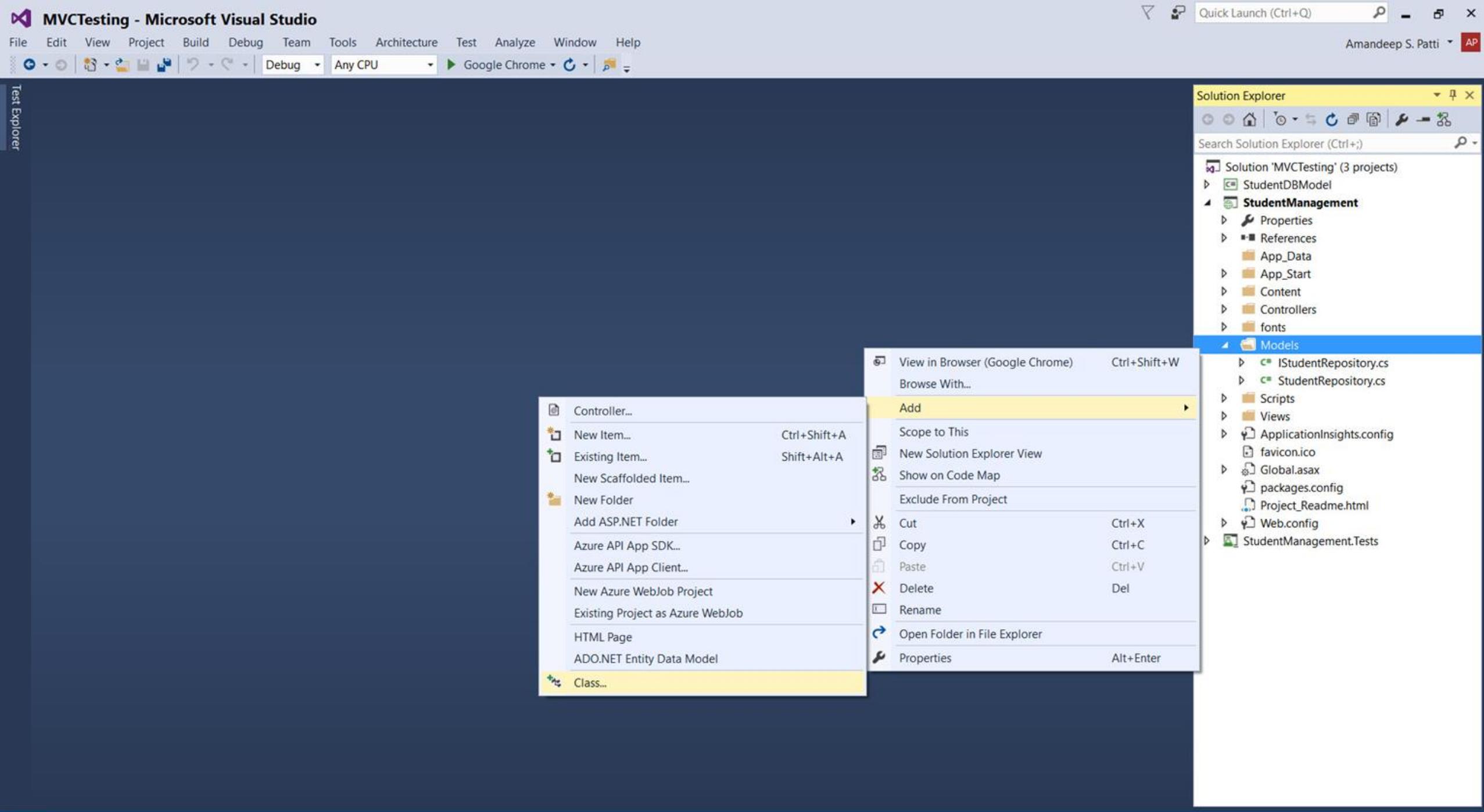
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Output

Show output from: Tests

```
----- Discover test started -----
----- Discover test finished: 7 found (0:00:02.026783) -----
----- Run test started -----
----- Run test finished: 7 run (0:00:22.8785316) -----
```

Ready Ln 9 Col 69 Ch 69 INS



## Add New Item - StudentManagement

?

X

Installed

Sort by: Default



Search Installed Templates (Ctrl+E)



Visual C#

Code

Data

General

Web

Windows Forms

WPF

Silverlight

SQL Server

Workflow

Online



Class

Visual C#



Interface

Visual C#



ADO.NET Entity Data Model

Visual C#



Application Manifest File

Visual C#



Assembly Information File

Visual C#



Class Diagram

Visual C#



Code Analysis Rule Set

Visual C#



Code File

Visual C#



DataSet

Visual C#



Debugger Visualizer

Visual C#



EF 5.x DbContext Generator

Visual C#



EF 6.x DbContext Generator

Visual C#



Installer Class

Visual C#

[Click here to go online and find templates.](#)

Name:

LocalStudentRepository.cs

Add

Cancel

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amaneep S. Patti AP

Test Explorer

LocalStudentRepository.cs

StudentManagement

StudentManagement.Models.LocalStudentRepository

Debug Any CPU Google Chrome

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

namespace StudentManagement.Models
{
    public class LocalStudentRepository
    {
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+;)

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Ready Ln 1 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* X

StudentManagement

StudentManagement.Models.LocalStudentRepository

Debug Any CPU Google Chrome

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

namespace StudentManagement.Models
{
    public class LocalStudentRepository : IStudentRepository
    {
    }
}
```

Search Solution Explorer (Ctrl+;)

Solution Explorer

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Ready Ln 8 Col 60 Ch 60 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository

using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Web;

namespace StudentManagement.Models  
{  
 public class LocalStudentRepository : IStudentRepository  
 {  
 }  
}

0 references

Contextual menu open over LocalStudentRepository class:

- Quick Actions... Ctrl+. (highlighted)
- Rename... Ctrl+R, Ctrl+R
- Organize Usings
- Show on Code Map Ctrl+`  
Find All References on Code Map  
Show Related Items on Code Map
- Create Unit Tests
- Create IntelliTest
- Run IntelliTest
- Run Tests Ctrl+R, T  
Debug Tests Ctrl+R, Ctrl+T
- Insert Snippet... Ctrl+K, Ctrl+X
- Surround With... Ctrl+K, Ctrl+S
- Peek Definition Alt+F12
- Go To Definition F12  
Go To Implementation
- Find All References Shift+F12
- View Call Hierarchy Ctrl+K, Ctrl+T
- Breakpoint
- Run To Cursor Ctrl+F10  
Run Flagged Threads To Cursor
- Cut Ctrl+X
- Copy Ctrl+C
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- Find Matching Clones in Solution

Solution Explorer

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Global.asax  
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108 %

Ready Ln 8 Col 60 Ch 60 INS

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | Debug Any CPU | Google Chrome

StudentManagement.Models.LocalStudentRepository

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

namespace StudentManagement
{
    public class LocalStudentRepository : IStudentRepository
    {
        public int Add(Student s)
        {
            throw new NotImplementedException();
        }

        public IEnumerable<Student> All()
        {
            throw new NotImplementedException();
        }

        public Student Delete(int id)
        {
            throw new NotImplementedException();
        }

        public Student Detail(int id)
        {
            throw new NotImplementedException();
        }

        public int Edit(Student s)
        {
            throw new NotImplementedException();
        }
    }
}
```

CS0535 'LocalStudentRepository' does not implement interface member 'IStudentRepository.Add(Student)'

Implement interface

Implement interface explicitly

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

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108 %

Preview changes

Fix all occurrences in: Document | Project | Solution

Ln 8 Col 60 Ch 60 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | Edit(Student s)

```
using StudentDBModel;
namespace StudentManagement.Models
{
    public class LocalStudentRepository : IStudentRepository
    {
        public int Add(Student s)
        {
            throw new NotImplementedException();
        }
        public IEnumerable<Student> All()
        {
            throw new NotImplementedException();
        }
        public Student Delete(int id)
        {
            throw new NotImplementedException();
        }
        public Student Detail(int id)
        {
            throw new NotImplementedException();
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        public int Edit(Student s)
        {
            throw new NotImplementedException();
        }
    }
}
```

Solution Explorer

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Ready Ln 27 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* X

StudentManagement

StudentManagement.Models.LocalStudentRepository

\_students

```
using StudentDBModel;

namespace StudentManagement.Models
{
    public class LocalStudentRepository : IStudentRepository
    {
        List<Student> _students;
        public int Add(Student s)
        {
            throw new NotImplementedException();
        }
        public IEnumerable<Student> All()
        {
            throw new NotImplementedException();
        }
        public Student Delete(int id)
        {
            throw new NotImplementedException();
        }
        public Student Detail(int id)
        {
            throw new NotImplementedException();
        }
        public int Edit(Student s)
        {
            throw new NotImplementedException();
        }
    }
}
```

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Ln 11 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | LocalStudentRepository0

Debug Any CPU | Google Chrome

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class LocalStudentRepository : IStudentRepository
    {
        List<Student> _students;

        public LocalStudentRepository()
        {
            _students = new List<Student>();
        }

        public int Add(Student s)
        {
            throw new NotImplementedException();
        }

        public IEnumerable<Student> All()
        {
            throw new NotImplementedException();
        }

        public Student Delete(int id)
        {
        }
    }
}
```

Solution Explorer

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- StudentManagement.Tests

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Ln 13 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | LocalStudentRepository0

```
public class LocalStudentRepository : IStudentRepository
{
    List<Student> _students;

    public LocalStudentRepository()
    {
        _students = new List<Student>();

        _students.Add(new Student()
        {
            Id = 1,
            FirstName = "John",
            LastName = "Simth",
            RegistrationNumber = "R1"
        });

        _students.Add(new Student()
        {
            Id = 2,
            FirstName = "David",
            LastName = "Walker",
            RegistrationNumber = "R2"
        });
    }

    public int Add(Student s)
    {
        throw new NotImplementedException();
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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108 %

Ln 17 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | Add(Student s)

```
public class LocalStudentRepository : IStudentRepository
{
    List<Student> _students;
    public LocalStudentRepository() { ... }

    public int Add(Student s)
    {
        s.Id = _students.Max(x => x.Id) + 1;
        _students.Add(s);
        return s.Id;
    }

    public IEnumerable<Student> All()
    {
        throw new NotImplementedException();
    }

    public Student Delete(int id)
    {
        throw new NotImplementedException();
    }

    public Student Detail(int id)
    {
        throw new NotImplementedException();
    }

    public int Edit(Student s)
    {
        throw new NotImplementedException();
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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  - StudentManagement.Tests

Ready Ln 32 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q)

Amaneep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | All

```
public class LocalStudentRepository : IStudentRepository
{
    List<Student> _students;
    public LocalStudentRepository() { }
    public int Add(Student s)
    {
        s.Id = _students.Max(x => x.Id) + 1;
        _students.Add(s);
        return s.Id;
    }
    public IEnumerable<Student> All()
    {
        return _students.ToList();
    }
    public Student Delete(int id)
    {
        throw new NotImplementedException();
    }
    public Student Detail(int id)
    {
        throw new NotImplementedException();
    }
    public int Edit(Student s)
    {
        throw new NotImplementedException();
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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108 %

Ln 38 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement.Models.LocalStudentRepository | Delete(int id)

```
public class LocalStudentRepository : IStudentRepository
{
    List<Student> _students;
    public LocalStudentRepository() { }
    public int Add(Student s)
    {
        s.Id = _students.Max(x => x.Id) + 1;
        _students.Add(s);
        return s.Id;
    }
    public IEnumerable<Student> All()
    {
        return _students.ToList();
    }
    public Student Delete(int id)
    {
        Student s = _students.Find(x => x.Id == id);
        _students.Remove(s);
        return s;
    }
    public Student Detail(int id)
    {
        throw new NotImplementedException();
    }
    public int Edit(Student s)
    {
        throw new NotImplementedException();
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+;) | Solution 'MVCTesting' (3 projects)

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108 % | Ln 42 | Col 1 | Ch 1 | INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Any CPU Google Chrome Detail(int id)

LocalStudentRepository.cs\* StudentManagement.Models.LocalStudentRepository

```
public IEnumerable<Student> All()
{
    return _students.ToList();
}
3 references
public Student Delete(int id)
{
    Student s = _students.Find(x => x.Id == id);
    _students.Remove(s);
    return s;
}
5 references
public Student Detail(int id)
{
    return _students.Find(x => x.Id == id);
}
3 references
public int Edit(Student s)
{
    throw new NotImplementedException();
}
```

Test Explorer

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MVCTesting' (3 projects)

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Ready Ln 48 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amaneep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement.Models.LocalStudentRepository | Edit(Student s)

```
public IEnumerable<Student> All()
{
    return _students.ToList();
}
3 references
public Student Delete(int id)
{
    Student s = _students.Find(x => x.Id == id);
    _students.Remove(s);
    return s;
}
5 references
public Student Detail(int id)
{
    return _students.Find(x => x.Id == id);
}
3 references
public int Edit(Student s)
{
    Student st = _students.Find(x => x.Id == s.Id);
    st.FirstName = s.FirstName;
    st.LastName = s.LastName;
    st.RegistrationNumber = s.RegistrationNumber;
    return st.Id;
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

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Ln 52 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

LocalStudentRepository.cs\* | StudentManagement | StudentManagement.Models.LocalStudentRepository | LocalStudentRepository0

LocalStudentRepository.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using StudentDBModel;

namespace StudentManagement.Models
{
    public class LocalStudentRepository : IStudentRepository
    {
        List<Student> _students;
        public LocalStudentRepository()
        {
            _students = new List<Student>();
        }
        public int Add(Student s)
        {
            _students.Add(s);
            return 1;
        }
        public IEnumerable<Student> All()
        {
            return _students;
        }
        public Student Delete(int id)
        {
            var student = _students.Find(s => s.ID == id);
            if (student != null)
                _students.Remove(student);
            return student;
        }
        public Student Detail(int id)
        {
            return _students.Find(s => s.ID == id);
        }
        public int Edit(Student s)
        {
            var student = _students.Find(s => s.ID == s.ID);
            if (student != null)
                _students.Remove(student);
            _students.Add(s);
            return 1;
        }
    }
}
```

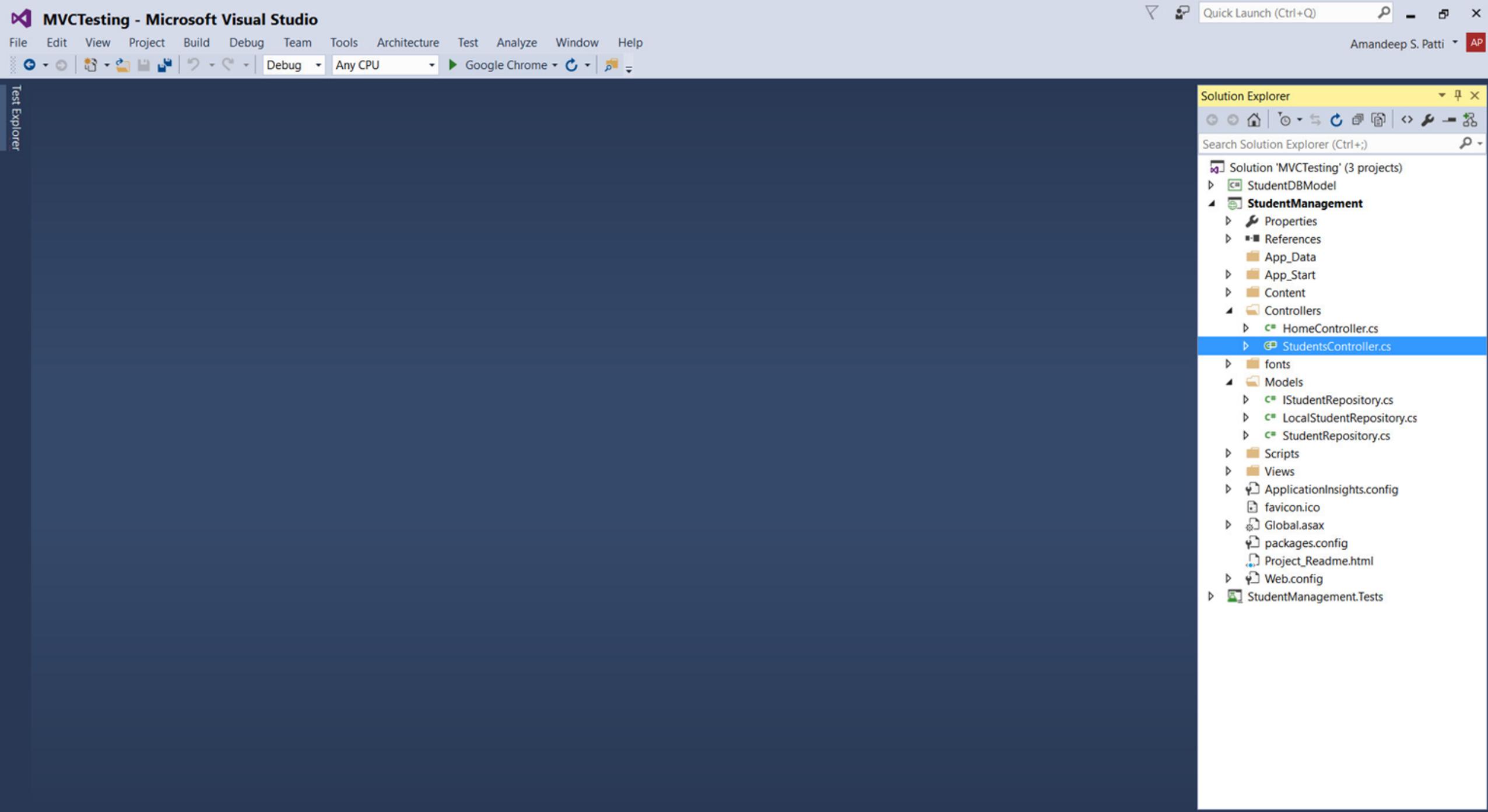
Solution Explorer

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Ready Ln 61 Col 2 Ch 2 INS



MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* X

StudentManagement

StudentManagement.Controllers.StudentsController

Index()

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Data.Entity;
using System.Linq;
using System.Net;
using System.Web;
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        //private StudentRepository sr = new StudentRepository();
        private IStudentRepository sr;

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            //return View("Index", db.Students.ToList());
            return View("Index", sr.All());
        }

        // GET: Students/Details/5
    }
}
```

108 %

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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    - Properties
    - References
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    - App\_Start
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      - IStudentRepository.cs
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(Ctrl+K) was pressed. Waiting for second key of chord...

Ln 19 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amaneep S. Patti AP

Test Explorer

StudentsController.cs\* X

StudentManagement

StudentManagement.Controllers.StudentsController

StudentsController()

```
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        //private StudentRepository sr = new StudentRepository();
        private IStudentRepository sr;

        public StudentsController()
        {
            sr = new StudentRepository();
        }

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            //return View("Index", db.Students.ToList());
            return View("Index", sr.All());
        }

        // GET: Students/Details/5
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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Ln 20 Col 1 Ch 1 INS

The key combination (Ctrl+K, Enter) is not a command.

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* ▾ X

StudentManagement.Controllers.StudentsController ▾ StudentsController(IStudentRepository r)

```
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        //private StudentRepository sr = new StudentRepository();
        private IStudentRepository sr;

        public StudentsController()
        {
            sr = new StudentRepository();
        }

        public StudentsController(IStudentRepository r)
        {
            sr = r;
        }

        // GET: Students
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            //return View("Index", db.Students.ToList());
        }
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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    - App\_Start
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Ln 25 Col 1 Ch 1 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentsController.cs\* X

StudentManagement.Controllers.StudentsController

sr

```
using System.Web.Mvc;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Controllers
{
    10 references
    public class StudentsController : Controller
    {
        //private DBModelContainer db = new DBModelContainer();
        //private StudentRepository sr = new StudentRepository();
        private IStudentRepository sr;

        4 references | 4/4 passing
        public StudentsController()
        {
            sr = new StudentRepository();
        }

        0 references
        public StudentsController(IStudentRepository r)
        {
            sr = r;
        }

        // GET: Students
        1 reference | 1/1 passing
        public ActionResult Index()
        {
            //return View(db.Students.ToList());
            //return View("Index", db.Students.ToList());
        }
    }
}
```

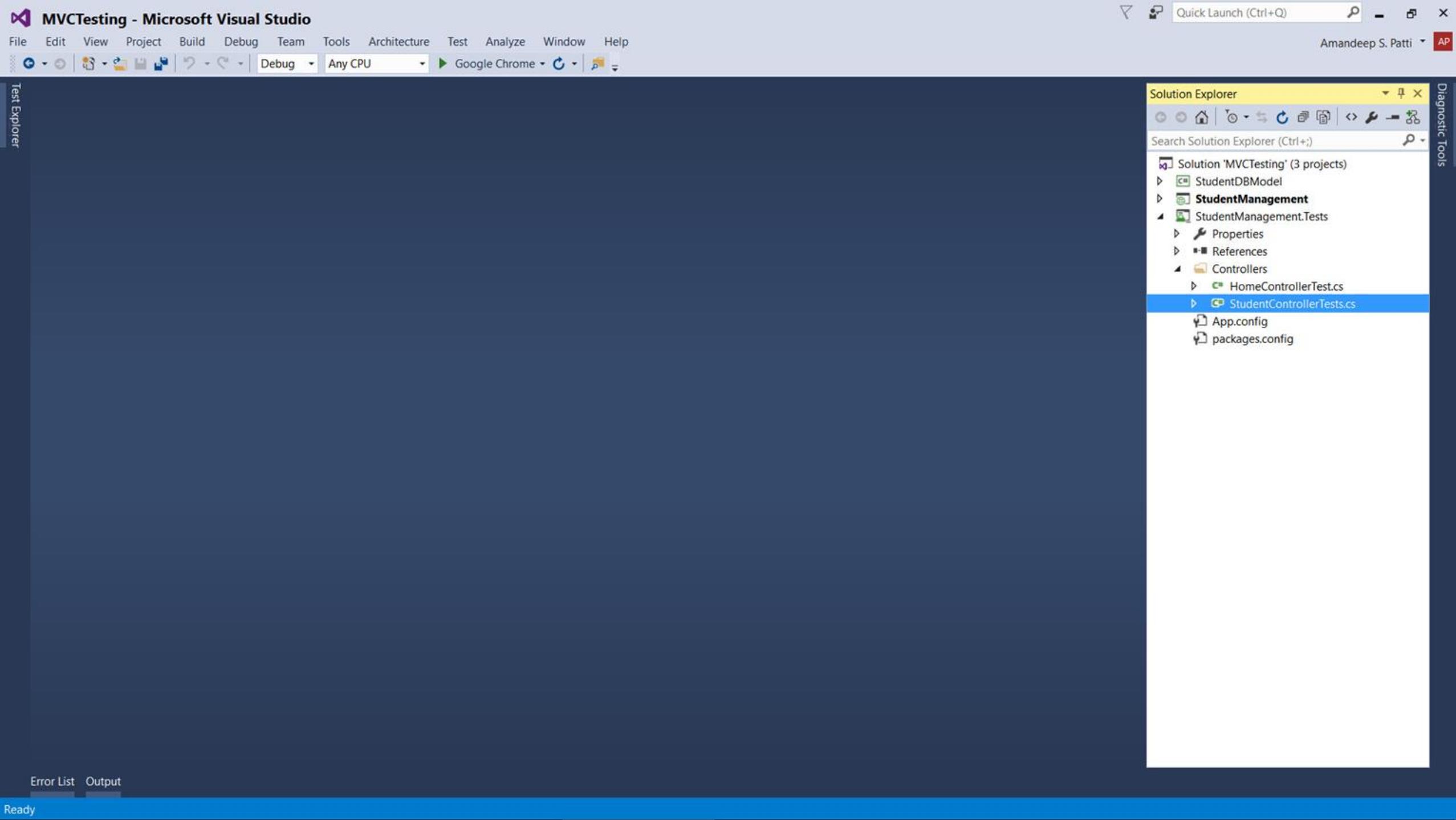
Solution Explorer

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The key combination (Ctrl+K, Enter) is not a command.



MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

StudentControllerTests.cs\* | StudentManagement.Tests

Google Chrome

Any CPU

IndexAction\_Returns\_IndexView()

Diagnostic Tools

```
using System;
using Microsoft.VisualStudio.TestTools.UnitTesting;
using System.Web.Mvc;
using System.Net;
using StudentManagement.Controllers;
using StudentDBModel;
using StudentManagement.Models;

namespace StudentManagement.Tests.Controllers
{
    [TestClass]
    public class StudentControllerTests
    {
        [TestMethod]
        public void IndexAction_Returns_IndexView()...
        [TestMethod]
        public void DetailAction_Returns_StudentModel()...
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'MVCTesting' (3 projects)

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- StudentManagement.Tests
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  - Controllers
    - HomeControllerTest.cs
    - StudentControllerTests.cs
      - StudentControllerTests
  - App.config
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Diagnostic Tools

131 %

Error List Output

Ready Ln 10 Col 32 Ch 32 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Quick Launch (Ctrl+Q)

Test Explorer

StudentControllerTests.cs

StudentManagement.Tests

StudentManagement.Tests.Controllers.StudentControllerTests

DetailsAction\_LocalRepository\_ValidStudent()

```
[TestMethod()]
public void DetailsAction_NullID_BADHTTP()...
```

```
[TestMethod()]
public void DetailsAction_InvalidID_NotFoundHTTP()...
```

```
[TestMethod()]
public void DetailsAction_LocalRepository_ValidStudent()
{
    //Arrange
    StudentsController sc = new StudentsController(new LocalStudentRepository());

    //Act
    ViewResult actualResult = sc.Details(1) as ViewResult;
    Student actualStudent = actualResult.Model as Student;
    string actualFirstName = actualStudent.FirstName;
    //Assert

    string ExpectedFirstName = "John";
    Assert.AreEqual(ExpectedFirstName, actualFirstName);
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MVCTesting' (3 projects)

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Diagnostic Tools

119 %

Error List Output

Item(s) Saved

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MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

StudentControllerTests.cs

```
public void DetailsAction_InvalidID_NotFoundHTTP()
{
    //Arrange
    StudentsController sc = new StudentsController(new LocalStudentRepository());

    //Act
    ViewResult actualResult = sc.Details(1) as ViewResult;
    Student actualStudent = actualResult.Model as Student;
    string actualFirstName = actualStudent.FirstName;
    //Assert

    string ExpectedFirstName = "John";
    Assert.AreEqual(ExpectedFirstName, actualFirstName);
}
```

Test Explorer

Solution Explorer

Diagnostic Tools

Quick Launch (Ctrl+Q)

Amaneep S. Patti AP

119 %

Error List Output

Item(s) Saved

Ln 89 Col 47 Ch 47 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Amandeep S. Patti AP

Test Explorer

Streaming Video: Configure continuous integration

Run All | Run... | Playlist : All Tests

Passed Tests (8)

- DetailsAction\_LocalRepository\_ValidStudent 129 ms
- About 1 sec
- Contact 3 ms
- DetailAction\_Returns\_StudentModel 963 ms
- DetailsAction\_InvalidID\_NotFoundHTTP 4 ms
- DetailsAction\_NullID\_BADHTTP 3 ms
- Index 1 ms
- IndexAction\_Returns\_IndexView 10 sec

StudentControllerTests.cs

```
[TestMethod()]
public void DetailsAction_InvalidID_NotFoundHTTP()...
```

```
[TestMethod()]
public void DetailsAction_LocalRepository_ValidStudent()
{
    //Arrange
    StudentsController sc = new StudentsController(new LocalStudentRepository());
    sc.ControllerContext.HttpContext.Response.ContentType = "text/html";

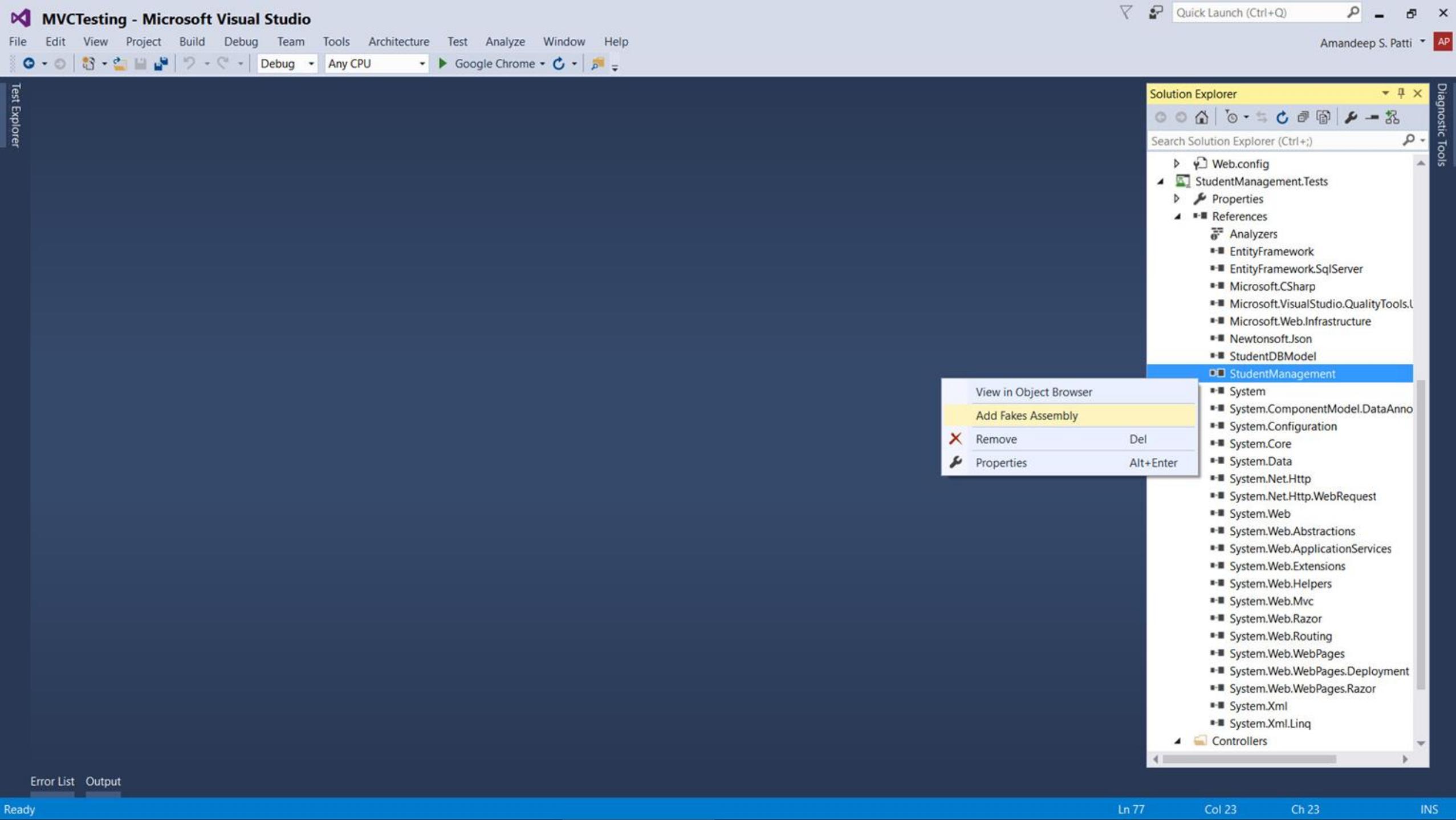
    //Act
    ViewResult actualResult = sc.Details(1) as ViewResult;
    Student actualStudent = actualResult.Model as Student;
    string actualFirstName = actualStudent.FirstName;

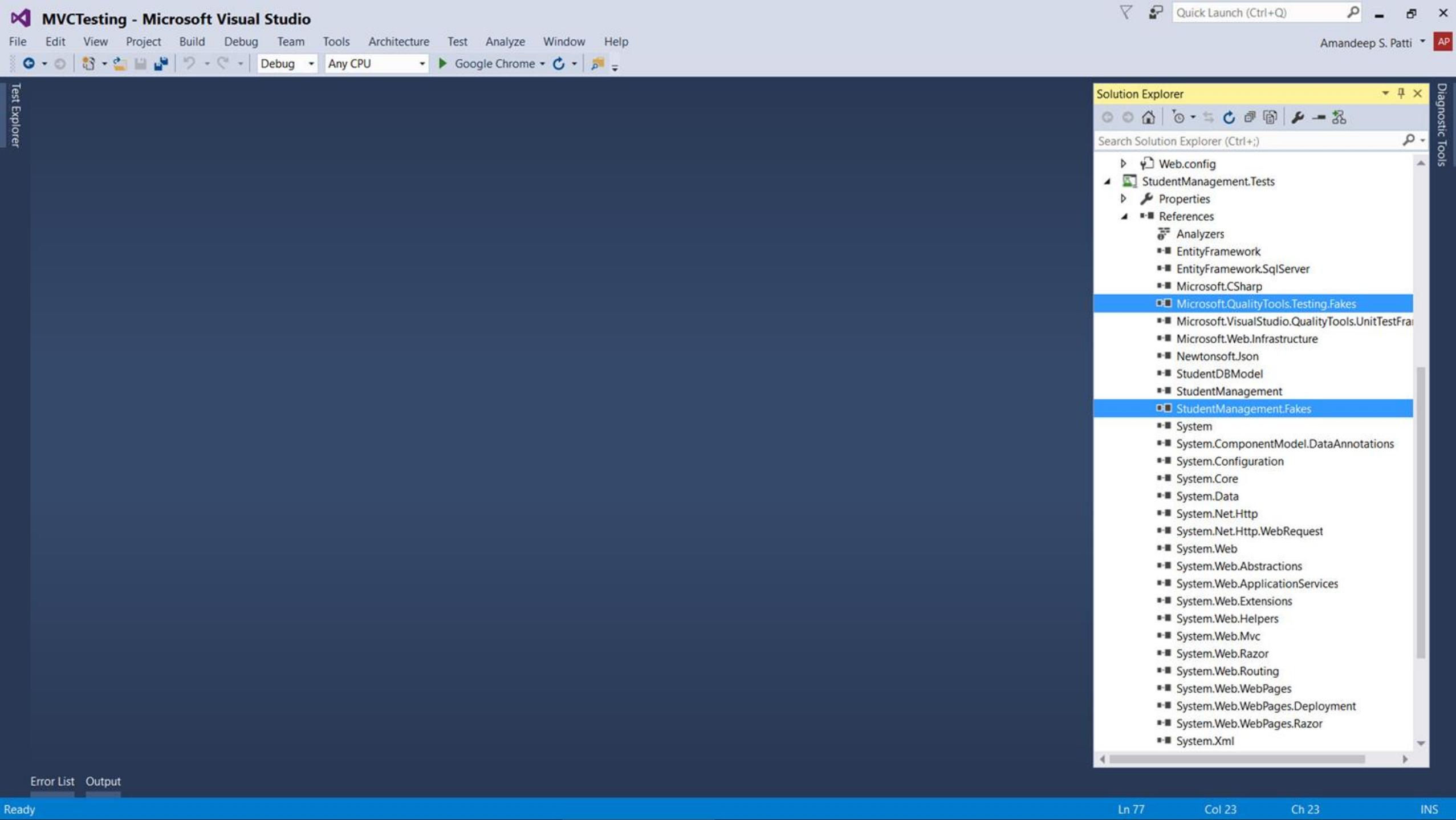
    //Assert
    string ExpectedFirstName = "John";
    Assert.AreEqual(ExpectedFirstName, actualFirstName);
}
```

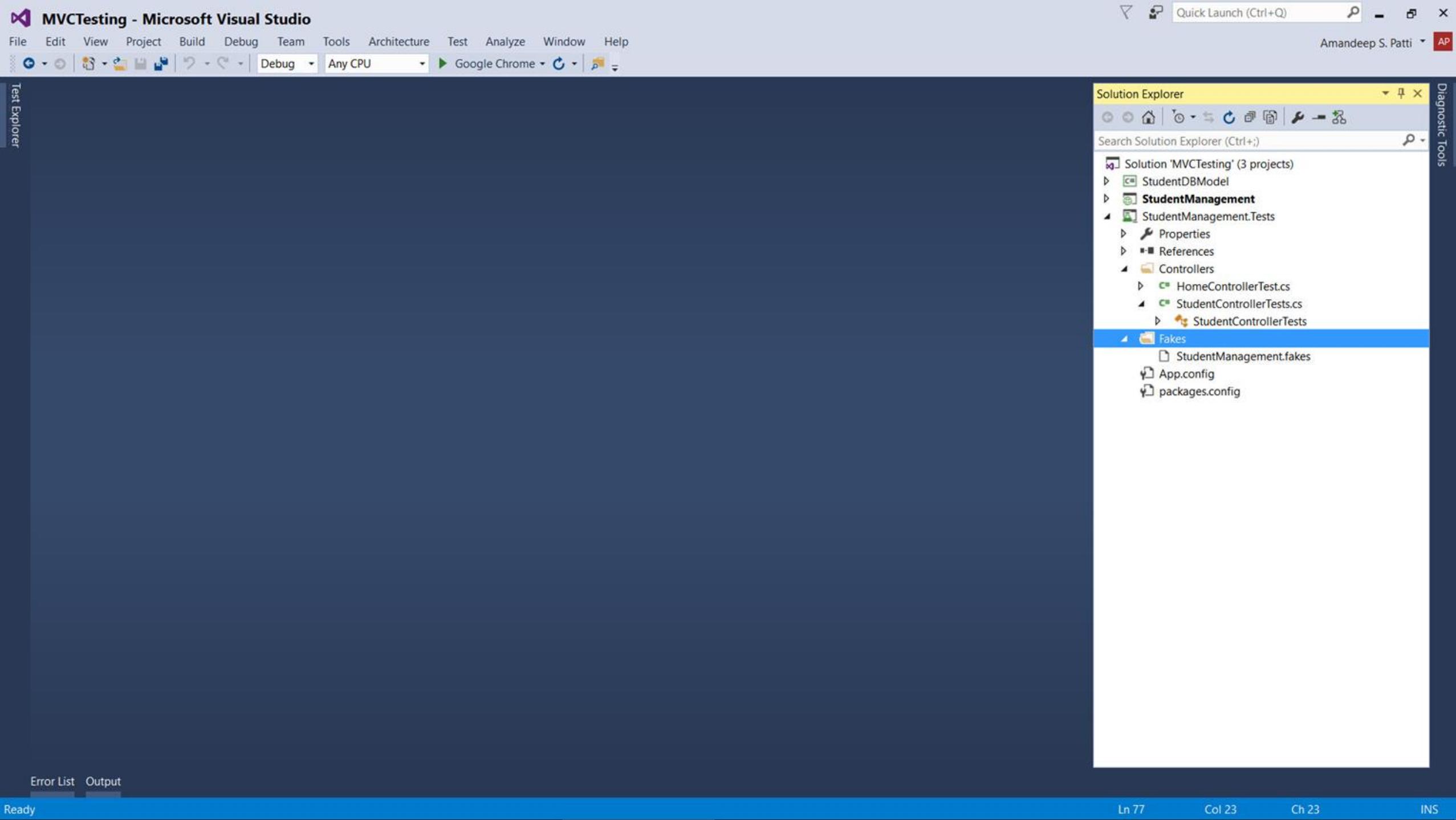
Solution Explorer

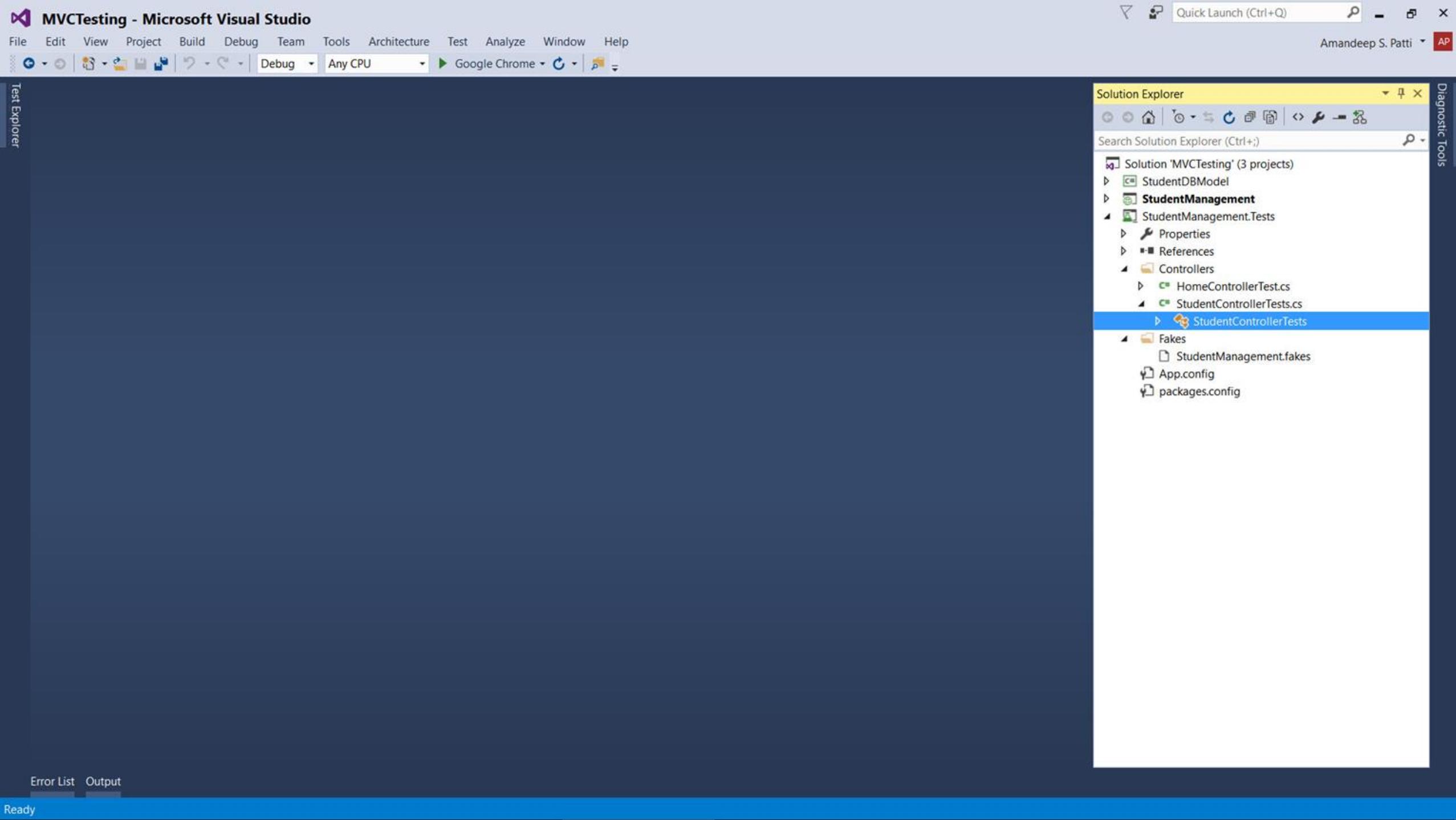
Search Solution Explorer (Ctrl+;)

- Solution 'MVCTesting' (3 projects)
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MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Test Explorer

StudentControllerTests.cs\* | StudentManagement.Tests | StudentManagement.Tests.Controllers.StudentControllerTests | IndexAction\_Returns\_IndexView()

```
using Microsoft.VisualStudio.TestTools.UnitTesting;
using System.Web.Mvc;
using System.Net;
using StudentManagement.Controllers;
using StudentDBModel;
using StudentManagement.Models;
using StudentManagement.Models.Fakes;

namespace StudentManagement.Tests.Controllers
{
    [TestClass]
    public class StudentControllerTests
    {
        [TestMethod]
        public void IndexAction_Returns_IndexView()...
        [TestMethod]
        public void DetailAction_Returns_StudentModel()...
        [TestMethod()]
        public void DetailsAction_NullID_BADHTTP()...
    }
}
```

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
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  - StudentManagement.Tests
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        - StudentControllerTests
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      - App.config
      - packages.config

Diagnostic Tools

119 %

Error List Output

Ready Ln 11 Col 38 Ch 38 INS

MVCTesting - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Amandeep S. Patti AP

Test Explorer

StudentControllerTests.cs\* | StudentManagement.Tests | StudentManagement.Tests.Controllers.StudentControllerTests | DetailsAction\_Stub\_ValidStudent()

```
[TestMethod()]
public void DetailsAction_Stub_ValidStudent()
{
    //Arrange
    StubIStudentRepository r = new StubIStudentRepository();
    r.DetailInt32 = n =>
    {
        return new Student()
        {
            Id = 101,
            FirstName = "Amandeep",
            LastName = "Patti",
            RegistrationNumber = "R101"
        };
    };
    StudentsController sc = new StudentsController(r);

    //Act
    ViewResult actualResult = sc.Details(101) as ViewResult;
    Student actualStudent = actualResult.Model as Student;
    string actualFirstName = actualStudent.FirstName;
    //Assert

    string ExpectedFirstName = "Amandeep";
    Assert.AreEqual(ExpectedFirstName, actualFirstName);
}
```

108 %

Error List Output

Ln 119 Col 10 Ch 10 INS

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

- Solution 'MVCTesting' (3 projects)
  - StudentDBModel
  - StudentManagement
  - StudentManagement.Tests
    - Properties
    - References
    - Controllers
      - HomeControllerTest.cs
      - StudentControllerTests.cs
        - StudentControllerTests
- Fakes
  - StudentManagement.fakes
    - App.config
    - packages.config

MVCTesting - Microsoft Visual Studio

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Quick Launch (Ctrl+Q)

Amandeep S. Patti AP

Test Explorer

Streaming Video: Configure continuous integration

Run All | Run... | Playlist : All Tests

Passed Tests (9)

- DetailsAction\_Stub\_ValidStudent 232 ms
- About 1 sec
- Contact 4 ms
- DetailAction\_Returns\_StudentModel 974 ms
- DetailsAction\_InvalidID\_NotFoundHTTP 5 ms
- DetailsAction\_LocalRepository\_ValidStudent 5 ms
- DetailsAction\_NullID\_BADHTTP 4 ms
- Index 3 ms
- IndexAction\_Returns\_IndexView 11 sec

DetailsAction\_Stub\_ValidStudent

Source: StudentControllerTests.cs line 96

Test Passed - DetailsAction\_Stub\_ValidStudent

Elapsed time: 232 ms

StudentControllerTests.cs

```
[TestMethod()]
public void DetailsAction_Stub_ValidStudent()
{
    //Arrange
    StubIStudentRepository r = new StubIStudentRepository();
    r.DetailInt32 = n =>
    {
        return new Student()
        {
            Id = 101,
            FirstName = "Amandeep",
            LastName = "Patti",
            RegistrationNumber = "R101"
        };
    };
    StudentsController sc = new StudentsController(r);

    //Act
    ViewResult actualResult = sc.Details(101) as ViewResult;
    Student actualStudent = actualResult.Model as Student;
    string actualFirstName = actualStudent.FirstName;
    //Assert

    string ExpectedFirstName = "Amandeep";
    Assert.AreEqual(ExpectedFirstName, actualFirstName);
}
```

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Error List Output

Build succeeded