

FRESHER ACADEMY

MVC 5.0

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Purpose of Assignments

Use MVC to manage a simple blog named JustBlog.

- The blog allow owner post new blog, review, update or delete an existing blog.
- Visitor can read blog or view list of blog posts in home page or view by month, by tag.
- Visitor also can write a comment for the blog.

Pre-condition

To start assignments, student required to complete all assignments in **EF.P.P001 (JustBlog)**. We are going to countinue update existing solution/projects to add more MVC project.

Technologies

- Entity Framework 6.2.0
- MVC 5.2.4
- MS .net Framework 4.6.1
- MS C# 6.0
- Linq
- Repository Design pattern

Working Environment

- MS SQL Server,
- Visual Studio 2015,
- IIS Express AND IIS 8.0

Assignment Description

Assignment_01

Add new MVC project

Add new project type MVC into the solution. Project name: **FA.JustBlog**

- Project template: ASP.NET MVC (.NET Framework)
- Name: FA.JustBlog
- Authentication: Individual User Accounts

Add reference to: **FA.JustBlog.Core**

Install IdentitySample package from nuget.org by run the command in Package Manager:

PM> Install-Package Microsoft.AspNet.Identity.Samples -Pre

Update connection string in Web.Config file

View application to see first result.

Estimated time: 10 minutes

Assignment_02

Display all blog posts

Pre-condition

Finish **Assignment_01**

Functional specification

Inside project **FA.JustBlog**, create **PostController** by using Empty template.

Implement view Index to show list of posts.

When user click on link of post, system opens details of post.

Technical needed

Get data by using method from repository.

[MVC controller](#)

[MVC View](#)

[Razor syntax](#)

Tool used

Visual Studio

Post condition

List of posts showed as bellow.

When user click on link of post, system opens details of post.

All posts!

Hello, this is my first post!

Posted 04/23/2019 1:38:21 PM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.

Never in all their history have men been able truly to conceive of the world as one: a single sphere, a globe, having the qualities of a globe, a round earth in which all the directions eventually meet, in which there is no center because every point, or none, is center — an equal earth which all men occupy as equals. The airman's earth, if free men make it, will be truly round: a globe in practice, not in theory.

The second post!

Posted 04/23/2019 1:38:21 PM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.

Never in all their history have men been able truly to conceive of the world as one: a single sphere, a globe, having the qualities of a globe, a round earth in which all the directions eventually meet, in which there is no center because every point, or none, is center — an equal earth which all men occupy as equals. The airman's earth, if free men make it, will be truly round: a globe in practice, not in theory.

Estimated time: 30 minutes

Assignment_03

Display latest posts

Pre-condition

Finish **Assignment_02**

Functional specification

Add new LatestPost action and view to show posts ordered by PostedOn in descending.

For view details post, system redirect to Details action created above

Technical needed

Get data by using method from repository.

[MVC controller](#)

[MVC View](#)

[Razor syntax](#)

Tool used

Visual Studio

Post condition

List of latest post showed as description.

Estimated time: 30 minutes

Assignment_04

Create layout and theme

Pre-condition

Finish **Assignment_01**

Functional specification

Create custom theme or use public theme to update UI of the blog.

This is a suggestion: <https://startbootstrap.com/themes/clean-blog/>

“Clean blog is a carefully styled Bootstrap blog theme that is perfect for personal or company blogs. This theme features four HTML pages including a blog index, an about page, a sample post, and a contact page.”

Technical needed

[MVC layout](#)

[MVC view](#)

[MVC Bundling and Minification](#)

[MVC Bundling and Minification 2](#)

Post condition

The layout and view is updated



All posts!

Hello, this is my first post!

Posted 04/08/2019 12:55:06 PM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.

The second post!

Posted 04/08/2019 12:55:06 PM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.



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Assignment_05

Using Partial view for footer

Pre-condition

Finish **Assignment_04**

Functional specification

Move footer section from layout into partial.

Technical needed

[MVC Partial view](#)

Post condition

Follow steps to move footer section to partial:

1. Create new partial view named `_PartialFooter` inside Shared folder
2. Move footer section from layout into `_PartialFooter`
3. Call partial view from layout: `@Html.Partial("_PartialFooter")` then check result

Using Partial view for About me!

Functional specification

Create new section to display information of blog owner.

Post condition

Follow steps to create section:

1. Create new partial view named `_PartialAboutCard` inside Home folder
2. Update content for the partial view
3. Create child-action from Home controller

```
[ChildActionOnly]
public ActionResult AboutCard()
{
    return PartialView("_PartialAboutCard");
}
```
4. Call partial view from layout. This partial is beside main content

```
<div class="col-lg-9 mx-auto">
    @RenderBody()
</div>
<div class="col-lg-3 mx-auto">
    @Html.Action("AboutCard", "Home")
</div>
```
5. Run and check result



Using Partial view for most viewed posts and latest posts

Functional specification

Create new section to display most viewed posts.

Create new section to display latest posts

Post condition

Follow steps to create section:

1. Create new partial view named `_ListPosts` inside Post folder
2. Create action `MostViewedPosts` inside `PostController`, get top 5 posts have highest `ViewCount` then show them by use `ListPosts` partial. The partial is shown under About me section
3. Create action `LatestPosts` inside `PostController`, get top 5 latest posts then show them by use `ListPosts` partial. The partial is shown under `MostViewedPosts` section

Using Partial view for top 10 tags

Functional specification

Create new section to display top 10 tags.

Post condition

Follow steps to create section:

1. Create `TagController` and with `PopularTags` chid-action
2. Create new partial view named `_PopularTags` inside Tag folder to show popular tag at the bottom of right panel

Assignment_06

Dynamic menu by category

Functional specification

Update menu to display list of categories. Each category is one item in menu.

User click on any item in menu to redirect to page that list of all posts under category.

Post condition



Assignment_07

Routing and SEO url

Functional specification

Change default url mapping to new url:

For details post: `/Post/year/month/title`

For category: `/Category/name`

For tag: `/Tag/name`

Technical needed

[MVC routing](#)

[Custom routing in MVC](#)

Post condition

Follow steps:

1. Create new mapping in RouteTable

```
routes.MapRoute(
    "Post",
    "Post/{year}/{month}/{title}",
    new { controller = "Post", action = "Details" },
    new { year = @"\d{4}", month = @"\d{2}" }
);
```

2. Create action Details inside PostController that mapped to route. Also create corresponding method in repository

```
public ActionResult Details(int year, int month, string title)
{
    var post = postRepository.FindPost(year, month, title);
    if (post == null)
        return HttpNotFound();

    return View(post);
}
```

3. Now, create link inside Index view of Post folder

```
@Html.ActionLink(item.Title, "Details", "Post", new { @year = item.PostedOn.Year, month = item.PostedOn.Month.ToString("00"), title = item.UrlSlug }, null)
```

4. Check result:

Hello, this is my first post!

Posted 04/08/2019 12:55:06 PM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have relationship. To understand the InverseProperty attribute, cor following example of Course and Teacher entities.



5. Do the same to apply SEO url for Category, Tag

Assignment_o8

Custom helper for CategoryLink, TagLink

Functional specification

Use inline helper to generate PostLink

Use method extension to create link for Post, Category, Tag

Technical needed

[Custom helper in MVC](#)

Post condition

Create custom helper to allow call helper easy as: `@Html.TagLink(tag),`

`@Html.CategoryLink(category)`

The second post!

Posted Apr 8 at 12:55 PM Viewed 100 time(s) with Rate 4.5

Category [MVC](#)

Tag: [ado.net](#) [javascript](#) [mvc](#) [Csharp](#) [entityframework](#)

Custom helper for friendly datetime value

Functional specification

Create custom helper to display PostedOn value in friendly format like: 23 minutes ago, yesterday at 1:55 AM

Technical needed

[Custom helper in MVC](#)

[Extension Methods](#)

Post condition

Create custom helper to to display PostedOn value in friendly format:

Hello, this is my first post!

Posted Yesterday at 1:55 AM with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.

The second post!

Posted 23 minutes ago with rate 4.5 by 100 view(s)

The InverseProperty attribute is used when two entities have more than one relationship. To understand the InverseProperty attribute, consider the following example of Course and Teacher entities.

Assignment_09

Back-end business with Admin area

Create new area named Admin

Inside Admin area, use a admin template (like: startbootstrap-sb-admin-gh-pages or AdminLTE) to update layout

Assignment_10

Manage Post in Admin area

Create Post controller to manage posts. Also, create views for Post.

Create more views to show: Latest Posts, Most Viewed Posts, Most Interesting Posts, Published Posts, Un-published Posts

Update view Create/Update/Details/Delete by using new template, bootstrap.

Implement validation by using **Data Annotation** and [jQueryValidation](#).

Implement actions by using method from repositories

Assignment_11

Use grid to display list of records

Using [jqGrid](#) or [MVCGrid](#) to update views

Assignment_12

Use Datetimepicker

Using [Bootstrap Datetimepicker](#) to replace in datetime fields

Assignment_13

Use richtext control

Using [CKEditor](#) or [TinyMCE](#) to implement richtext control for Description field

Assignment_14

Implement Paging

Implement paging for views. Each page show 10 records as default. User can change page size on the fly.

Student can use custome pager or plug-in like [PagedList.Mvc](#)

Assignment_15

Manage Category, Tag, Comment in Admin area

Apply all of technical from Assignment 9 to Assignment 13 for Category, Tag, Comment.

Assignment_16

Manage Users and Roles with ASP.net Identity

Install ASP.net Identity for manage users and roles.

Add more field for ApplicationUser such as: Age, About me....

Create 3 roles: User, Contributor, Blog Owner.

Add 3 users for each role.

Implement send mail function to send email when reset password,

Assignment_17

Apply filter

Apply filter to implement permission in Admin area as bellow:

Module	Action	User	Contributor	Blog Owner
Post	Create		X	X
	Update		X	X
	Details	X	X	X
	Index	X	X	X

	Delete			X
	Publish			X
	Un-publish			X
Category	Create		X	X
	Update		X	X
	Details	X	X	X
	Index	X	X	X
	Delete			X
Tag	Create		X	X
	Update		X	X
	Details	X	X	X
	Index	X	X	X
	Delete			X
Comment	Create			X
	Update		X	X
	Details	X	X	X
	Index	X	X	X
	Delete			X
Role	Create			X
	Update			X
	Details	X	X	X
	Index	X	X	X
	Delete			X
User	Create			X
	Update			X
	Details	X	X	X
	Index	X	X	X
	Delete			X

Assignment_18

Logging with log4net

Implement log4net to log application.

Assignment_19

Add comment with ajax

Add comment section under each Post in front-end.

Allo reader add comment as anonymous.

Use ajax to add comment(s).

Use captCha to prevent BOT attacker

Assignment_20

Search function

Search function on front-end to allow reader to find post(s) by Title, ShortDescription

Full search function on back-end to allow blog owner to find post by any field.

Assignment_21

Multiple languages

Update project to support 2 languages: English and Vietnamese

Assignment_22

Deploy project to IIS

Deploy project to local IIS

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The End!