Diploma in Multimedia & Infocomm Technology
EGL219 Web Application Development Framework

Project Part 1: Create a Fruits Ordering System

Objectives:

At the end of part 1 of the project, you will have created a new MVC application, with a layout page, database and Views to view and search Fruits and Fruit Categories on the Fruits Ordering System (FOS).

Marks to be awarded:

10% of total module marks.

Bonus:

Additional 1% of total module marks if the layout is responsive. The bonus is only valid if you submit on time.

Submission:

1. Ensure that your web application can run in Edge, Firefox or Chrome browser.
2. Zip your web application and database file.
3. Name the file FOS_P1_adminNo.zip (e.g., FOS_P1_12345A_.zip).
4. Demonstrate your project and submit your work on Blackboard by **17 Dec 2021, Friday**.
5. Late submission will result in the deduction of marks based on the following scale:

Late Submission past due date	Marks deducted
1 Day	20%
2 Days	40%
3 Days	60%
4 Days	80%
> 4 Days	100%

This means that if you submit your file 5 days after your due date, you will get **ZERO** marks for this part of the project.

Instructions:

1. Create a new ASP.NET Core MVC web application called FOS_M#_adminNo, e.g., FOS_M1_123456A, where M# refers to your EGL219 Module Group.

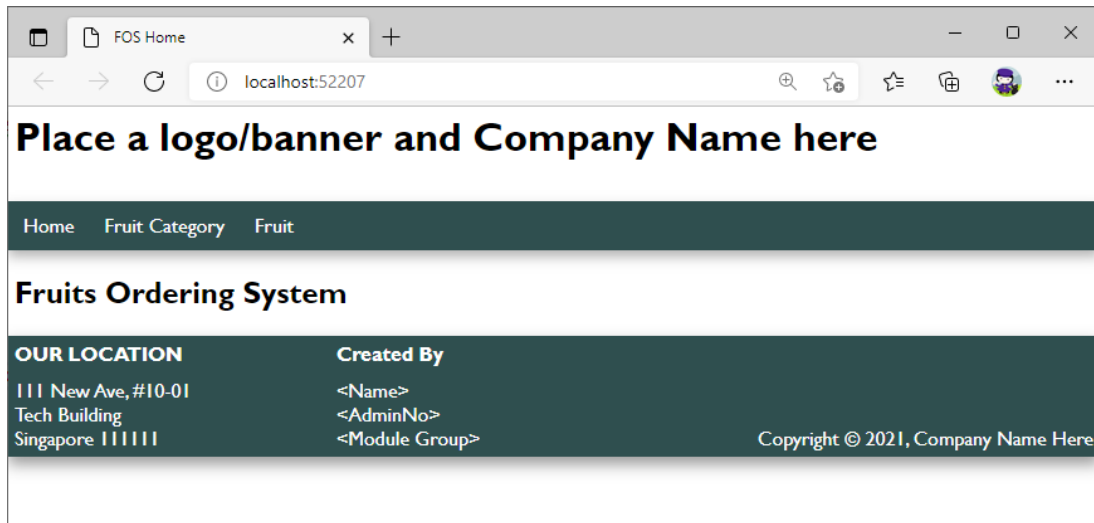2. Design a Layout page such that it is similar to the following layout:

Figure 1

You are free to design the layout and color as long as the following criteria is fulfilled:

a. You need to use HTML5 and CSS3 **ONLY** (EGL144 Web Development).

b. Replace the Header text with a suitable Company Logo and Company Name.

c. The navigation bar has dropdown menu created using CSS (Refer to example URL: https://www.w3schools.com/css/css_dropdowns.asp).
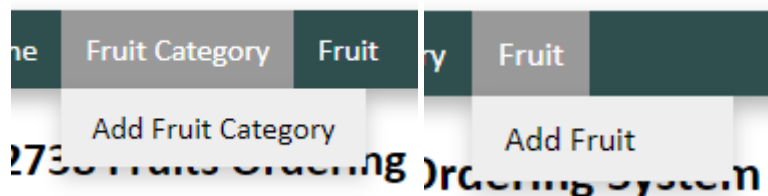

Figure 2

d. You include your Name, Admin No and EGL219 Module Group in the footer.

e. The year displayed in the footer uses the DateTime object.

f. You are free to update the location details.

3. Add a Home controller with the Index action method that will display the following view when your application starts up.
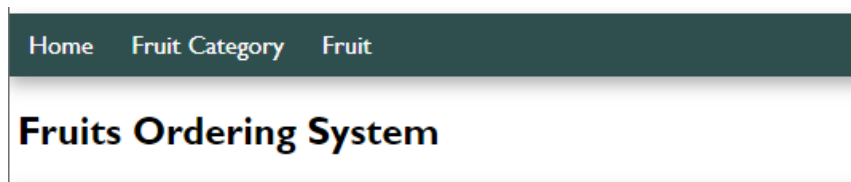

Figure 3

4. Add a new database to your FOS project called `FruitsOrderDB`.

5. Add a table called FruitCategory

   a. FruitCategory table should have the following columns: `Id, Name` and `Description`.

Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(50)	☐
Description	nvarchar(MAX)	☐

Figure 4

   b. Set `Id` IsIdentity to true.

   c. Enter the following data in the table.

Id	Name	Description
1	Berry	Has many seeds eg tomatoes, peppers and cucumber but not strawberries!
2	Drupe	Has fleshy fruit and a single seed with a hard endocarp eg peaches, coconut and olives
3	Nuts	Have one seed and a hard pericarp eg acorns
4	Pome	Most of the fruit is formed from the receptacle (under the flower) eg pear, apple

Figure 5

6. Add a table called Fruit.

   a. Fruit table should have the following columns: `Id, Name, Country, Price, UnitOfMeasurement` and `FruitCategoryId`.

Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(50)	☐
Country	nvarchar(50)	☐
Price	decimal(8,2)	☐
UnitOfMeasurement	nvarchar(15)	☐
FruitCategoryId	int	☐

Figure 6

   b. Set `Id` IsIdentity to true.

   c. `FruitCategoryId` is a foreign key to the `Id` in the FruitCategory table.

   d. Enter the following data in the table

Id	Name	Country	Price	UnitOfMeasur...	FruitCategoryId
1	Cherry	Australia	30.00	KG	1
2	Peach	Japan	15.00	EACH	2
3	Pear	China	5.00	BAG	4

Figure 7

7. Add a FruitCategory controller that will display the following views.

    a. The Index view displays the data in the FruitCategory table:

Id	Name	Description
1	Berry	Has many seeds eg tomatoes, peppers and cucumber but not strawberries!
2	Drupe	Has fleshy fruit and a single seed with a hard endocarp eg peaches, coconut and olives
3	Nuts	Have one seed and a hard pericarp eg acorns
4	Pome	Most of the fruit is formed from the receptacle (under the flower) eg pear, apple

    Figure 8

    b. The SearchFruitCategory view retrieves and display data based on the Name from the FruitCategory table.

    Search Fruit Category

    Enter the Fruit Category Name:

    Search

Id	Name	Description
1	Berry	Has many seeds eg tomatoes, peppers and cucumber but not strawberries!

    Figure 9

    c. The AddFruitCategory view displays the following:

    Add Fruit Category

    Under Construction

    Figure 10

8. Add a Fruit controller that will display the following views.

    a. The Index view displays the data in the Fruits table. Take note to display the name of the fruit category and not the `FruitCategoryId`.

    Fruits

Id	Name	Category	Country	Price	Unit Of Measurement
1	Cherry	Berry	Australia	30.00	KG
2	Peach	Drupe	Japan	15.00	EACH
3	Pear	Pome	China	5.00	BAG

    Figure 11

    b. The SearchFruit view retrieves and display data based on the fruit category from the `Fruit` table.

Figure 12

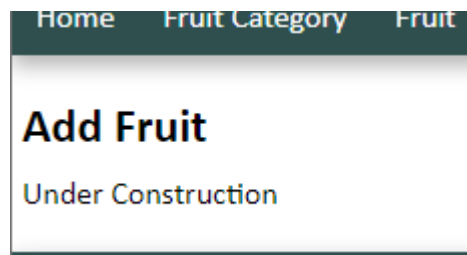   c. The AddFruit view displays the following:

Figure 13

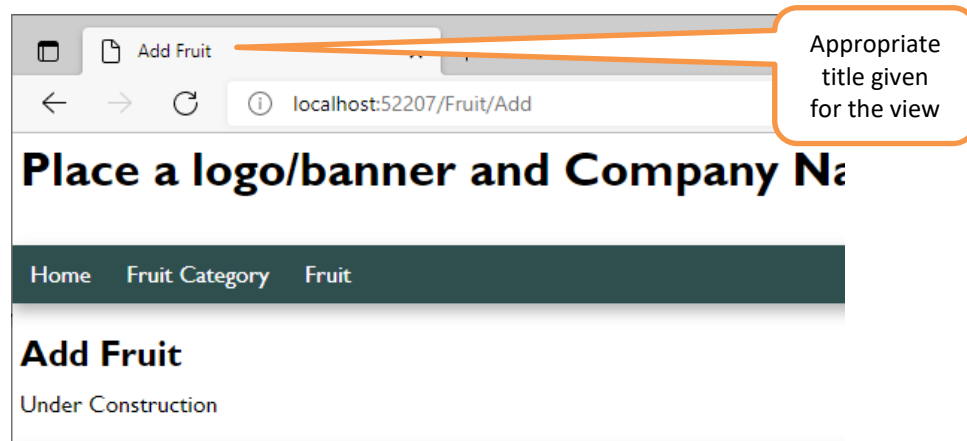9. For each of the views, give them appropriate titles that will display in the browser tabs. E.g.:

Figure 14

10. Link your navigation menu to the views.

11. Save your project.