

**ISC 559 – Application Design and Implementation**  
**Assignment 2 - MVC Structure (10 points)**

For this assignment, you will go through the process of creating a new MVC project (again), but this time you will get a small glimpse into the MVC process, showing how things get passed from the controller to the view.

- Create a new MVC Core project named MVCStructure (Make sure you pay attention to the version of .NET Core that's being used for your project -- 1.1, 2.0, 2.1, 2.2, etc.; also make sure you pay attention to the directory where it's being saved -- that way you can find your project easily when you need to zip your project folder for submission)
- When the project is created, unload it, and edit the .csproj file. Follow the details in the provided "Setting up MVC Applications – Entity Framework" handout for initializing your project.
- In the Models folder, create a new C# class named Artist. The class should have the following properties: ArtistID (int), Name (string), Genre (string). Save the file.
- In the Models folder, create a new C# class named Album. The class should have the following properties: AlbumID (int), Artist (Artist -- yes, you can use your custom classes as data types, and yes, you can name your property the same as a class name), Name (string), ReleaseDate (DateTime), RecordLabel (string), CopiesSold (int), Streams (int). Save the file.
- Right-click the Views folder, and select Add -> New Item... From the dialog box that pops up, on the left-hand side, click on Web. In the main menu, select MVC View Imports Page, and click Add (you don't need to change the default name). This will create a blank \_ViewImports.cshtml file for you. Copy the code from the StarterCode-ViewImports.txt file and paste it into your \_ViewImports.cshtml file. Save the file.
- Right-click the Views folder, and select Add -> New Item... From the dialog box that pops up, on the left-hand side, click on Web. In the main menu, select MVC View Start Page, and click Add (you don't need to change the default name).
- Add two subfolders to the Views folder: Home and Shared.
- Right-click the Shared folder, and select Add -> New Item... From the dialog box that pops up, on the left-hand side, click on Web. In the main menu, select MVC View Layout Page, and click Add (you don't need to change the default name). This will create a \_Layout.cshtml file for you, which stores HTML that you want to re-use across views in your system. Copy the code from the StarterCode-Layout.txt file and paste it into your \_Layout.cshtml file. Save the file.
- Right-click the Home folder, and select Add -> New Item... From the dialog box that pops up, on the left-hand side, click on Web. In the main menu, select MVC View Page, and click Add (the default name should be Index.cshtml -- if not, change it to Index.cshtml). This will create a Index.cshtml file for you, which is the View that will be called from the HomeController's Index method. Copy the code from the StarterCode-IndexView.txt file and paste it into your Index.cshtml file. Save the file.
- Open your HomeController. At the top of the file, add the following line of code:  
`using MVCStructure.Models;`
- In the Index method, add some empty lines of code above `return View();`

- In the empty lines, create five new Artists (named artist1, artist2, artist3, artist4, and artist 5). Here are the values you should give your artists' properties:  
 artist1 - ArtistID = 1, Name = "Brand New", Genre = "Rock"  
 artist2 - ArtistID = 2, Name = "Kodak Black", Genre = "Rap"  
 artist3 - ArtistID = 3, Name = "Kendrick Lamar", Genre = "Rap"  
 artist4 - ArtistID = 4, Name = "Neck Deep", Genre = "Rock"  
 artist5 - ArtistID = 5, Name = "Kesha", Genre = "Pop"
- Next, I've provided some code that will create new Albums by these Artists that you've created. The code will also create a List of Albums and add those albums to the List. Copy the code from StarterCode-HomeController.txt just below where you created your Artists.
- Next, add the following line of code, which will give your Index view a title that will show up in your web browser:  
`ViewBag.Title = "Top 5 Albums of the Week";`
- Modify the return View(); line of code so that you're passing the list of albums to your view:  
`return View(listOfAlbums);`
- Run your project. You should see a table that lists the albums along with the artist for each album.
- Zip your project, and submit.

#### Resources Required for this Assignment (posted in Canvas):

- StarterCode-HomeController.txt
- StarterCode-IndexView.txt
- StarterCode-Layout.txt
- StarterCode-ViewImports.txt