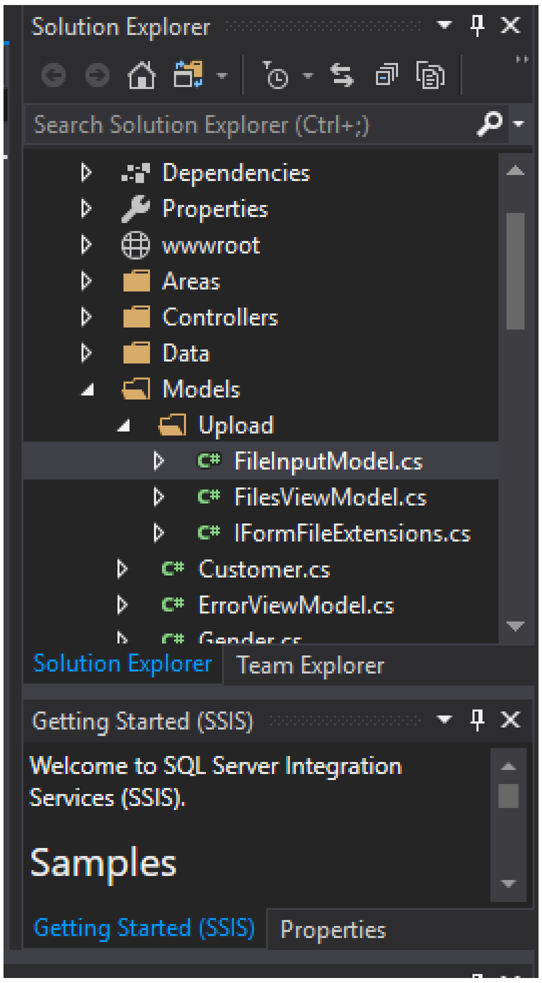
PERTEMUAN 9 – ASP.NET CORE MVC DENGAN DATABASE FIRST PART 7 : MEMBUAT FITUR UPLOAD FILE

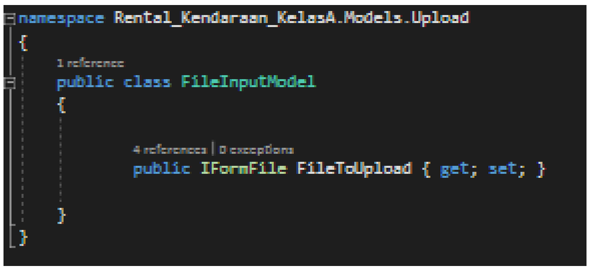
Upload file adalah suatu proses pengiriman data atau file dari perangkat komputer atau perangkat lainnya yang memiliki koneksi internet dengan tujuan upload tertentu. Uploadd file sudah tidak asing dikalangan internet dan salahsatunya adalah website. Untuk membuat fitur upload file dengan asp.net core mvc lakukan langkah-langkah sebagai berikut.

1. Pada project rental kendaraan seperti pada gambar 10.1 buatlah folder baru dengan nama upload didalam folder models. Kemudian didalam folder upload buat lah 3 buah class dengan nama FileInputModel, FilesViewModel, dan IFormFileExtensions



Gambar 10. 1 Tampilan Folder *Models*

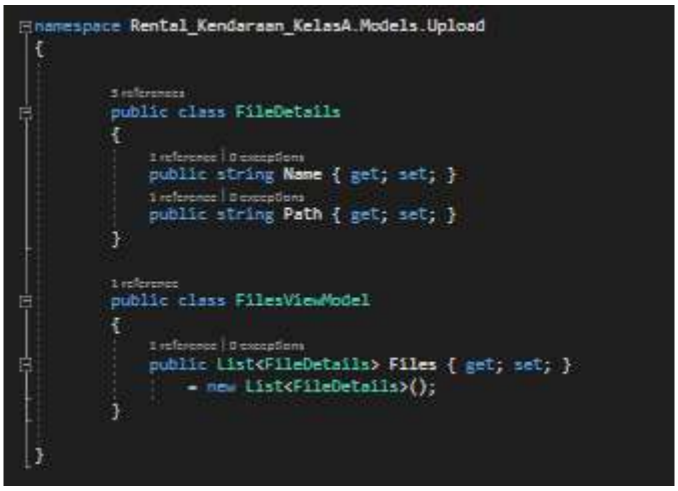
2. Pada class FileInputModel masukkan code seperti pada gambar 10.2.



```
namespace Rental_Kendaraan_KelasA.Models.Upload
{
    1 reference
    public class FileInputModel
    {

            4 references | 0 exceptions
            public IFormFile FileToUpload { get; set; }

    }
}
```

Gambar 10. 2 Menambahkan kode pada *Class FileInputModel*

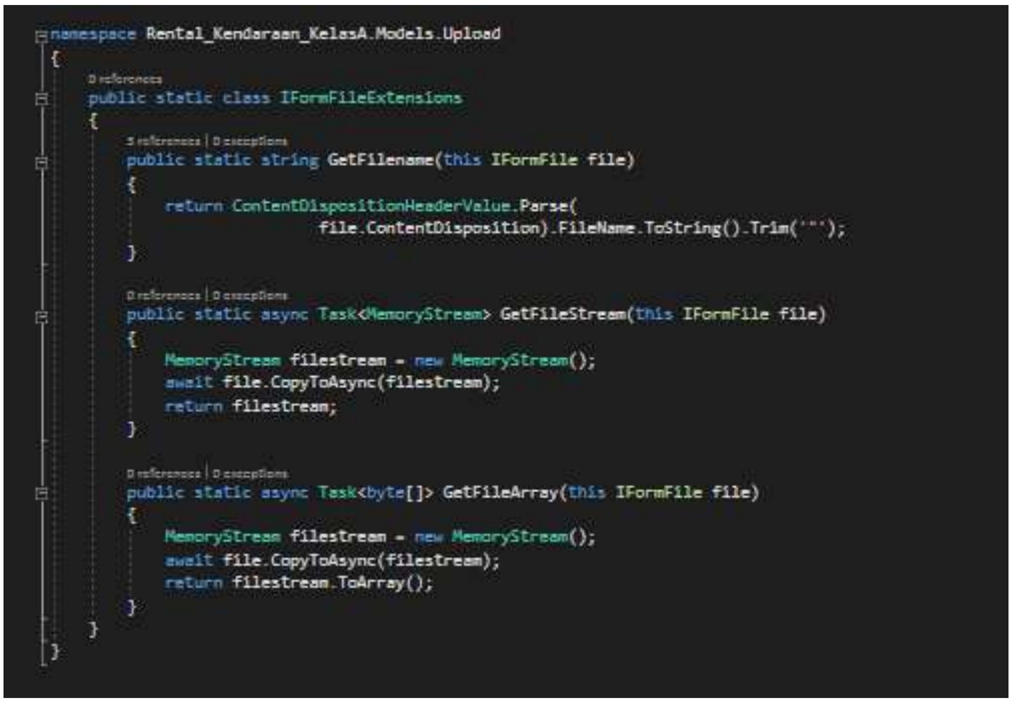
3. Pada class FilesViewModel masukkan code seperti pada gambar 10.3.



```
namespace Rental_Kendaraan_KelasA.Models.Upload
{

        3 references
        public class FileDetails
        {
            1 reference | 0 exceptions
            public string Name { get; set; }
            1 reference | 0 exceptions
            public string Path { get; set; }
        }

        1 reference
        public class FilesViewModel
        {
            1 reference | 0 exceptions
            public List<FileDetails> Files { get; set; }
                = new List<FileDetails>();
        }

}
```

Gambar 10. 3 Menambahkan kode pada *Class FilesViewModel*

4. Pada class IFormFileExtensions masukkan code seperti pada gambar 10.4.



```
namespace Rental_Kendaraan_KelasA.Models.Upload
{
    0 references
    public static class IFormFileExtensions
    {
        3 references | 0 exceptions
        public static string GetFilename(this IFormFile file)
        {
            return ContentDispositionHeaderValue.Parse(
                            file.ContentDisposition).FileName.ToString().Trim('"');
        }

        0 references | 0 exceptions
        public static async Task<MemoryStream> GetFileStream(this IFormFile file)
        {
            MemoryStream filestream = new MemoryStream();
            await file.CopyToAsync(filestream);
            return filestream;
        }

        0 references | 0 exceptions
        public static async Task<byte[]> GetFileArray(this IFormFile file)
        {
            MemoryStream filestream = new MemoryStream();
            await file.CopyToAsync(filestream);
            return filestream.ToArray();
        }
    }
}
```

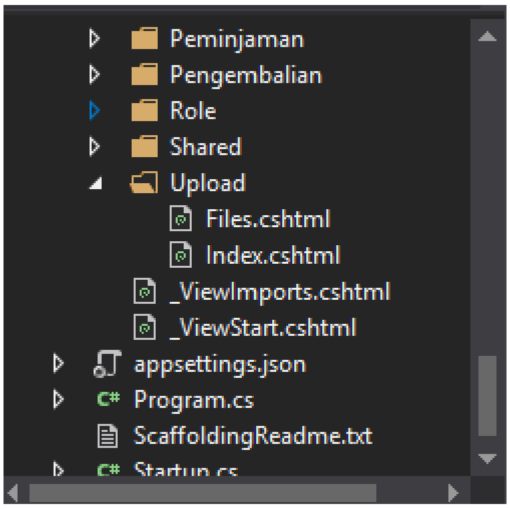
Gambar 10. 4 Menambahkan kode pada *Class IFormFileExtensions*

5. Kemudian buatlah sebuah controller dengan nama UploadController

   dan masukkan code berikut

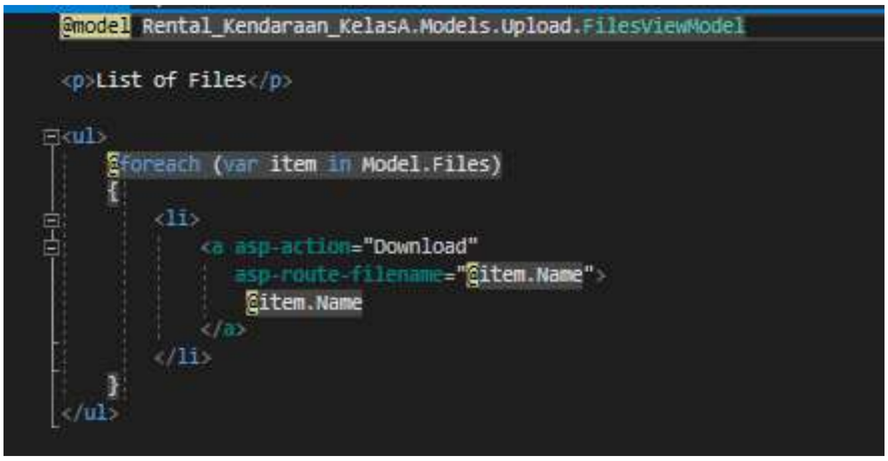
```
public class UploadController : Controller
    {
        private readonly IFileProvider fileProvider;
        public UploadController(IFileProvider fileProvider)
        {
            this.fileProvider = fileProvider;
        }
        public IActionResult Index()
        {
            return View();
        }
        [HttpPost]
        public async Task<IActionResult> UploadFile(IFormFile file)
        {
            if (file == null || file.Length == 0)
                return Content("file not selected");

            var path = Path.Combine(
                        Directory.GetCurrentDirectory(), "wwwroot",
                        file.GetFilename());

            using (var stream = new FileStream(path, FileMode.Create))
            {
                await file.CopyToAsync(stream);
            }

            return RedirectToAction("Files");
        }

        [HttpPost]
        public async Task<IActionResult> UploadFiles(List<IFormFile> files)
        {
            if (files == null || files.Count == 0)
                return Content("files not selected");

            foreach (var file in files)
            {
                var path = Path.Combine(
                        Directory.GetCurrentDirectory(), "wwwroot",
                        file.GetFilename());

                using (var stream = new FileStream(path, FileMode.Create))
                {
                    await file.CopyToAsync(stream);
                }
            }

            return RedirectToAction("Files");
        }

        [HttpPost]
        public async Task<IActionResult> UploadFileViaModel(FileInputModel
model)
        {
            if (model == null ||
                model.FileToUpload == null || model.FileToUpload.Length ==
0)
                return Content("file not selected");
            var path = Path.Combine(
                        Directory.GetCurrentDirectory(), "wwwroot",
                        model.FileToUpload.GetFilename());

            using (var stream = new FileStream(path, FileMode.Create))
            {
                await model.FileToUpload.CopyToAsync(stream);
            }

            return RedirectToAction("Files");
        }

        public IActionResult Files()
        {
            var model = new FilesViewModel();
            foreach (var item in
this.fileProvider.GetDirectoryContents(""))
            {
                model.Files.Add(
                    new FileDetails { Name = item.Name, Path =
item.PhysicalPath });
            }
            return View(model);
        }

        public async Task<IActionResult> Download(string filename)
        {
            if (filename == null)
                return Content("filename not present");

            var path = Path.Combine(
                           Directory.GetCurrentDirectory(),
                           "wwwroot", filename);

            var memory = new MemoryStream();
            using (var stream = new FileStream(path, FileMode.Open))
            {
                await stream.CopyToAsync(memory);
            }
            memory.Position = 0;
            return File(memory, GetContentType(path),
Path.GetFileName(path));
        }

        private string GetContentType(string path)
        {
            var types = GetMimeTypes();
            var ext = Path.GetExtension(path).ToLowerInvariant();
            return types[ext];
        }

        private Dictionary<string, string> GetMimeTypes()
        {
            return new Dictionary<string, string>
            {
                {".txt", "text/plain"},
                {".pdf", "application/pdf"},
                {".doc", "application/vnd.ms-word"},
                {".docx", "application/vnd.ms-word"},
                {".xls", "application/vnd.ms-excel"},
                {".xlsx", "application/vnd.openxmlformats
              officedocument.spreadsheetml.sheet"},
                {".png", "image/png"},
                {".jpg", "image/jpeg"},
                {".jpeg", "image/jpeg"},
                {".gif", "image/gif"},
                {".csv", "text/csv"}
            };
        }
}
```

6. Selanjutnya adalah membuat view yaitu dengan cara membuat folder upload didalam folder view, seperti pada gambar 10.5.



Gambar 10. 5 Membuat Folder Upload Pada *Views*

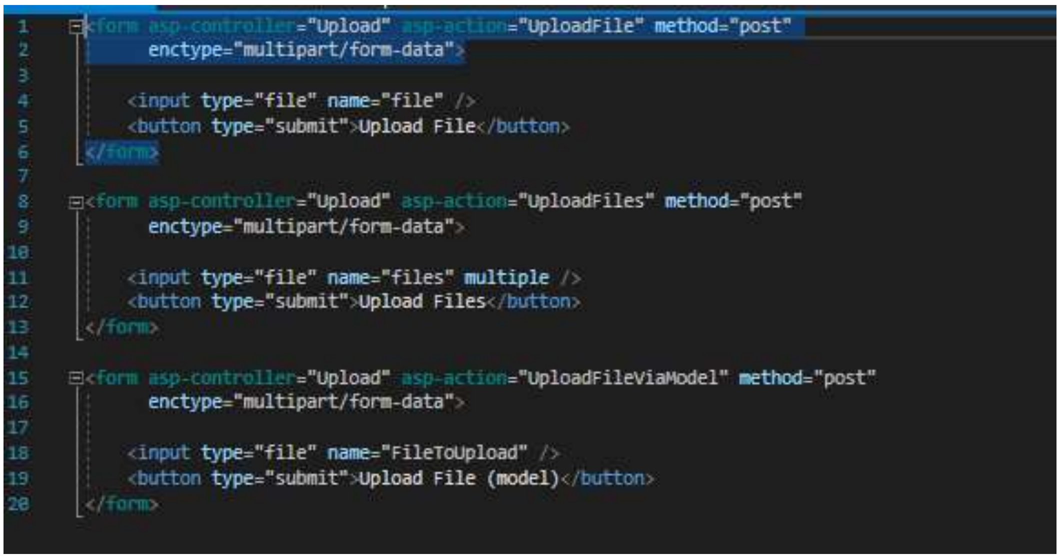
7. Didalam folder upload buatlah 2 buah view dengan nama Files dan Index
8. Pada view Files masukkan code berikut seperti pada gambar 10.6.



```
@model Rental_Kendaraan_KelasA.Models.Upload.FilesViewModel

<p>List of Files</p>

<ul>
    @foreach (var item in Model.Files)
    {
        <li>
            <a asp-action="Download"
               asp-route-filename="@item.Name">
                @item.Name
            </a>
        </li>
    }
</ul>
```

Gambar 10. 6 Menambahkan Kode Untuk Menampilkan *List Upload*

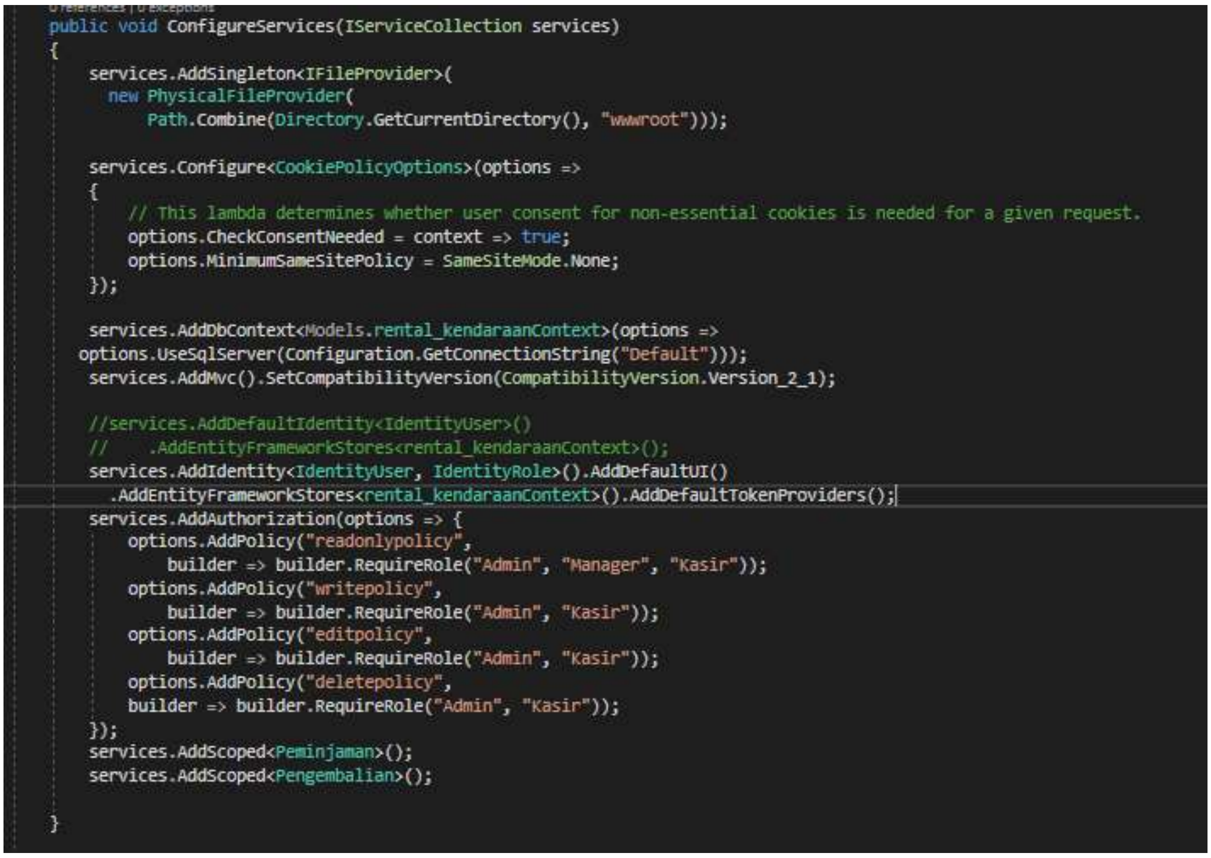
9. Kemudian pada views Index masukkan code berikut seperti pada gambar 10.7.



```html
<form asp-controller="Upload" asp-action="UploadFile" method="post"
      enctype="multipart/form-data">

    <input type="file" name="file" />
    <button type="submit">Upload File</button>
</form>

<form asp-controller="Upload" asp-action="UploadFiles" method="post"
      enctype="multipart/form-data">

    <input type="file" name="files" multiple />
    <button type="submit">Upload Files</button>
</form>

<form asp-controller="Upload" asp-action="UploadFileViaModel" method="post"
      enctype="multipart/form-data">

    <input type="file" name="FileToUpload" />
    <button type="submit">Upload File (model)</button>
</form>
```

Gambar 10. 7 Menambahkan Kode Pada *Views Index*

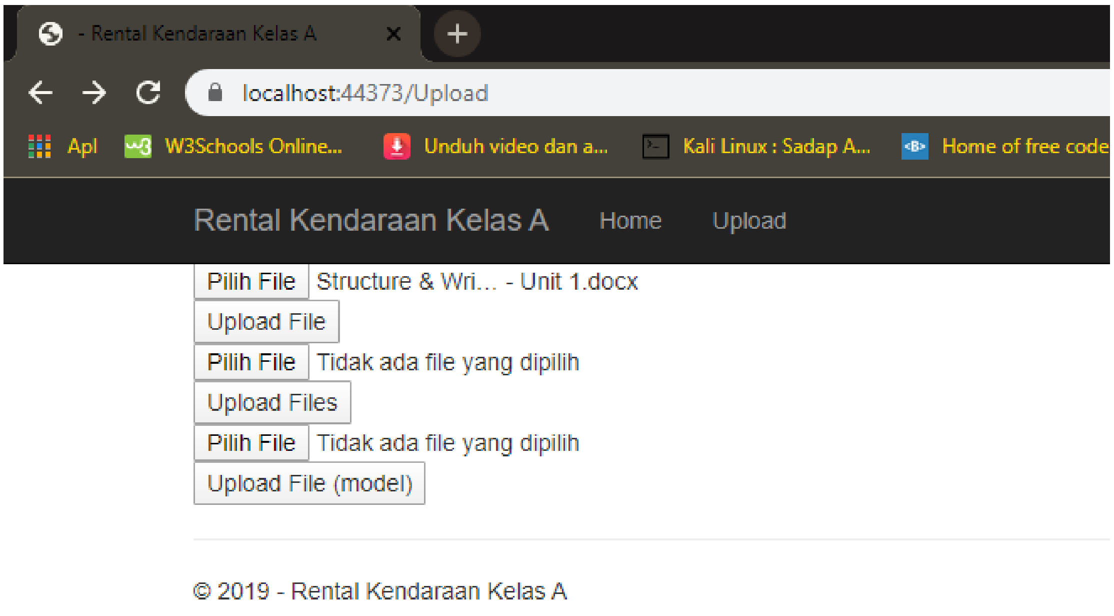
10. Kemudian masuk ke Startup.cs pada configureservices masukkan code berikut seperti pada gambar 10.8



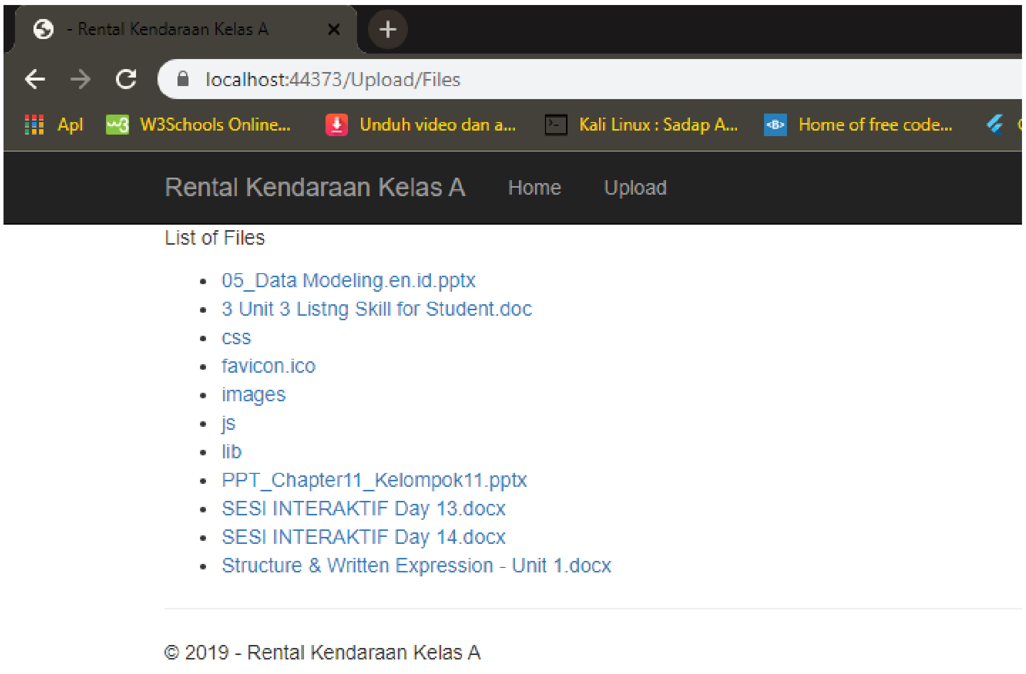
```csharp
public void ConfigureServices(IServiceCollection services)
{
    services.AddSingleton<IFileProvider>(
      new PhysicalFileProvider(
          Path.Combine(Directory.GetCurrentDirectory(), "wwwroot")));

    services.Configure<CookiePolicyOptions>(options =>
    {
        // This lambda determines whether user consent for non-essential cookies is needed for a given request.
        options.CheckConsentNeeded = context => true;
        options.MinimumSameSitePolicy = SameSiteMode.None;
    });

    services.AddDbContext<Models.rental_kendaraanContext>(options =>
   options.UseSqlServer(Configuration.GetConnectionString("Default")));
    services.AddMvc().SetCompatibilityVersion(CompatibilityVersion.Version_2_1);

    //services.AddDefaultIdentity<IdentityUser>()
    //    .AddEntityFrameworkStores<rental_kendaraanContext>();
    services.AddIdentity<IdentityUser, IdentityRole>().AddDefaultUI()
      .AddEntityFrameworkStores<rental_kendaraanContext>().AddDefaultTokenProviders();
    services.AddAuthorization(options => {
        options.AddPolicy("readonlypolicy",
            builder => builder.RequireRole("Admin", "Manager", "Kasir"));
        options.AddPolicy("writepolicy",
            builder => builder.RequireRole("Admin", "Kasir"));
        options.AddPolicy("editpolicy",
            builder => builder.RequireRole("Admin", "Kasir"));
        options.AddPolicy("deletepolicy",
        builder => builder.RequireRole("Admin", "Kasir"));
    });
    services.AddScoped<Peminjaman>();
    services.AddScoped<Pengembalian>();

}
```

Gambar 10. 8 Menambahkan Kode Pada *Method ConfigureServices*

Hasil output seperti pada gambar 10.9 dan 10.10.



Gambar 10. 9 Tampilan *Upload File*



List of Files

- 05_Data Modeling.en.id.pptx
- 3 Unit 3 Listng Skill for Student.doc
- css
- favicon.ico
- images
- js
- lib
- PPT_Chapter11_Kelompok11.pptx
- SESI INTERAKTIF Day 13.docx
- SESI INTERAKTIF Day 14.docx
- Structure & Written Expression - Unit 1.docx

© 2019 - Rental Kendaraan Kelas A

Gambar 10. 10 Tampilan *List Upload*