ASP.NET Core assessment

STREAMS
For Technology Services

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Chapter 1 :

Introduction

1.1 overview :

Part one: Creating sample web API for storing documents with some metadata, and accept request to get documents itself or information about it (metadata). Part two Create sample web interface for uploading document(s) or display available documents in table, each row has a link to display document information(s), editing and deleting.

1.2 Objectives :

The system provides a way to upload your documents on an online server so you can access them any time

1.3 Purpose :

The purpose of the project is to create a website that provides the user to upload his/her documents on a web server.

1.4 Scope :

- Coding " language & tools ":

  I used :

  - HTML , Css , Javascript , Bootstrap , Jquery .
  - C# , asp .net core MVC.

- datatables ajax control .
- SQL Server , Entity framework core.
- automapper.
- dependency injection.
- Visual Studio 2022 .

- Testing :
  We have test cases discuss what conditions the system are success or fail .

1.5 General Constraints :

In this section we will introduce some of the general constrains in our project:

- Time :
  I can consider that time is the main constrain, because I had to finish the project in a short time.

Chapter 2:

Project “ Planning & Analysis ”

2,1 Project Planning :

Market analysis:

1. **Main target actors:**
    - Ordinary user
2. **Effective points in the project:**
    - Create new directory on the server for each uploaded document
    - Upload document files to its directory

3. **Target market:**
    - **Age :** 10 – 60
    - **Gender :** both
    - **Place :** Any Place
    - **Level of education :** Any level .

Technical Analysis:

- No hardware required for the site.
- I used a lot of technologies such as :
    - Html5 , css3 , JS , Bootstrap , Jquery
    - Asp .net core , C# , Ajax , API

- I used a lot of software tools :
    - Visual studio code
    - Visual studio
    - Microsoft office
    - Microsoft SQL server Management studio
    - Postman.

2.2 Functional Requirements

User Functional Requirements:

- **Upload a document:**
  Actor: User
  Pre: none.
  Description: if the user wants to upload a document, the system creates a new directory on the server with name [DocumentName_DocumentId] and then upload its file on the same directory.

- **Update document information**
  Actor: User
  Pre: document already exists on the server
  Description: User can update document information by selecting what document he/she want to update from the data table

- **Get document information**
  Actor: User
  Pre: document already exists on the server

Description: User can View all documents information from the data table.

- **Delete entire document**
  Actor: User
  Pre: document already exists on the server
  Description: User can delete document full record including its files from the server, the server first deletes the document's directory including its files from the server then deletes the full records from the database.

2.3 Non- Functional Requirements:

- **Availability :**
  The site must be contactable 24 hours .

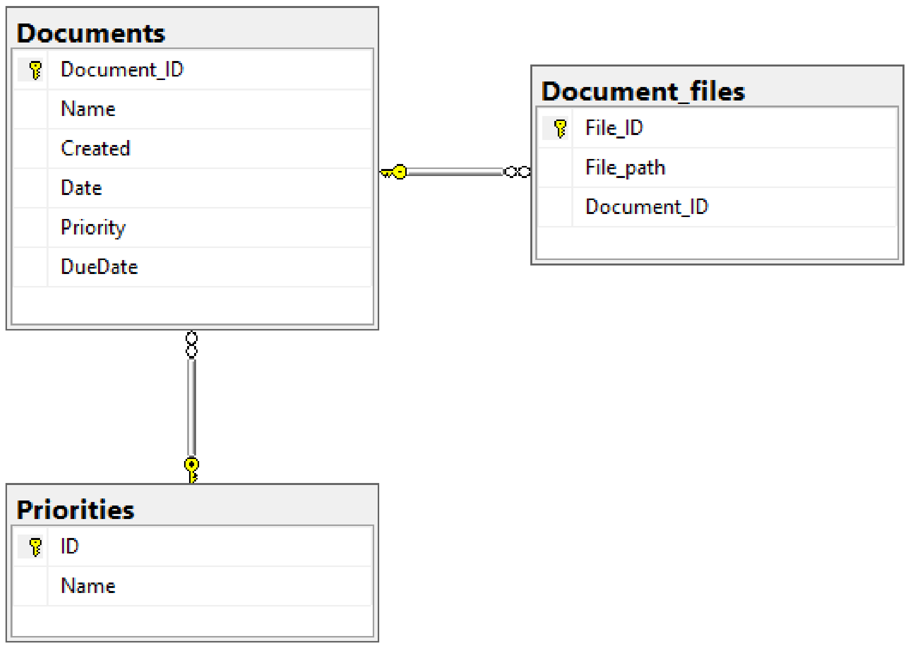
- **Security :**
  Documents are secured on the server and can't be manipulated.

- **Usability :**
  - The site should be suitable for all ages.
  - It should be easy to use so that the user can understand it.
- **Flexibility :**
  - The user can modify his data or declare anything he wants through comments
- **Efficiency :**
  The user must get what he wants, whether he is viewing, sharing, or finding.

Chapter 3 :

Software Design

3.1: Design of database ERD Diagram

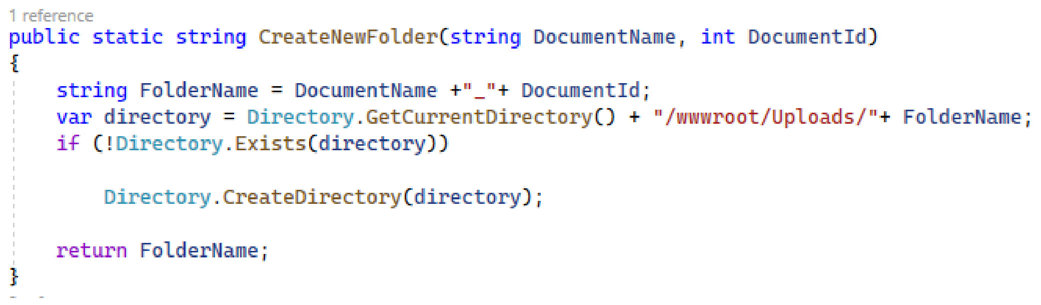


Chapter 4 :

Implementation :

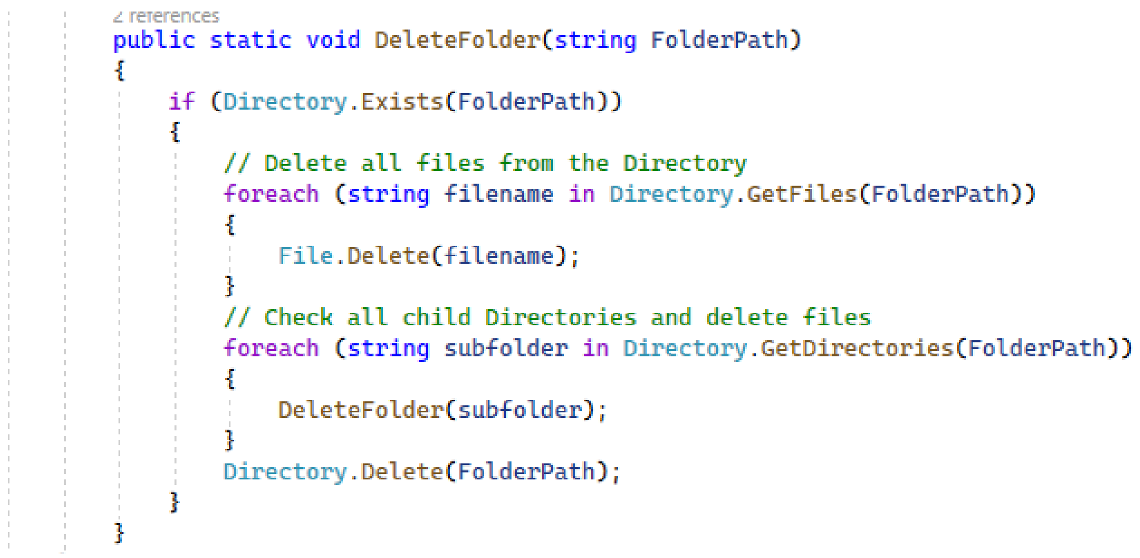
4.1 software architecture:

4.1 Folder upload



```
1 reference
public static string CreateNewFolder(string DocumentName, int DocumentId)
{
    string FolderName = DocumentName +"_"+ DocumentId;
    var directory = Directory.GetCurrentDirectory() + "/wwwroot/Uploads/"+ FolderName;
    if (!Directory.Exists(directory))

        Directory.CreateDirectory(directory);

    return FolderName;
}
```

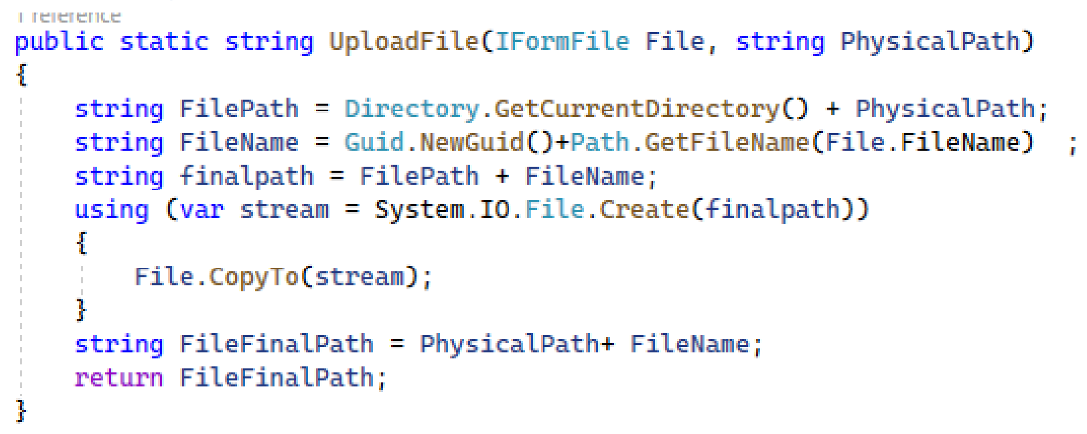
4.2 Folder delete



```
2 references
public static void DeleteFolder(string FolderPath)
{
    if (Directory.Exists(FolderPath))
    {
        // Delete all files from the Directory
        foreach (string filename in Directory.GetFiles(FolderPath))
        {
            File.Delete(filename);
        }
        // Check all child Directories and delete files
        foreach (string subfolder in Directory.GetDirectories(FolderPath))
        {
            DeleteFolder(subfolder);
        }
        Directory.Delete(FolderPath);
    }
}
```

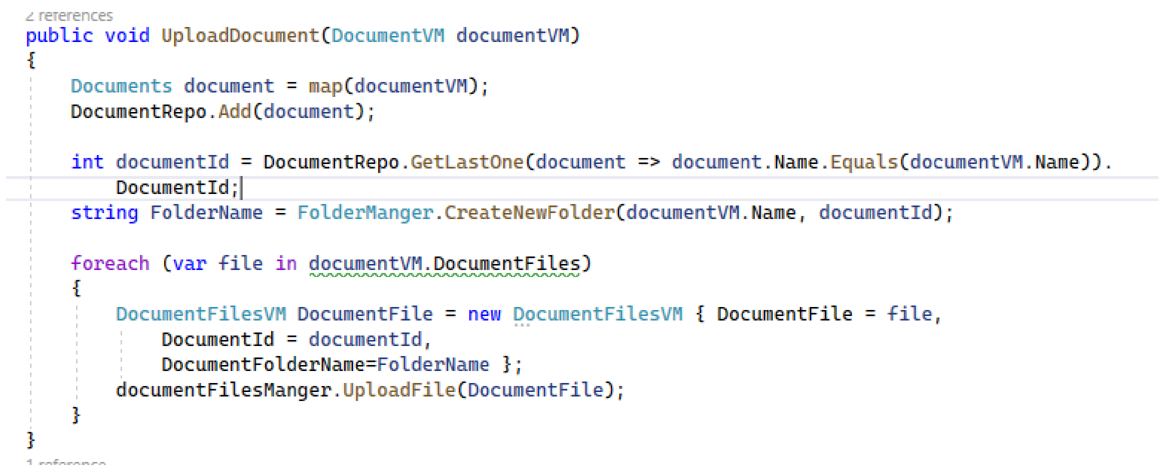
4 software architecture:

4.3 File upload



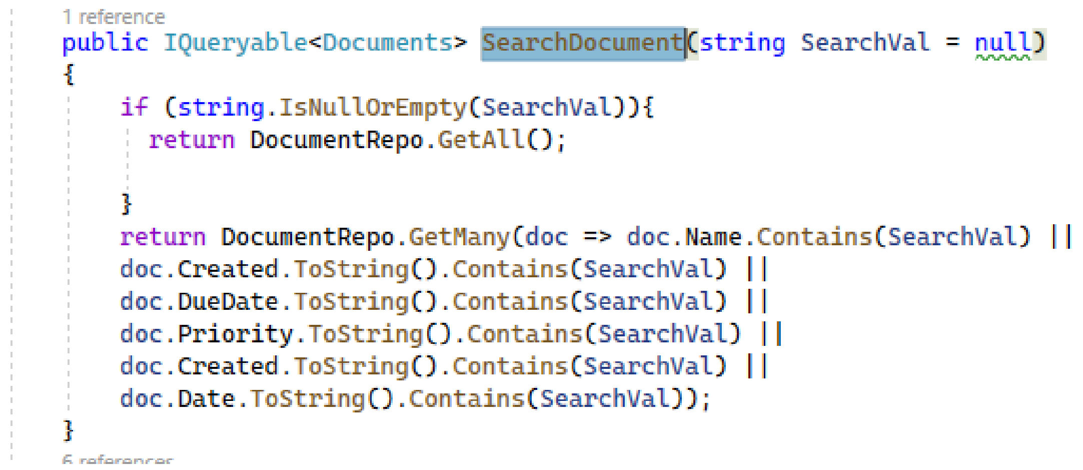
```
1 reference
public static string UploadFile(IFormFile File, string PhysicalPath)
{
    string FilePath = Directory.GetCurrentDirectory() + PhysicalPath;
    string FileName = Guid.NewGuid()+Path.GetFileName(File.FileName)  ;
    string finalpath = FilePath + FileName;
    using (var stream = System.IO.File.Create(finalpath))
    {
        File.CopyTo(stream);
    }
    string FileFinalPath = PhysicalPath+ FileName;
    return FileFinalPath;
}
```

4.4 Upload document



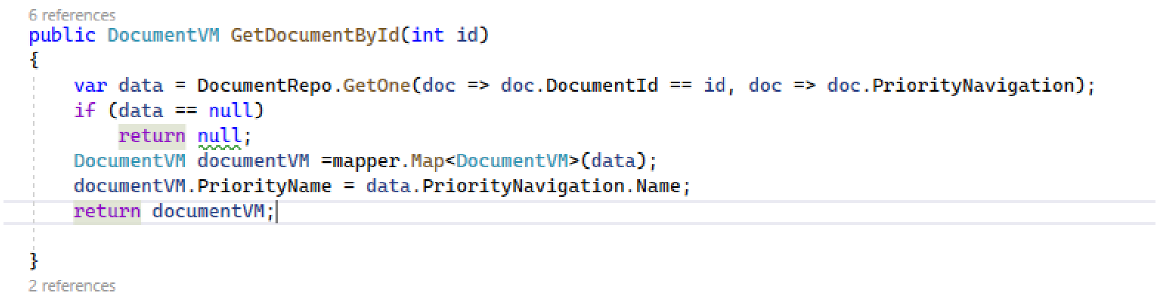
```
2 references
public void UploadDocument(DocumentVM documentVM)
{
    Documents document = map(documentVM);
    DocumentRepo.Add(document);

    int documentId = DocumentRepo.GetLastOne(document => document.Name.Equals(documentVM.Name)).
        DocumentId;
    string FolderName = FolderManger.CreateNewFolder(documentVM.Name, documentId);

    foreach (var file in documentVM.DocumentFiles)
    {
        DocumentFilesVM DocumentFile = new DocumentFilesVM { DocumentFile = file,
            DocumentId = documentId,
            DocumentFolderName=FolderName };
        documentFilesManger.UploadFile(DocumentFile);
    }
}
```

4.5 Search Document



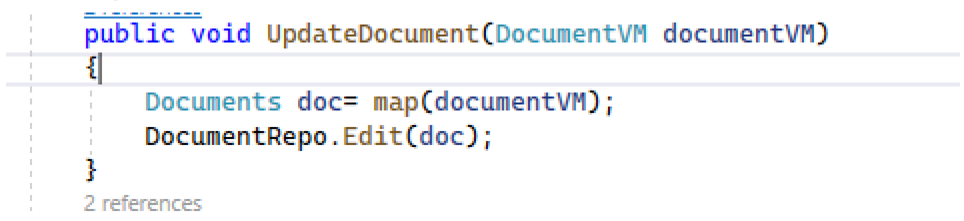
```
1 reference
public IQueryable<Documents> SearchDocument(string SearchVal = null)
{
    if (string.IsNullOrEmpty(SearchVal)){
     return DocumentRepo.GetAll();

    }
    return DocumentRepo.GetMany(doc => doc.Name.Contains(SearchVal) ||
    doc.Created.ToString().Contains(SearchVal) ||
    doc.DueDate.ToString().Contains(SearchVal) ||
    doc.Priority.ToString().Contains(SearchVal) ||
    doc.Created.ToString().Contains(SearchVal) ||
    doc.Date.ToString().Contains(SearchVal));
}
```

4.6 Get Document By Id



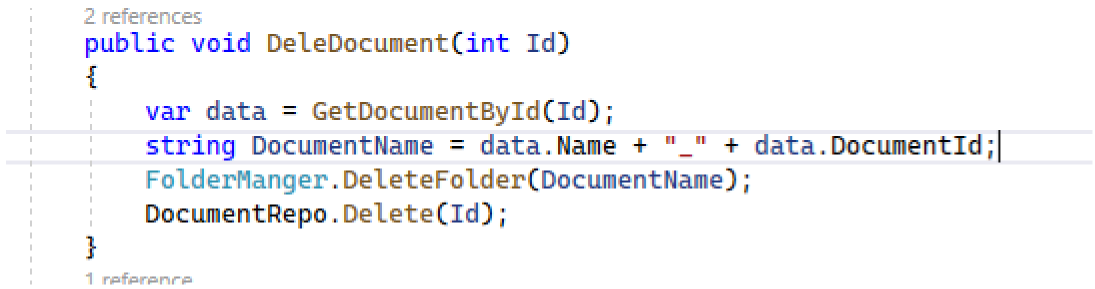
```
6 references
public DocumentVM GetDocumentById(int id)
{
    var data = DocumentRepo.GetOne(doc => doc.DocumentId == id, doc => doc.PriorityNavigation);
    if (data == null)
        return null;
    DocumentVM documentVM =mapper.Map<DocumentVM>(data);
    documentVM.PriorityName = data.PriorityNavigation.Name;
    return documentVM;

}
2 references
```

4.7 Update Document



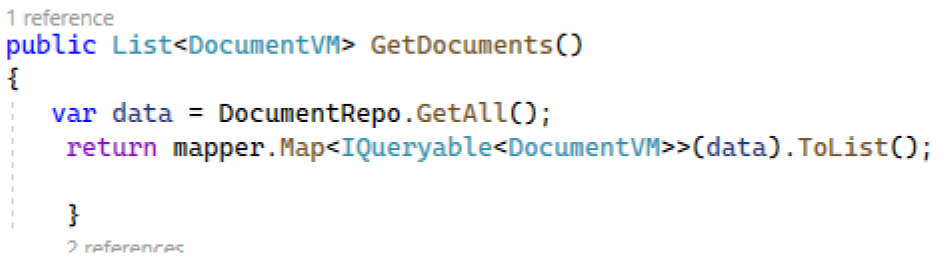
```
public void UpdateDocument(DocumentVM documentVM)
{
    Documents doc= map(documentVM);
    DocumentRepo.Edit(doc);
}
2 references
```

4.8 Delete Document



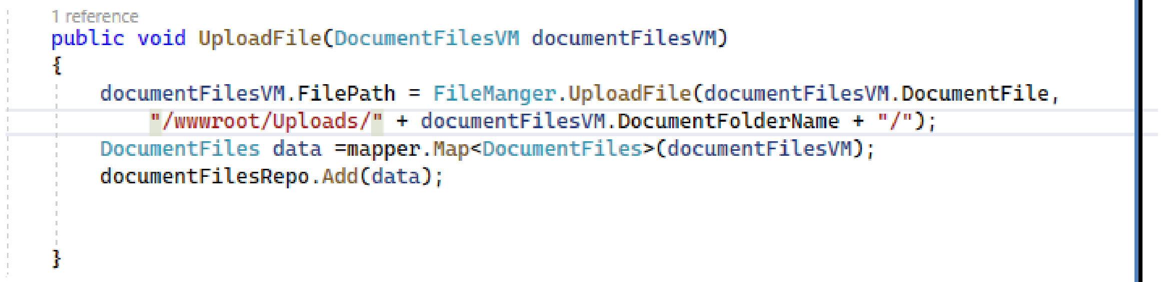
```
2 references
public void DeleDocument(int Id)
{
    var data = GetDocumentById(Id);
    string DocumentName = data.Name + "_" + data.DocumentId;
    FolderManger.DeleteFolder(DocumentName);
    DocumentRepo.Delete(Id);
}
1 reference
```

4.9 Get All Documents



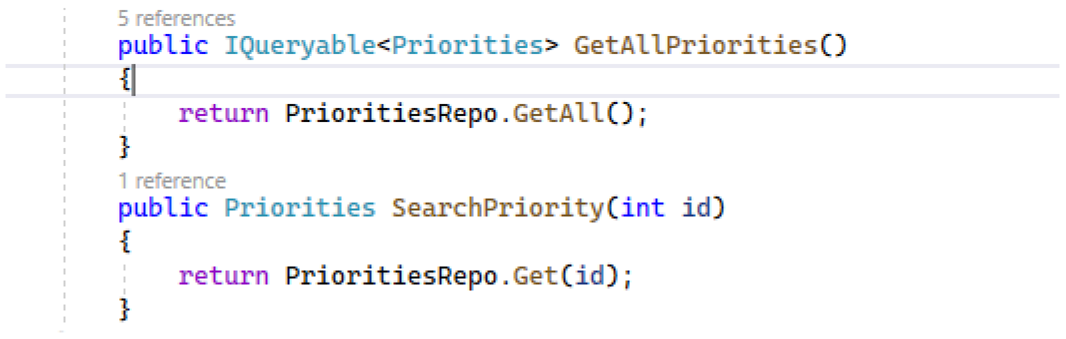
```
1 reference
public List<DocumentVM> GetDocuments()
{
    var data = DocumentRepo.GetAll();
     return mapper.Map<IQueryable<DocumentVM>>(data).ToList();

     }
     2 references
```

4.10 Upload document files



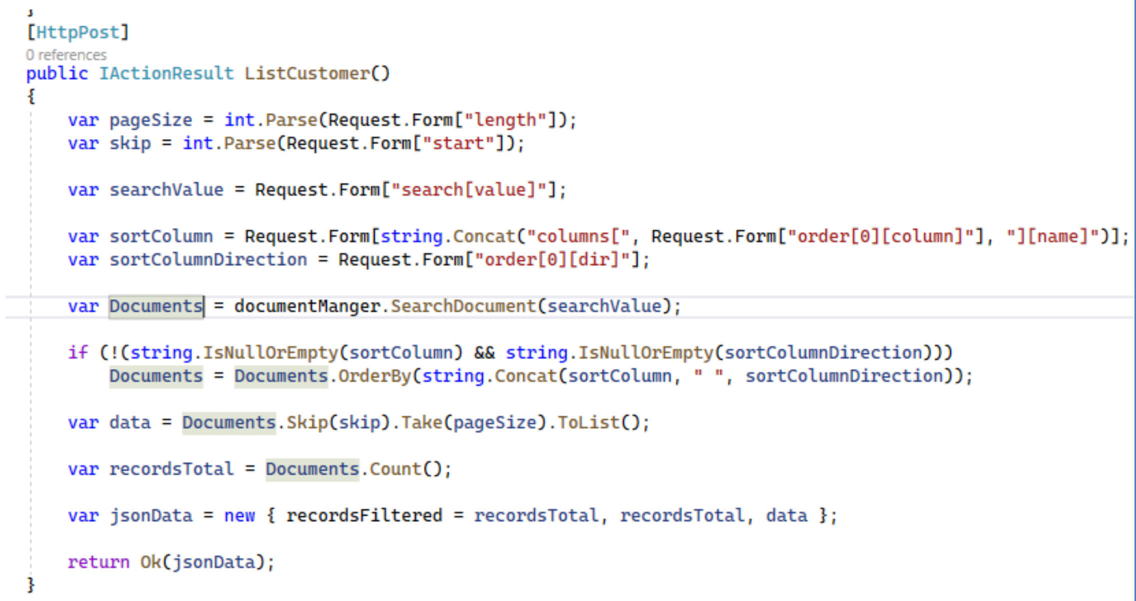
```
1 reference
public void UploadFile(DocumentFilesVM documentFilesVM)
{
    documentFilesVM.FilePath = FileManger.UploadFile(documentFilesVM.DocumentFile,
        "/wwwroot/Uploads/" + documentFilesVM.DocumentFolderName + "/");
    DocumentFiles data =mapper.Map<DocumentFiles>(documentFilesVM);
    documentFilesRepo.Add(data);


}
```

4.11 Priority crud operations



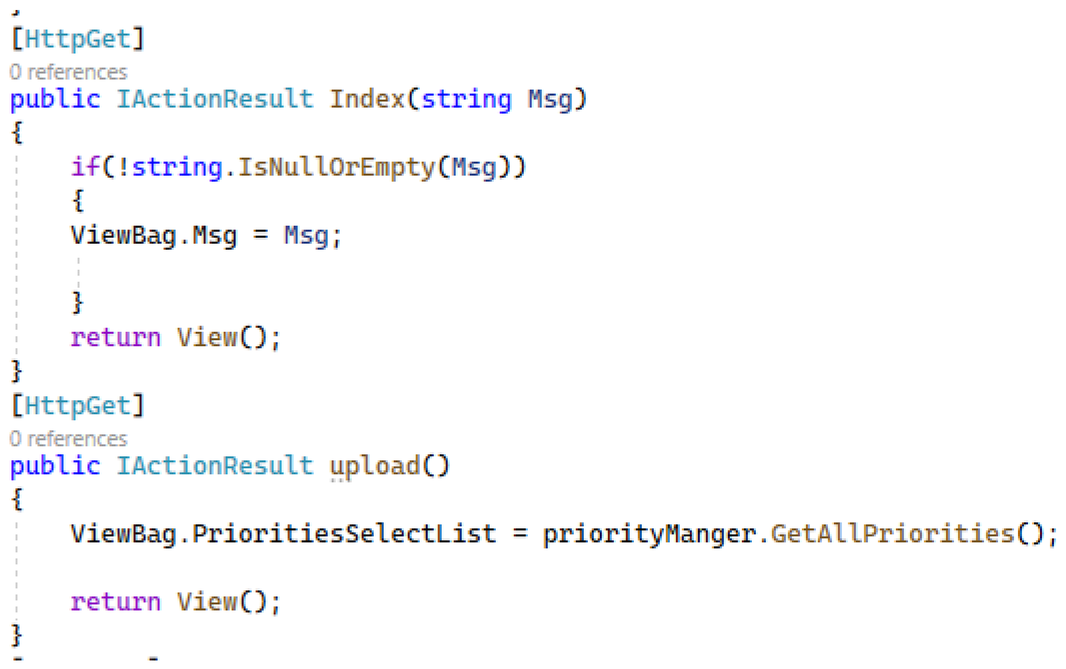
```
5 references
public IQueryable<Priorities> GetAllPriorities()
{
    return PrioritiesRepo.GetAll();
}
1 reference
public Priorities SearchPriority(int id)
{
    return PrioritiesRepo.Get(id);
}
```

4.12 Document datatable

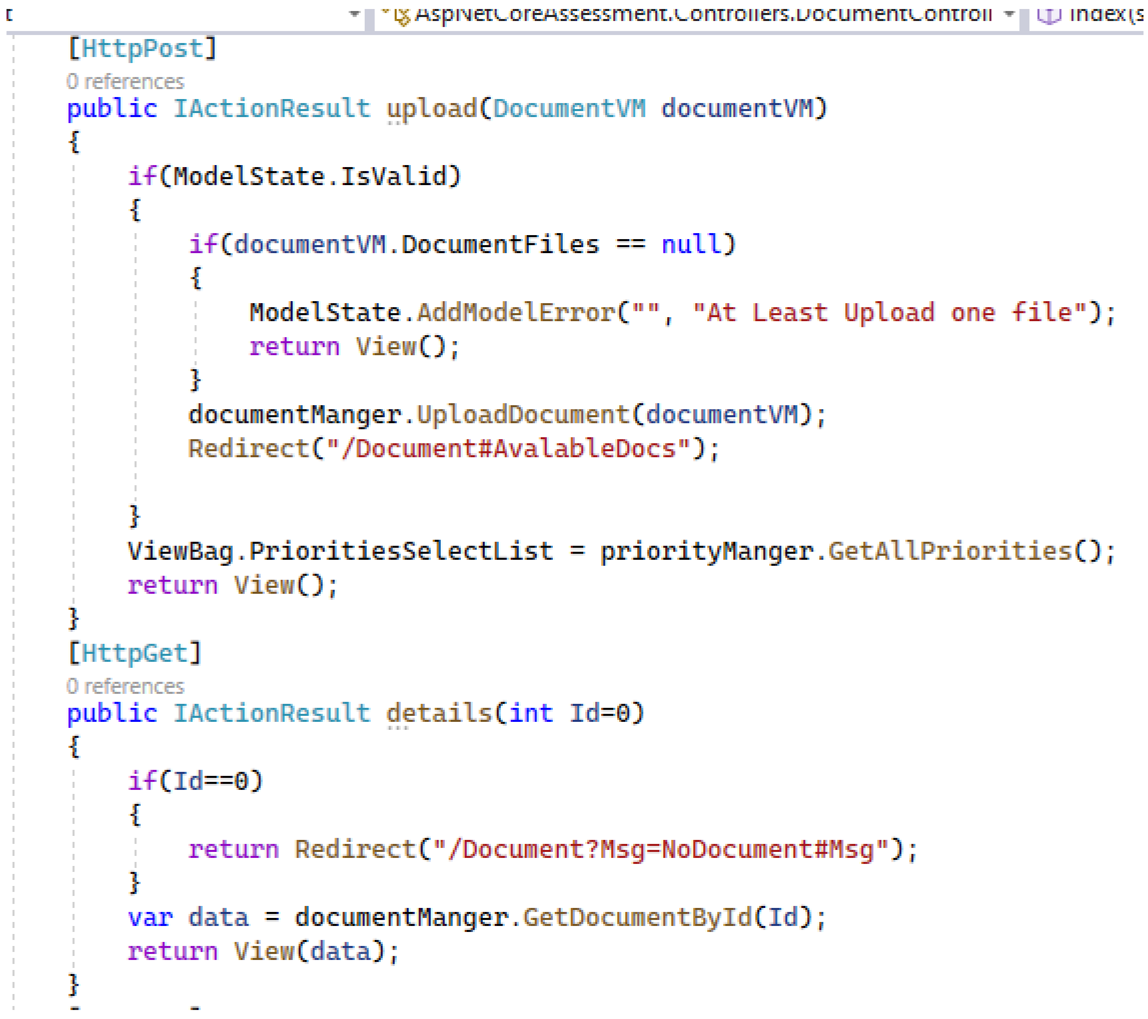


```
[HttpPost]
0 references
public IActionResult ListCustomer()
{
    var pageSize = int.Parse(Request.Form["length"]);
    var skip = int.Parse(Request.Form["start"]);

    var searchValue = Request.Form["search[value]"];

    var sortColumn = Request.Form[string.Concat("columns[", Request.Form["order[0][column]"], "][name]")];
    var sortColumnDirection = Request.Form["order[0][dir]"];

    var Documents = documentManger.SearchDocument(searchValue);

    if (!(string.IsNullOrEmpty(sortColumn) && string.IsNullOrEmpty(sortColumnDirection)))
        Documents = Documents.OrderBy(string.Concat(sortColumn, " ", sortColumnDirection));

    var data = Documents.Skip(skip).Take(pageSize).ToList();

    var recordsTotal = Documents.Count();

    var jsonData = new { recordsFiltered = recordsTotal, recordsTotal, data };

    return Ok(jsonData);
}
```

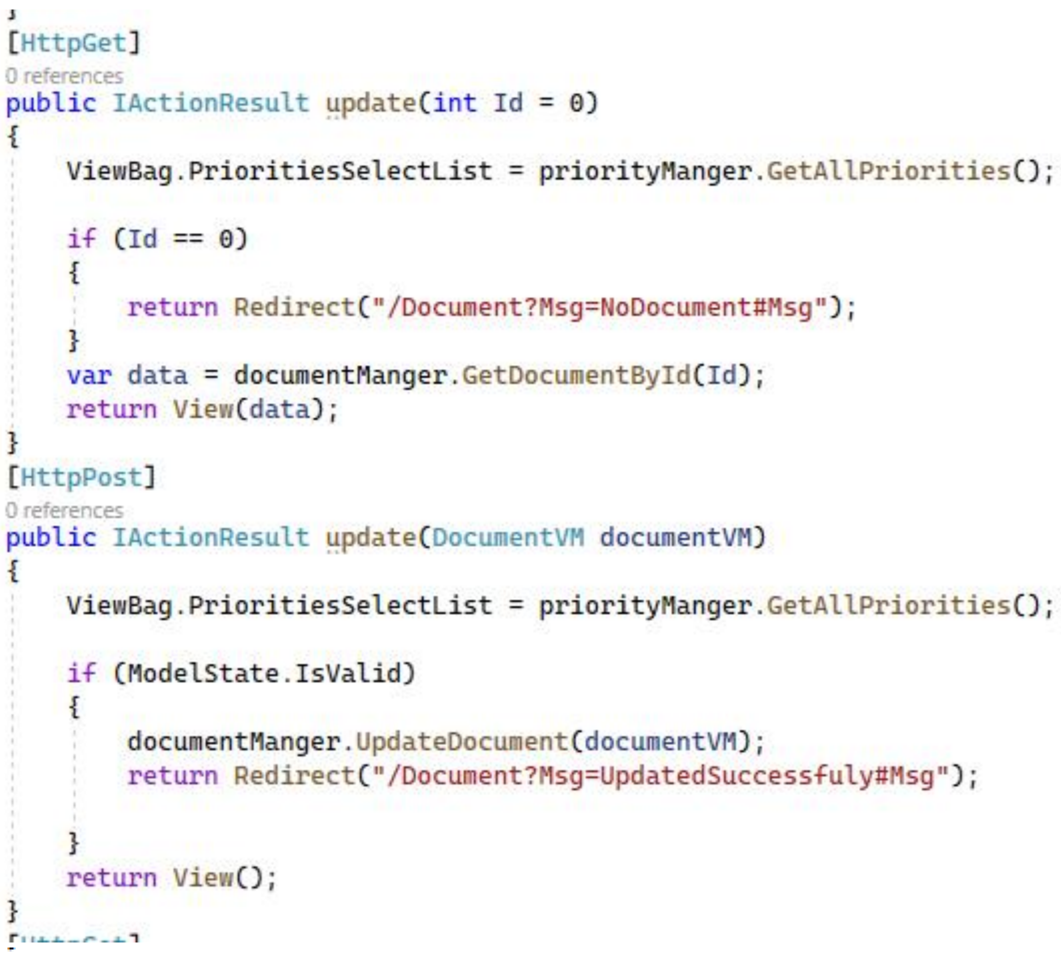
Document controller



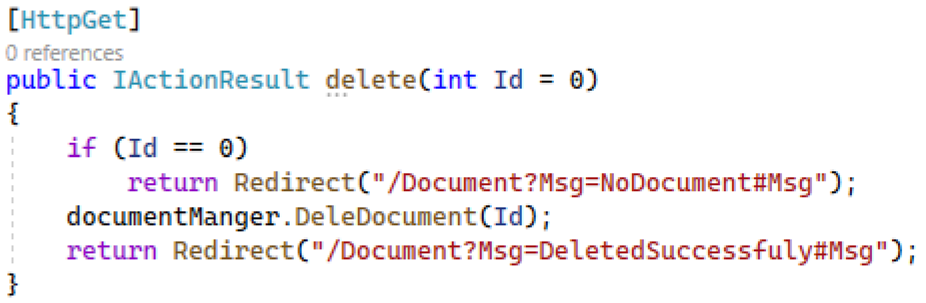
```
[HttpGet]
0 references
public IActionResult Index(string Msg)
{
    if(!string.IsNullOrEmpty(Msg))
    {
    ViewBag.Msg = Msg;

    }
    return View();
}
[HttpGet]
0 references
public IActionResult upload()
{
    ViewBag.PrioritiesSelectList = priorityManger.GetAllPriorities();

    return View();
}
```



```
[HttpPost]
0 references
public IActionResult upload(DocumentVM documentVM)
{
    if(ModelState.IsValid)
    {
        if(documentVM.DocumentFiles == null)
        {
            ModelState.AddModelError("", "At Least Upload one file");
            return View();
        }
        documentManger.UploadDocument(documentVM);
        Redirect("/Document#AvalableDocs");

    }
    ViewBag.PrioritiesSelectList = priorityManger.GetAllPriorities();
    return View();
}
[HttpGet]
0 references
public IActionResult details(int Id=0)
{
    if(Id==0)
    {
        return Redirect("/Document?Msg=NoDocument#Msg");
    }
    var data = documentManger.GetDocumentById(Id);
    return View(data);
}
```



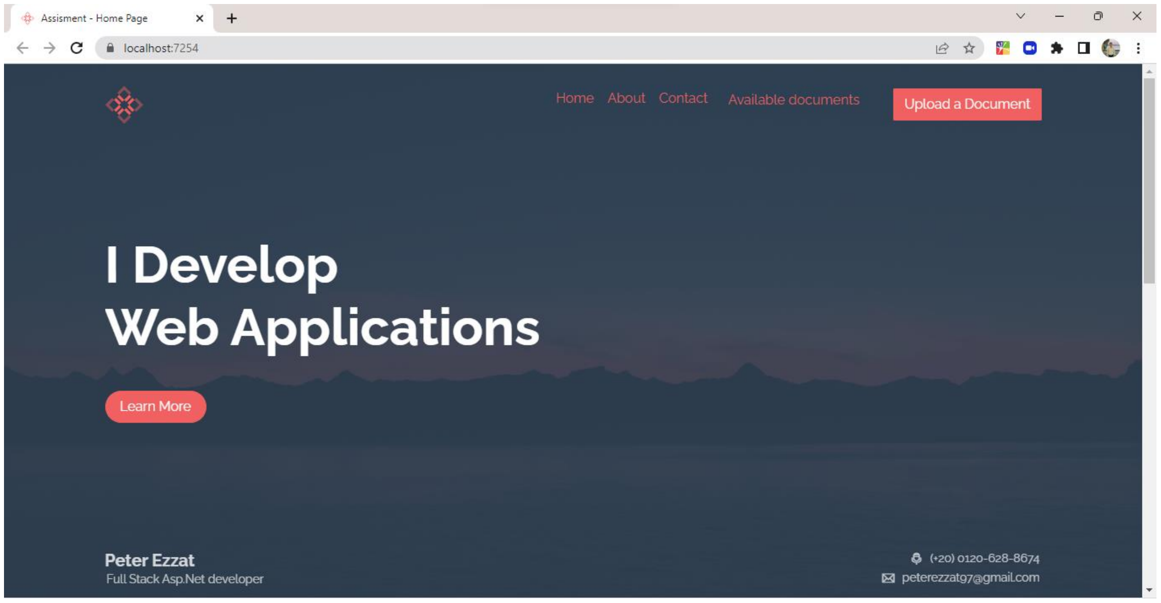
```
[HttpGet]
0 references
public IActionResult update(int Id = 0)
{
    ViewBag.PrioritiesSelectList = priorityManger.GetAllPriorities();

    if (Id == 0)
    {
        return Redirect("/Document?Msg=NoDocument#Msg");
    }
    var data = documentManger.GetDocumentById(Id);
    return View(data);
}
[HttpPost]
0 references
public IActionResult update(DocumentVM documentVM)
{
    ViewBag.PrioritiesSelectList = priorityManger.GetAllPriorities();

    if (ModelState.IsValid)
    {
        documentManger.UpdateDocument(documentVM);
        return Redirect("/Document?Msg=UpdatedSuccessfuly#Msg");

    }
    return View();
}
```



```
[HttpGet]
0 references
public IActionResult delete(int Id = 0)
{
    if (Id == 0)
        return Redirect("/Document?Msg=NoDocument#Msg");
    documentManger.DeleDocument(Id);
    return Redirect("/Document?Msg=DeletedSuccessfuly#Msg");
}
```

5.0: Pseudocode, Flowchart or workflow :

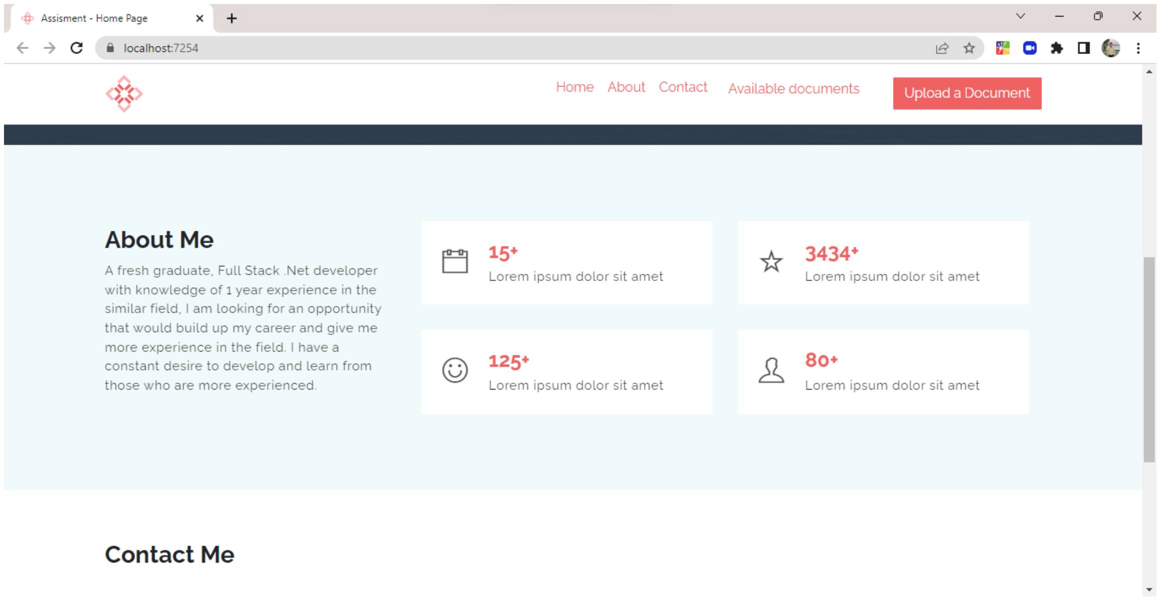
5.1: Home Page :



I Develop
Web Applications

Peter Ezzat
Full Stack Asp.Net developer

(+20) 0120-628-8674
peterezzat97@gmail.com



About Me

A fresh graduate, Full Stack .Net developer with knowledge of 1 year experience in the similar field, I am looking for an opportunity that would build up my career and give me more experience in the field. I have a constant desire to develop and learn from those who are more experienced.

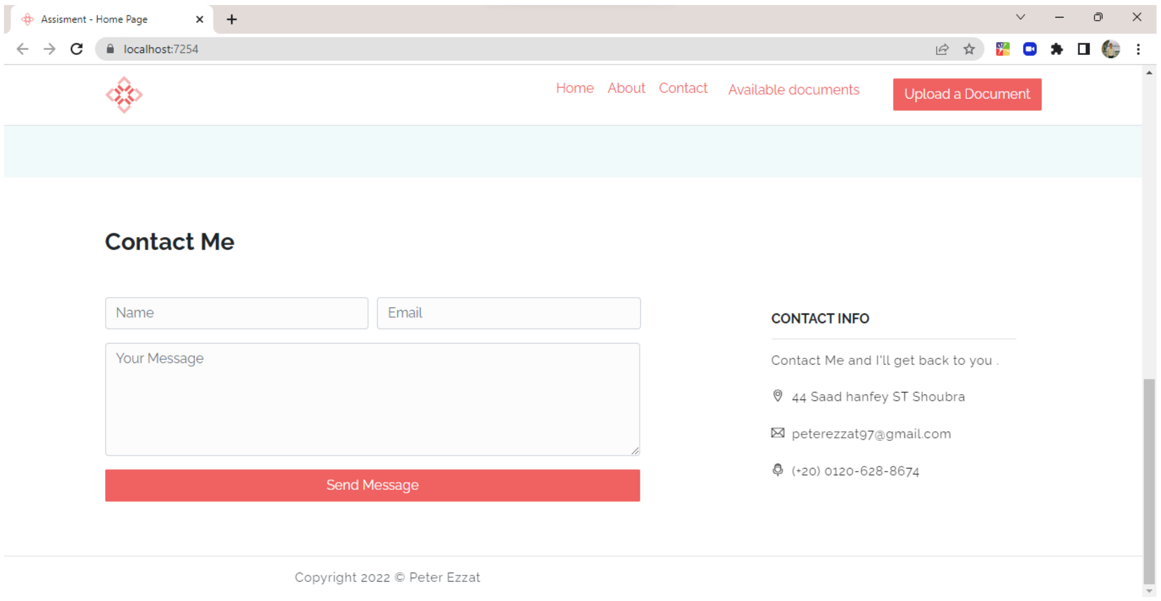
15+ Lorem ipsum dolor sit amet

3434+ Lorem ipsum dolor sit amet

125+ Lorem ipsum dolor sit amet

80+ Lorem ipsum dolor sit amet

Contact Me


Assisment - Home Page

localhost:7254

Home About Contact Available documents Upload a Document

Contact Me

Name

Email

Your Message

Send Message

CONTACT INFO

Contact Me and I'll get back to you .

44 Saad hanfey ST Shoubra

peterezzat97@gmail.com

(+20) 0120-628-8674

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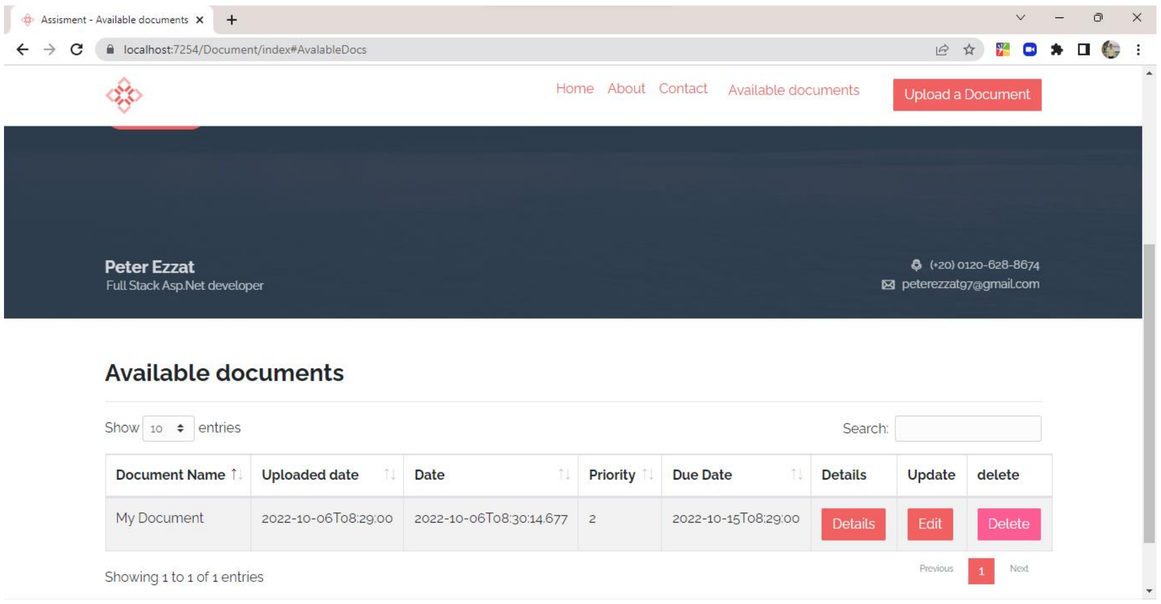
5.2: Available documents


Assisment - Available documents

localhost:7254/Document/index#AvalableDocs

Home About Contact Available documents Upload a Document

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Full Stack Asp.Net developer

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peterezzat97@gmail.com

Available documents

Show 10 entries

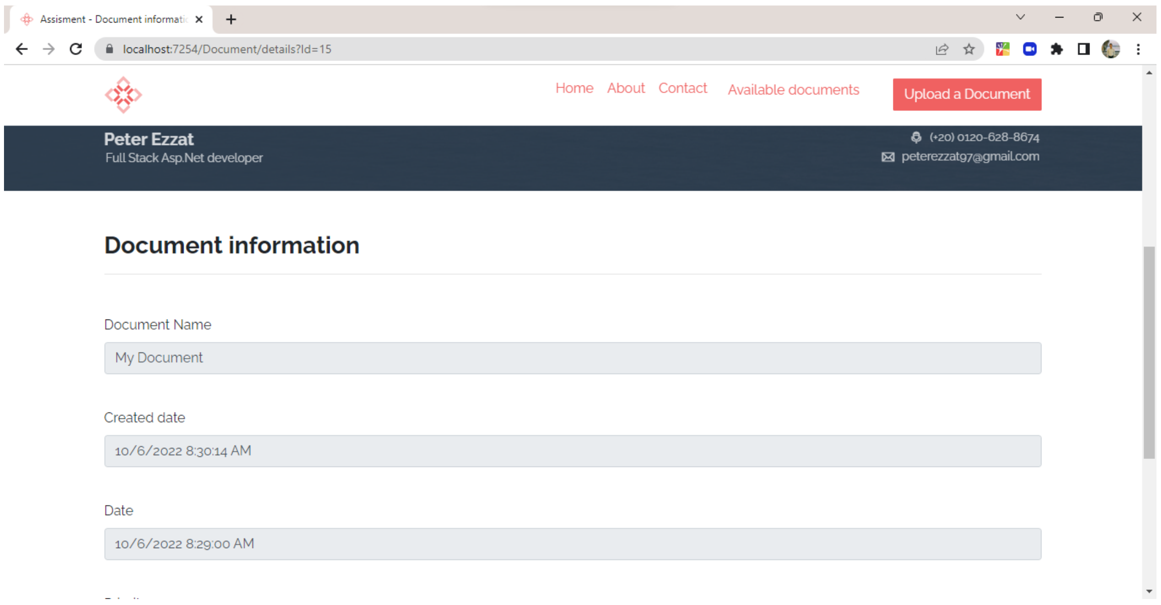
Search:

Document Name	Uploaded date	Date	Priority	Due Date	Details	Update	delete
My Document	2022-10-06T08:29:00	2022-10-06T08:30:14.677	2	2022-10-15T08:29:00	Details	Edit	Delete

Showing 1 to 1 of 1 entries

Previous 1 Next

5.3 Document Details



Document information

Document Name

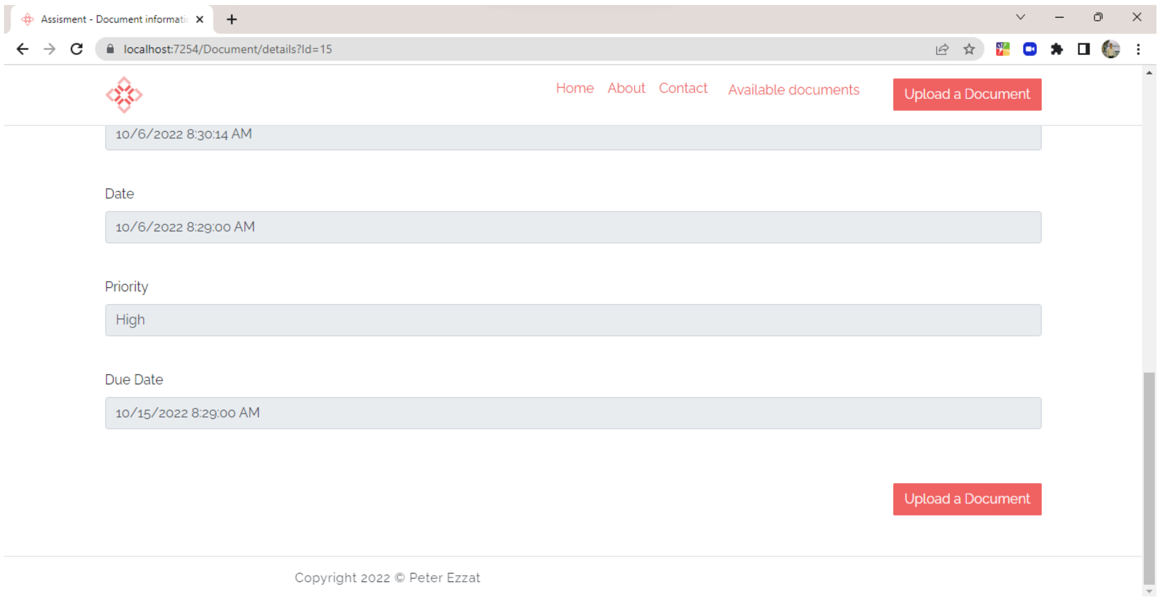
My Document

Created date

10/6/2022 8:30:14 AM

Date

10/6/2022 8:29:00 AM


Assisment - Document informati
localhost:7254/Document/details?Id=15
Home
About
Contact
Available documents
Upload a Document

10/6/2022 8:30:14 AM

Date

10/6/2022 8:29:00 AM

Priority

High

Due Date

10/15/2022 8:29:00 AM

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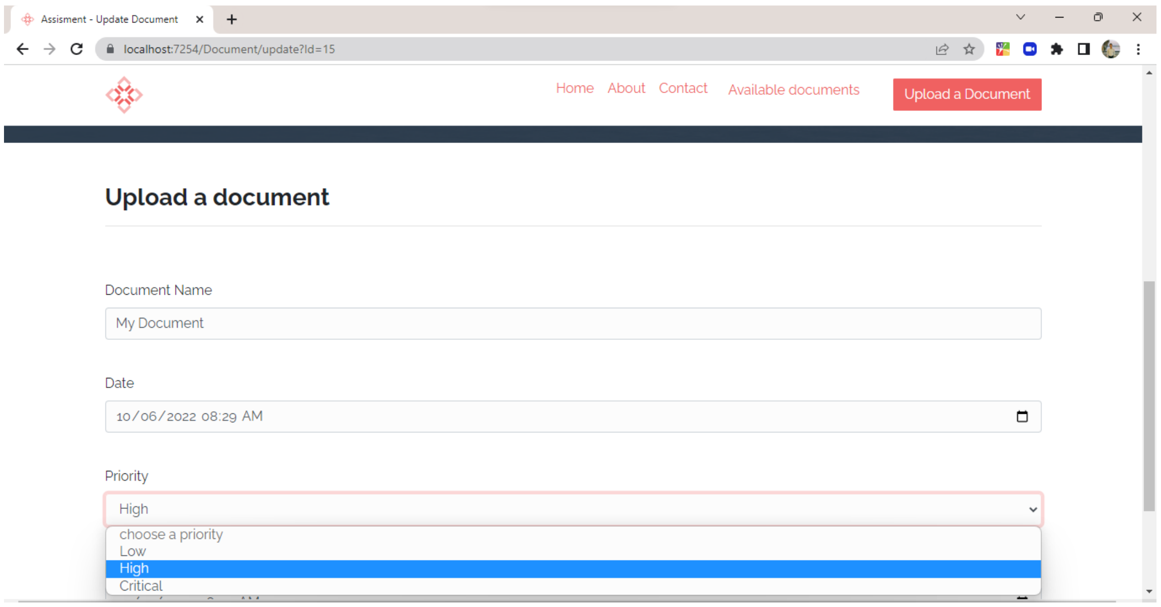
5.4 Update document


Assisment - Update Document
localhost:7254/Document/update?Id=15
Home
About
Contact
Available documents
Upload a Document

Upload a document

Document Name

My Document

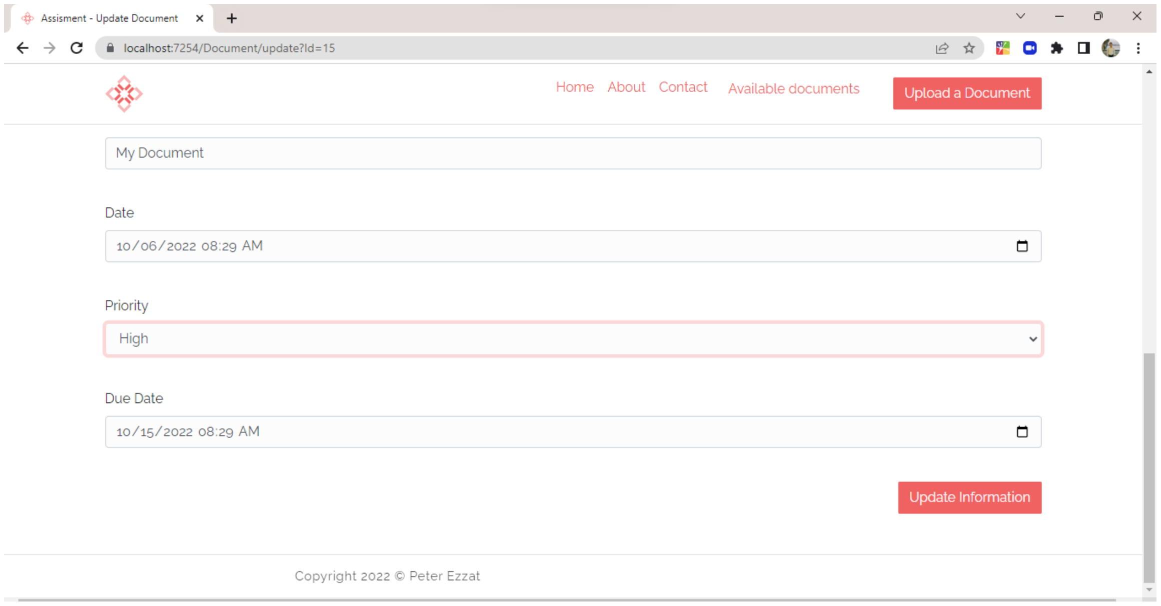
Date

10/06/2022 08:29 AM

Priority

High

choose a priority
Low
High
Critical


Assisment - Update Document
localhost:7254/Document/update?Id=15
Home
About
Contact
Available documents
Upload a Document

My Document

Date

10/06/2022 08:29 AM

Priority

High

Due Date

10/15/2022 08:29 AM

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Chapter 5:

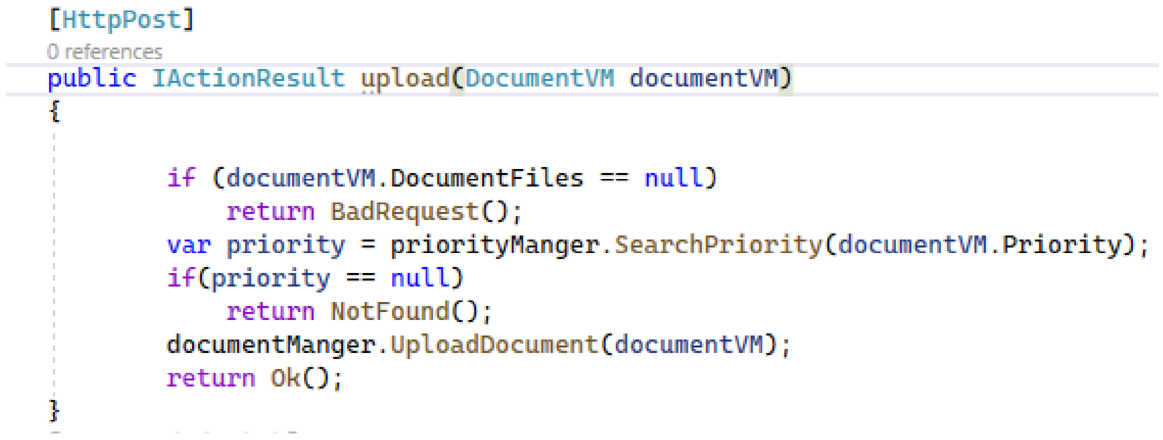
WEB Api

Document Api Link:
https://localhost:7254/api/DocumentApi

Priority Api Link :
https://localhost:7254/api/ Priorities

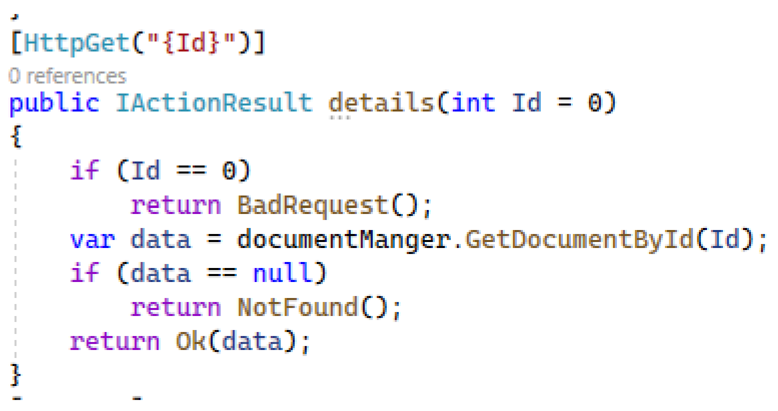
5.1 Document controller Api code:

5.1.1 Upload a document



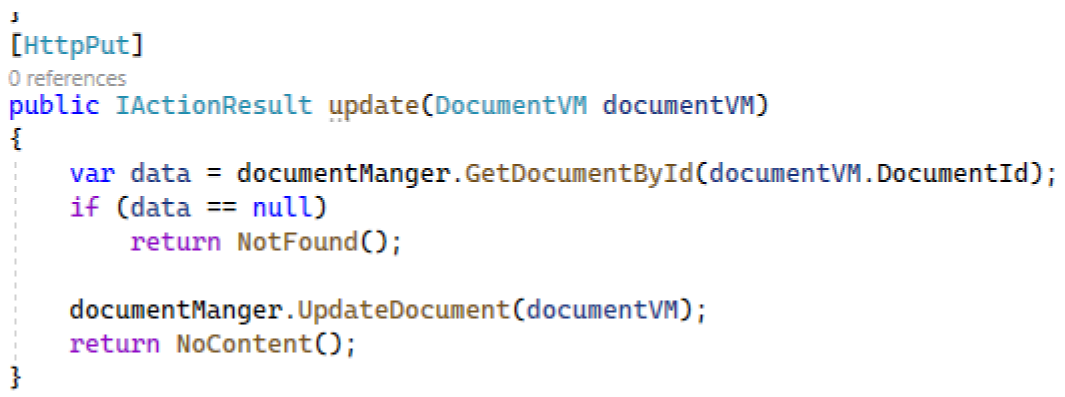
```
[HttpPost]
0 references
public IActionResult upload(DocumentVM documentVM)
{

        if (documentVM.DocumentFiles == null)
            return BadRequest();
        var priority = priorityManger.SearchPriority(documentVM.Priority);
        if(priority == null)
            return NotFound();
        documentManger.UploadDocument(documentVM);
        return Ok();
}
```

5.1.2 Document details



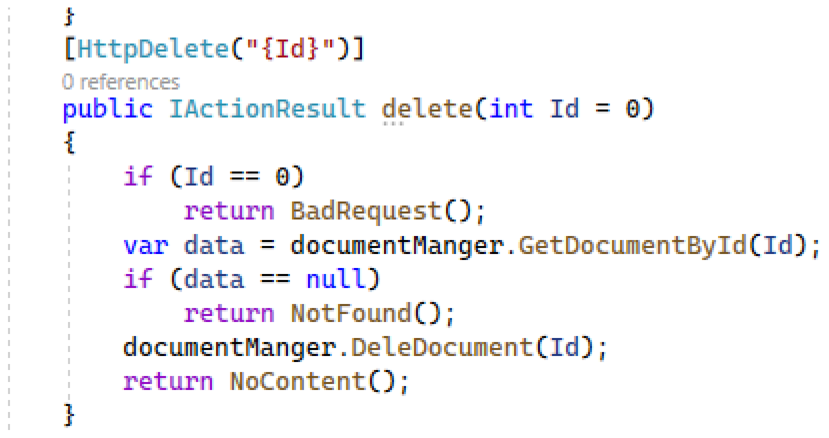
```
[HttpGet("{Id}")]
0 references
public IActionResult details(int Id = 0)
{
    if (Id == 0)
        return BadRequest();
    var data = documentManger.GetDocumentById(Id);
    if (data == null)
        return NotFound();
    return Ok(data);
}
```

5.1.3 Update document



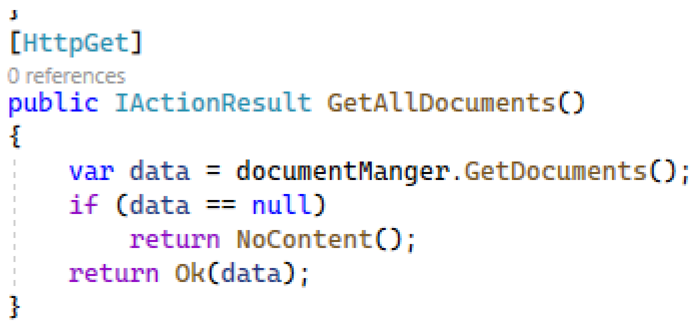
```
[HttpPut]
0 references
public IActionResult update(DocumentVM documentVM)
{
    var data = documentManger.GetDocumentById(documentVM.DocumentId);
    if (data == null)
        return NotFound();

    documentManger.UpdateDocument(documentVM);
    return NoContent();
}
```

5.1.4 Delete a document



```
}
[HttpDelete("{Id}")]
0 references
public IActionResult delete(int Id = 0)
{
    if (Id == 0)
        return BadRequest();
    var data = documentManger.GetDocumentById(Id);
    if (data == null)
        return NotFound();
    documentManger.DeleDocument(Id);
    return NoContent();
}
```

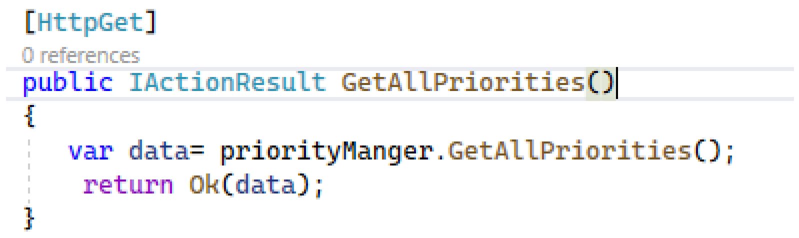
5.1.5 Get All Documents



```
[HttpGet]
0 references
public IActionResult GetAllDocuments()
{
    var data = documentManger.GetDocuments();
    if (data == null)
        return NoContent();
    return Ok(data);
}
```

5.2 Priority controller Api code:

5.2.1 Get All Priorities

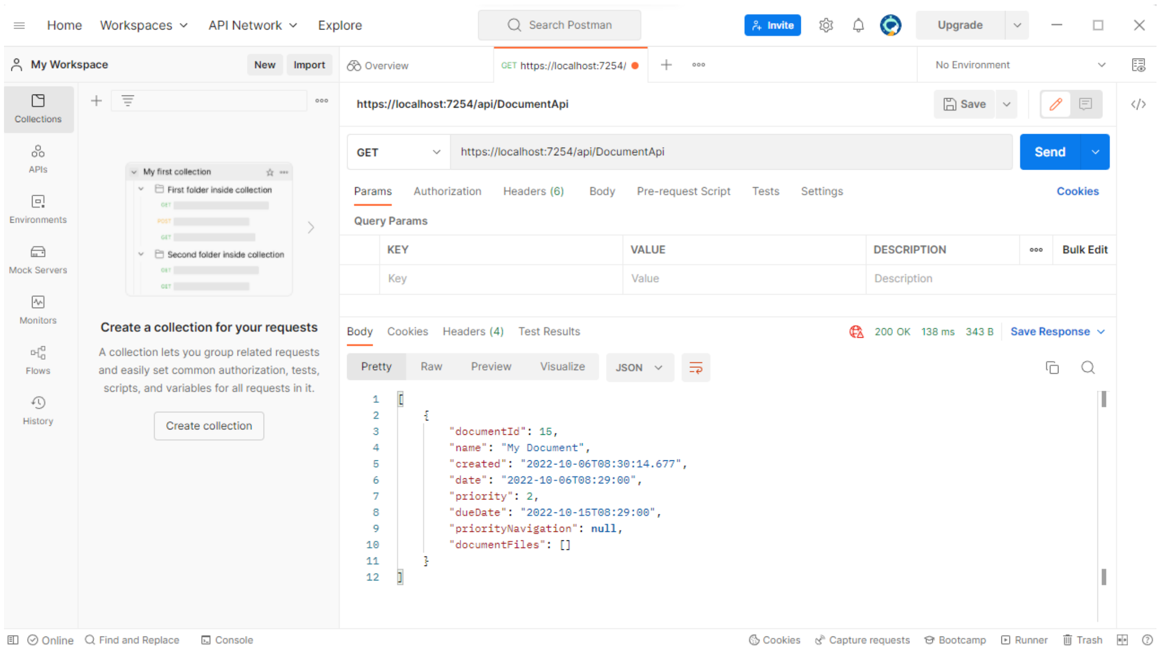


```
[HttpGet]
0 references
public IActionResult GetAllPriorities()
{
   var data= priorityManger.GetAllPriorities();
    return Ok(data);
}
```

5.3 Api tests:

5.3.1 Documents api

5.3.1.1 HTTPGET



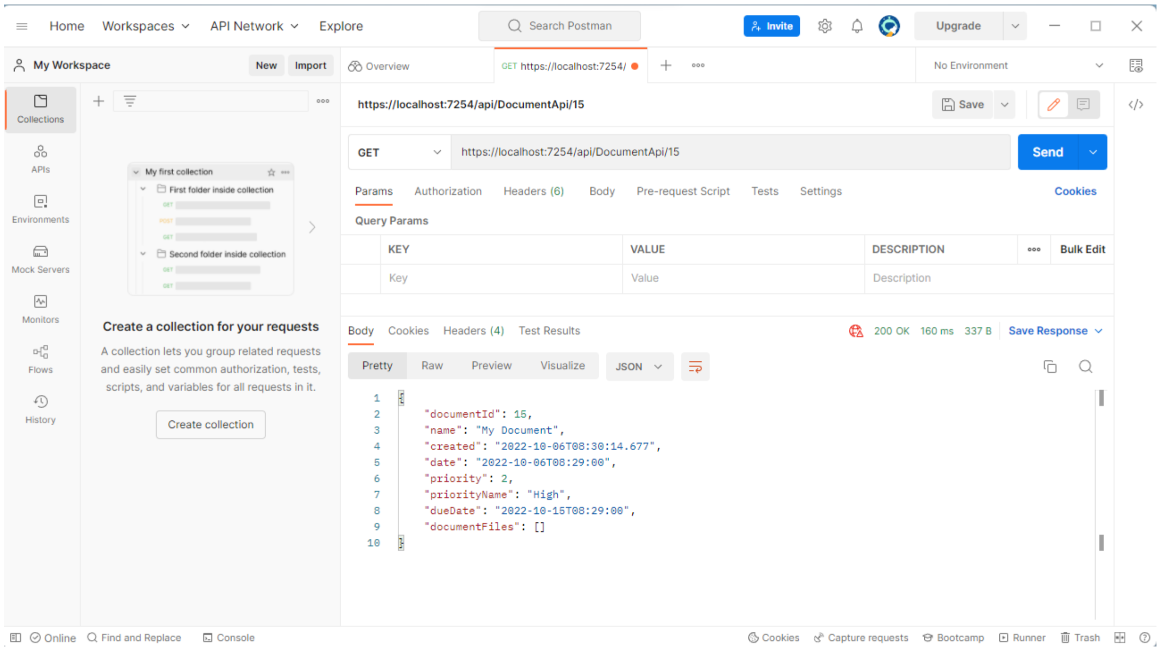
https://localhost:7254/api/DocumentApi

GET https://localhost:7254/api/DocumentApi

```
[
    {
        "documentId": 15,
        "name": "My Document",
        "created": "2022-10-06T08:30:14.677",
        "date": "2022-10-06T08:29:00",
        "priority": 2,
        "dueDate": "2022-10-15T08:29:00",
        "priorityNavigation": null,
        "documentFiles": []
    }
]
```

5.3.1.2 HTTPGET({Id})

If id is found (on success)

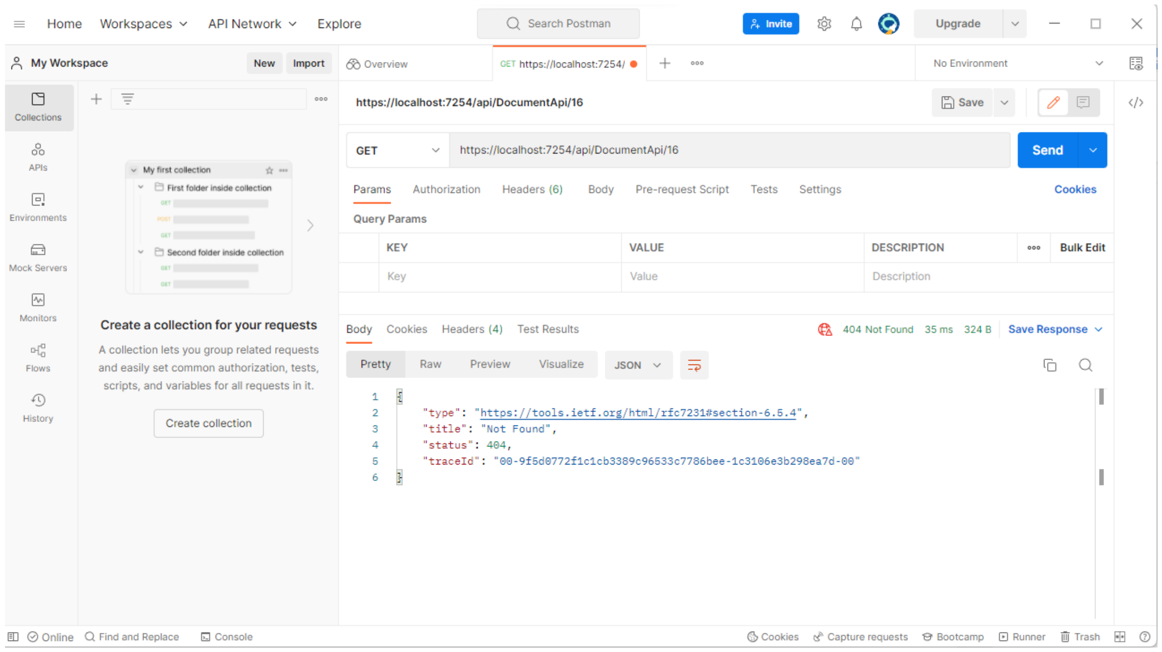


https://localhost:7254/api/DocumentApi/15

GET https://localhost:7254/api/DocumentApi/15

```
{
    "documentId": 15,
    "name": "My Document",
    "created": "2022-10-06T08:30:14.677",
    "date": "2022-10-06T08:29:00",
    "priority": 2,
    "priorityName": "High",
    "dueDate": "2022-10-15T08:29:00",
    "documentFiles": []
}
```

If id not found



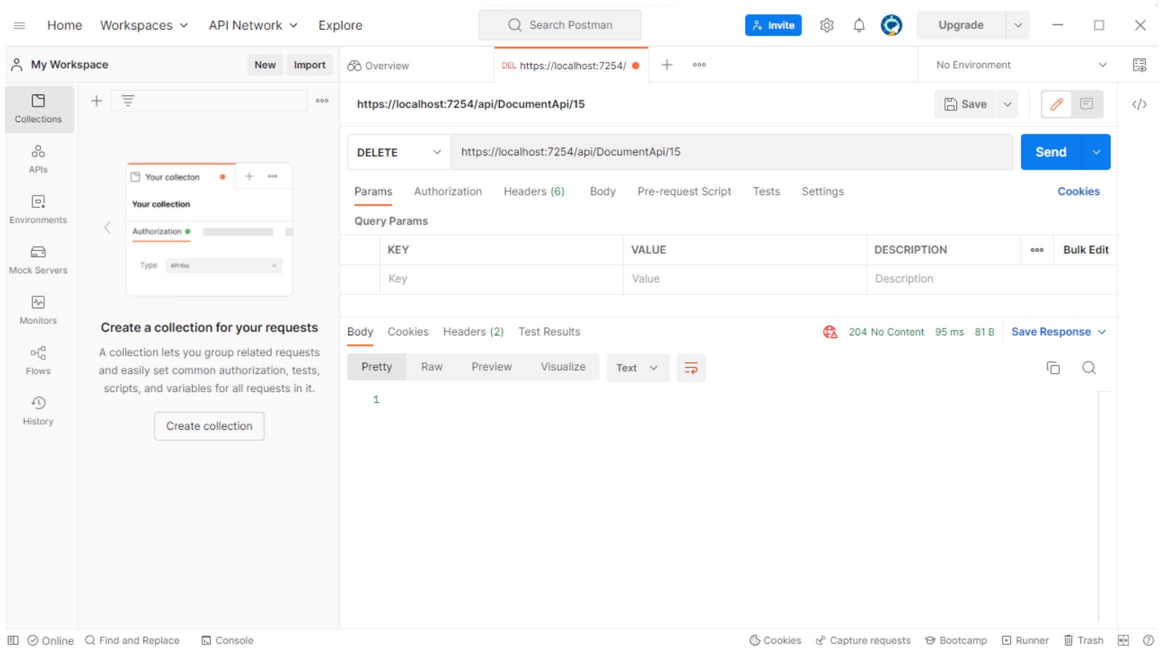
GET https://localhost:7254/api/DocumentApi/16

404 Not Found 35 ms 324 B

```
{
    "type": "https://tools.ietf.org/html/rfc7231#section-6.5.4",
    "title": "Not Found",
    "status": 404,
    "traceId": "00-9f5d0772f1c1cb3389c96533c7786bee-1c3106e3b298ea7d-00"
}
```

5.3.1.2 HttpDelete

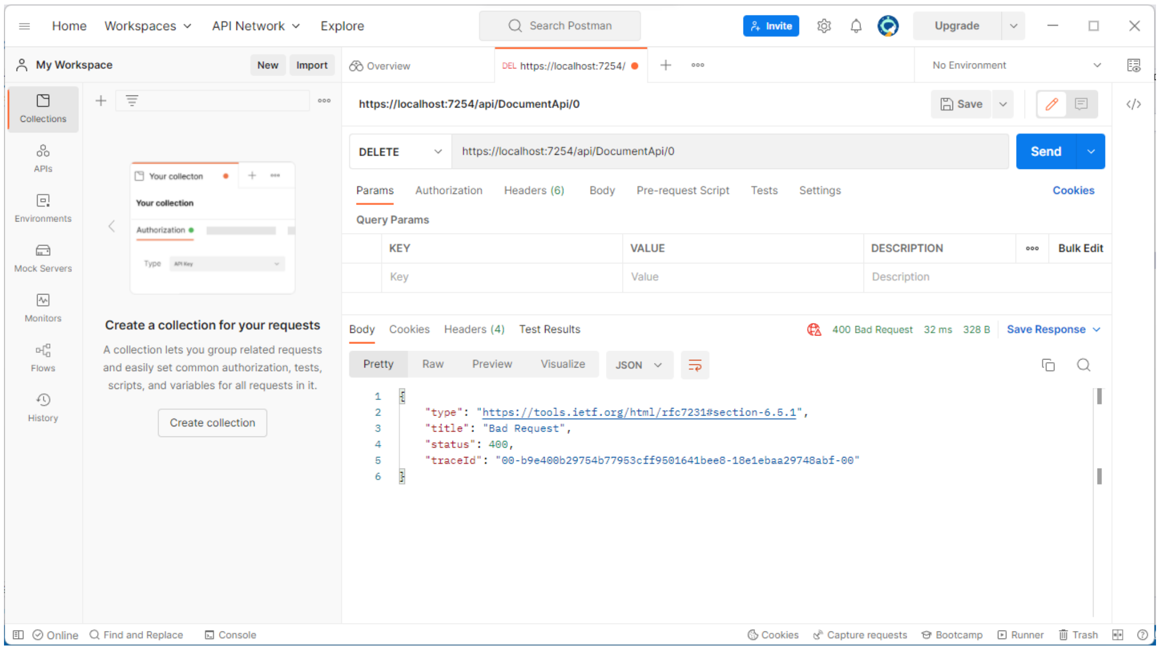
On success return no content



DELETE https://localhost:7254/api/DocumentApi/15

204 No Content 95 ms 81 B

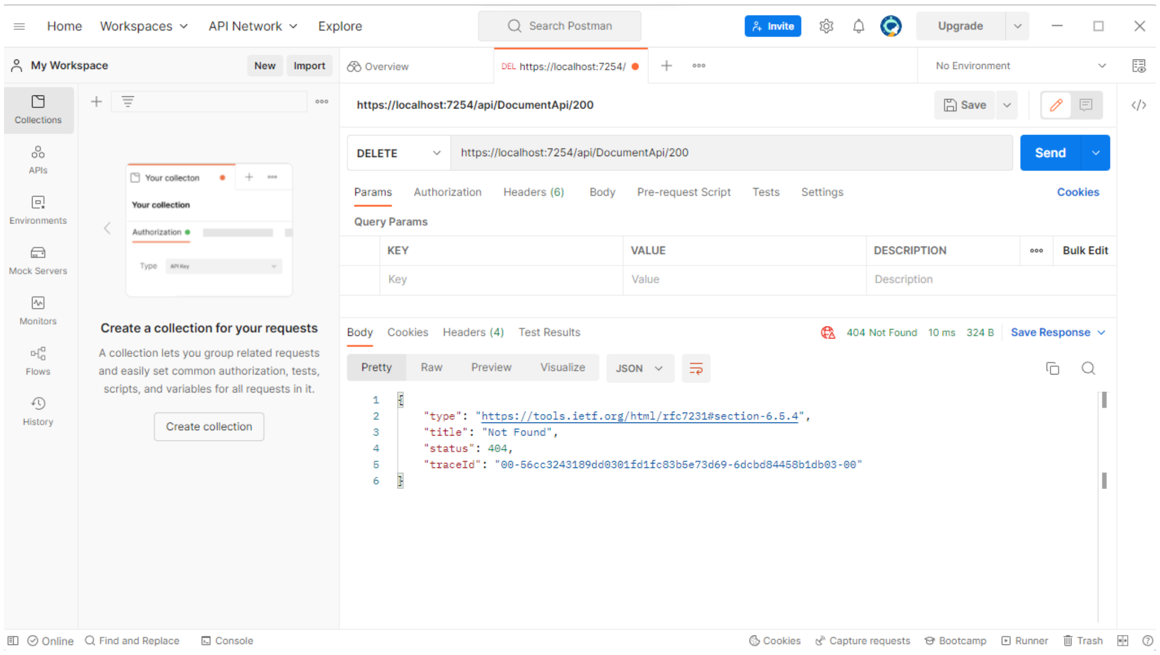
If id is 0 return bad request


DELETE https://localhost:7254/api/DocumentApi/0

400 Bad Request 32 ms 328 B

```
{
    "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1",
    "title": "Bad Request",
    "status": 400,
    "traceId": "00-b9e400b29754b77953cff9501641bee8-18e1ebaa29748abf-00"
}
```

If user not found


DELETE https://localhost:7254/api/DocumentApi/200

404 Not Found 10 ms 324 B

```
{
    "type": "https://tools.ietf.org/html/rfc7231#section-6.5.4",
    "title": "Not Found",
    "status": 404,
    "traceId": "00-56cc3243189dd0301fd1fc83b5e73d69-6dcbd84458b1db03-00"
}
```

Thanks