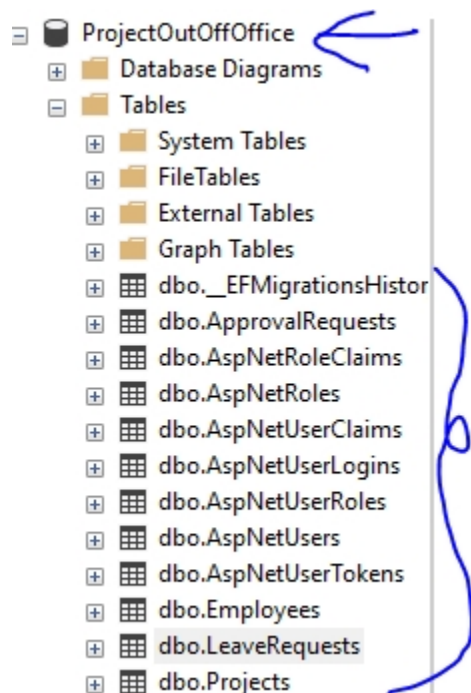ASP NET MVC "OutOfOffice" Web Application:

Usage: C#, .NET 7.0, MVC, Clean Architecture with CQRS + MediatR pattern, Entity Framework, FluentValidation , ASP.NET Identity, MSSQL.

```
"OutOfOfficeContext": "Server=DESKTOP-09DCRPN;Database=ProjectOutOffOffice;Trusted_Connection=True;TrustServerCertificate=True;"
```

The first launch of the application. You need to download the project in question from github. In the appsettings.json file -> set the correct data with the connection to the MSSQL database (nazda server and database). If everything ok then run the applications. A new database will be created.

If the application does not want to start, then you need to use the command in the Package Manage Console: update database -> this manually creates the database in question. If it doesn't work. Then please remove the file from the Migrations project, then commands: add-migration Init and then update database. Then run the applications.
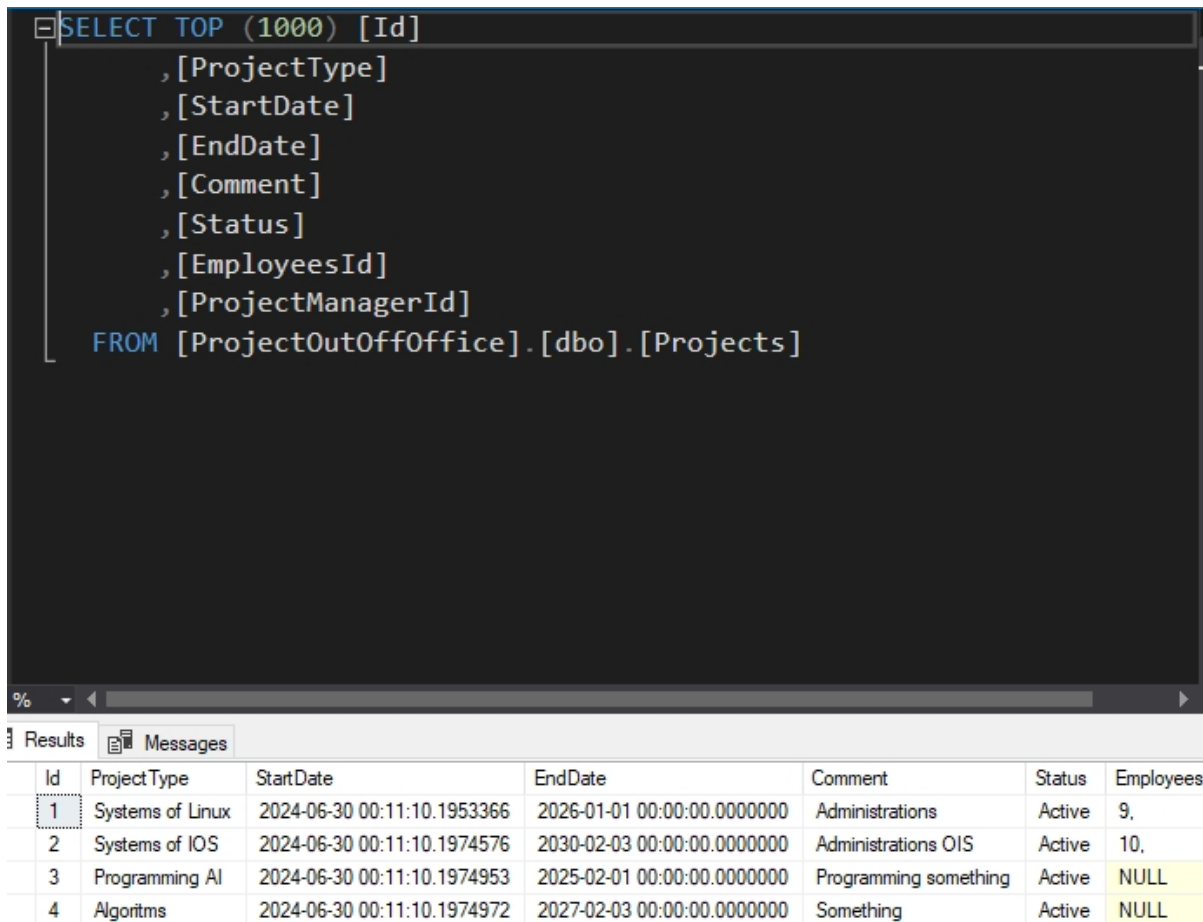
```
⊟ 🗄 ProjectOutOffOffice  ⟵
  ⊞ 📁 Database Diagrams
  ⊟ 📁 Tables
     ⊞ 📁 System Tables
     ⊞ 📁 FileTables
     ⊞ 📁 External Tables
     ⊞ 📁 Graph Tables
     ⊞ ▦ dbo._EFMigrationsHistor
     ⊞ ▦ dbo.ApprovalRequests
     ⊞ ▦ dbo.AspNetRoleClaims
     ⊞ ▦ dbo.AspNetRoles
     ⊞ ▦ dbo.AspNetUserClaims
     ⊞ ▦ dbo.AspNetUserLogins
     ⊞ ▦ dbo.AspNetUserRoles
     ⊞ ▦ dbo.AspNetUsers
     ⊞ ▦ dbo.AspNetUserTokens
     ⊞ ▦ dbo.Employees
     ⊞ ▦ dbo.LeaveRequests
     ⊞ ▦ dbo.Projects
```

```
SELECT TOP (1000) [Id]
      ,[FullName]
      ,[Subdivision]
      ,[Position]
      ,[Status]
      ,[OutOfOfficeBalance]
      ,[Photo]
      ,[IdHrManager]
      ,[CreatedById]
  FROM [ProjectOutOffOffice].[dbo].[Employees]
```

esults   klessages

Id	FullName	Subdivision	Position	Status	OutŒŒfice Balance	Photo
1	Admin	NULL	ADII IN	Active	26	D: .NySheets'.ProgramsInCSh
2	Patrick Prusko	NULL	HR fdANAGER	Active	22	D: .NySheets'.ProgramsInCSh
3	clapper klist	NULL	HR fdANAGER	Active	26	D: .NySheets'.ProgramsInCSh
4	Anna cladra	NULL	PROJECT fdANAGER	Active	23	"/Imagesñifth JPG
5	clapper Next	NULL	PROJECT fdANAGER	Active	23	"'.Images'qhoto.PNG
6	cleats Nextewe	NULL	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
	Blazej Pineapple	NULL	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
8	Andrew An	NULL	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
9	Shirnon kluch	1	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
1D	Alicia A|a	2	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
11	Patrycja Blaszczak	NULL	EfdPLO CEE	Active	28	"'.Images'Jifth JPG
12	cleats Nextewe	NULL	EfdPLO CEE	Active	23	"'.Images'Jifth JPG
13	clarianna Oleksiej	NULL	EfdPLO CEE	Active	13	"'.Images'Jifth JPG
14	Dagmara A|on	NULL	EfdPLO CEE	Active	14	"'.Images'Jifth JPG
15	Sandra Rak	NULL	EfdPLO CEE	Active	û	"'.Images'Jifth JPG
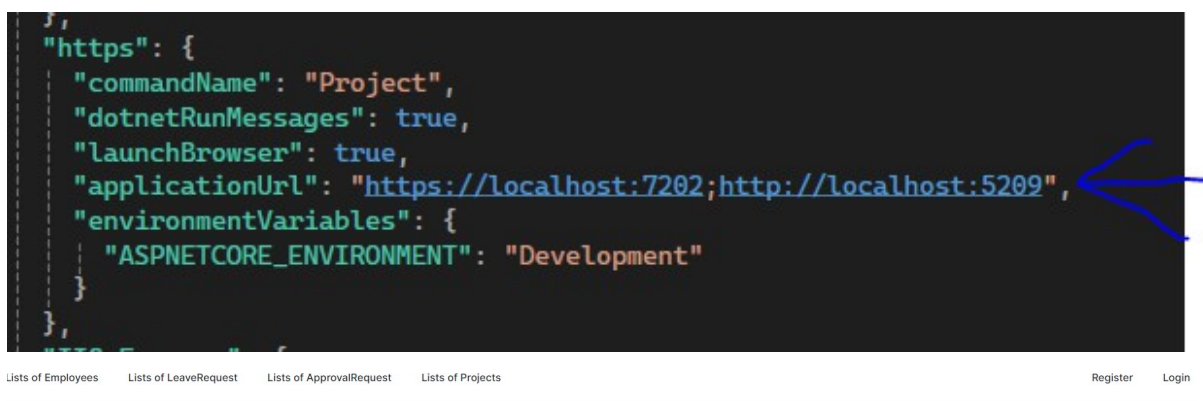
```sql
SELECT TOP (1000) [Id]
      ,[ProjectType]
      ,[StartDate]
      ,[EndDate]
      ,[Comment]
      ,[Status]
      ,[EmployeesId]
      ,[ProjectManagerId]
  FROM [ProjectOutOffOffice].[dbo].[Projects]
```

Id	Project Type	Start Date	EndDate	Comment	Status	Employees
1	Systems of Linux	2024-06-30 00:11:10.1953366	2026-01-01 00:00:00.0000000	Administrations	Active	9,
2	Systems of IOS	2024-06-30 00:11:10.1974576	2030-02-03 00:00:00.0000000	Administrations OIS	Active	10,
3	Programming AI	2024-06-30 00:11:10.1974953	2025-02-01 00:00:00.0000000	Programming something	Active	NULL
4	Algoritms	2024-06-30 00:11:10.1974972	2027-02-03 00:00:00.0000000	Something	Active	NULL

New tables are created: Employees, Projects, ApprovalRequests, LeaveRequests .
During the first charm, sample data is generated, which is in the directory
Seeders/OutOfOfficeSeeder.cs .


```
},
"https": {
  "commandName": "Project",
  "dotnetRunMessages": true,
  "launchBrowser": true,
  "applicationUrl": "https://localhost:7202;http://localhost:5209",
  "environmentVariables": {
    "ASPNETCORE_ENVIRONMENT": "Development"
  }
},
```

Lists of Employees   Lists of LeaveRequest   Lists of ApprovalRequest   Lists of Projects   Register   Login

Welcome

Learn about building Web apps with ASP.NET Core.

The start page will appear. It should open at the link above. Application Operation:

Register

Create a new account.

Email
patrykprusko@gmail.com

Password
••••••••••••

Confirm Password
••••••••••••|

Register

If you go to the List of Employees tab or any other tab, a login window will appear. There are already created employees with roles: EMPLOYEE, HR_MANAGER, PROJECT_MANAGER, ADMIN. For now, in order to add an employee to the system, we register the already added employee in the table: Patryk Prusko, HR_MANAGER.

Enter registration:

Email: must always match the created first name + last name + gmail.com ie:

From an employee named: "Patrick Prusko" -> "patrykprusko@gmail.com" , password: Password1234! .

Hello patrykprusko@gmail.com!   Logout

List of Employees

Create New

Find by name: [   ] Search

Patryk Prusko	Maciej Nextewe	Blazej Ananas	Andrzej An
HR_MANAGER	EMPLOYEE	EMPLOYEE	EMPLOYEE
Active	Active	Active	Active
22	23	23	23
Details Edit	Details Edit	Details Edit	Details Edit
Delete	Delete	Delete	Delete

Szymon Much	Alicja Ajla	Patrycja Blaszczak
EMPLOYEE	EMPLOYEE	EMPLOYEE
Active	Active	Active
23	23	28
Details Edit	Details Edit	Details Edit
Delete	Delete	Delete

After that we can see that we have logged in. When we go to List of Employees it shows us 6 employees that were added by this logged-in user with HR_MANAGER role.

IdHrManager
1
2
3
4
5
2
2
2
2
2
2

2	Patryk Prusko	NULL	HR_MANAGER		

6	Maciej Nextewe	NULL	EMPLOYEE	Active	23
7	Blazej Ananas	NULL	EMPLOYEE	Active	23
8	Andrzej An	NULL	EMPLOYEE	Active	23
9	Szymon Much	1	EMPLOYEE	Active	23
10	Alicja Ajla	2	EMPLOYEE	Active	23
11	Patrycja Blaszczak	NULL	EMPLOYEE	Active	28

After the IdHrManager -> 2 column, this is the id number of the given logged-in HR_MANAGER.

Now the capabilities of a given HR_MANAGER:

Under the List of Employees tab:

Create Employee

FullName

Adrian Nowy

Status

Active ⌄

Position

EMPLOYEE ⌄

OutOfOfficeBalance

26

Create

Adrian Nowy
EMPLOYEE
Active

26

Details   Edit

Delete

\

- Create a new employee: in Status select Active or Inactive, Position is the role : EMPLOYEE, HR_MANAGER, PROJECT_MANAGER, OUTOfOfficeBalance -> number of vacation days. After adding a new employee, there is a message (Toast) that a new employee has been added.

Adrian Nowy Details

Id	16
FullName	Adrian Nowy
Position	EMPLOYEE
Status	Active
OutOfOfficeBalance	26
Photo	

Edit   Back to List

- Ability to preview details.

Edit Adrian Nowy

EditEmployeeCommand

Id

16

FullName

Adrian Nowy

Position

EMPLOYEE

Status

Active

OutOfOfficeBalance

26

Photo

Save

Back to List

- Ability to edit a given employee: change 3 values: Status: Active or InAclive, OutOfOfficeBalance: 1 to 59, Photo: indifferent.
- Possibility of removal

List of Employees

Create New

Find by name: Alicja | Search

Alicja Ajla
EMPLOYEE
Active
23

Details Edit
Delete

- The ability to search by name, to return it you need to delete the name you are looking for and press Search button.
- IMPORTANT: if you create a new EMPLOYEE now, then in order to log in as him, then you need to register with the name: e.g. Anna Pala -> annapala@gmail.com : email, password . Then log in with that email and password.

In Lists Of Projects:

List Of Projects

Find by id: [ ] Search

ID	PROJECT TYPE	START DATE	END DATE	COMMENT	STATUS	
2	Systems of IOS	6/30/2024 12:11:10 AM	2/3/2030 12:00:00 AM	Administrations OIS	Active	Details
1	Systems of Linux	6/30/2024 12:11:10 AM	1/1/2026 12:00:00 AM	Administrations	Active	Details

Page 1 of 1
1

He can only view the given projects , which are related to his employees, whom he has created in the system (these Empolyees are added to these projects).

Systems of IOS Details

Id	2
ProjectType	Systems of IOS
StartDate	6/30/2024 12:11:10 AM
EndDate	2/3/2030 12:00:00 AM
Comment	Administrations OIS
Status	Active
ProjectManagerId	4
EmployeesId	10,

Back to List

Alicja Ajla Details

Id	10
FullName	Alicja Ajla
Position	EMPLOYEE
Status	Active
OutOfOfficeBalance	23
Subdivision	2
Photo	

In the details of a given project, you can check the connection between the Project and employee -> EmployeesId -> 10 -> this is the Id number of a given employee, and in the employee details there is a field Subvision -> 2 this is the Id number of a given Project. One Empolyee can be assigned to one project.

You can search for the project Id number, you can sort the column data in descending and ascending order on pressing a column.

Lists Of LeaveRequests:

HR_MANAGER can only browse the details of leave requests that belong to his empolyees. He can search by LeaveRequest id number or sort by a particular column and see the details.

List of ApprovalRequest:

HR_MANAGER can search by ApprovalRequest id number and sort. He can approve or cancel a given leave request of his employee -> with the ChangeStatus button.

//

WHEN PROJECT_MANAGER IS LOGGED IN:

| 3 | Maciej Mist | NULL | HR_MANAGER | Active | 26 | D:\MySheets\Programs\ |
| 4 | Anna Madra | NULL | PROJECT_MANAGER | Active | 23 | ~/Images/fifth.JPG |

We log in as annamadra@gmail.com, if no account, then we need to register.

In List of Empolyees:

List of Employees

Find by name: [   ] [Search]

| Admin
ADMIN
Active
26
[Details] [AddToProject] | Patryk Prusko
HR_MANAGER
Active
22
[Details] [AddToProject] | Maciej Mist
HR_MANAGER
Active
26
[Details] [AddToProject] | Anna Madra
PROJECT_MANAGER
Active
23
[Details] [AddToProject] |
| Maciej Next
PROJECT_MANAGER
Active
23
[Details] [AddToProject] | Maciej Nextewe
EMPLOYEE
Active
23
[Details] [AddToProject] | Andrzej An
EMPLOYEE
Active
23
[Details] [AddToProject] | Marianna Oleksiej
EMPLOYEE
Active
13
[Details] [AddToProject] |

PROJECT_MANAGER can search by the name of an EMPLOYEE , see the details and add a new EMPLOYEE to a project with the "AddToProject" button. He has access to all EMPLOYEES that are not assigned to any project.

In List of Leave Requests:

List Of Leave Requests

Find by id: [   ] [Search]

ID	ABSENCE REASON	STARTDATE	ENDDATE	COMMENT	STATUS	EMPLOYEE ID	
1	I 'm very seek	7/1/2024 1:00:00 AM	7/7/2024 1:00:00 AM	something	SUBMITTED	9	[Details]
2	second soething	7/5/2024 1:01:00 AM	7/7/2024 1:01:00 AM	test	NEW	9	[Details]
3	third	7/1/2024 1:03:00 AM	7/5/2024 1:02:00 AM	third	NEW	9	[Details]

Page 1 of 1
1

- For browsing only, there are data records available regarding their EMPLOYEES, Who are assigned to the projects of a given PROJECT_MANAGER.

In List of ApprovalRequests:

List Of Approval Requests

Find by id: [   ] [Search]

ID	COMMENT	STATUS	APPROVER EMPLOYEEID	LEAVE REQUESTID	
1	something	NEW	9	1	ChangeStatus

Page 1 of 1

1

- Ability to review and approve a given leave or cancel. There are data of applications , employees who belong to the project of a given PROJECT_MANAGER.

In List Of Projects:

List Of Projects

[Create]

Find by id: [   ] [Search]

ID	PROJECT TYPE	START DATE	END DATE	COMMENT	STATUS			
2	Systems of IOS	6/30/2024 12:11:10 AM	2/3/2030 12:00:00 AM	Administrations OIS	Active	Details	Edit	Delete
1	Systems of Linux	6/30/2024 12:11:10 AM	1/1/2026 12:00:00 AM	Administrations	Active	Details	Edit	Delete
8	test	7/4/2024 12:43:00 PM	7/4/2024 12:43:00 PM	test	Active	Details	Edit	Delete

Page 1 of 1

1

PROJECT_MANAGER can create new, update, delete its projects. It can search by a given id number, sort by a given column.

//

Logged in as EMPLOYE as szymonmuch@gmail.com : In List Of

Employees -> none .

In List Of Projects :

List Of Projects

Find by id: [   ] [Search]

ID	PROJECT TYPE	START DATE	END DATE	COMMENT	STATUS	
1	Systems of Linux	6/30/2024 12:11:10 AM	1/1/2026 12:00:00 AM	Administrations	Active	Details

Page 1 of 1

1

Ability to browse , sort, and view the detail of your project.

In List Of Leave Requests:

List Of Leave Requests

Create

Find by id: [   ] Search

ID	ABSENCE REASON	STARTDATE	ENDDATE	COMMENT	STATUS	EMPLOYEE ID			
1	I 'm very seek	7/1/2024 1:00:00 AM	7/7/2024 1:00:00 AM	something	SUBMITTED Cancel	9	Delete	Edit	Details
2	second soething	7/5/2024 1:01:00 AM	7/7/2024 1:01:00 AM	test	NEW Submit	9	Delete	Edit	Details
3	third	7/1/2024 1:03:00 AM	7/5/2024 1:02:00 AM	third	NEW Submit	9	Delete	Edit	Details

Page 1 of 1

Ability to search by ID number, sort, create, update, delete a given LeaveRequest.
Available only , which were created by the given EMPLOYEE.

In list Of ApprovalRequests:

List Of Approval Requests

Find by id: [   ] Search

ID	COMMENT	STATUS	APPROVER EMPLOYEEID	LEAVE REQUESTID	
1	something	NEW	9	1	

Page 1 of 1
1

Access your ApprovalRequest.

//

Description of the operation of several functionalities:

2	second soething	7/1/2024 1:01:00 AM	7/7/2024 1:01:00 AM	test	NEW Submit	9	Delete	Edit	Details

Creating a new LeaveRequest by EMPLOYEE , gives you the opportunity to approve the
of a given leave request with the button -> 'Submit'.

2	second soething	7/1/2024 1:01:00 AM	7/7/2024 1:01:00 AM	test	SUBMITTED	Cancel	9

If I suspend then change the button to 'Cancel' and the status field changes from 'NEW' to 'SUBMITTED'.

ID	COMMENT	STATUS	APPROVER EMPLOYEEID	LEAVE REQUESTID
2	test	NEW	9	2

 A new ApprovalRequest is created in the list of AprovalRequests with a status of 'NEW', with a comment field the same as it was in the comment record in the LeaveRequests list.

Now the EMPLOYEE concerned can either cancel the leave request in question , or wait for the approval by HR_MANAGER or PROJECT_MANAGER.

2	second soething	7/1/2024 1:01:00 AM	7/7/2024 1:01:00 AM	test	SUBMITTED	Cancel	9

CANCELLED   Submit   9

If he presses the 'Cancel' button -> this cancels this request. The status will change to 'CANCELLED' and the button will change to 'Submit'. And the record in the ApprovalRequests list is deleted.

If the EMPLOYEE is waiting for a decision from the HR_MANAGER or PROJECT_MANAGER then:

ID	COMMENT	STATUS	APPROVER EMPLOYEEID	LEAVE REQUESTID	
3	test	NEW	9	2	ChangeStatus

Logged in HR_MANAGER has options on List Of ApprovalRequests given button. 'ChangeStatus' -> this opens the given window:

ChangeStatus

Id

> 3

Status

> APPROVED_REQUEST ⌄

Comment

> test

ApproverEmployeeId

> 9

LeaveRequestId

> 2

Save

In which there is a choice of changing the "Comment" field and selecting the status -> "APPROVED_REQUEST" -> approval of the leave request, or 'REJECTED_REQUEST' -> cancellation of the request.

If "APPROVED_REQUEST" ->

9	Szymon Much	1	EMPLOYEE	Active	29	← Before

9	Szymon Much	1	EMPLOYEE	Active	26	← After

The '**OutOfOfficeBalance**' field of a given EMPLOYEE , i.e. vacation days, is changed.

3	test	REJECTED_REQUEST	9	2

Changes 'Status' to 'REJECTED_REQUEST' and given EMPLOYEE cannot delete the vacation request in question.

HR_MANAGER when cancelling a given leave request 'REJECTED_REQUEST':

The field '**OutOfOfficeBalance**' of the given EMPLOYEE , i.e. vacation days to 26 days, is changed. Now the given EMPLOYEE can delete the given application. If the given HR_MANAGER changes the

comment , then the same comment is seen by the concerned EMPLOYEE on his application for leave in the

'LeaveRequest'.

///

NOW discusses creating a new Project and adding a new EMPLOYEE to a Project:

Logged in as PROJECT_MANAGER can create a new project. If he wants to add any EMPLOYEE to it, he needs to go to List of Employees:

We add 'Marianna Oleksiej' by clicking on the button 'AddToProject' .

A new view with the List of Projects of the given PROJECT_MANAGER opens. We add to the Project with id number 2 this new EMPLOYEE, which the system will add to the field 'EMPLOYEESID' -> EMPLOYEE data id numbers.

| 13 | Marianna Oleksiej | | EMPLOYEE | 13 | Marianna Oleksiej | 2 | EMPLOY |
| 14 | D_____ A___ | 2 | EMPLOYEE | 14 | D | A: | 2 | EMPLO |

In the database in the field 'Subdivision' is empty, after adding this will be with the ID number
of a given project -> No. 2 id.

From the list of Employees the given 'Marianna Oleksiej' disappears from the list , because she is already in some project already added. When deleting a given project, let's say the above is that with id number 2, which has two employees assigned to the project.

| 10 | Alicja Ajla | 2 | EMPLOYEE |
| 13 | Marianna Oleksiej | 2 | EMPLOYEE |

This is before the removal of

After deleting a given project with Id 2 , it is these two twos that are removed from the 'Subdivision' field.

When we remove a given EMPLOYEE from the List Of Employees , then in a given project from the field.
'EMPLOYEESID' removes the given Id number.

/// Logged in

as ADMIN:

 It's admin@admin@gmail.com -> you need to register. It has most of the permissions, but you have to be very careful to remove something and especially from the role: HR_MANAGER or PROJECT_MANAGER, before that it is best to remove all their employees, because you have to refine it later on

Database connections:

Table Employees -> Projects -> 1 to many

Table Employes -> LeaveRequests -> 1 -> to many

ApprovalReguests -> LeaveRequests -> 1 to 1

If you create a new employee, the name should be, for example: John Smith . Then Register as jankowalski@gmail.com, and log in.

Validations are also pored over in the directories OutOfOffce.Application/Empolyee/Commands/CreateEmployee/CreateEmployeeCommandValidator.cs , the rest are in the directories Commands and files with a suffix in the name Validator.cs .