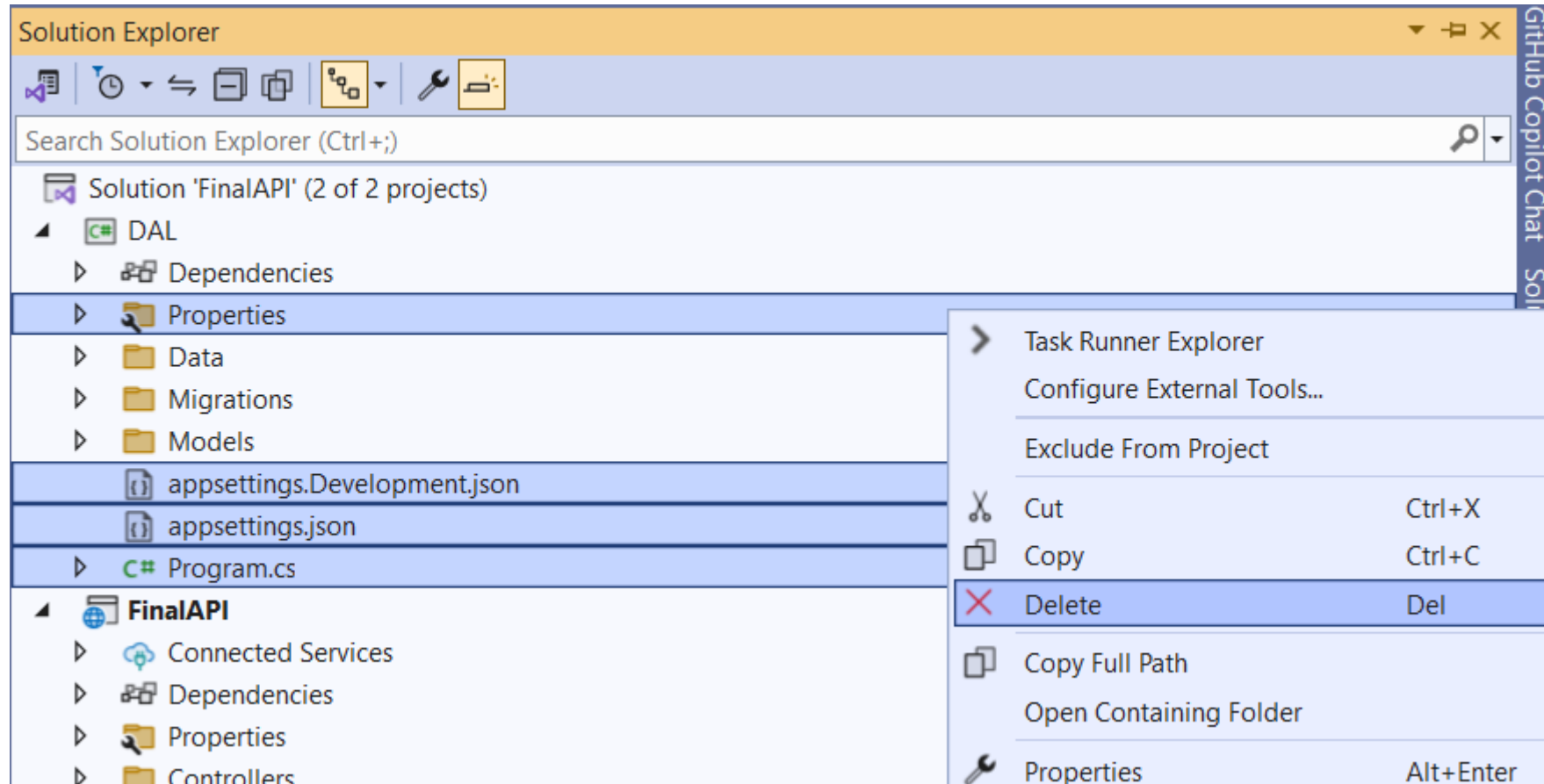


Azure Deployment

נהפוך את הפרוייקט DAL לפרוייקט class library

```
DAL  ▢ ×
1  <Project Sdk="Microsoft.NET.Sdk">
2
3  <PropertyGroup>
4    <TargetFramework>net8.0</TargetFramework>
5    <Nullable>enable</Nullable>
6    <ImplicitUsings>enable</ImplicitUsings>
7    <OutputType>Library</OutputType>
8  </PropertyGroup>
9
10 <ItemGroup>
11   <PackageReference Include="Microsoft.AspNetCore.Identity.EntityFrameworkCore" Version="8.0.0" />
12   <PackageReference Include="Microsoft.EntityFrameworkCore.SqlServer" Version="8.0.0" />
13   <PackageReference Include="Microsoft.EntityFrameworkCore.Tools" Version="8.0.0" />
14     <PrivateAssets>all</PrivateAssets>
15     <IncludeAssets>runtime; build; native; contentfiles; analyzers; buildtransitive</IncludeAssets>
16   </PackageReference>
17   <PackageReference Include="Microsoft.VisualStudio.Web.CodeGeneration.Design" Version="8.0.0" />
18   <PackageReference Include="Swashbuckle.AspNetCore" Version="6.4.0" />
19 </ItemGroup>
20
21 </Project>
```

נהפוך את הפרוייקט DAL לפרוייקט class library



נוסיף את החבילה Design של Entity Framework Core לפרוייקט הראשי שלנו כדי שנוכל להריץ migrations

Ńîçsôşôğŧ ĖñŧîŧŧŧGşăñêxôşlCôşê Dêşîğŋ

FinalAPI.csproj ContextDAL.cs Comment.cs DAL.csproj

Project Sdk="Microsoft.NET.Sdk.Web">

<PropertyGroup>

<TargetFramework>net8.0</TargetFramework>

<Nullable>enable</Nullable>

<ImplicitUsings>enable</ImplicitUsings>

</PropertyGroup>

Enable implicit global usings for the C# project. Possible values are enable, true, and disable.

<ItemGroup>

<PackageReference Include="Microsoft.AspNetCore.Authentication.JwtBearer" Version="8.0.8" />

<PackageReference Include="Microsoft.AspNetCore.Identity.EntityFrameworkCore" Version="8.0.8" />

<PackageReference Include="Swashbuckle.AspNetCore" Version="6.4.0" />

<PackageReference Include="Microsoft.EntityFrameworkCore.Design" Version="8.0.4" />

</ItemGroup>

<ItemGroup>

יצירת Resource Group

[Home](#) >

Resource groups

Default Directory (tomerbugmail.onmicrosoft.com)

+ Create



Manage view



Refresh



Export to CSV



Create a new resource group.

[New version of Browse experience. Some features may be missing.](#)



Filter for any field...

Subscription equals **all**

Location equals



Name ↑



DefaultResourceGroup-SEA



rg-cloud-deploy

[Home](#) > [Resource groups](#) >

Create a resource group

Basics

Tags

Review + create

Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

Project details

Subscription * ⓘ

Azure subscription 1

Resource group * ⓘ

rg-tomerbu-group

Resource details

Region * ⓘ

(Asia Pacific) Southeast Asia

Review + create

4

Next : Tags >

יצירה של App Service

[Home](#) >

App Services



Default Directory (tomerbugmail.onmicrosoft.com)

+ Create ▾



Manage Deleted Apps



Manage view

Filter for any field...

Subscription equals **all**

Re

Showing 1 to 1 of 1 records.



Name ↑↓

[Home](#) >

App Services



Default Directory (tomerbugmail.onmicrosoft.com)

+ Create ▾



Manage Deleted Apps



+ Web App

+ Static Web App

+ Web App + Database

+ WordPress on App Service

יצירה של App Service

[Home](#) > [App Services](#) >

Create Web App ...

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure subscription 1

Resource Group * ⓘ

rg-cloud-deploy

[Create new](#)

Instance Details

Name

hackeru

.azurewebsites.net

☐

Try a unique default hostname (preview). [More about this update](#)

Publish *

☒

Code

☐

Container

Runtime stack *

.NET 8 (LTS)

Operating System *

☐

Linux

☒

Windows

Region *

Southeast Asia



Not finding your App Service Plan? Try a different region or select your App Service Environment.

[Review + create](#)

[< Previous](#)

[Next : Deployment >](#)

יצירה של App Service הגדרות CI/CD

[Home](#) > [App Services](#) >

Create Web App ...

Basics **Deployment** Networking Monitor + secure Tags Review + create

Continuous deployment settings

Set up continuous deployment to easily deploy code from your GitHub repository via GitHub Actions. [Learn more](#)

Continuous deployment ☐ Disable ☒ Enable

GitHub settings

Set up GitHub Actions to push content to your app whenever there are code changes made to your repository. Note: Your GitHub account must have write access to the selected repository in order to add a workflow file which manages deployments to your app.

GitHub account

TomerBu

Change account



Organization *

TomerBu



Repository *

D290323ER



Branch *

main



Workflow configuration

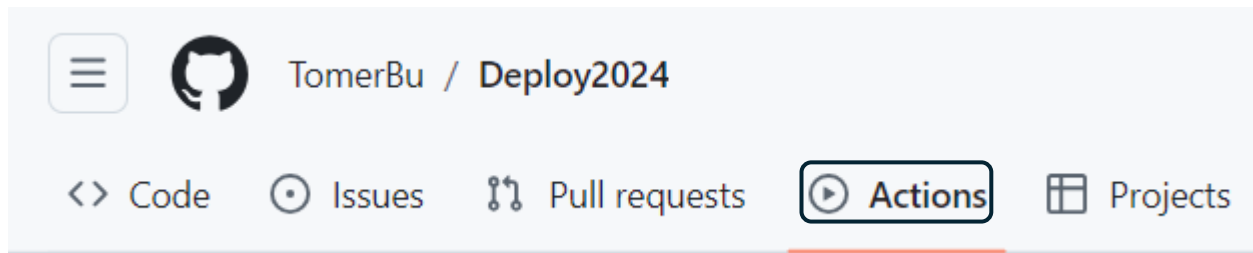
Click the button below to preview what the GitHub Actions workflow file will look like before setting up continuous deployment.

Review + create

< Previous

Next : Networking >

יצירה של App Service הגדרות CI/CD



הגדרות CI/CD בגיטהאב

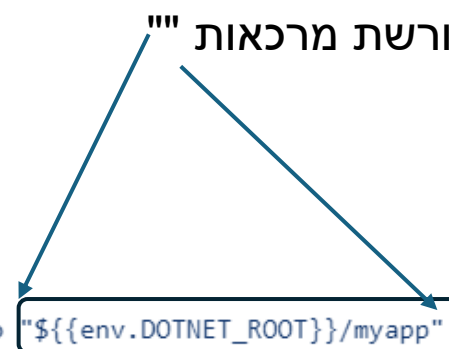
עריכת קובץ workflow

(בפרויקט שלנו יש מספר תיקיות ולכן
הקוד הסנטדרטי דורש מעט שינויים)

הגדרות CI/CD בגיטהאב

```
1  # Docs for the Azure Web Apps Deploy action: https://github.com/Azure/webapps-deploy
2  # More GitHub Actions for Azure: https://github.com/Azure/actions
3
4  name: Build and deploy ASP.Net Core app to Azure Web App - itomerbu
5
6  on:
7    push:
8      branches:
9        - main
10   workflow_dispatch:
11
12  jobs:
13    build:
14      runs-on: windows-latest
15
16      steps:
17        - uses: actions/checkout@v4
18
19        - name: Set up .NET Core
20          uses: actions/setup-dotnet@v4
21          with:
22            dotnet-version: '8.x'
23
24        - name: Build with dotnet
25          run: dotnet build ./FinalAPI/FinalAPI.sln --configuration Release
26
27        - name: dotnet publish
28          run: dotnet publish ./FinalAPI/FinalAPI/FinalAPI.csproj -c Release -o
```

הפקודה דורשת מרכאות ""



יצירה של App Service הגדרות CI/CD

בדיקה שהכל עובד:



TomerBu / Deploy2024

🔍 Type to search

<> Code ⌚ Issues 🔗 Pull requests **▶ Actions** 📁 Projects 📖 Wiki 🛡 Security 📈 Insights ⚙ Settings

← Build and deploy ASP.Net Core app to Azure Web App - itomerbu

✅ Update main_itomerbu.yml #4

🏠 Summary

Jobs

✅ build

✅ deploy

Run details

🕒 Usage

📄 Workflow file

Triggered via push 33 minutes ago

👤 TomerBu pushed 4f8b6e6 main

Status

Success

Total duration

3m 46s

Artifacts

1

main_itomerbu.yml

on: push

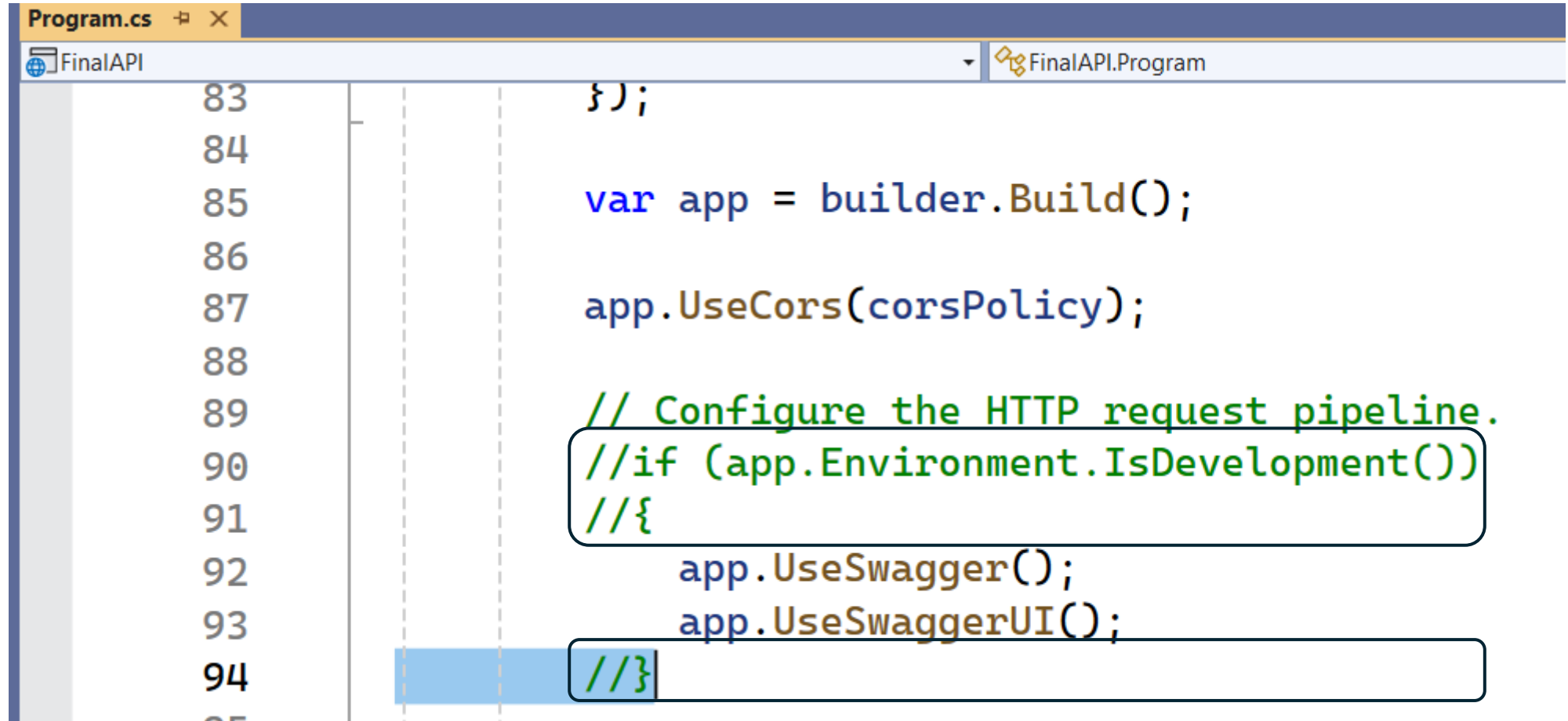
✅ build

2m 9s

✅ deploy

1m 13s

אפשר של SwaggerUI במצב production (מאפשר לנו גם דוקומנטציה וגם בדיקות של ה-API)



```
83     });  
84  
85     var app = builder.Build();  
86  
87     app.UseCors(corsPolicy);  
88  
89     // Configure the HTTP request pipeline.  
90     //if (app.Environment.IsDevelopment())  
91     //{  
92         app.UseSwagger();  
93         app.UseSwaggerUI();  
94     //}
```

עכשיו נבצע Commit חדש לגיטהאב ונראה שצד לקוח מתחבר לצד השרת

<https://itomerbu.azurewebsites.net/swagger/index.html>

הגדרות של דטה-בייס:

Azure services



Create a resource



App Services



Resource groups



Subscriptions



Static Web Apps



SQL servers



Azure SQL



Storage accounts



SQL databases



More services

Home >

SQL servers

Default Directory (tomerbugmail.onmicrosoft.com)



Create



Manage view



Refresh



Export

Filter for any field...

Subscription equals all

Showing 0 to 0 of 0 records.

Name ↑↓

הגדרות של דטה-בייס:

Home > SQL servers >

Create SQL Database Server

Microsoft

Basics Networking Security Additional settings Tags Review + create

SQL database server is a logical container for managing databases and elastic pools. Complete the Basic tab, then go to Review + Create to provision with smart defaults, or visit each tab to customize. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Azure subscription 1

Resource group * ⓘ rg-cloud-deploy

[Create new](#)

Server details

Enter required settings for this server, including providing a name and location.

Server name * db-cloud-deploy ✓
.database.windows.net

Location * (Asia Pacific) Australia Southeast



נגלול למטה לעוד הגדרות חשובות



Review + create

Next : Networking >

הגדרות של דטה-בייס:

Authentication

 Azure Active Directory (Azure AD) is now Microsoft Entra ID. [Learn more](#) 

Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Microsoft Entra authentication [Learn more](#)  using an existing Microsoft Entra user, group, or application as Microsoft Entra admin [Learn more](#) , or select both SQL and Microsoft Entra authentication.

Authentication method

- ☐ Use Microsoft Entra-only authentication
- ☐ Use both SQL and Microsoft Entra authentication
- ☒ Use SQL authentication

Server admin login *

itomerbu 

Password *

..... 



Confirm password *

..... 












Review + create


Next : Networking >

הגדרה של ה connection string בענן




Home > **App Services**  

Default Directory (tomerbugmail.onmicrosoft.com)

 Create  Manage Deleted Apps  Manage view  Refresh  Export to CSV  Open query |  Assign tags  Start  Restart  Stop  Delete

Filter for any field... Subscription equals **all** Resource group equals **all** X Location equals **all** X  Add filter

Showing 1 to 1 of 1 records. No grouping

<input type="checkbox"/> Name ↑↓	Status ↑↓	Location ↑↓	Pricing Tier ↑↓	App Service Plan ↑↓	Subs
<input type="checkbox"/>  itomerbu 	Running	Southeast Asia	Free	 ASP-rgclouddeploy-a6dc	Azur

הגדרה של ה connection string בענן



Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Better Together (preview)

> Deployment

Settings

1

{x} Environment variables

2

App settings

Connection strings

3

Search

+ Add

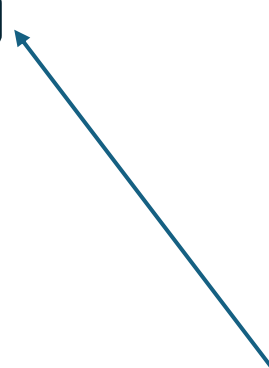
4

הגדרה של ה connection string בענן

Add/Edit connection string



Name *	<input type="text" value="ContextDAL"/>
Value	<input type="text" value="Server=db-cloud-deploy.database.windows.net;Database=FinalProjectDB;User ID=itomerbu;Password=Password1!aA;Encrypt=True;Tr..."/>
Type *	<input type="text" value="SQLServer"/>
<small>At runtime, connection strings are available as environment variables. Learn more</small>	
Deployment slot setting	<input type="checkbox"/>



Server=db-cloud-deploy.database.windows.net;Database=FinalProjectDB;User ID=itomerbu;Password=Password1!aA;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;

הפעלה של המיגרציות עם העלאת השרת:

```
var app = builder.Build();

app.UseCors(corsPolicy);

// Apply pending migrations at startup
using (var scope = app.Services.CreateScope())
{
    var services = scope.ServiceProvider;
    try
    {
        var context = services.GetRequiredService<ContextDAL>();
        context.Database.Migrate();
    }
    catch (Exception ex)
    {
        Console.WriteLine($"An error occurred while migrating the database: {ex.Message}");
    }
}
```

עכשיו נבצע Commit חדש לגיטהאב ונראה שהדטה-בייס עובד

צפייה בנתונים השמורים בדטה-בייס

The screenshot displays the Microsoft Azure portal interface. At the top, the navigation bar includes the Microsoft Azure logo, a search bar, and various utility icons. The main content area is divided into three sections:

- Left Panel (Navigation):** Contains the 'SQL servers' breadcrumb (marked with a circled '1'), the server name 'db-cloud-deploy' (marked with a circled '2'), and a list of management options including 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Quick start', and 'Diagnose and solve problems'.
- Center Panel (Overview):** Displays the 'db-cloud-deploy' SQL server details. It includes a search bar, a list of actions (Create database, New elastic pool, New dedicated SQL pool, Import database, Reset password), and an 'Essentials' section with metadata such as Resource group (rg-cloud-deploy), Status (Available), Location (Australia Southeast), and Subscription (Azure subscription 1).
- Right Panel (Configuration):** Shows the 'Server admin' section with the username 'itomerbu'. The 'Networking' section is highlighted (marked with a circled '3') and contains a 'Show networking settings' link. Below it, the 'Microsoft Entra admin' is listed as 'Not configured', and the 'Server name' is 'db-cloud-deploy.database.windows.net'.

צפייה בנתונים השמורים בדטה-בייס

Rule Virtual network Subnet Address ra... Endpoint sta... Resource gro... Subscripti... State

Firewall rules

Allow certain public internet IP addresses to access your resource. [Learn more](#)

1

+ Add your client IPv4 address (46.117.232.143) + Add a firewall rule

Rule name

Start IPv4 address

End IPv4 address

ClientIPAddress_2024-10-27_16-35-1

46.117.232.143

46.117.232.143



Exceptions

☒ Allow Azure services and resources to access this server ⓘ

2

Save

Discard

צפייה בנתונים השמורים בדטה-בייס

Connect to Server

SQL Server

Login | Connection Properties | Always Encrypted | Additional Connection Parameters

Server

Server type: Database Engine

Server name: db-cloud-deploy.database.windows.net

Authentication: SQL Server Authentication

Login: itomerbu

Password:

☒ Remember password

Connection Security

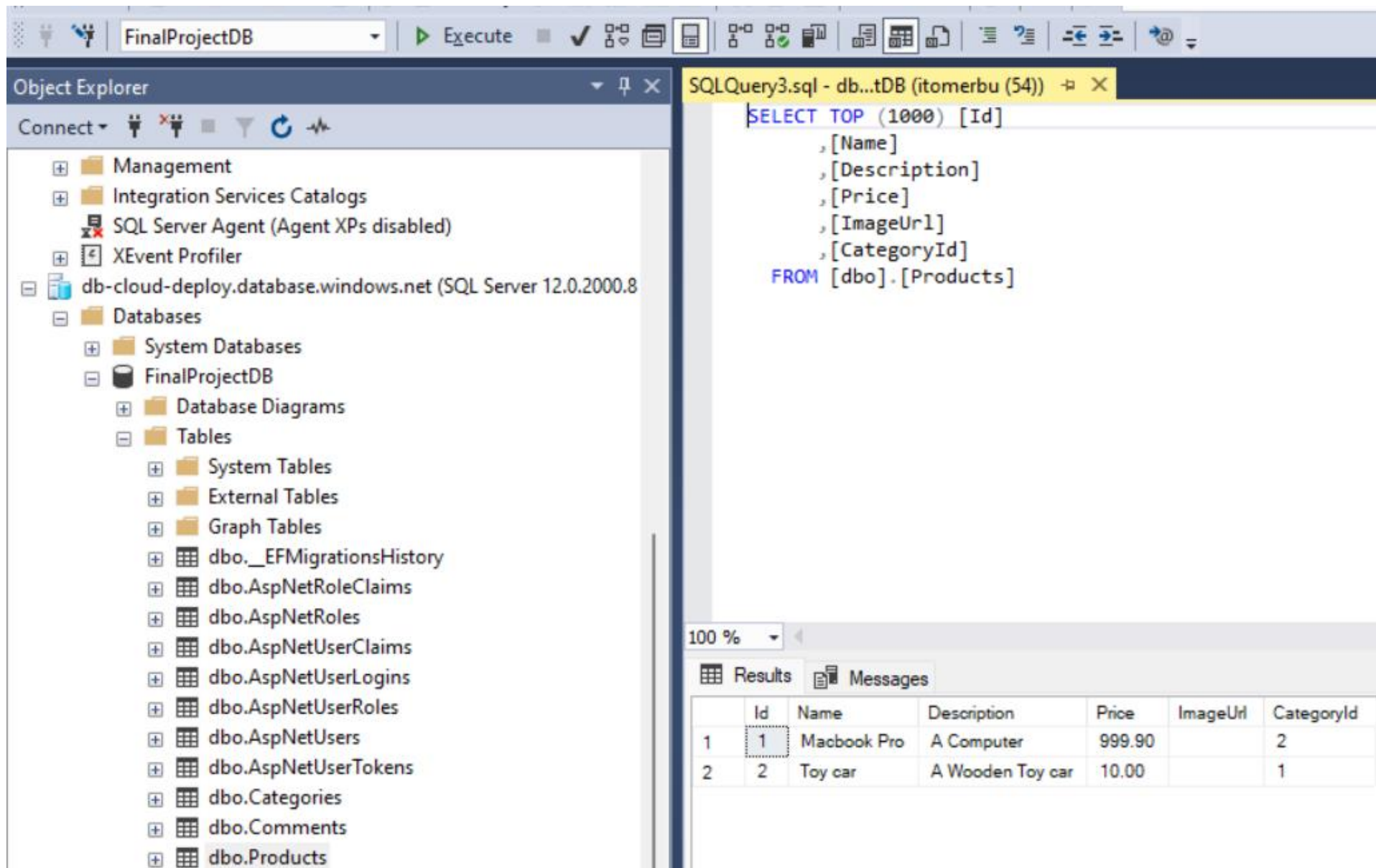
Encryption: Mandatory

☐ Trust server certificate

Host name in certificate:

Connect Cancel Help Options <<

צפייה בנתונים השמורים בדטה-בייס





The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'FinalProjectDB', including tables like 'dbo.Products'. The main pane shows a SQL query in 'SQLQuery3.sql' that selects the top 1000 records from the 'Products' table, ordered by 'Id'. The query is: `SELECT TOP (1000) [Id], [Name], [Description], [Price], [ImageUrl], [CategoryId] FROM [dbo].[Products]`. Below the query, the 'Results' tab shows a table with 2 rows and 6 columns: 'Id', 'Name', 'Description', 'Price', 'ImageUrl', and 'CategoryId'. The first row represents a 'Macbook Pro' and the second represents a 'Toy car'.

```
SELECT TOP (1000) [Id]
, [Name]
, [Description]
, [Price]
, [ImageUrl]
, [CategoryId]
FROM [dbo].[Products]
```

	Id	Name	Description	Price	ImageUrl	CategoryId
1	1	Macbook Pro	A Computer	999.90		2
2	2	Toy car	A Wooden Toy car	10.00		1

העלאת פרוייקט צד לקוח:

 .env.production ✕

 .env.production

```
1 VITE_BASE_URL=https://itomerbu.azurewebsites.net/api
2 VITE_MODE=production
```


העלאת פרוייקט צד לקוח:

The image shows the Visual Studio Code interface. On the left, the 'EXTENSIONS: MARKETPLACE' sidebar is open, displaying a search for 'AZURE TOOLS'. The 'Azure Tools' extension by Microsoft is highlighted, showing its icon, name, description ('Get web site hosting, SQL and Mong...'), and version (v1.2.0). Below it, 'Azure CLI Tools' and 'Azure Resource Manag...' are also visible. The main editor area shows the details for the 'Azure Tools' extension, including the Microsoft logo, the extension name, version, and a description. The 'INSTALL' button is prominent, along with 'Uninstall' and 'Auto Upd' options. The 'DETAILS' and 'FEATURES' tabs are visible at the bottom of the extension details panel.

File Edit Selection View ...

frontend

EXTENSIONS: MARKETPLACE

AZURE TOOLS

Azure Tools v1.2.0
Get web site hosting, SQL and Mong...
Microsoft

Azure CLI Tools
Tools for developing and running co...
Microsoft

Azure Resource Manag... 1.3M ★ 4

Azure Tools v1.2.0
Microsoft microsoft.com
Get web site hosting, SQL and Mong...
INSTALL **Uninstall** ☒ Auto Upd
DETAILS FEATURES

העלאת פרוייקט צד לקוח:

⚡ vite.config.ts ✕

⚡ vite.config.ts > ...


```
1  import { defineConfig } from 'vite'
2  import react from '@vitejs/plugin-react'
3
4  // https://vitejs.dev/config/
5  export default defineConfig({
6    |   plugins: [react()],
7    |   base:   "./",
8  });
```

העלאת פרוייקט צד לקוח:

```
package.json X
package.json > {} scripts
5  "type": "module",
   Debug
6  "scripts": {
7    "prod": "vite --mode production",
8    "dev": "vite",
9    "build": "tsc -b && vite build --mode production",
10   "lint": "eslint . --ext ts,tsx --report-unused-disa
11   "preview": "vite preview"
12 },
13 "dependencies": {
14   "axios": "^1.7.7",
```


npm run build
cd dist
npx serve


העלאת פרוייקט צד לקוח: Azure Portal


 Microsoft Azure


Search resources, services, and docs (G+)


Azure services



Create a resource



Static Web Apps


SQL servers



App Services


Resource groups







Subscriptions


Azure SQL

Home >

Static Web Apps  ...


Default Directory (tomerbugmail.onmicrosoft.com)

 Create  Manage view   Refresh  Export to

Subscription equals **all**

Re

Showing 0 to 0 of 0 records.

Name 

העלאת פרוייקט צד לקוח: Azure Portal

Basics Advanced Tags Review + create

App Service Static Web Apps is a streamlined, highly efficient solution to take your static app from source code to global high availability. Pre-rendered content is distributed globally with no web servers required. [Learn more](#) ↗

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure subscription 1



Resource Group * ⓘ

rg-cloud-deploy

[Create new](#)

Static Web App details

Name *

react

Hosting plan

The hosting plan dictates your bandwidth, custom domain, storage, and other available features. [Compare plans](#)

Plan type

- ☒ Free: For hobby or personal projects
- ☐ Standard: For general purpose production apps
- ☐ Dedicated (preview): For general purpose production apps

Review + create

< Previous

Next : Advanced >

העלאת פרוייקט צד לקוח: Azure Portal

i If you can't find an organization or repository, you might need to enable additional permissions on GitHub. You must have write access to your chosen repository to deploy with GitHub Actions.

Organization *

TomerBu

Repository *

DeployClient2024

Branch *

main

Build Details

Enter values to create a GitHub Actions workflow file for build and release. You can modify the workflow file later in your GitHub repository.

Build Presets

React (detected)

i These fields will reflect the app type's default project structure. Change the values to suit your app. [Learn more](#)

App location * ⓘ

/

Api location ⓘ

e.g. "api", "functions", etc...

Output location ⓘ

dist

Workflow configuration

Click the button below to preview what the GitHub Actions workflow file will look like before setting up continuous deployment.


Preview workflow file

Review + create

< Previous


Next : Advanced >

העלאת פרוייקט צד לקוח: Azure Portal

 Microsoft Azure

Search resources, services, and docs (G+ /)






Home >


 **Microsoft.Web-StaticApp-Portal-e3eb097d-87a3** | Overview ⚙ ...


Deployment


Search


✕ ⏪


 Delete  Cancel  Redeploy  Download  Refresh


 Overview

 Inputs

 Outputs

 Template

 **Your deployment is complete**

 Deployment name : Microsoft.Web-StaticApp-Portal-e3eb097d-87a3
Subscription : [Azure subscription 1](#)
Resource group : [rg-cloud-deploy](#)


Stai
Cor

> Deployment details

✓ Next steps

Go to resource

Give feedback

 Tell us about your experience with deployment

העלאת פרוייקט צד לקוח: Azure Portal

Microsoft Azure

Search resource

Home > Microsoft.Web-StaticApp-Portal-e3eb097d-87a3 | Overview >

react Static Web App

Search

View app in browser Refresh Delete Manage deployment

Thank you for using Azure Static Web Apps! We have not received any comments yet.

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
- Monitoring
- Automation
- Help

Essentials

Resource group (move)	: rg-cloud-deploy
Subscription (move)	: Azure subscription 1
Subscription ID	: 6eee2d2d-20a8-4c7a-b0c7-12559b267c1
Location	: Global
Sku	: Free
Tags (edit)	: Add tags

Get started Monitoring Deployment history

View your application

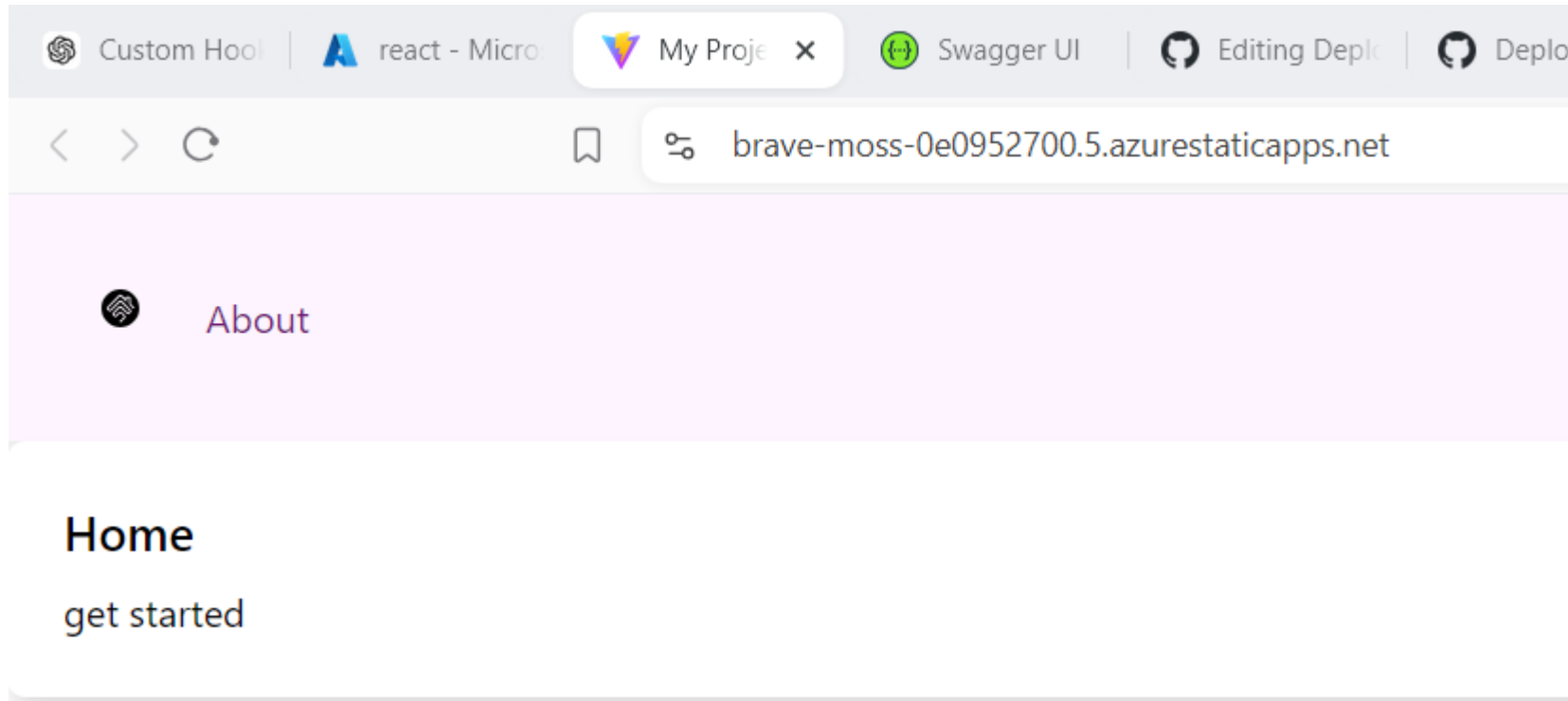
Status: Waiting for deployment

Environment: Production

[Visit your site](#)

כשזה יסתיים אפשר יהיה לראות את האתר באוויר

העלאת פרוייקט צד לקוח: Azure Portal



עובד 😊

עכשיו רק נשאר להגדיר הגדרות CORS בצד שרת וסיימנו את כל התהליך

עדכון הגדרות Cors בצד שרת

```
Program.cs
FinalAPI
FinalAPI.Program
Main(string[] args)

65
66     var corsPolicy = "CorsPolicy";
67
68     //var host = builder.Configuration.GetValue<string>("AllowedHosts");
69     builder.Services.AddCors(options =>
70     {
71         options.AddPolicy(name: corsPolicy, policy =>
72         {
73             policy.WithOrigins([
74                 "http://localhost:3000",
75                 "http://localhost:5173",
76                 "http://localhost:5174",
77                 "https://brave-moss-0e0952700.5.azurestaticapps.net/"
78             ])
79         })
80     })
```

בלי סלאש בסוף –
טעות הקלדה

עכשיו נבצע Commit חדש לגיטהאב ונראה שצד לקוח מתחבר לצד השרת