

**SWINBURNE VIETNAM  
HO CHI MINH CAMPUS**



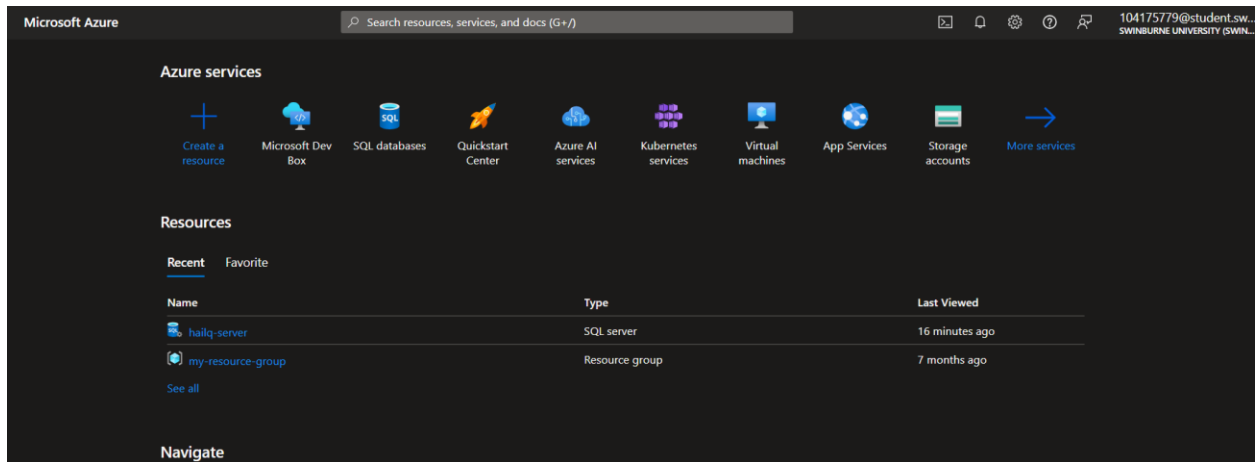
Alliance with  Education

**Class: COS40006**  
**Deployment Portfolio Task 3**

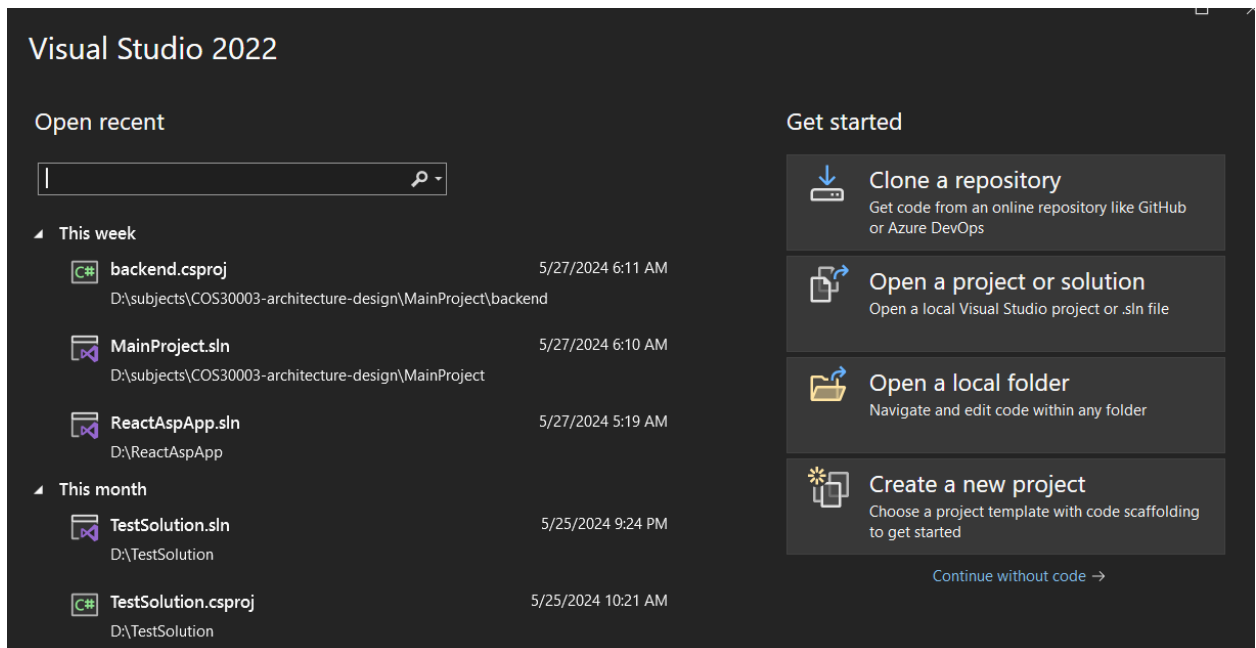
**Instructor: Dr. Thomas Hang**  
**Student names: Le Quang Hai**

## Task 3.1 Pass:

### Create Azure account



### Install visual Studio



### Deploy any existing app to cloud via Azure

For simplicity we will test on a static web app

## Static Web App

Microsoft



### Static Web App [Add to Favorites](#)

Microsoft | Azure Service

★ 3.9 (108 ratings)

Plan

Static Web App 


Create

## Create a resource group



Enter subscription, name, region



### 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 for Students 


Resource group \*  cos40006-resource-group 

**Resource details**

Region \*  (US) East US 

Review and create

### Create a resource group

 Validation passed.

**Basics** **Tags** **Review + create**

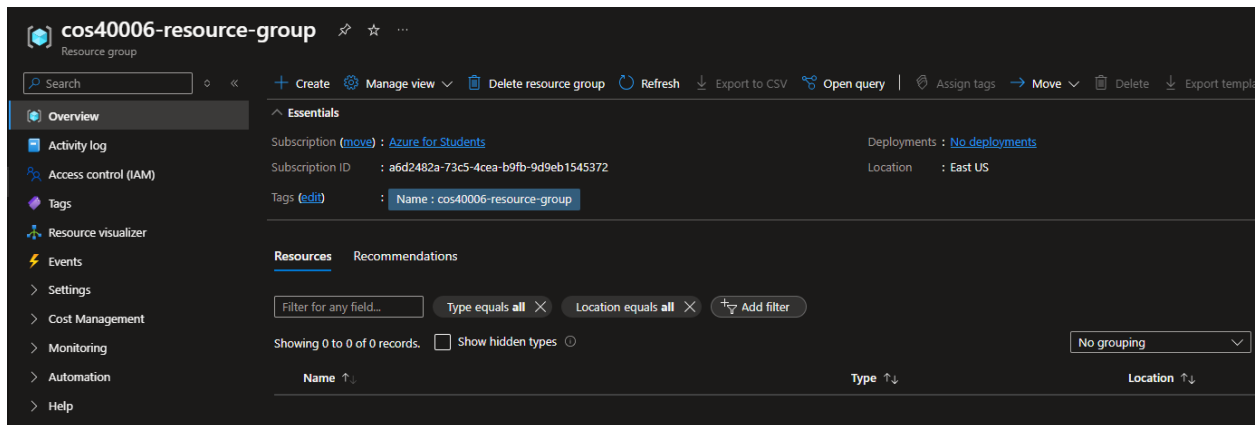
**Basics**

Subscription	Azure for Students
Resource group	cos40006-resource-group
Region	East US

**Tags**

Name	cos40006-resource-group
------	-------------------------

Create successfully



Create a new app service plan to be used in the new web app

Select the subscription, group resource, operation system, machine type, region and tier

## Create App Service Plan

**Basics** Tags Review + create

App Service plans give you the flexibility to allocate specific apps to a given set of resources and further optimize your Azure resource utilization. This way, if you want to save money on your testing environment you can share a plan across multiple apps. [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 \*

Resource Group \*  [Create new](#)

**App Service Plan details**

Name \*

Operating System \* ☒ Linux ☐ Windows

Region \*

**Pricing Tier**

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. [Learn more](#)

Pricing plan  [Explore pricing plans](#)

**Zone redundancy**

An App Service plan can be deployed as a zone redundant service in the regions that support it. This is a deployment time only decision. You can't make an App Service plan zone redundant after it has been deployed [Learn more](#)


Zone redundancy ☐ Enabled: Your App Service plan and the apps in it will be zone redundant. The minimum App Service plan instance count will be three. ☒ Disabled: Your App Service Plan and the apps in it will not be zone redundant. The minimum App Service plan instance count will be one.

## Review and create

# Create App Service Plan

BasicsTagsReview + create

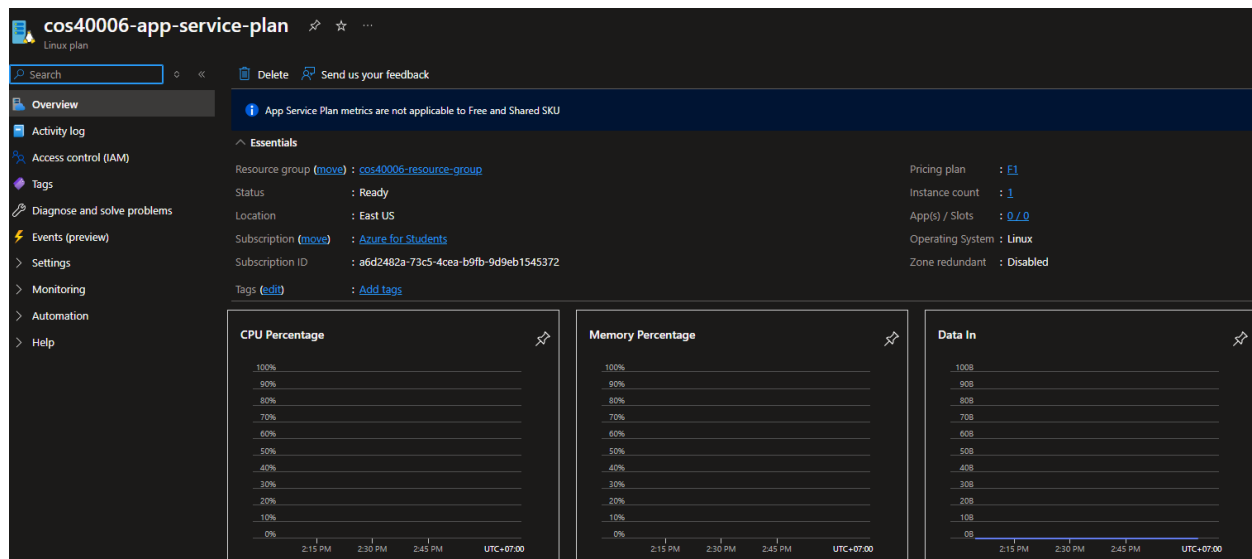
## Summary

 **App Service Plan**  
by Microsoft

## Details

Subscription	Azure for Students
Resource Group	cos40006-resource-group
Name	cos40006-app-service-plan
Operating System	Linux
Region	East US
SKU	Free
ACU	Shared infrastructure
Memory	1 GB memory

## Create successfully



## Create the new web app

Select subscription, resource group (created from above screenshots), name, and source code location

## Create Static Web App ...

**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 \* ⓘ cos40006-resource-group ▼

[Create new](#)

### Static Web App details

Name \* COS40006-StaticWebApp ✓

### 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

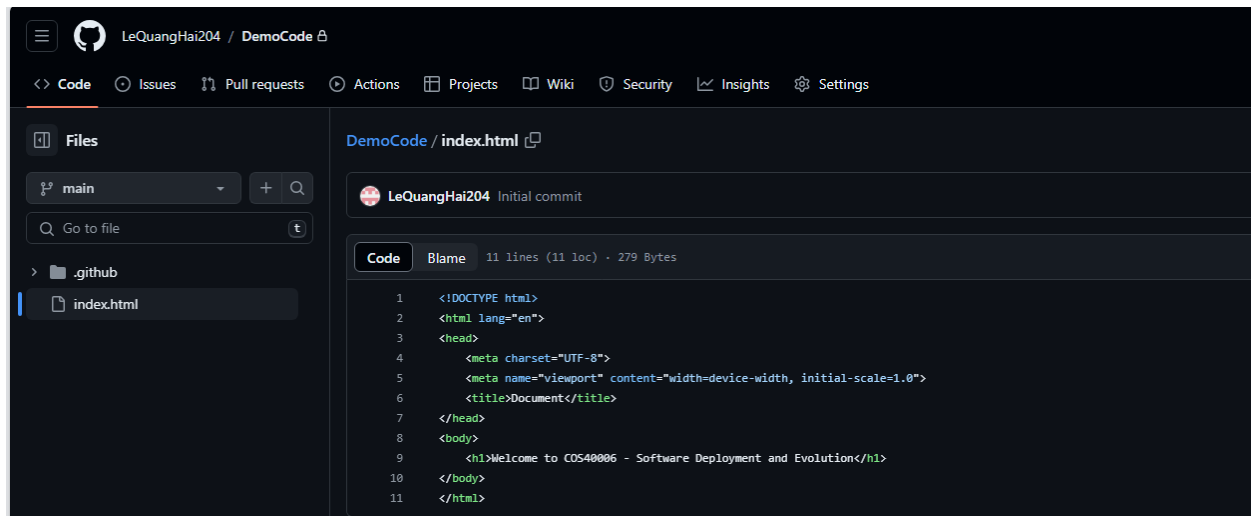
☐ Dedicated (preview): For general purpose production apps

Regions Global

### Deployment details

Source ☒ GitHub ☐ Azure DevOps ☐ Other

Open a new tab, go to GitHub and create a DemoCode repository containing an index.html file with contain as below



Back to web app creation, select the repository to deploy

Organization *	LeQuangHai204
Repository *	DemoCode
Branch *	main

#### Build Details

[Review + create](#)[< Previous](#)[Next : Advanced >](#)

Select region

## Create Static Web App ...

Basics **Advanced** Tags Review + create

Azure Static Web Apps provide global high availability for your applications' production environment. Static Web Apps also comes with the option to have a managed Azure Functions API. Managed functions and non-production environments for your Static Web Apps resource are regional. [Learn more](#)

#### Azure Functions and staging details

Region for Azure Functions API and staging environments \*

East US 2

Review configuration before creation

## Create Static Web App ...

Basics Advanced Tags **Review + create**

#### Summary



**Static Web App**  
by Microsoft

#### Details

Subscription	2297e060-601b-4632-9c64-ee1deb0fcda5
Resource Group	cos40006-resource-group
Name	COS40006-StaticWebApp
Region	eastus2
SKU	Free
Repository	https://github.com/LeQuangHai204/DemoCode
Branch	main
App location	/
API location	
Output location	.

Web application on deployment, waiting ...

Deployment is in progress

Deployment name : Microsoft.Web-StaticApp-Portal-e05ad230-8e2d

Subscription : Azure subscription 1

Resource group : cos40006-resource-group

Start time : 6/13/2024, 11:13:19 PM

Correlation ID : a9e23006-4efc-4d2e-aa73-dad229bf237d

Deployment details

Resource	Type	Status	Operation details
There are no resources to display.			

Web application deployed successfully

Your deployment is complete

Deployment name : Microsoft.Web-StaticApp-Portal-e05ad230-8e2d

Subscription : Azure subscription 1

Resource group : cos40006-resource-group

Start time : 6/13/2024, 11:13:19 PM

Correlation ID : a9e23006-4efc-4d2e-aa73-dad229bf237d

Deployment details

Next steps

Go to resource

Go to resource

COS40006-StaticWebApp

Static Web App

search

View app in browser

Delete

Manage deployment token

Send us your feedback

Overview

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Monitoring

Automation

Help

Essentials

Resource group (move) : cos40006-resource-group

Subscription (move) : Azure subscription 1

Subscription ID : 2297e060-601b-4632-9c64-ee1deb0fcd5

Location : Global

Sku : Free

Tags (edit) : Add tags

URL : https://zealous-desert-00f6b9f0f.5.azurestaticapps.net

Source : main (GitHub)

Deployment history : GitHub Action runs

View workflow : azure-static-web-apps-zealous-desert-00f6b9f0f.yml

Get started

Monitoring

View your application

Status : Loading...

Environment : Production

Domain : https://zealous-desert-00f6b9f0f.5.azurestaticapps.net

Hosting plan : Free

Visit your site

Visit the website that we deployed

Zalo Zalo Careers

COS40006-StaticWebApp

Document

Deployment Portfolio

Create & deploy app

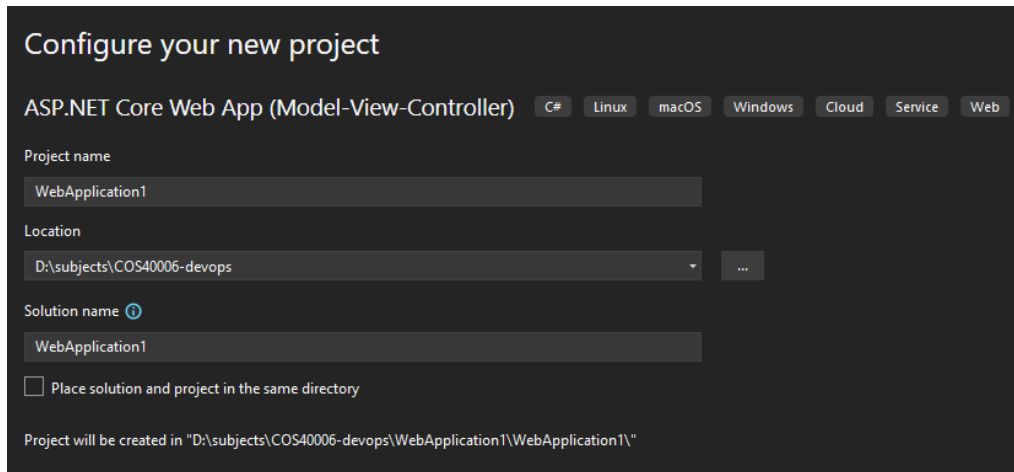
https://zealous-desert-00f6b9f0f.5.azurestaticapps.net

Welcome to COS40006 - Software Deployment and Evolution

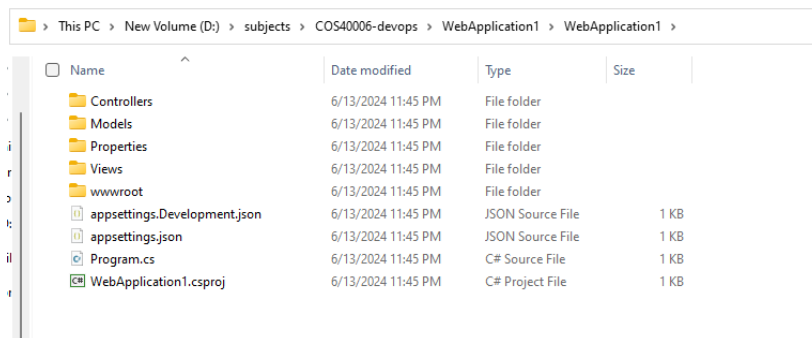


## Task 3.2 Credit

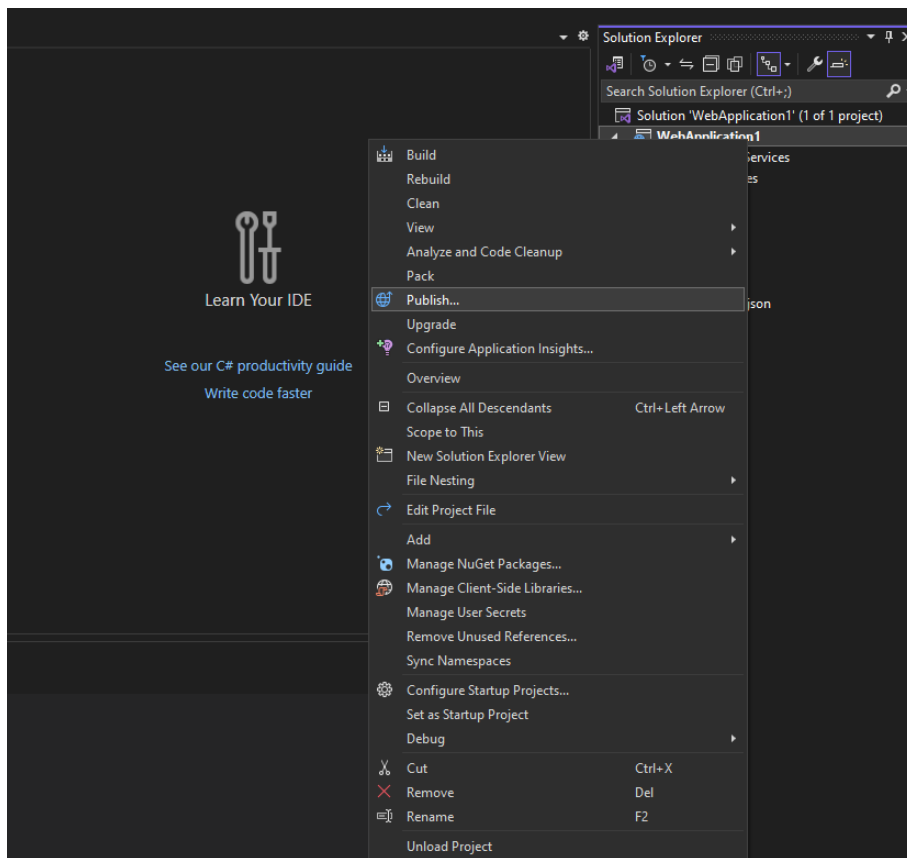
From Visual Studio, create an ASP.NET Core Web App Project



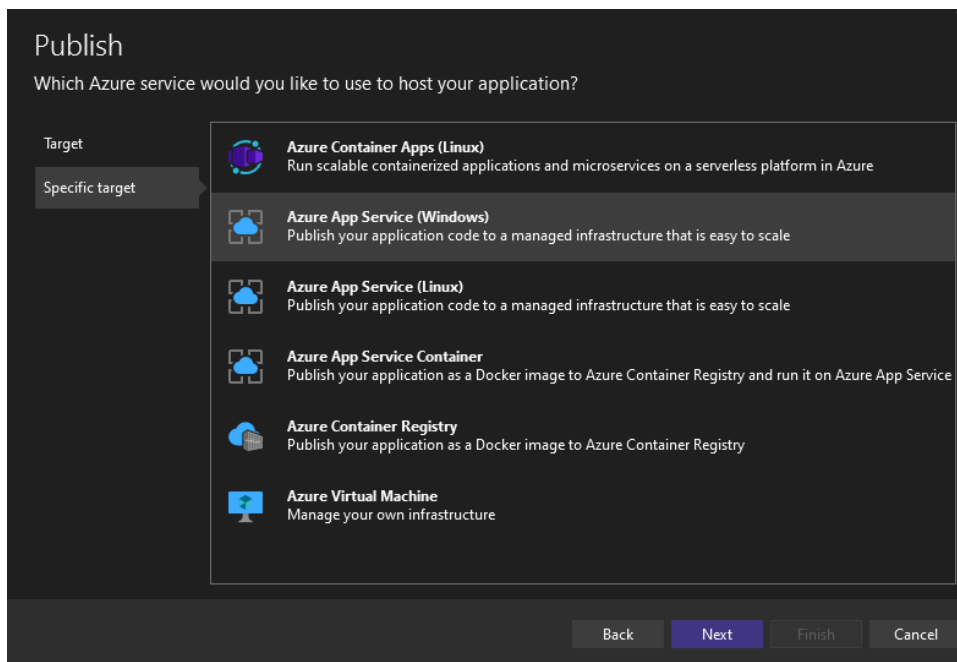
Verify the ASP.NET Core Web App created successfully



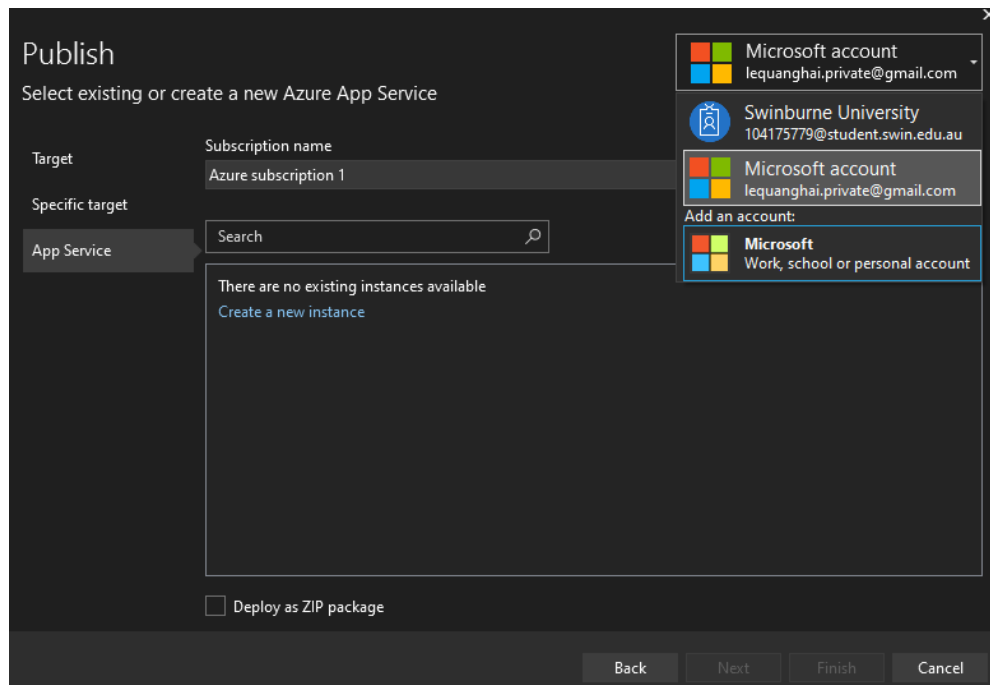
Right click the project and select “publish”



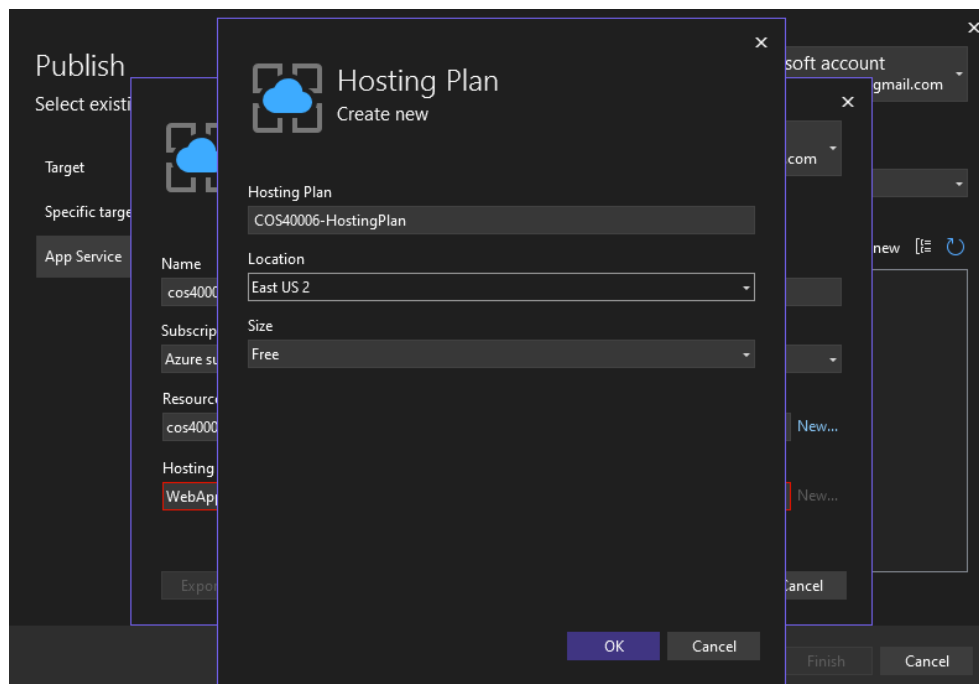
In the select window, select "Azure App Service for Windows"



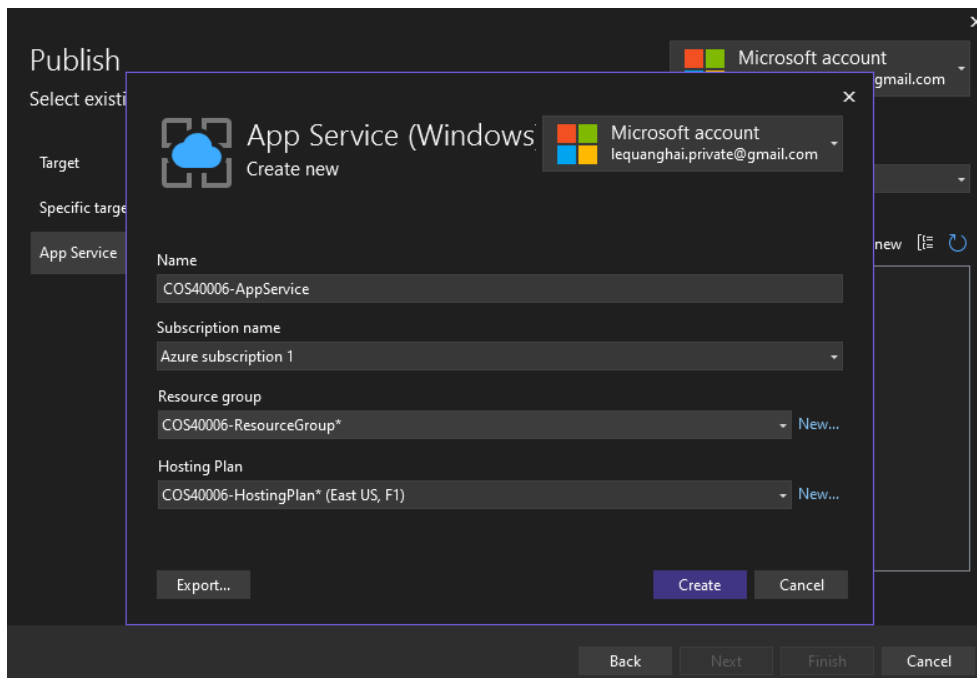
Log in with your Azure account



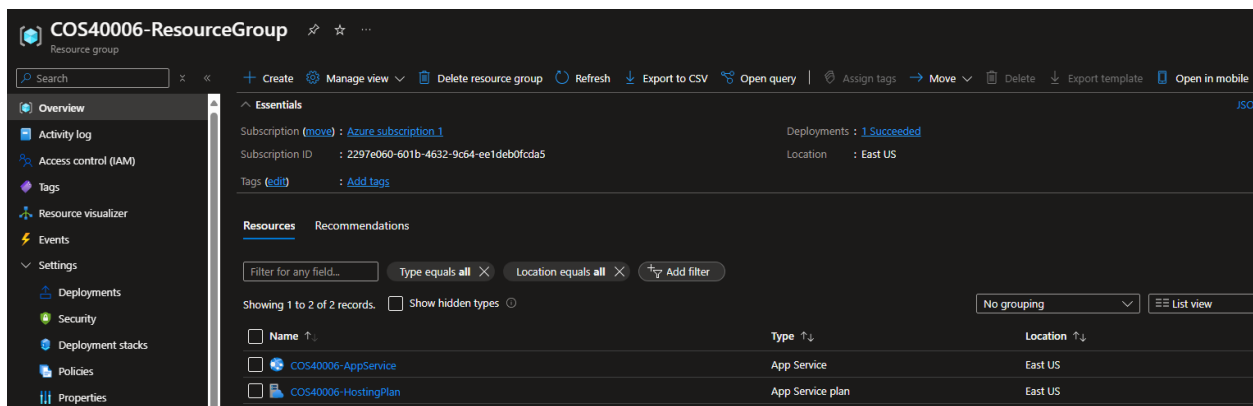
Create a hosting plan from within the publish



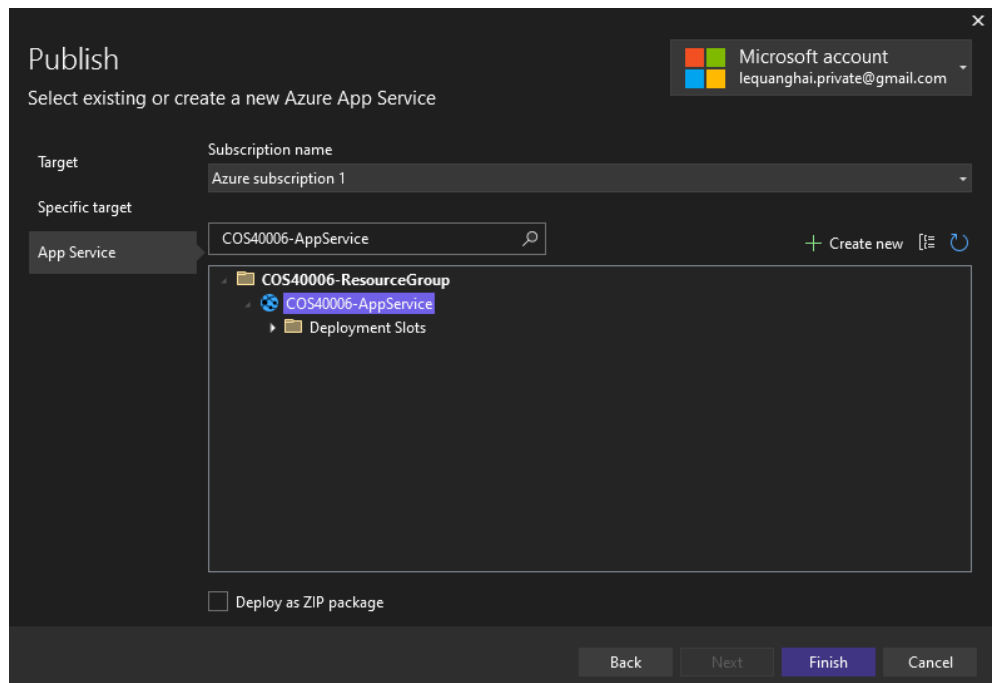
Now we have configured to create a Windows App Service in a new resource group named COS40006-ResourceGroup and with COS40006-HostingPlan hosting plan



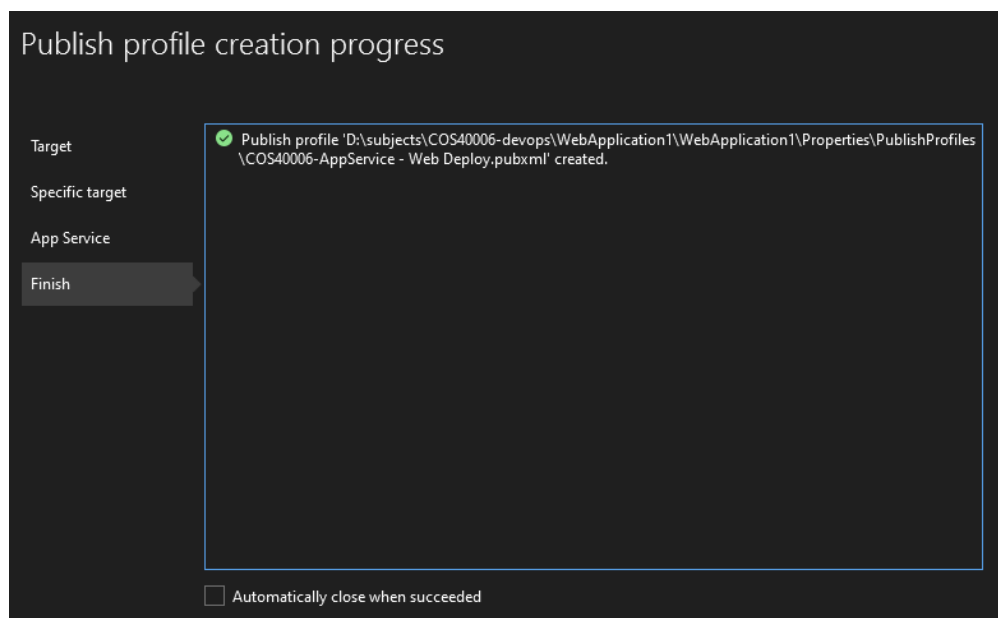
Click create, waiting ... After finishing, we can go to Azure portal console web platform to verify the success creation of the resources



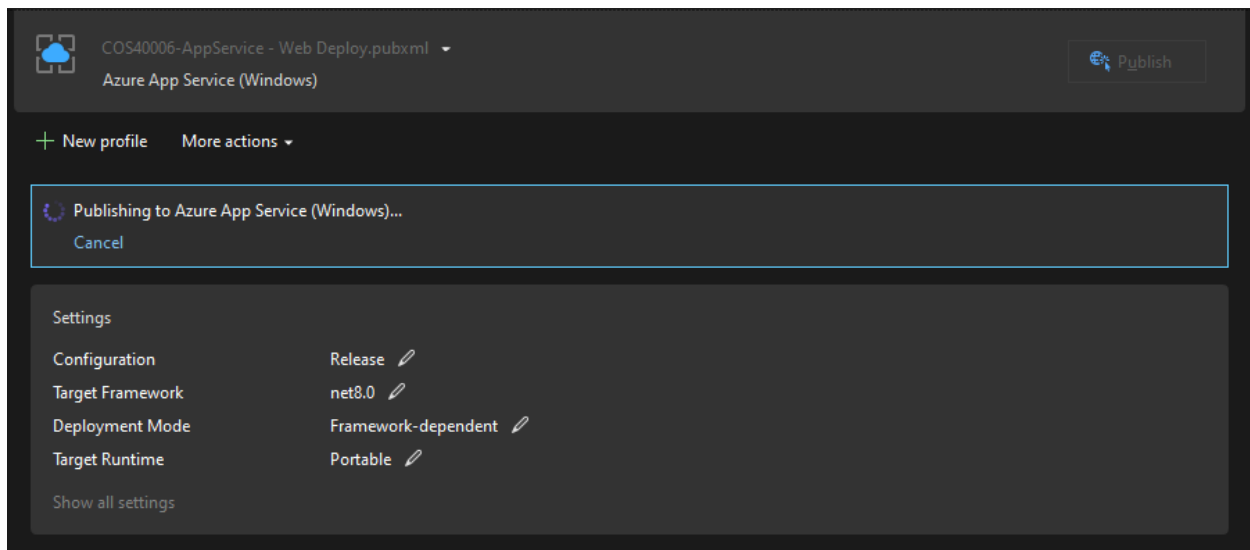
We verify from Visual Studio and click 'Finish'



Done publishing app



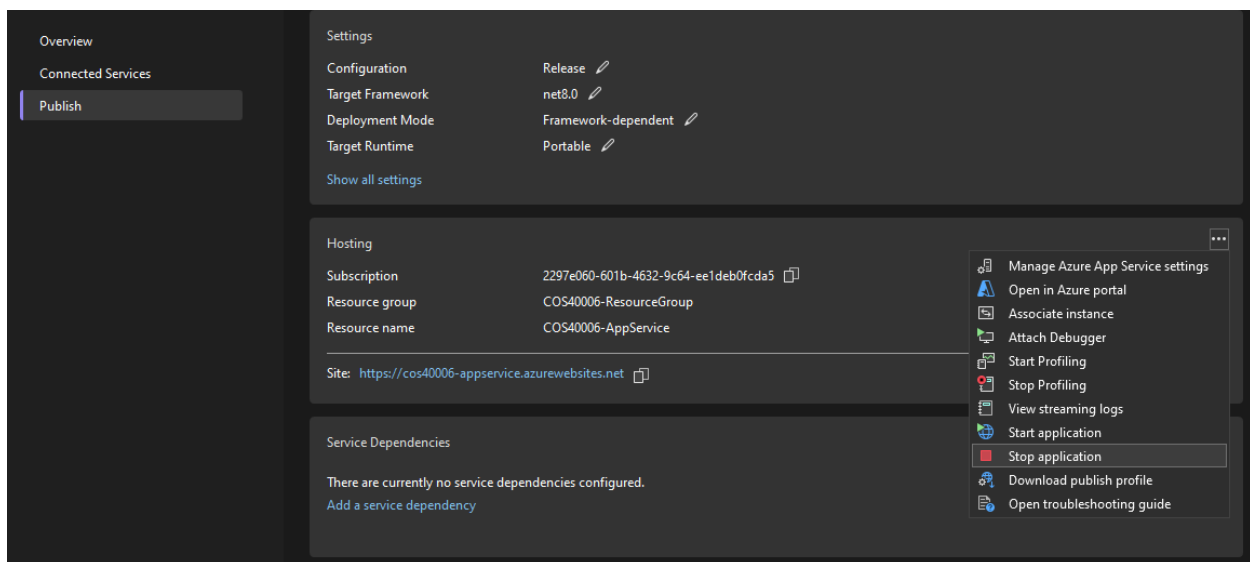
By default the app service deploy a default page by Microsoft, to make the app deploy my own app, click “publish” and wait



We successfully deployed the ASP.NET Core Web App to Azure App Service using Visual Studio



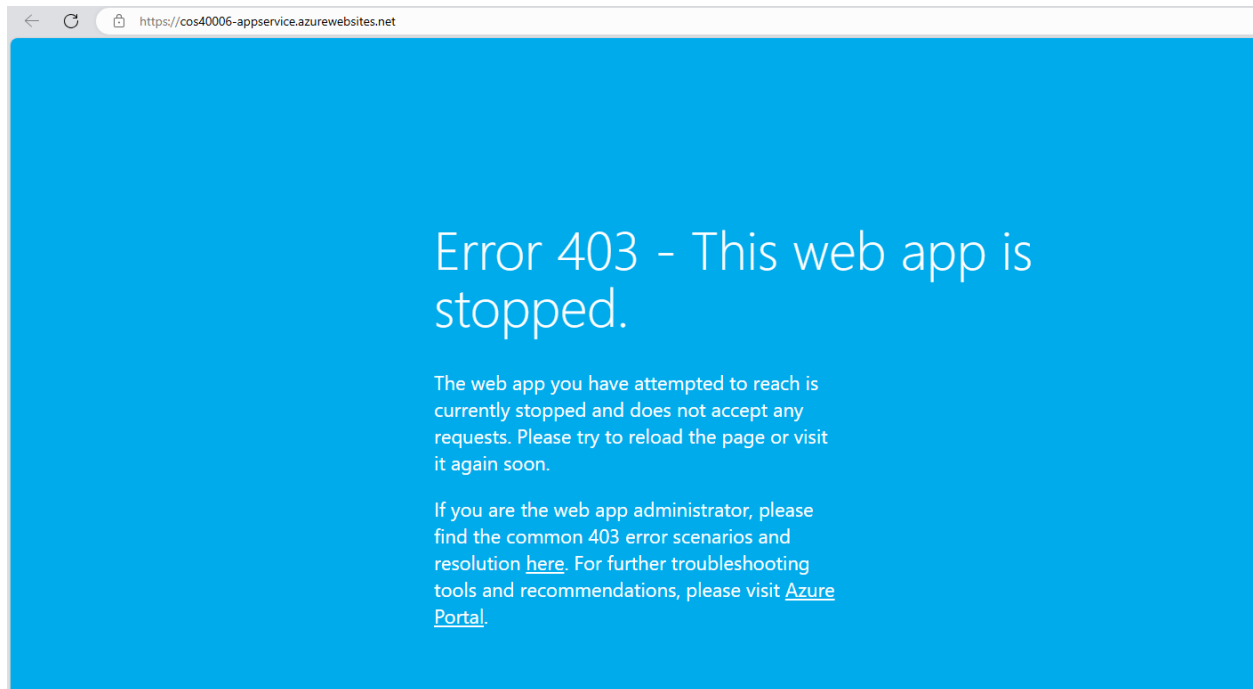
We **deactivate** the service (we cannot achieve similar result by interacting with the Azure console)



Verify that the app has been deactivated

```
Output
Show output from: Service Dependencies
Successfully stopped application COS40006-AppService.
```

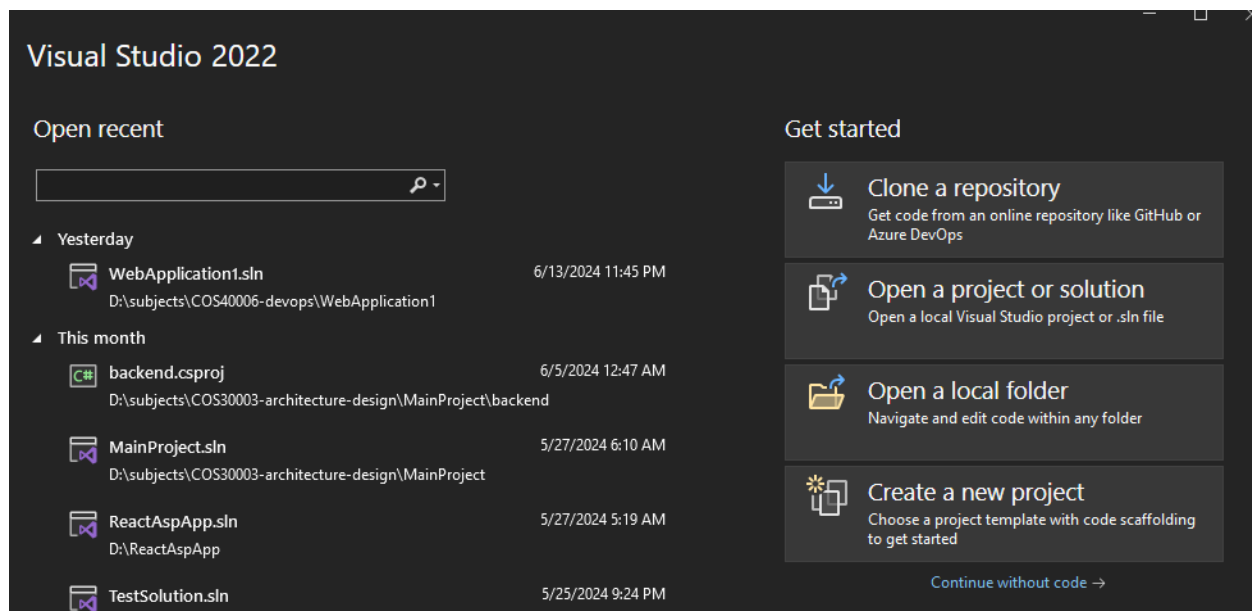
Get back to the same domain url



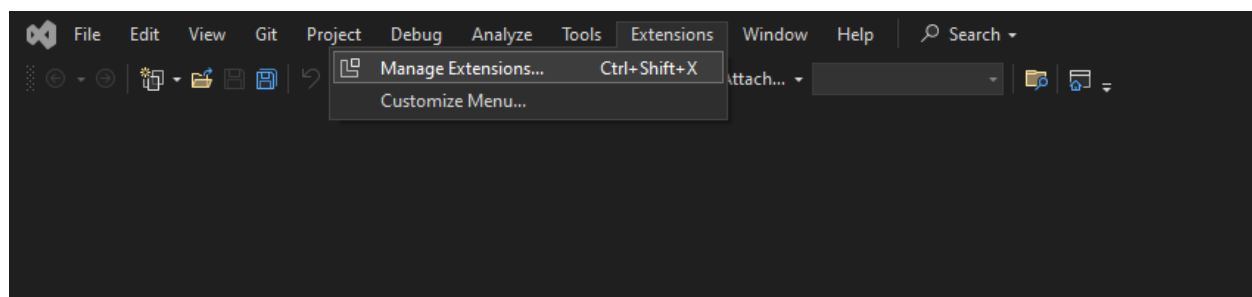
## Task 3.2: HD

### Install PHP on Visual Studio

Open Visual Studio, instead of opening an existing project or creating new one, click on “Continue without code”

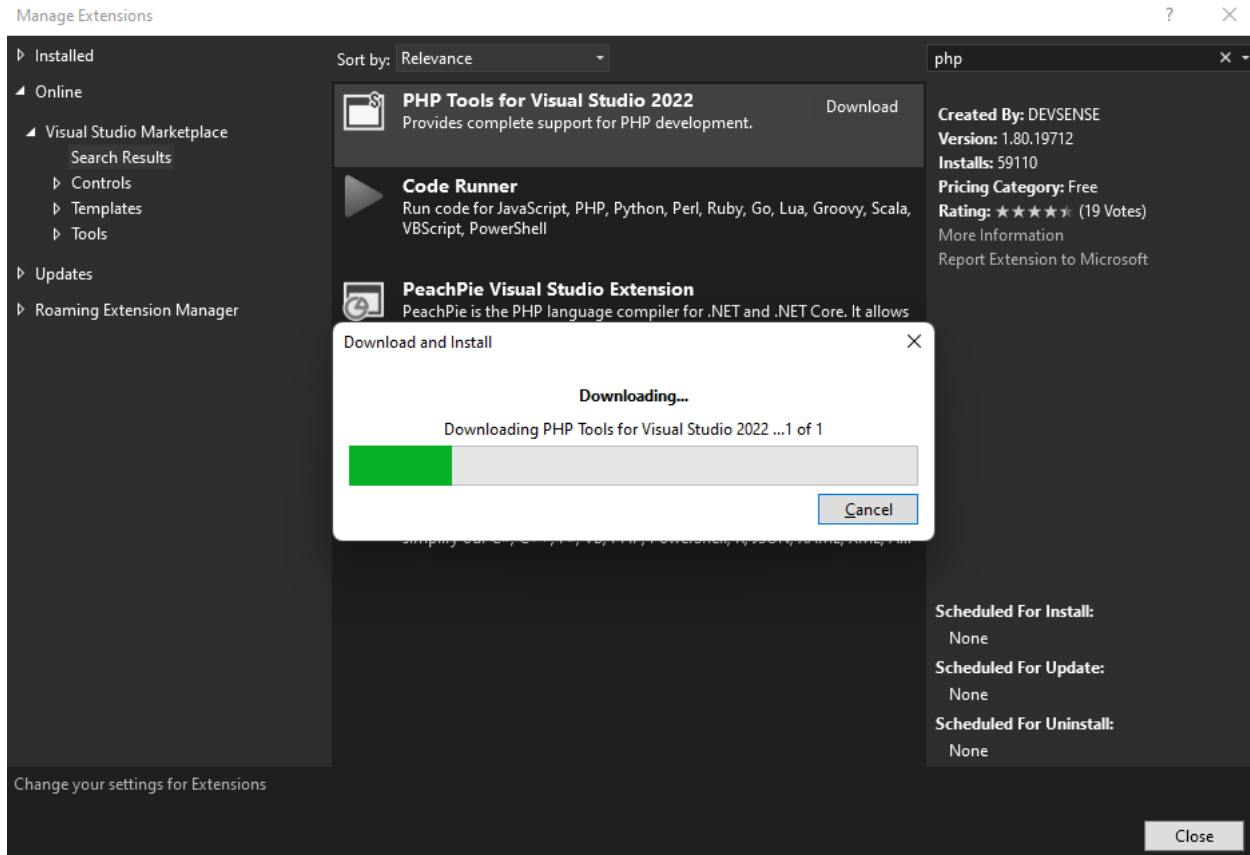


Go to “Extension” → “Manage extension”

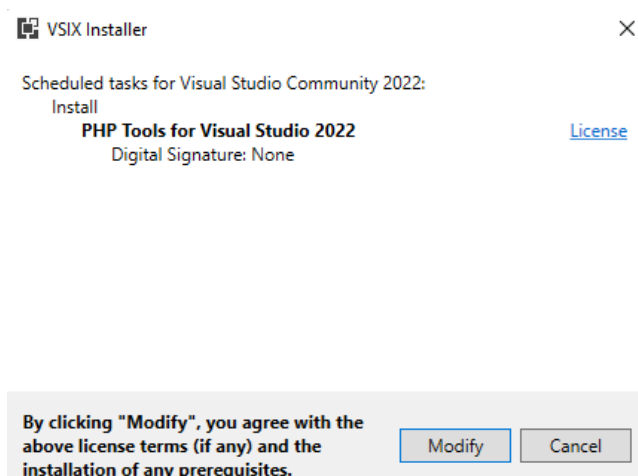


Search for PHP Tools for Visual Studio and install it

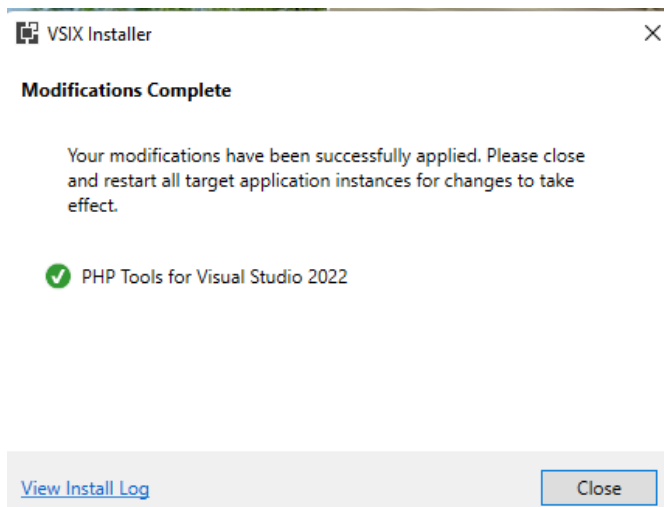




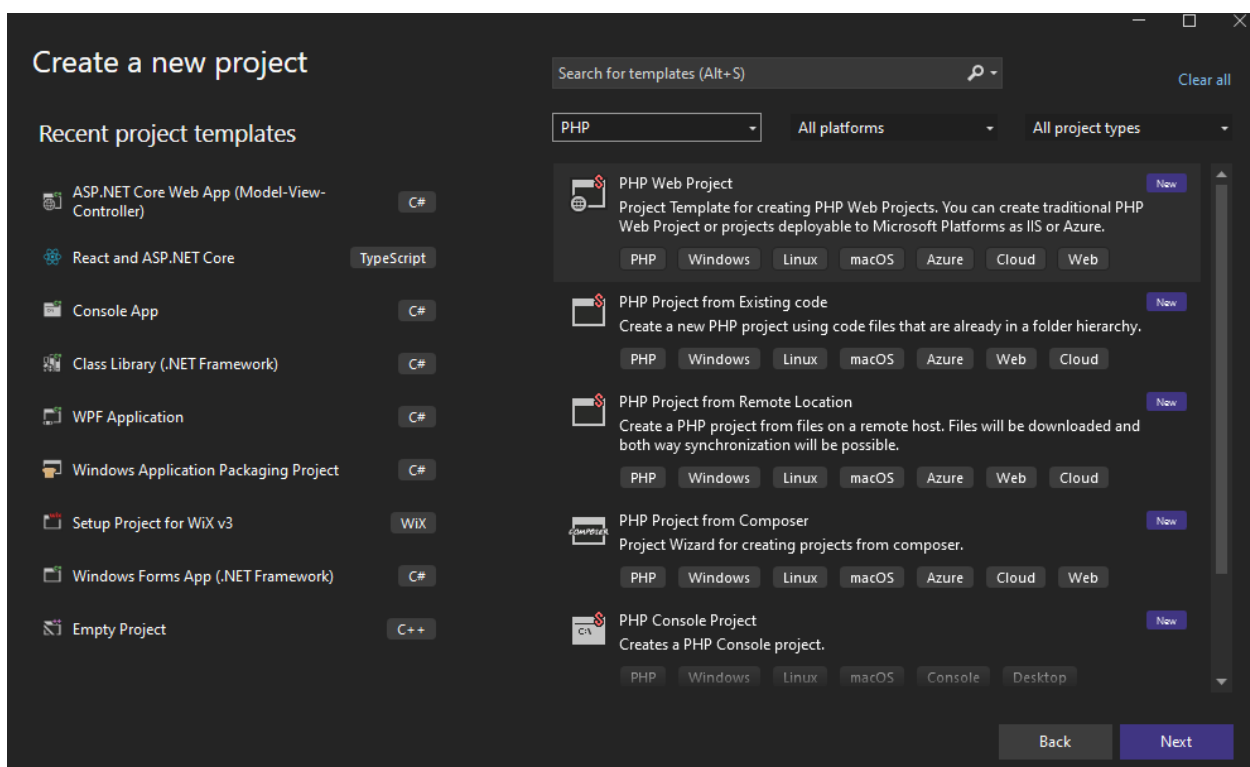
Close Visual Studio window so that the installer can run automatically



Verify success installation

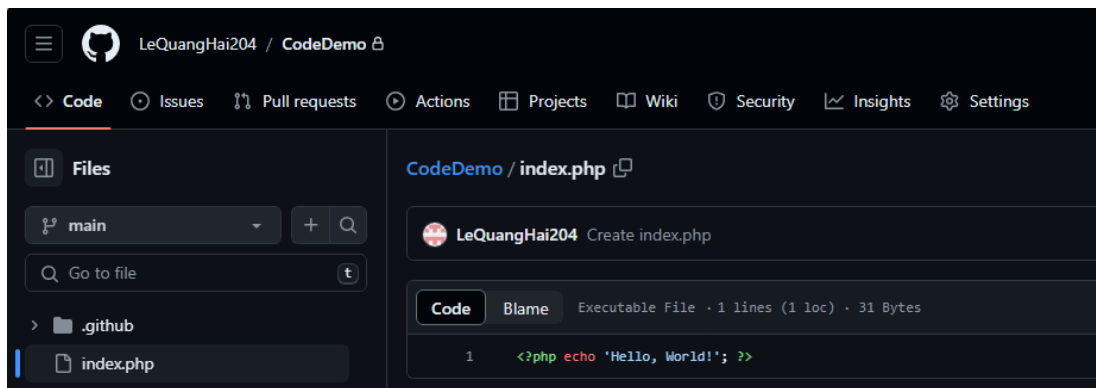


Now we can create a PHP web application in Visual Studio



## Develop a web application

We create another GitHub repository with a Hello World code in the index.php file

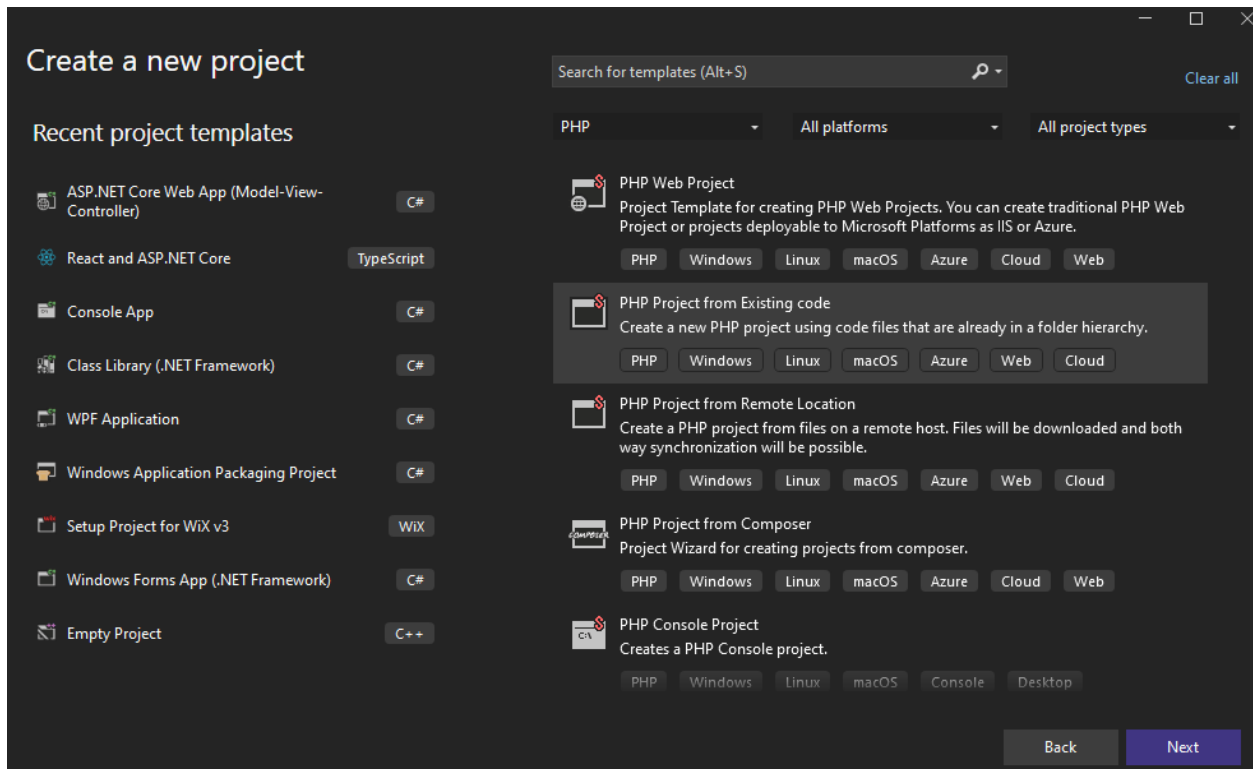


## Transfer files to visual studio

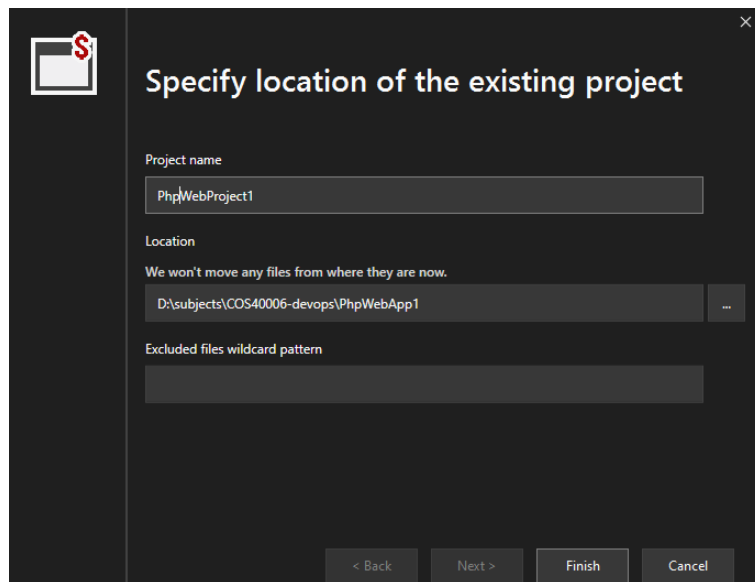
We use git clone command to obtain the code from the GitHub repository created above to our local folder

```
PS D:\subjects\COS40006-devops> git clone https://github.com/LeQuangHai204/CodeDemo.git PhpWebApp1
Cloning into 'PhpWebApp1'...
remote: Enumerating objects: 23, done.
remote: Counting objects: 100% (23/23), done.
remote: Compressing objects: 100% (16/16), done.
remote: Total 23 (delta 5), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (23/23), 4.88 KiB | 500.00 KiB/s, done.
Resolving deltas: 100% (5/5), done.
```

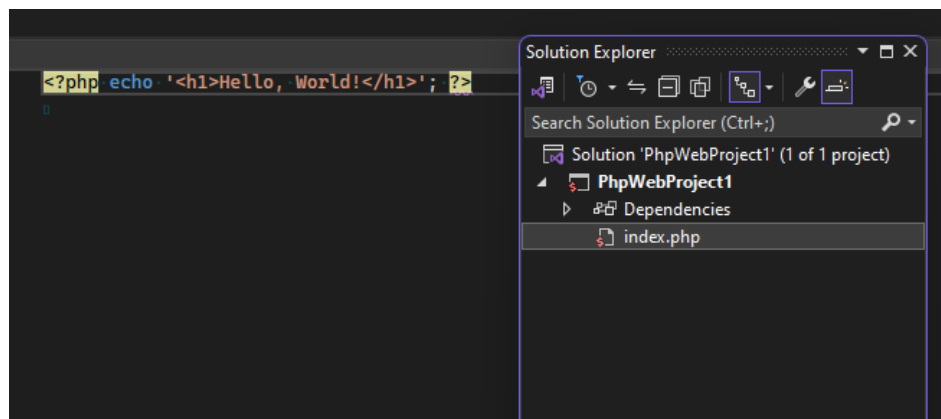
Open Visual Studio, click “Create new project” → “PHP project from existing code”



We specify location of the code we have just cloned from remote



We have successfully created a PHP from the pre-created PHP project



## Deploy app to cloud via Azure

Go to Azure console and create another new Web App, this time select PHP 8.3 for run-time environment

## Create Web App

### 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 \* ⓘ

(New) COS40006-PHP-ResouceGroup

[Create new](#)

### Instance Details

Name \*

COS40006-PHP-WebApp

.azurewebsites.net

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

Publish \*

☒ Code ☐ Container ☐ Static Web App

Runtime stack \*


PHP 8.3

Operating System \*

☒ Linux ☐ Windows

Region \*

UAE North

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

### Pricing plans

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. [Learn more](#)

Linux Plan (UAE North) \* ⓘ

(New) COS40006-PHP-ServicePlan

[Create new](#)

Pricing plan

Basic B1 (100 total ACU, 1.75 GB memory, 1 vCPU)

[Explore pricing plans](#)

Select the deployment GitHub settings

## Create Web App ...

Basics Database **Deployment** Networking Monitoring 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 LeQuangHai204

[Change account](#) ⓘ

Organization \* LeQuangHai204

Repository \* CodeDemo

Branch \* main

### Workflow configuration

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


[Preview file](#)

Review setup before creation


## Create Web App ...

Basics Database Deployment Networking Monitoring Tags Review + create

### Summary

 **Web App**  
by Microsoft

**Basic (B1) sku**  
Estimated price - loading ...

 Basic authentication for this app is currently disabled and may impact deployments. [Click to learn more.](#)

### Details


Subscription	2297e060-601b-4632-9c64-ee1deb0fcd5
Resource Group	COS40006-PHP-ResouceGroup
Name	COS40006-PHP-WebApp
Publish	Code
Runtime stack	PHP 8.3


### App Service Plan (New)

Name	COS40006-PHP-ServicePlan
Operating System	Linux
Region	UAE North
SKU	Basic
Size	Small
ACU	100 total ACU
Memory	1.75 GB memory


Waiting for the auto-deployment

### Deployment is in progress


 Deployment name: Microsoft.Web-WebApp-Portal-1334825b-9f80  
Subscription: [Azure subscription 1](#)  
Resource group: [COS40006-PHP-ResouceGroup](#)

Start time: 6/14/2024, 12:47:07 PM  
Correlation ID: d2874219-ad80-4257-acdd-02de2543d92d 


#### Deployment details

Resource	Type	Status	Operation details
 <a href="#">COS40006-PHP-ServicePlan</a>	Microsoft.Web/serverfarms	OK	<a href="#">Operation details</a>

Deployment succeeds



Your deployment is complete




Deployment name: Microsoft.Web-WebApp-Portal-1334825b-9f80

Subscription: [Azure subscription 1](#)

Resource group: [COS40006-PHP-ResourceGroup](#)

Start time: 6/14/2024, 12:47:07 PM

Correlation ID: [d2874219-ad80-4257-acdd-02de2543d92d](#) 

Deployment details

Next steps


[Manage deployments for your app.](#)

Recommended

[Protect your app with authentication.](#)

Recommended

Go to resource



COS40006-PHP-WebApp

Web App

Search

Browse Stop Swap Restart Delete Refresh Download publish profile Reset publish profile Share to mobile Send us your feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Better Together (preview)

Deployment

Deployment slots

Deployment Center

Performance

Essentials

Resource group [\(move\)](#)

Status

Location [\(move\)](#)

Subscription [\(move\)](#)

Subscription ID

Tags [\(edit\)](#)

Default domain

App Service Plan

Operating System

Health Check

GitHub Project

Properties

Monitoring

Logs

Capabilities

Notifications

Recommendations

Web app

Name

Publishing model

Runtime Stack

COS40006-PHP-WebApp

Code

Php - 8.3

Deployment Center

Deployment logs

Last deployment


Deployment provider


View logs


Successful on Friday, June 14, 12:49:33 PM

GitHubAction

Navigate to the domain to enter the PHP page







<https://cos40006-php-wa.azurewebsites.net>

# Hello, World!