

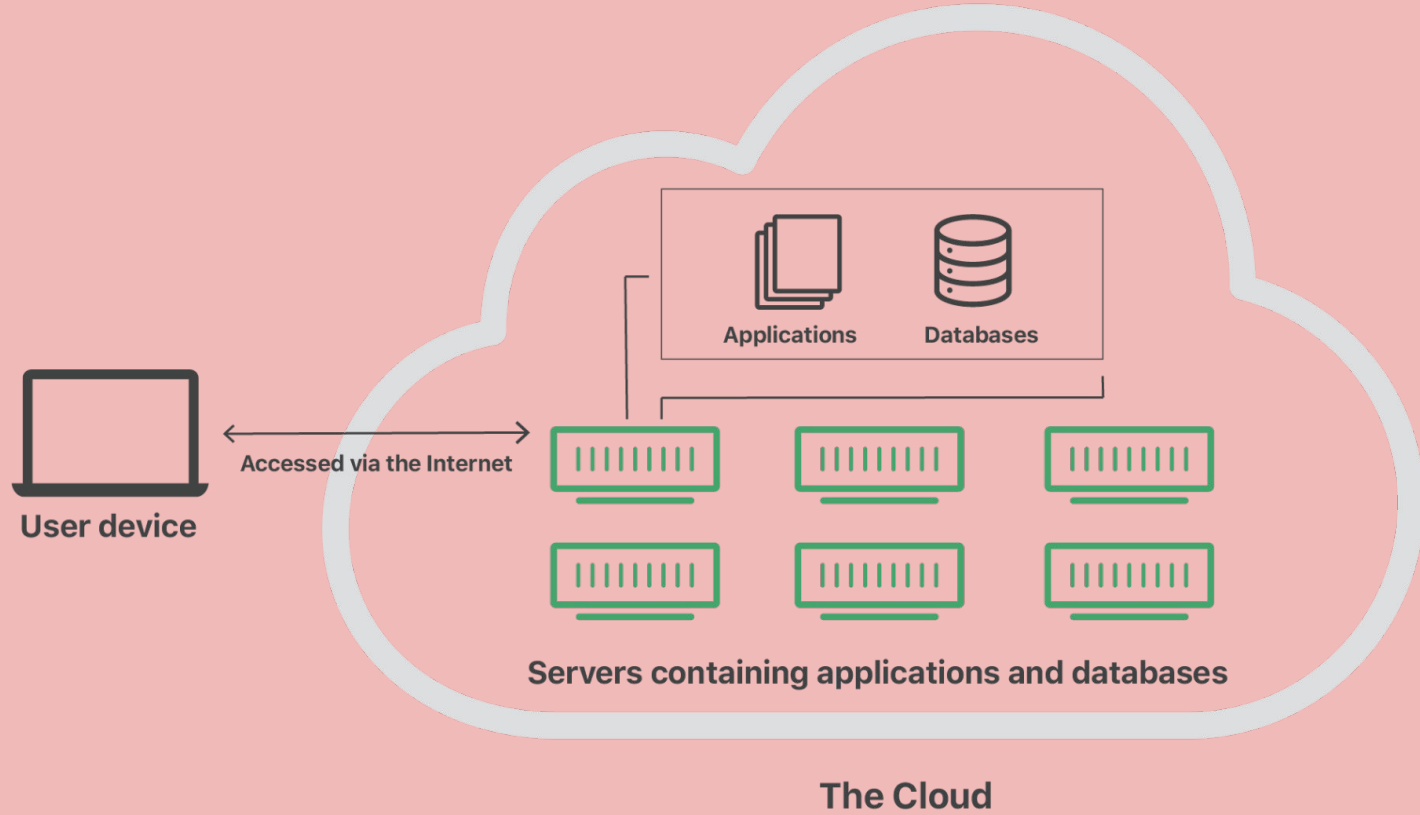
# Cloud Deployment

By Samantha Adorno



# What is the Cloud?

The cloud is a network of remote servers that store, manage, and process data instead of local computers. It enables on-demand access to computing resources such as storage, databases, and virtual machines over the internet.



# Why is it useful?



**Scalability**



**Collaboration**




**Accessibility**



**Cost**



**Reliability**



**Why should I  
care?**

# 90%

of the Fortune 500 use Microsoft Cloud



# Build in the cloud free with Azure for Students

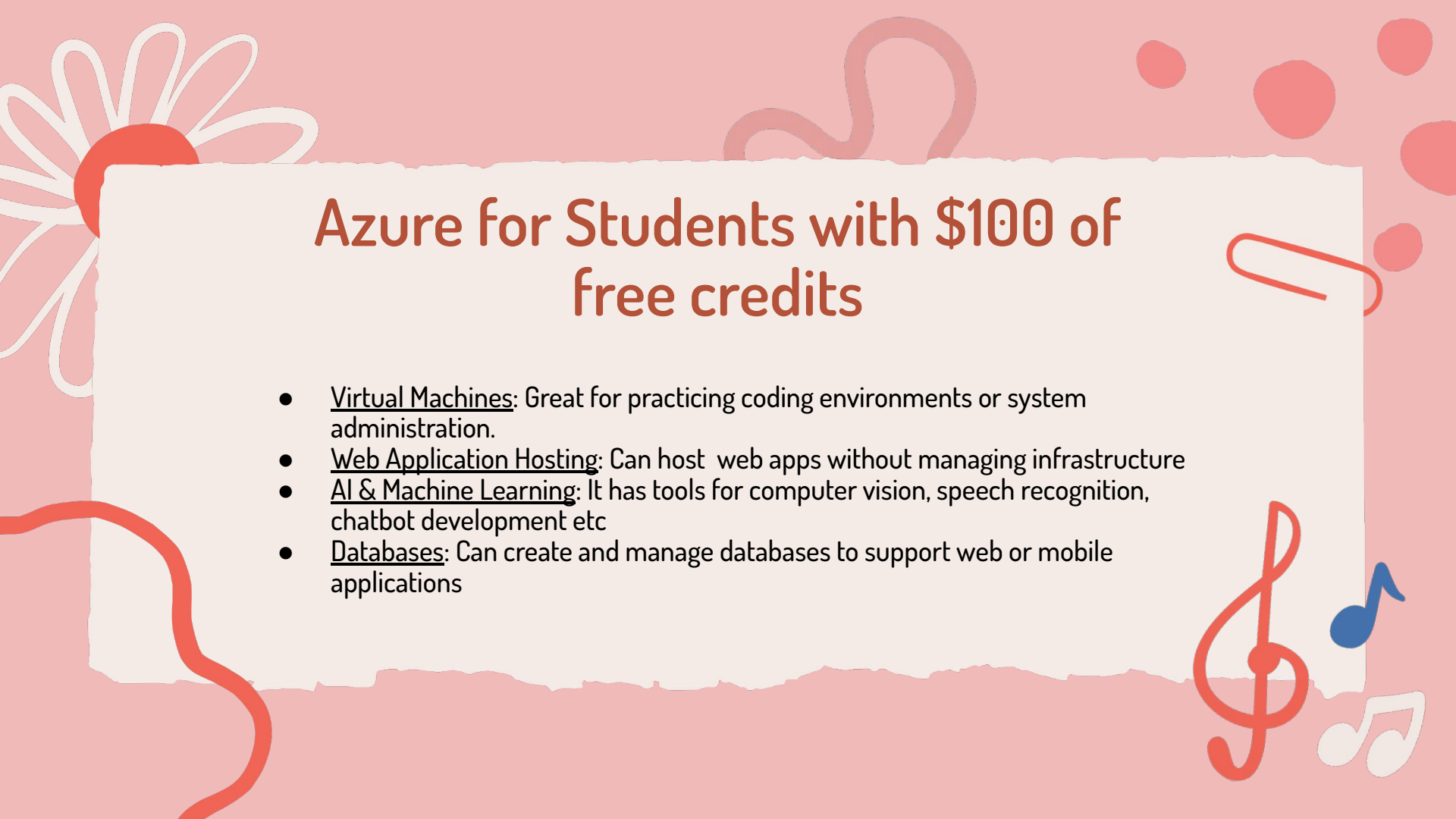
Use your university or school email to sign up and renew each year  
you're a student

[Start free](#)

[Learn about eligibility](#)

**Start with  
\$100 Azure  
credit**

**No credit  
card required**



# Azure for Students with \$100 of free credits

- Virtual Machines: Great for practicing coding environments or system administration.
- Web Application Hosting: Can host web apps without managing infrastructure
- AI & Machine Learning: It has tools for computer vision, speech recognition, chatbot development etc
- Databases: Can create and manage databases to support web or mobile applications





Create a resource



Home



Dashboard



All services

Popular Azure services [See more in All services](#)

---



Function App

[Create](#)



Web App

[Create](#)

[Home](#) > [Create a resource](#) >

# Create Web App ...

[Basics](#) [Database](#) [Deployment](#) [Networking](#) [Monitor + secure](#) [Tags](#) [Review + create](#)

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform. Meet rigorous performance, scalability, security and compliance requirements while using a fully managed platform to perform infrastructure maintenance. [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 for Students



Resource Group \* ⓘ

(New) samanthaadorno\_group

[Create new](#)

## Instance Details

Name

samanthaadorno



-gkd4d0caeng6cebh.centralus-01.azurewebsites.net

☒ Secure unique default hostname on. [More about this update](#)

Publish \*

☒ Code ☐ Container

Runtime stack \*

Python 3.10



Operating System \*

☒ Linux ☐ Windows

Region \*

Central US



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

[Review + create](#)

&lt; Previous

Next : Database &gt;

## Pricing plans

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

Linux Plan (Central US) \* ⓘ

(New) ASP-samanthaadornogroup-8bea

[Create new](#)

Pricing plan

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

[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 + create](#)

&lt; Previous

Next : Database &gt;

 Microsoft Azure


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

Home > Create a resource >


## Create Web App

Basics Database Deployment Networking Monitor + secure Tags Review + create

Summary

 **Web App**  
by Microsoft

**Basic (B1) sku**  
Estimated price - 13.14 USD/Month

 Basic authentication for this app is currently disabled and may impact deployments. Click to learn more.

Details

Subscription	f76b8f7c-fa58-4f3c-8f38-a292df2eade7
Resource Group	samanthaadorno_group
Name	samanthaadorno
Secure unique default hostname	Enabled
Publish	Code
Runtime stack	Python 3.10

App Service Plan (New)

Name	ASP-samanthaadornogroup-8bea
Operating System	Linux
Region	Central US
SKU	Basic
Size	Small

Create < Previous Next > Download a template for automation

Home >

## Microsoft.Web-WebApp-Portal-309f3d2b-a2d1 | Overview

Deployment

Search


Delete Cancel Redeploy Download Refresh



Overview

Inputs

Outputs

Template

 Your deployment is complete


 Deployment name: Microsoft.Web-WebApp-Portal-309f3d2b-a2d1 Start time: 2/23/2025, 9:10:34 PM  
Subscription: [Azure for Students](#) Correlation ID: eb800f25-8759-40b8-980a-941aa4f85707   
Resource group: [samanthaadorno\\_group](#)

Deployment details


Next steps

[Manage deployments for your app.](#) Recommended

[Protect your app with authentication.](#) Recommended

 Go to resource

Give feedback

 Tell us about your experience with deployment

## All resources

University of Kansas (kansas.onmicrosoft.com)

+ Create ⚙️ Manage view ▾ ...

Filter for any field...

Name ↑↓

- ASP-samanthaadornogroup-8bea ...
- samanthaadorno ...



## samanthaadorno

Web App



Search

### Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Recommended services (preview)
- Deployment
  - Deployment slots
  - Deployment Center
- Settings

Configuration

Authentication

Identity

Backups

Custom domains

Certificates

Networking



Browse



Stop



Swap



Restart



Delete



Refresh



Download publish profile



Reset publish profile

JSON View

### Essentials

Resource group ([move](#))

[samanthaadorno\\_group](#)

Status

Running

Location ([move](#))

Central US

Subscription ([move](#))

[Azure for Students](#)

Subscription ID

f76b87c-fa58-4f3c-8f38-a292df2eade7

Default domain

[samanthaadorno-gkd4d0caeng6cebh.centralus-01.azurewebsite...](#)

App Service Plan

[ASP-samanthaadornogroup-8bea \(B1: 1\)](#)

Operating System

Linux

Health Check

[Not Configured](#)

Git/Deployment username

Git clone url

[https://null@samanthaadorno-gkd4d0caeng6cebh.scm.centralu...](#)

Tags ([edit](#))

[Add tags](#)

### Properties

#### Web app

Name	samanthaadorno
Publishing model	Code
Runtime Stack	Python - 3.10

#### Domains

## Platform settings

### SCM Basic Auth Publishing Credentials

☒ On ☐ Off

### FTP Basic Auth Publishing Credentials

☒ On ☐ Off

 Disable basic authentication for FTP and SCM access. [Learn more](#)

Microsoft Azure

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

Copilot

s712a650@h  
UNIVERSITY OF KAN

All services > App Services > samanthaadorno

App Services

University of Kansas (kansas.onmicrosoft.com)

+ Create ▾ ...

Filter for any field...

Name ↑ ▾

samanthaadorno

...

samanthaadorno | Deployment Center

Web App

Search

Save Discard Browse Manage publish profile Sync Leave Feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Recommended services (preview)

Deployment

Deployment Center

Performance

App Service plan

Development Tools

API

Monitoring

Automation

Support + troubleshooting

Settings Logs FTPS credentials

Interested in adding containers to run alongside your app? Click here to give it a try.

You're now in the production slot, which is not recommended for setting up CI/CD. Learn more

Deploy and build code from your preferred source and build provider. [Learn more](#)

Source \*

Select code source

Continuous Deployment (CI/CD)

GitHub

Bitbucket

Local Git

Azure Repos

Manual Deployment (Push)

External Git

< Page 1 of 1 >



Save



Discard



Browse



Manage publish profile



Sync



Leave Feedback



Overview



Activity log



Access control (IAM)



Tags



Diagnose and solve problems



Microsoft Defender for Cloud



Events (preview)



Recommended services (preview)



Deployment



Deployment slots



Deployment Center



Settings



Performance



App Service plan



Development Tools



API



Monitoring



Automation



Support + troubleshooting

Settings

Logs

Local Git/FTP credentials

Deploy and build code from your preferred source and build provider. [Learn more](#)

## Source

Local Git

[Disconnect](#)

## Local Git

### Git Clone Uri

`https://samanthaadorno-gkd4d0caeng6cebh.scm.centralus-01.azurewebsites.net:443/samanthaadorno.git`



## Build

### Build provider

App Service Build Service

### Runtime stack

Python

### Version

Python 3.10

[Settings](#)[Logs](#)**Local Git/FTPS credentials**

App Service supports multiple technologies to access, publish and modify the content of your app. FTPS credentials can be scoped to the application or the user.

### FTPS endpoint



### Git Clone Uri



## Application scope

Application scope credentials are auto-generated and provide access only to this specific app or deployment slot. These credentials can be used with FTPS, Local Git and WebDeploy. They cannot be configured manually, but can be reset anytime. [Learn more](#)

### FTPS Username



### Local Git Username




### Password

[Reset](#)





**Now let's go  
to VS Code**



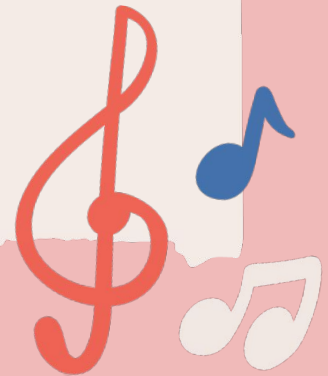
```
mkdir flask-azure  
cd flask-azure
```

```
python -m venv env  
source env/Scripts/activate
```

For Windows

```
python3 -m venv env  
source env/bin/activate
```


For Mac



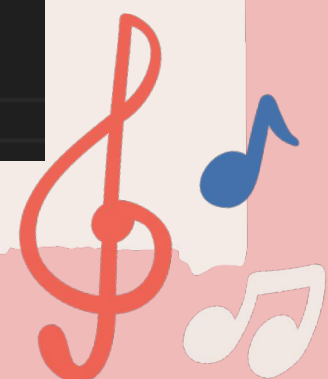



`pip install Flask gunicorn`

`code app.py`




```
app.py > ...
1  from flask import Flask
2  app = Flask(__name__)
3
4  @app.route('/')
5  def home():
6      return "Hello Azure!"
7
8  if __name__ == '__main__':
9      app.run(debug=True)
10
```





```
python app.py
```

Go to <http://localhost:5000> to test if it works

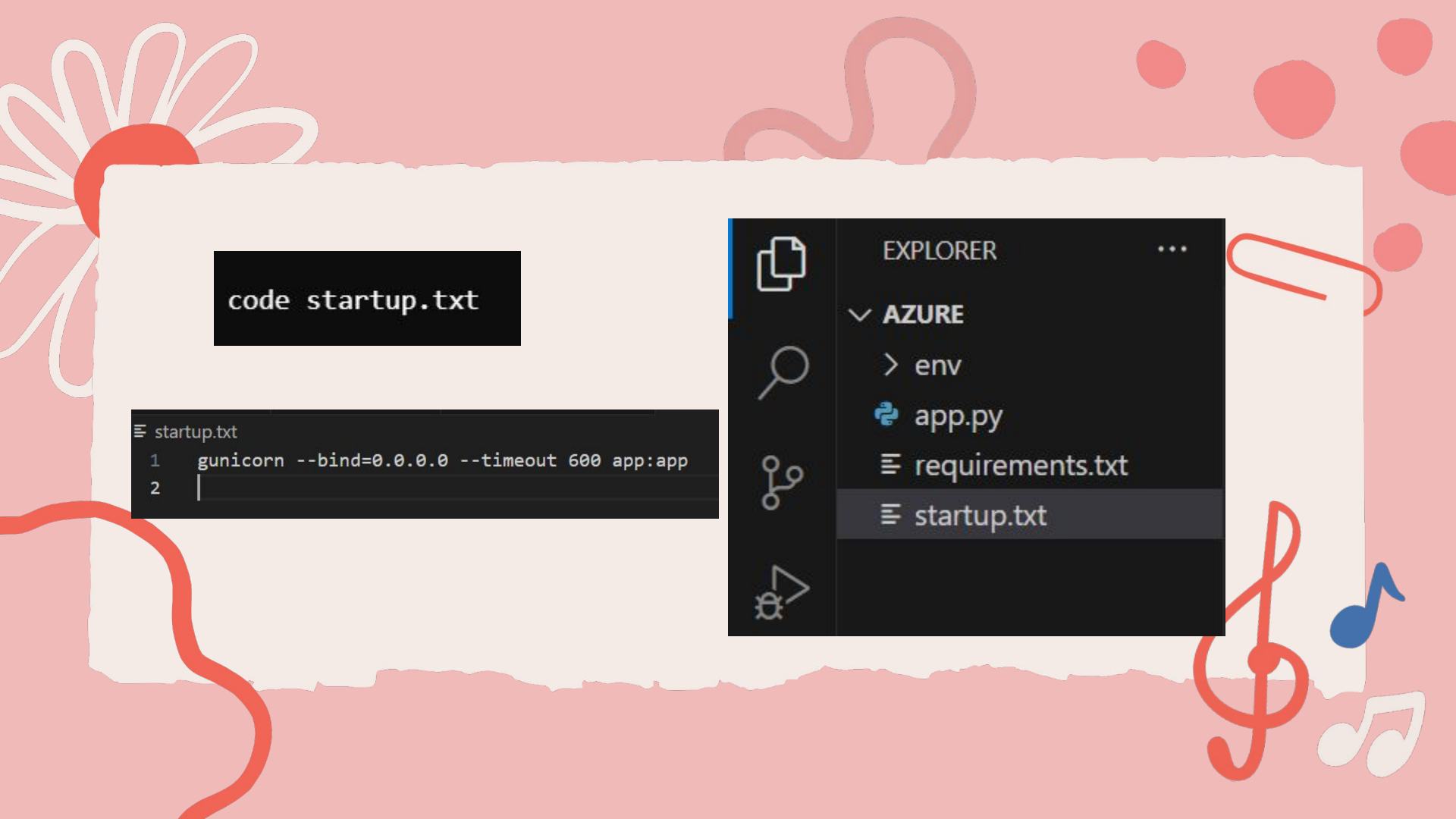


```
pip freeze > requirements.txt
```

In terminal

```
≡ requirements.txt
```

```
1 blinker==1.9.0
2 click==8.1.8
3 colorama==0.4.6
4 Flask==3.1.0
5 gunicorn==23.0.0
6 itsdangerous==2.2.0
7 Jinja2==3.1.5
8 MarkupSafe==3.0.2
9 packaging==24.2
10 Werkzeug==3.1.3
11 |
```



```
code startup.txt
```

```
≡ startup.txt  
1  gunicorn --bind=0.0.0.0 --timeout 600 app:app  
2  |
```



EXPLORER



✓ AZURE


> env

🐍 app.py

≡ requirements.txt

≡ startup.txt





```
git init
git add .
git commit -m "Initial deployment"
git remote add azure <your_azure_git_url>
```

#### Local Git


##### Git Clone Uri

<https://samanthaadorno-gkd4d0caeng6cebh.scm.centralus-01.azurewebsites.net:443/samanthaadorno.git>




Here we put the uri that  
appeared in Deployment  
Center



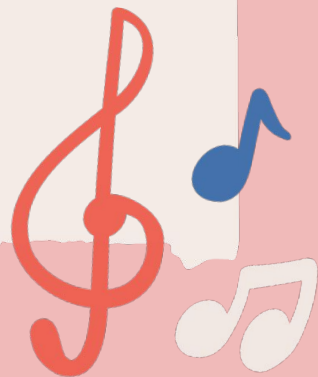


```
git push azure main:master
```

If your branch name is  
main do it like this



If your branch name is master just write:  
**git push azure master**





Settings Logs Local Git/FTPS credentials

App Service supports multiple technologies to access, publish and modify the content of your app. FTPS credentials can be scoped to the application or the user.

#### FTPS endpoint



#### Git Clone Uri



#### Application scope

Application scope credentials are auto-generated and provide access only to this specific app or deployment slot. These credentials can be used with FTPS, Local Git and WebDeploy. They cannot be configured manually, but can be reset anytime. [Learn more](#)

#### FTPS Username



#### Local Git Username



#### Password

   Reset

Your credentials are in  
the Deployment Center.  
It is your Local Git  
Username and Password.



samanthaadorno

Web App



Search



Browse Stop Swap Restart Delete Refresh Download publish profile Reset publish profile ...

## Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Recommended services  
(preview)

Deployment

Deployment slots

Deployment Center

Settings

### Essentials

Resource group ([move](#))

[samanthaadorno\\_group](#)

Status

Running

Location ([move](#))

Central US

Subscription ([move](#))

[Azure for Students](#)

Subscription ID

f76b8f7c-fa58-4f3c-8f38-a292df2eade7

Tags ([edit](#))

[Add tags](#)

[JSON View](#)

Default domain

[samanthaadorno-gkd4d0caeng6cebh.centralus-01.azurewebsite...](#)

App Service Plan

[ASP-samanthaadornogroup-8bea \(B1: 1\)](#)

Operating System

Linux

Health Check

[Not Configured](#)

Git/Deployment username

Git clone url

[https://null@samanthaadorno-gkd4d0caeng6cebh.scm.centralu...](#)

- If the push was successful, the link to your website should work and it's the one in Default Domain.
- If its not loading press Restart



samanthaadorno-gkd4d0caeng6cebh.centralus-01.azurewebsites.net



Wikiversidad



Free Books : Downl...



Wikilibros



The Virtual Library -...



endo

Hello, Azure!

# It got deployed!



# Resources

- <https://github.com/bregman-arie/devops-resources>
- <https://learn.microsoft.com/en-us/training/azure/>
- <https://www.youtube.com/watch?v=s2ofWBqU3Kc>
- <https://aws.amazon.com/training/learn-about/generative-ai/?la=sec&sec=solution>
- <https://www.youtube.com/watch?v=AmP1EgEM4g> - How to pronounce Azure 😭



**Thank you for  
listening!**