

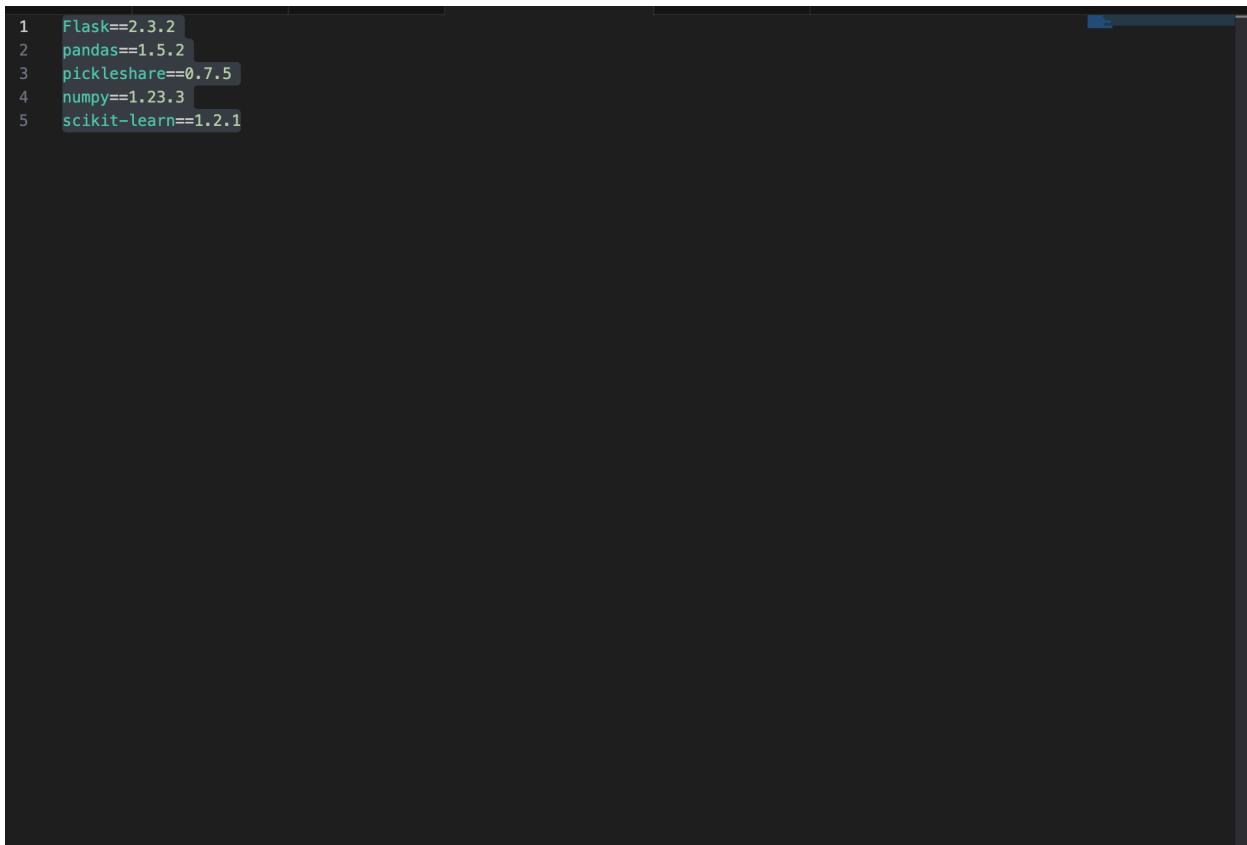
Deployment on Azure

Name: Nilesh Rathi
Internship Batch: LISUM21
Submission Date: 31/05/2023
Submission To: Data Glacier

Flask API:

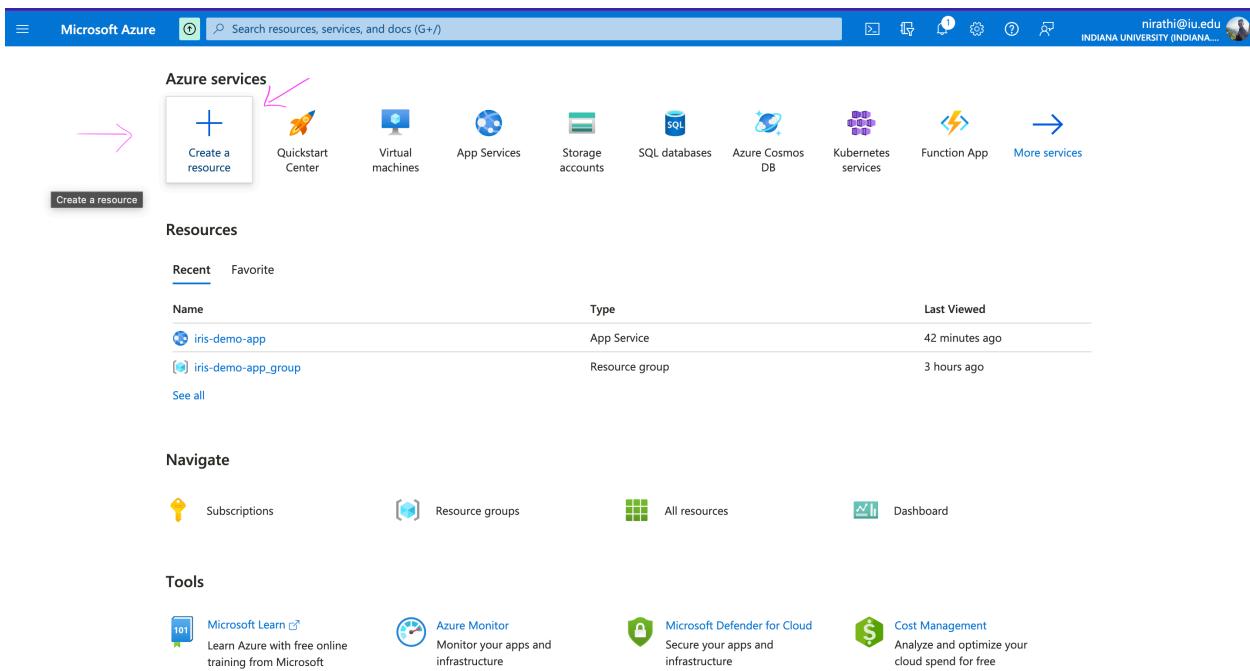
```
 1  from flask import Flask, request, render_template
 2  import pickle
 3
 4  app = Flask(__name__)
 5  model = pickle.load(open('model.pk', 'rb'))
 6
 7  dic = {0 : 'setosa',
 8         1 : 'versicolor',
 9         2 : 'virginica'}
10
11 @app.route('/')
12 def home():
13     return render_template('index.html')
14
15 @app.route('/predict', methods = ['POST'])
16 def predict():
17
18     # Read the input data from the request form
19     sepal_length = float(request.form.get('sepal length'))
20     sepal_width = float(request.form.get('sepal width'))
21     petal_length = float(request.form.get('petal length'))
22     petal_width = float(request.form.get('petal width'))
23
24     # # Create a feature vector from the input data
25     features = [[sepal_length, sepal_width, petal_length, petal_width]]
26
27     # # Make predictions using the loaded model
28     predicted_class = model.predict(features)
29
30     # # Return the predicted output as a response
31     return render_template('index.html', prediction_text = 'Flower is {}'.format(dic[predicted_class[0]]))
32
33 #app.run(port=8080)
34 if __name__ == '__main__':
35     app.run(debug=True)
```

Requirements.txt



```
1 Flask==2.3.2
2 pandas==1.5.2
3 pickleshare==0.7.5
4 numpy==1.23.3
5 scikit-learn==1.2.1
```

Steps for Azure:



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Essentials \$0K

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Basics

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 subscription 1

Resource Group *  (New) Resource group 

Instance Details

Need a database? [Try the new Web + Database experience](#). 

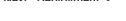
Name *  Web App name. .azuresites.net 

Publish *  Code Docker Container Static Web App

Runtime stack *  Python 3.8 

Operating System *  Linux Windows

Region *  East US  Not finding your App Service Plan? Try a different region or select your App Service Environment.

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Code Docker Container Static Web App

Runtime stack * Python 3.8

Operating System * Linux Windows

Region * East US 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 (East US) * ASP-irisdemoappgroup-97be (F1) [Create new](#)

Pricing plan Free F1 (Shared infrastructure)

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.

↓

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test, and deploy your app whenever a new commit is made in your repository. If your code is in GitHub, choose your repository here and we will add a workflow file to automatically deploy your app to App Service. If your code is not in GitHub, go to the Deployment Center once the web app is created to set up your deployment. [Learn more](#)

GitHub Actions settings

Continuous deployment Disable Enable

⚠️ Configuring deployment with GitHub Actions during app creation isn't supported with your selections of operating system and App Service plan. If you want to keep these selections, you can configure deployment with GitHub Actions after the web app is created.

GitHub Actions details

Select your GitHub details, so Azure Web Apps can access your repository. You must have write access to your chosen repository to deploy with GitHub Actions.

GitHub account nileshrathi99 [Change account](#) connect to github if asked otherwise we can connect later too

Organization Select organization

Repository Select repository

Branch Select branch

Workflow configuration

File with the GitHub Actions workflow configuration.

↓

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Basics Deployment Networking **Monitoring** Tags Review + create

Web Apps can be provisioned with the inbound address being public to the internet or isolated to an Azure virtual network. Web Apps can also be provisioned with outbound traffic able to reach endpoints in a virtual network, governed by network security groups or affected by virtual network routes. By default, your app is open to the internet and cannot reach into a virtual network. These aspects can also be changed after the app is provisioned. [Learn more](#)

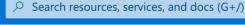
Enable public access * On Off

⚠️ Network injection is only available in Basic, Standard, Premium, Premium V2, and Premium V3 Dedicated App Service plans.

Enable network injection On Off

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Basics Deployment Networking **Monitoring** Tags Review + create

Azure Monitor application insights is an Application Performance Management (APM) service for developers and DevOps professionals. Enable it below to automatically monitor your application. It will detect performance anomalies, and includes powerful analytics tools to help you diagnose issues and to understand what users actually do with your app. Your bill is based on amount of data used by Application Insights and your data retention settings. [Learn more](#)

[App Insights pricing](#)

Application Insights

Enable Application Insights * No Yes

⚠️ Application Insights code-less monitoring isn't supported with your selections of subscription, runtime stack, operating system, publish type, region, or resource group. If you want to keep these selections, you can use the Application Insights SDK to monitor your app.

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Basics Deployment Networking Monitoring Tags Review + create

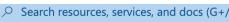
Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups.

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
<input type="text"/>	<input type="text"/>	Web App

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Summary

 **Web App**
by Microsoft

Details

Subscription	4977c9bc-9d16-4b24-9aae-9a4d24e20142
Resource Group	iris-demo-app-1_group
Name	iris-demo-app-1
Publish	Code
Runtime stack	Python 3.8

App Service Plan

Name	ASP-irisdemopappgroup-97be
Operating System	Linux
Region	East US
SKU	Free
ACU	Shared infrastructure
Memory	1 GB memory

Monitoring

Application Insights	Not enabled
----------------------	-------------

Deployment

Continuous deployment	Not enabled / Set up after app creation
-----------------------	---

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Deployment

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Your deployment is complete

Deployment name: Microsoft.Web-WebApp-Portal-2b574511-a1ea
Subscription: Azure subscription 1
Resource group: iris-demo-app-1-group

Start time: 5/31/2023, 6:19:12 PM
Correlation ID: b13a448f-deaa-46ca-a04f-f15bf05f1542

Deployment details

Next steps

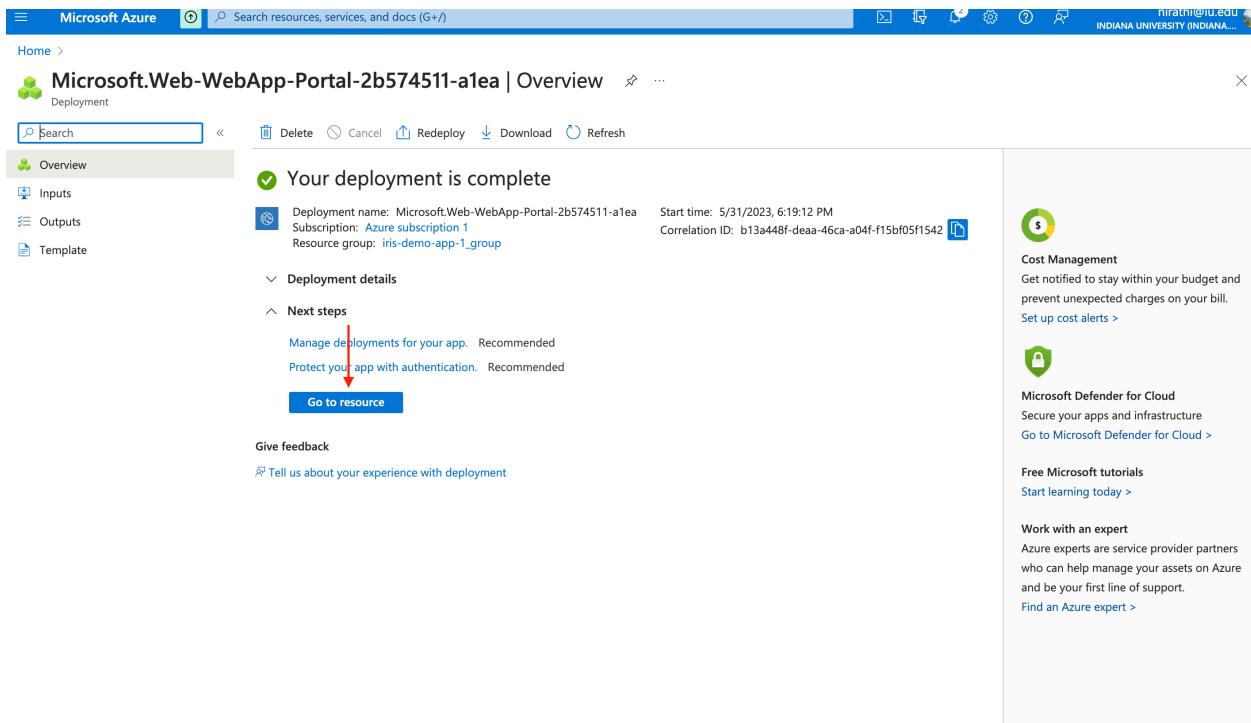
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Protect your app with authentication. Recommended

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iris-demo-app-1 | Web App

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Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview)

Deployment Deployment slots Deployment Center

Settings Configuration Authentication Application Insights Identity Backups Custom domains Certificates Networking Scale up (App Service plan)

Essentials

Resource group (move) : iris-demo-app-1-group
Status : Running
Location (move) : East US
Subscription (move) : Azure subscription 1
Subscription ID : 4977c9bc-9d16-4b24-9aae-9a4d24e20142

Tags (edit) : Click here to add tags

Properties Monitoring Logs Capabilities Notifications Recommendations

Web app

Name	iris-demo-app-1
Publishing model	Code
Runtime Stack	Python - 3.8

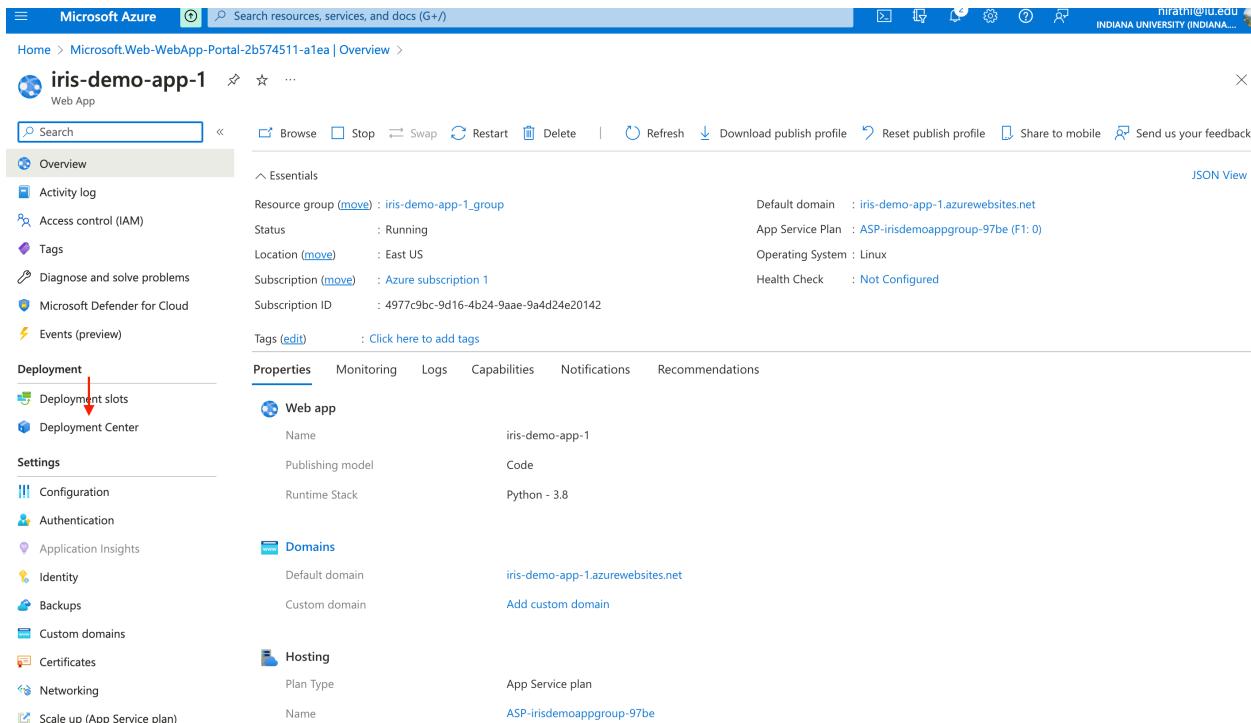
Domains

Default domain	iris-demo-app-1.azurewebsites.net
Custom domain	Add custom domain

Hosting

Plan Type	App Service plan
Name	ASP-irisdemappgroup-97be

JSON View



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iris-demo-app-1 | Deployment Center

Web App

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Source* Select code source Continuous Deployment (CI/CD) GitHub Bitbucket Local Git Azure Repos Manual Deployment (Push) External Git

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

Configuration Authentication Application Insights Identity Backups Custom domains Certificates Networking Scale up (App Service plan)

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iris-demo-app

Web App

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Deployment Deployment slots Deployment Center

Properties Monitoring Logs Capabilities Notifications Recommendations

Web app Name: iris-demo-app Publishing model: Code Runtime Stack: Python - 3.8

Domains Default domain: iris-demo-app.azurewebsites.net Custom domain: Add custom domain

Hosting Plan Type: App Service plan

Configuration Authentication Application Insights Identity Backups Custom domains Certificates Networking

Default domain : iris-demo-app.azurewebsites.net

App Service Plan : ASP-irisdemoppgroup-97be (F1: 1)

Operating System : Linux

Health Check : Not Configured

GitHub Project : <https://github.com/nileshrathi99/dg-iris-demo-app>

Click here to add tags

JSON View

Results:

