

Week 5: Cloud and API deployment

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Batch code -LISUM32

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Updating required Libraries

```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week 5\ML> pip install numpy scikit-learn joblib flask gunicorn
Requirement already satisfied: numpy in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (1.26.1)
Requirement already satisfied: scikit-learn in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (1.3.1)
Requirement already satisfied: joblib in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (1.3.2)
Requirement already satisfied: flask in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (3.0.3)
Collecting gunicorn
  Downloading gunicorn-22.0.0-py3-none-any.whl.metadata (4.4 kB)
Requirement already satisfied: scipy>=1.5.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from scikit-learn) (1.11.3)
Requirement already satisfied: threadpoolctl>=2.0.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from scikit-learn) (3.2.0)
Requirement already satisfied: Werkzeug>=3.0.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (3.0.1)
Requirement already satisfied: Jinja2>=3.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (3.1.2)
Requirement already satisfied: itsdangerous>=2.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (2.1.2)
Requirement already satisfied: click>=8.1.3 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (8.1.7)
Requirement already satisfied: blinker>=1.6.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (1.7.0)
Requirement already satisfied: packaging in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from gunicorn) (23.1)
Requirement already satisfied: colonama in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from click>=8.1.3->flask) (0.4.6)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Jinja2>=3.1.2->flask) (2.1.2)
Downloading gunicorn-22.0.0-py3-none-any.whl (84 kB)
84.4/84.4 kB 4.6 MB/s eta 0:00:00
Installing collected packages: gunicorn
Successfully installed gunicorn-22.0.0

[notice] A new release of pip is available: 23.3.2 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week 5\ML> python 'c:\Users\apurw\OneDrive\Documents\Data Glacier\Week 5\ML\ML.py'
PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week 5\ML> 8278171
```

Logging to Microsoft Azure

```
apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ az login
WARNING: A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow with 'az login --use-device-code'.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "a8eec281-aaa3-4dae-ac9b-9a398b9215e7",
    "id": "dc94405d-448b-430a-9169-2018d6656259",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure for Students",
    "state": "Enabled",
    "tenantId": "a8eec281-aaa3-4dae-ac9b-9a398b9215e7",
    "user": {
      "name": "sontakke.ap@northeastern.edu",
      "type": "user"
    }
  }
]
```

Creating Resource Group

```
apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ az group create --name MyResourceGroup --location eastus
{
  "id": "/subscriptions/dc94405d-448b-430a-9169-2018d6656259/resourceGroups/MyResourceGroup",
  "location": "eastus",
  "managedBy": null,
  "name": "MyResourceGroup",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
```

Setting MyPlan

```
apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ az appservice plan create --name MyPlan --resource-group MyResourceGroup --sku FREE
WARNING: Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
{
  "elasticScaleEnabled": false,
  "extendedLocation": null,
  "freeOfferExpirationTime": null,
  "geoRegion": "East US",
  "hostingEnvironmentProfile": null,
  "hyperv": false,
  "id": "/subscriptions/dc94405d-448b-430a-9169-2018d6656259/resourceGroups/MyResourceGroup/providers/Microsoft.Web/serverfarms/MyPlan",
  "isSpot": false,
  "isXenon": false,
  "kind": "app",
  "kubeEnvironmentProfile": null,
  "location": "eastus",
  "maximumElasticWorkerCount": 1,
  "maximumNumberOfWorkers": 0,
  "name": "MyPlan",
  "numberOfSites": 0,
  "numberOfWorkers": 0,
  "perSiteScaling": false,
  "provisioningState": "Succeeded",
  "reserved": false,
  "resourceGroup": "MyResourceGroup",
  "sku": {
    "capabilities": null,
    "capacity": 0,
    "family": "F",
    "locations": null,
    "name": "F1",
    "size": "F1",
    "skuCapacity": null,
    "tier": "Free"
  },
  "spotExpirationTime": null,
  "status": "Ready",
  "subscription": "dc94405d-448b-430a-9169-2018d6656259",
  "tags": null,
  "targetWorkerCount": 0,
  "targetWorkerSizeId": 0,
  "type": "Microsoft.Web/serverfarms",
  "workerTierName": null,
  "zoneRedundant": false
}
```

Pushing to Git

```
apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git remote add origin https://github.com/apurwasontakke/Week-5-Cloud-and-API-deployment
git push -u origin master
Enumerating objects: 7724, done.
Counting objects: 100% (7724/7724), done.
Delta compression using up to 12 threads
Compressing objects: 100% (7667/7667), done.
error: unable to rewind rpc post data - try increasing http.postBuffer
error: RPC failed; curl 65 OpenSSL SSL_read: OpenSSL/3.2.1: error:0A0003FC:SSL routines::ssl/tls alert
bad record mac, errno 0
send-pack: unexpected disconnect while reading sideband packet
Writing objects: 100% (7724/7724), 83.52 MiB | 6.03 MiB/s, done.
Total 7724 (delta 798), reused 0 (delta 0), pack-reused 0 (from 0)
fatal: the remote end hung up unexpectedly
Everything up-to-date

apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git lfs track "*.type"
Tracking "*.type"










apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git add .gitattributes
git commit -m "Configure LFS tracking"
[master 3e47e4e] Configure LFS tracking
1 file changed, 1 insertion(+)
create mode 100644 .gitattributes

apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git config http.postBuffer 524288000 # Sets the buffer to 500MB

apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git add .
git commit -m "Add files for push"
On branch master
nothing to commit, working tree clean

apurw@Apurwa MINGW64 ~/OneDrive/Documents/Data Glacier/Week 5/ML/IrisFlaskApp (master)
$ git push -u origin master
Enumerating objects: 7727, done.
Counting objects: 100% (7727/7727), done.
Delta compression using up to 12 threads
Compressing objects: 100% (7669/7669), done.
Writing objects: 100% (7727/7727), 83.52 MiB | 6.54 MiB/s, done.
Total 7727 (delta 800), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (800/800), done.
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:   https://github.com/apurwasontakke/Week-5-Cloud-and-API-deployment/pull/new/master
remote:
To https://github.com/apurwasontakke/Week-5-Cloud-and-API-deployment
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
```

Deployed to Git

 apurwasontakke Add or update the Azure App Service build and deployment workflo... ✓ bdb6c9b · 2 hours ago 🕒 3 Commits		
 .github/workflows	Add or update the Azure App Service build and deployment ...	2 hours ago
 venv	Initial commit	last week
 .gitattributes	Configure LFS tracking	3 hours ago
 Procfile.txt	Initial commit	last week
 `Procfile`.txt	Initial commit	last week
 app.py	Initial commit	last week
 model.joblib	Initial commit	last week
 requirements.txt	Initial commit	last week

Deployment Log Details

7:26:00 PM	
7:26:00 PM	Generating summary of Oryx build
7:26:00 PM	Parsing the build logs
7:26:01 PM	Found 0 issue(s)
7:26:01 PM	
7:26:01 PM	Build Summary :
7:26:01 PM	=====
7:26:01 PM	Errors (0)
7:26:01 PM	Warnings (0)
7:26:01 PM	
7:26:01 PM	Triggering recycle (preview mode disabled).
7:26:02 PM	Deployment successful. deployer = GITHUB_ZIP_DEPLOY deploymentPath = ZipDeploy. Extract zip. Remote build.
<div>Close</div>	

Log Details

Commit ID: 540b4d7e-d558-4051-acd6-03ae39969a74

Time	Activity	Log
7:21:06 PM	Updating submodules.	
7:21:07 PM	Preparing deployment for commit id '540b4d7e-d'.	
7:21:07 PM	PreDeployment: context.CleanOutputPath False	
7:21:07 PM	PreDeployment: context.OutputPath /home/site/wwwroot	
7:21:08 PM	Repository path is /tmp/zipdeploy/extracted	
7:21:08 PM	Running oryx build...	Show Logs...
7:26:00 PM	Running post deployment command(s)...	
7:26:00 PM	Generating summary of Oryx build	

Close