

- Step 1

Download Visual Studio Code for Windows

<https://code.visualstudio.com/download>

- Step 2

Download Azure Cli

<https://learn.microsoft.com/en-us/cli/azure/install-azure-cli>

- Step 3

Download the pre-requisite resource libraries.

Resources	
pylintrc	✓
app.py	✓
bot.py	✓
config.py	✓
README.md	✓
requirements.txt	✓

- Step 4

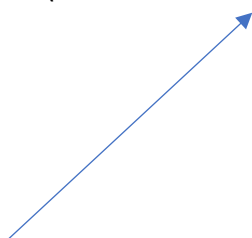
Download and install 7-zip

- Step 5

Put all the resource libraries in a folder in a way that they are in the folder in their root form (not once again within a folder). 7-zip tool will do that automatically.

Copy the path of the folder on your PC.

"C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1"

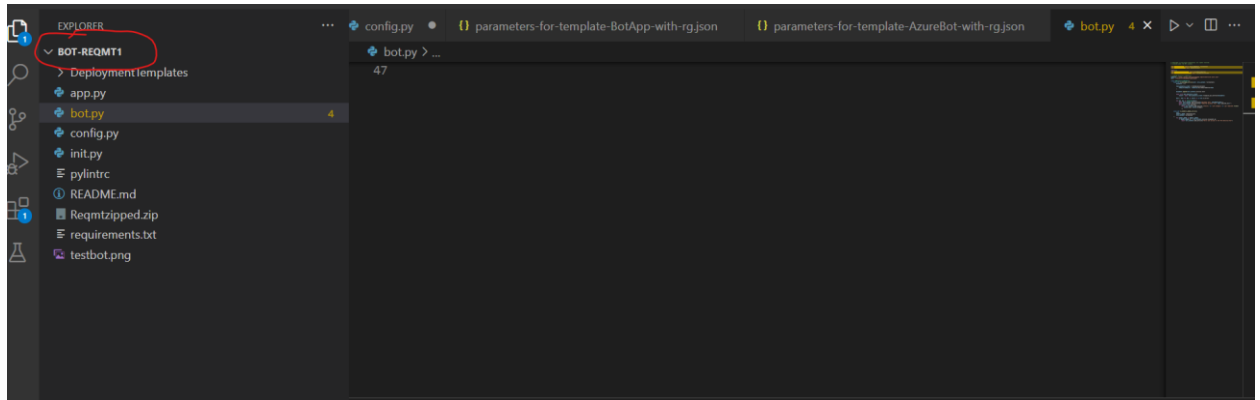


- Step 6

Launch Visual Code Studio

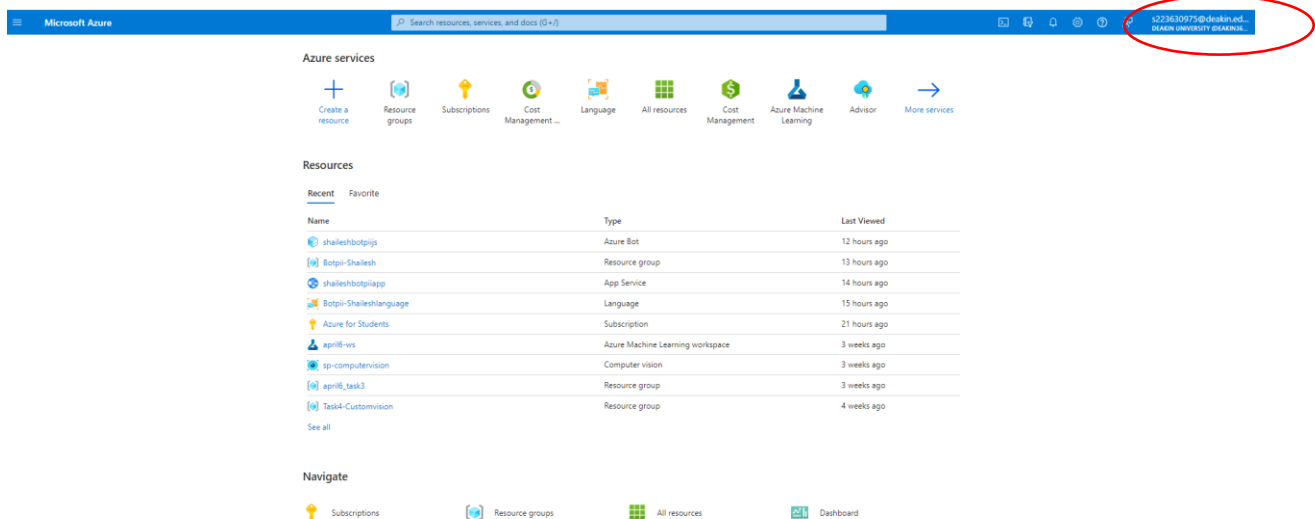
- Step 7

In the Visual Code Studio open and load the pre-requisite resource library packages opening the folder where the libraries are saved



- Step 8

Log into your MS Azure Account



- Step 9

Create a Resource Group (actual Resource Group created for the project was **Botpii-Shailesh**)

Azure services

Create a resource | **Resource groups** | Subscriptions | Cost Management | Language | All resources | Cost Management | Azure Machine Learning | Advisor | More services

Resources

Name	Type	Last Viewed
shaileshbotpii	Azure Bot	an hour ago
botpii-shailesh	Resource group	an hour ago
shaileshbotpiapp	App Service	an hour ago
Botpii-Shaileshlanguage	Language	an hour ago
Azure for Students	Subscription	4 hours ago
april8-ws	Azure Machine Learning workspace	3 weeks ago
sp-computervision	Computer vision	3 weeks ago
april8_task3	Resource group	3 weeks ago
Task4-Customvision	Resource group	4 weeks ago

Navigate

Subscriptions | **Resource groups** | All resources | Dashboard

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 *

Resource group *

Resource details

Region *

Review + create | < Previous | Next : Tags >

Wait for validation check

Create a resource group ...

✓ Validation passed.

Basics Tags Review + create

Basics

Subscription Azure for Students
Resource group botpiiii-shailesh
Region Australia East

Tags

None

Create < Previous Next > [Download a template for automation](#)

New Resource Group is created.

Home >

Resource groups ... X

Deakin University (deakin365.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Assign tags

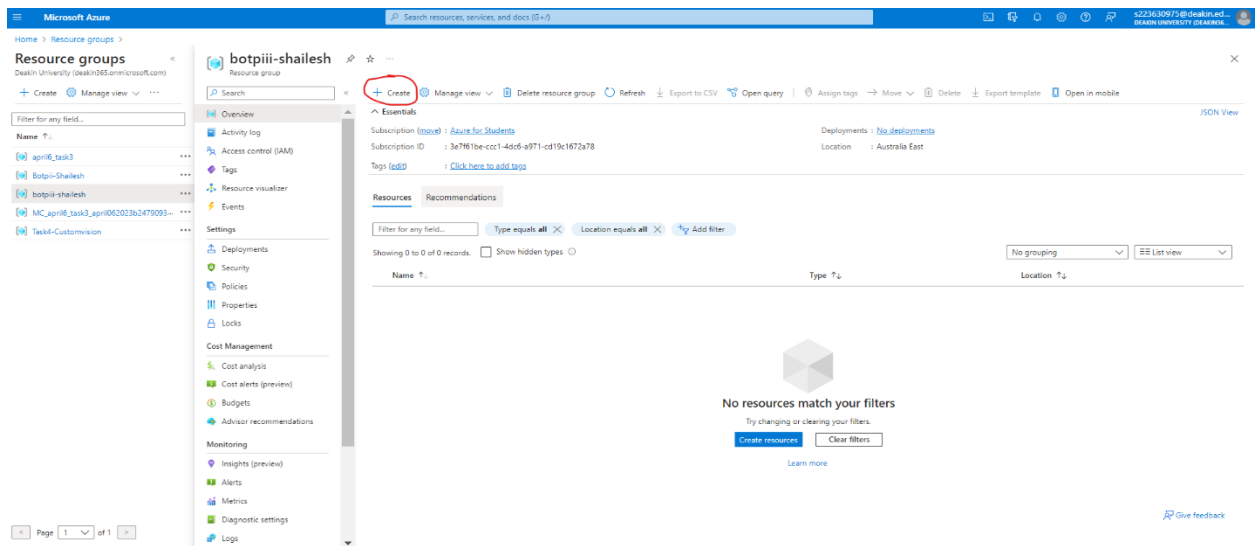
Filter for any field... Subscription equals all Location equals all X Add filter

Showing 1 to 5 of 5 records.

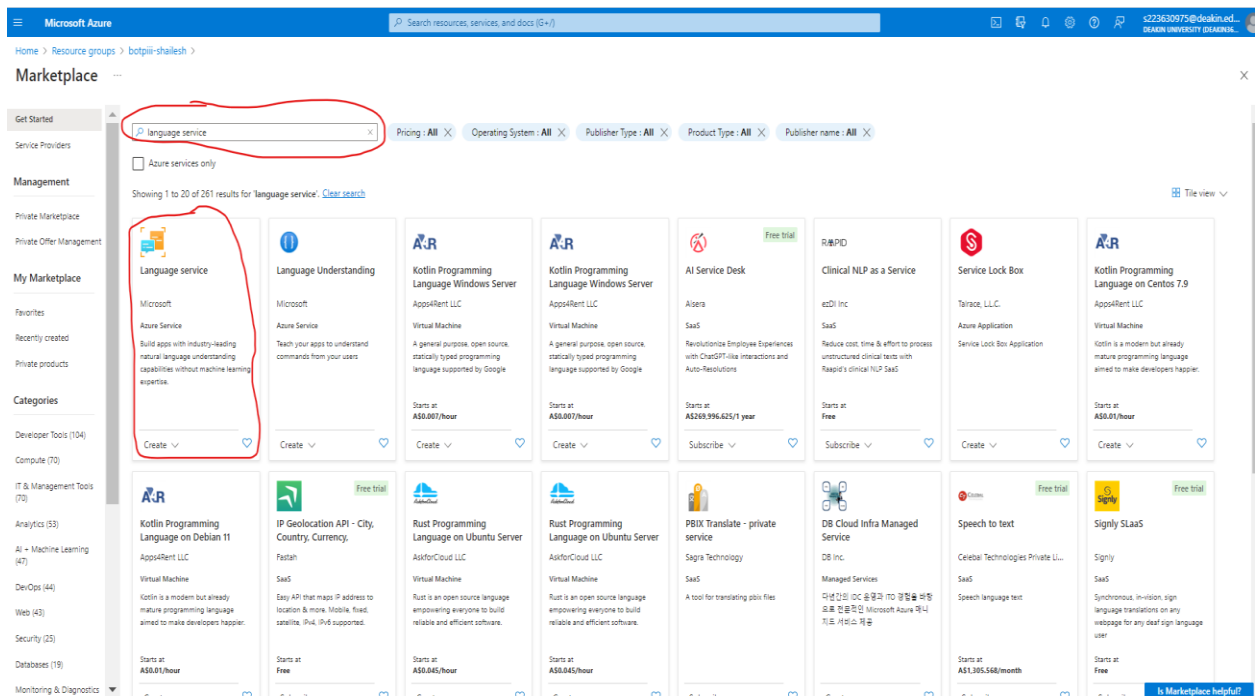
Name ↑	Subscription ↑	Location ↑	
apri06_task3	Azure for Students	Central India	...
Botpiiii-Shailesh	Azure for Students	Australia East	...
botpiiii-shailesh	Azure for Students	Australia East	...
MC_apri06_task3_apri060223624790934e_eastus	Azure for Students	East US	...
Task4-Customision	Azure for Students	Central India	...

- Step 10

Within the resource group, create a Language Services Resource



After clicking the create button, you will enter the Market Place, where you need to search for 'Language Services'



Select Language Service and create a new resource.

Select additional features

By default, Azure Cognitive Service for Language comes with several pre-built capabilities like sentiment analysis, key phrase extraction, pre-built question answering, etc. Some customiz enable as part of your Language service.

Default features

- ✔ Sentiment analysis
- ✔ Key phrase extraction
- ✔ Pre-built question answering
- ✔ Conversational language understanding
- ✔ Named entity recognition
- ✔ Text Summarization
- ✔ Text analytics for Health

Custom features

- ✔ Custom question answering
- Use this feature to answer user's questions over your data corpus. Requires Azure Cognitive Search. [Learn more.](#)

Select

- ✔ Custom text classification & Custom named entity recognition ⓘ
- Use this feature for custom text classification or custom named entity extraction. Requires Azure Storage. [Learn more.](#)

Select

Continue to create your resource

Create Language ...

Basics Network Identity Tags Review + create

Unlock insights from unstructured text using advanced natural language processing. Use sentiment analysis to find out what customers think of your brand. Find topic-relevant phrases using key phrase extraction and identify the language of the text with language detection. Detect and categorize entities in your text with named entity recognition.

[Learn more](#)

Project Details

Subscription *	Azure for Students
Resource group *	botpiii-shailesh

[Create new](#)

Instance Details

Region	Australia East
Name *	botpiii-languagesp
Pricing tier *	S (1K Calls per minute)

[View full pricing details](#)

i The free tier (F0) for this resource type is already being used by your subscription, therefore it will not appear in the dropdown below.

Responsible AI Notice


Microsoft provides technical documentation regarding the appropriate operation applicable to this Cognitive Service that is made available by Microsoft. Customer acknowledges and agrees that they have reviewed this documentation and will use this service in accordance with it.

Review + create

< Previous

Next : Network >

Create Language ...

 Changes on this step may reset later selections you have made. Review all options prior to deployment.

[Create new](#)

Instance Details

Region ⓘ	<div>Australia East</div>
Name * ⓘ	<div>botpiiii-languagesp</div>
Pricing tier * ⓘ	<div>S (1K Calls per minute)</div>

[View full pricing details](#)

 The free tier (F0) for this resource type is already being used by your subscription, therefore it will not appear in the dropdown below. 

Responsible AI Notice

Microsoft provides technical documentation regarding the appropriate operation applicable to this Cognitive Service that is made available by Microsoft. Customer acknowledges and agrees that they have reviewed this documentation and will use this service in accordance with it.

[Responsible Use of AI documentation for Text Analytics for Health](#)

[Responsible Use of AI documentation for PII](#)

[Responsible Use of AI documentation for Language](#)

By checking this box I certify that I have reviewed and acknowledge the terms in the Responsible AI Notice. *



[Review + create](#)

[< Previous](#)

[Next : Network >](#)

Create Language ...

✓ Validation Passed

Basics Network Identity Tags Review + create

Basics

Subscription Azure for Students
Resource group botpiiii-shailesh
Region Australia East
Name botpiiii-languagesp
Pricing tier S (1K Calls per minute)

Network

Type All networks, including the internet, can access this resource.

Identity

Identity type SystemAssigned

Create

< Previous

Next >

Wait for a couple of mins

Home > TextAnalyticsCreate-20230427144801 | Overview

Deployment

Search [] Delete Cancel Redeploy Download Refresh

Overview Inputs Outputs Template

Deployment is in progress

Deployment name: TextAnalyticsCreate-20230427144801
Subscription: Azure for Students
Resource group: botpiiii-shailesh

Start time: 4/27/2023, 2:56:51 PM
Correlation ID: b568bac5-edd1-4a4b-bcbd-a9244801db35

Resource	Type	Status	Operation details
No results.			

Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >

Free Microsoft tutorials
Start learning today >

Work with an expert
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
Find an Azure expert >

The resource will be created.

Home > TextAnalyticsCreate-20230427144801 | Overview

Deployment

Search [] Delete Cancel Redeploy Download Refresh

Overview Inputs Outputs Template

✓ Your deployment is complete

Deployment name: TextAnalyticsCreate-20230427144801
Subscription: Azure for Students
Resource group: botpiiii-shailesh

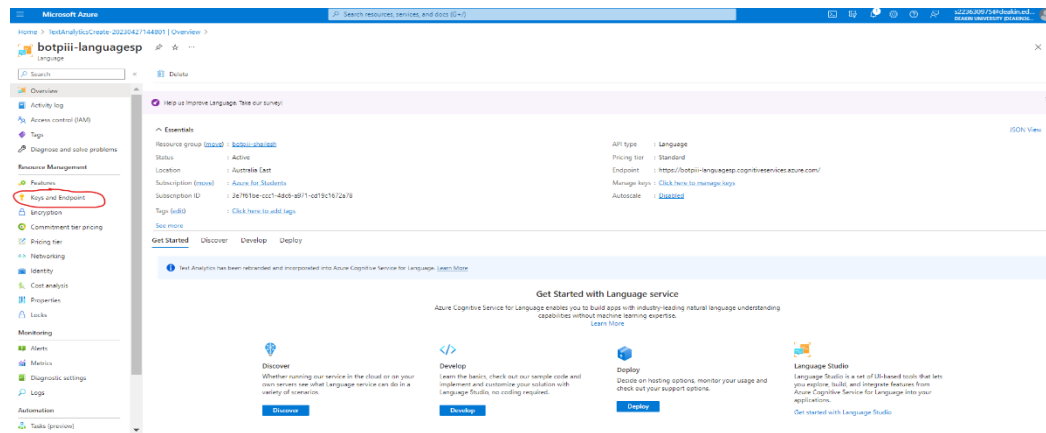
Start time: 4/27/2023, 2:56:51 PM
Correlation ID: b568bac5-edd1-4a4b-bcbd-a9244801db35

Deployment details

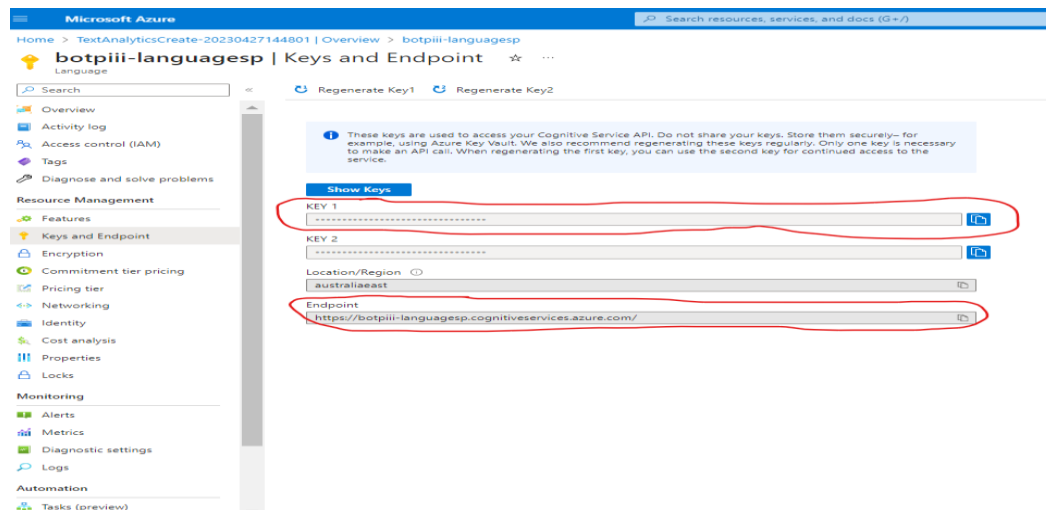
Next steps

Go to resource

Go to the new resource created.



Go to Keys and Endpoint



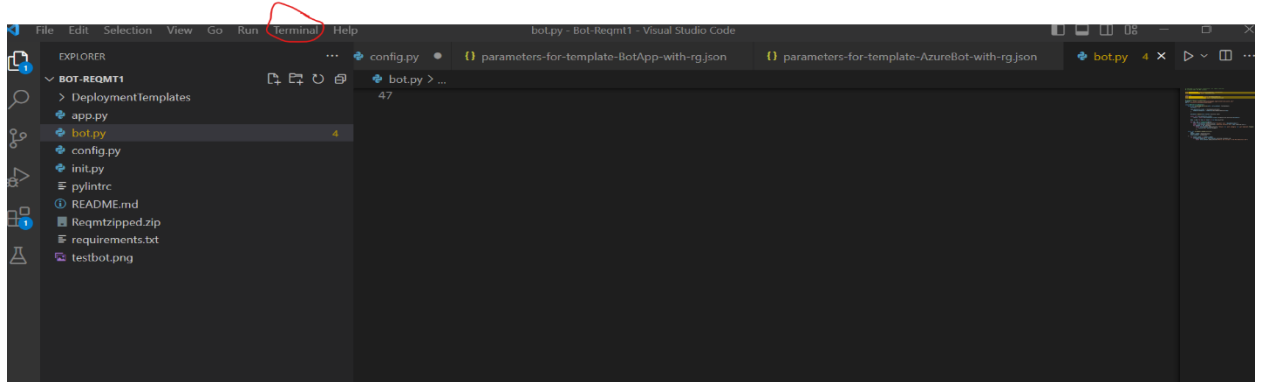
Store the end point URL and Key 1 in a notepad for later use.

- Step 11

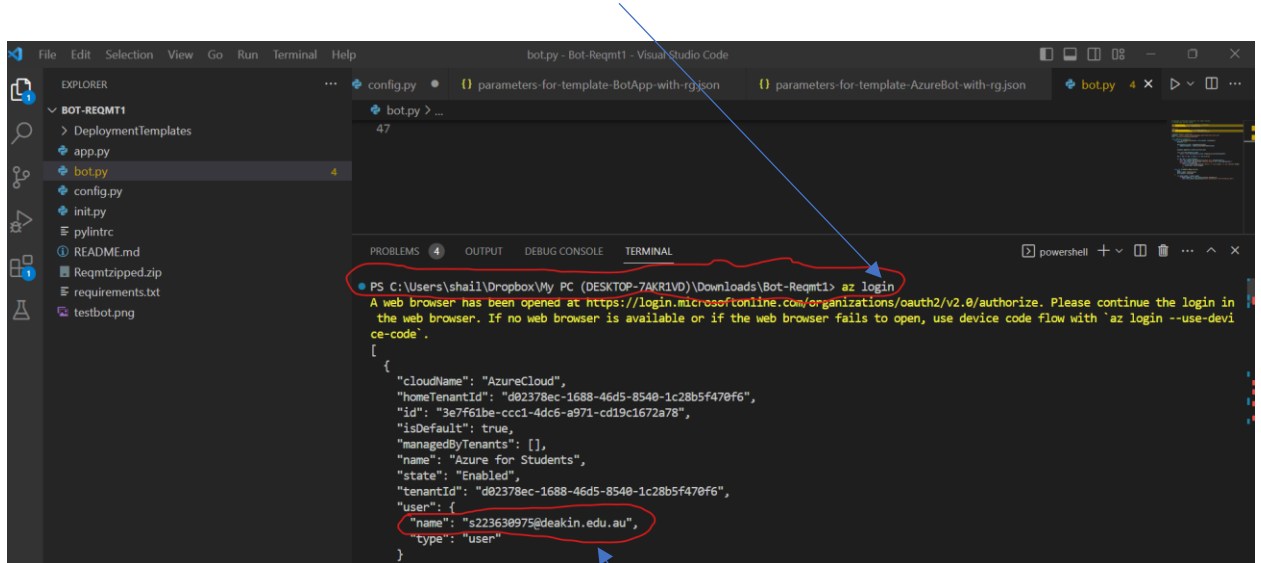
New App Registration

In step 7, we have already loaded in VSC the pre-requisite resources.

Open a new terminal in VSC.



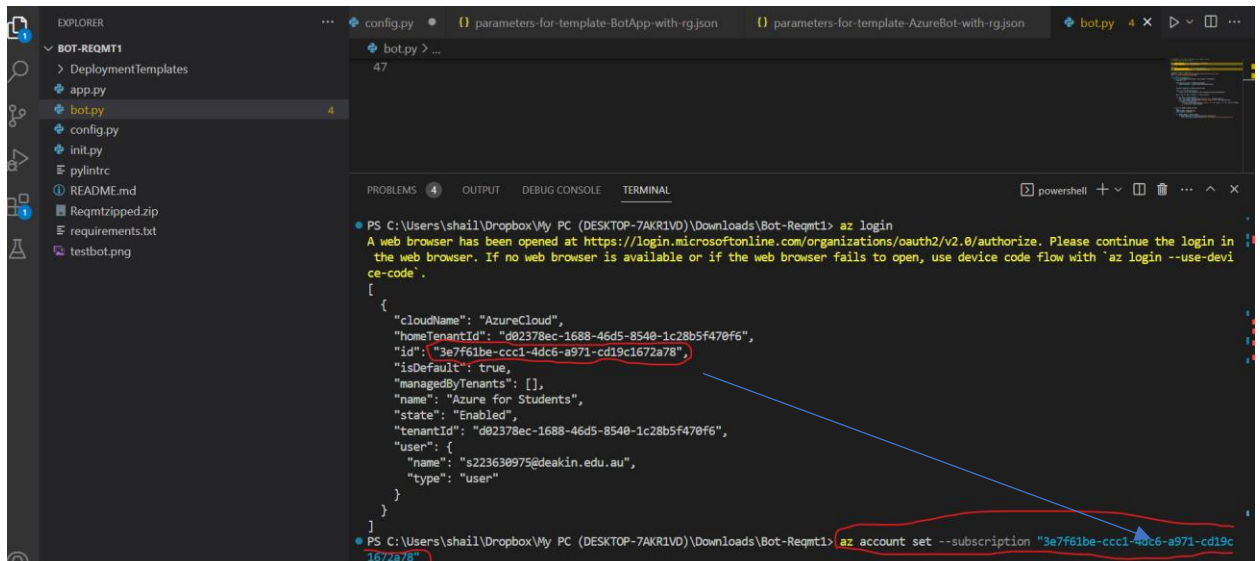
In the new terminal, log in to your Azure Account by entering the prompt 'az login'



The output will confirm the login and your Deakin id.

- Step 12

Set the Account with the subscription id

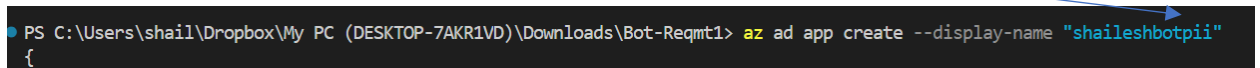


```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue the login in
the web browser. If no web browser is available or if the web browser fails to open, use device code flow with 'az login --use-devi
ce-code'.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "d02378ec-1688-46d5-8540-1c28b5f470f6",
    "id": "3e7f61be-ccc1-4dc6-a971-cd19c1672a78",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure for Students",
    "state": "Enabled",
    "tenantId": "d02378ec-1688-46d5-8540-1c28b5f470f6",
    "user": {
      "name": "s223630975@deakin.edu.au",
      "type": "user"
    }
  }
]
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az account set --subscription "3e7f61be-ccc1-4dc6-a971-cd19c
1672a78"
```

The subscription has to be the same id as in the output of the login code as shown above.

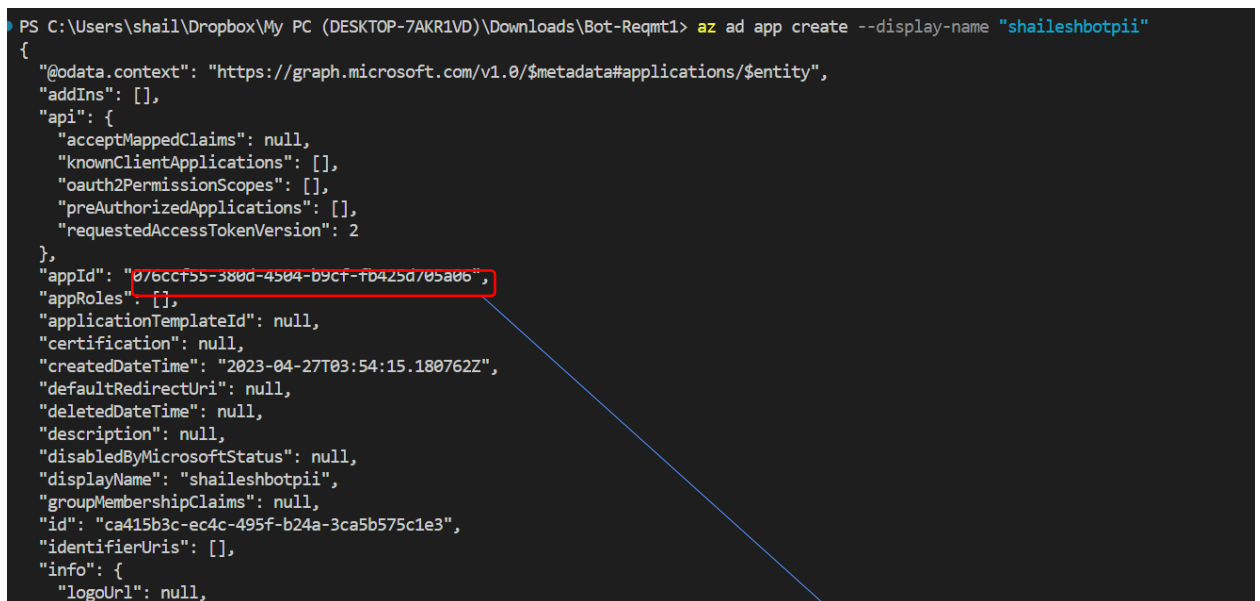
- Step 13

Create an app and give it your personalized name 'shaileshbotpii'



```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az ad app create --display-name "shaileshbotpii"
{
```

The output will be as under



```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az ad app create --display-name "shaileshbotpii"
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#applications/$entity",
  "addIns": [],
  "api": {
    "acceptMappedClaims": null,
    "knownClientApplications": [],
    "oauth2PermissionScopes": [],
    "preAuthorizedApplications": [],
    "requestedAccessTokenVersion": 2
  },
  "appId": "0/6ccf55-380d-4504-b9cf-f0425d/05a0b",
  "appRoles": [],
  "applicationTemplateId": null,
  "certification": null,
  "createdDateTime": "2023-04-27T03:54:15.180762Z",
  "defaultRedirectUri": null,
  "deletedDateTime": null,
  "description": null,
  "disabledByMicrosoftStatus": null,
  "displayName": "shaileshbotpii",
  "groupMembershipClaims": null,
  "id": "ca415b3c-ec4c-495f-b24a-3ca5b575c1e3",
  "identifierUris": [],
  "info": {
    "logoUrl": null,

```

The app id will have to be noted.

- Step 14

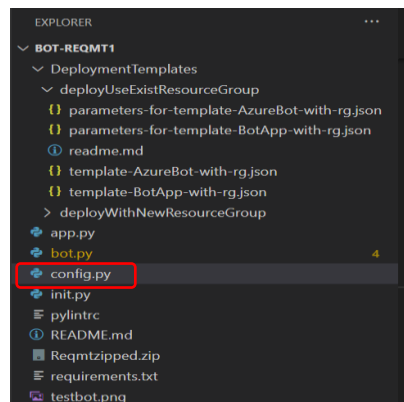
Reset the app credentials.

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az ad app credential reset --id "076ccf55-380d-4504-b9cf-fb425d705a06"
The output includes credentials that you must protect. Be sure that you do not include these credentials in your code or check the c
redentials into your source control. For more information, see https://aka.ms/azadsp-cli
{
  "appId": "076ccf55-380d-4504-b9cf-fb425d705a06",
  "password": "dKK8Q~_3qUV1a0tM/Ry4nSNWzD.192XJOEwdKb5r",
  "tenant": "d02378ec-1688-46d5-8540-1c28b5f470f6"
}
```

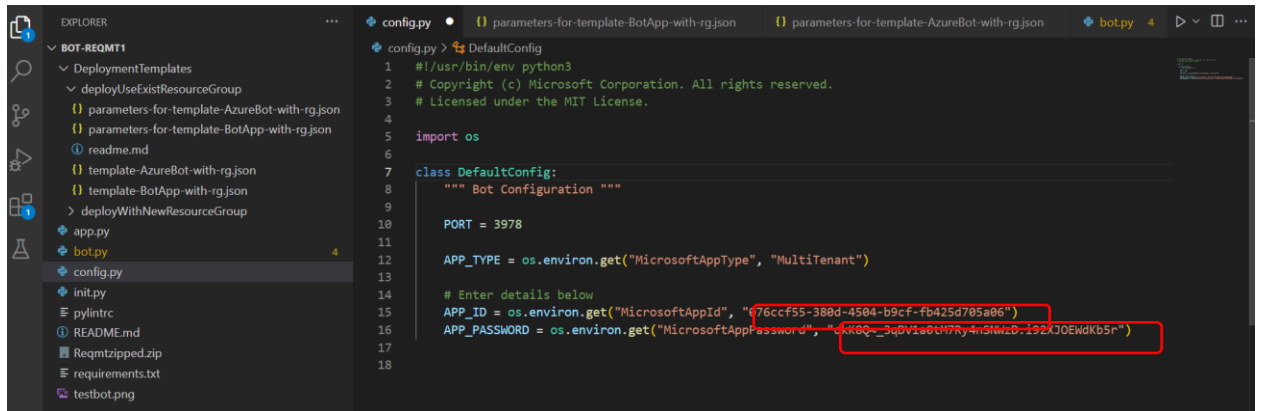
The output of the credential reset code will give us the password

- Step 15

In Explorer, go to config.py



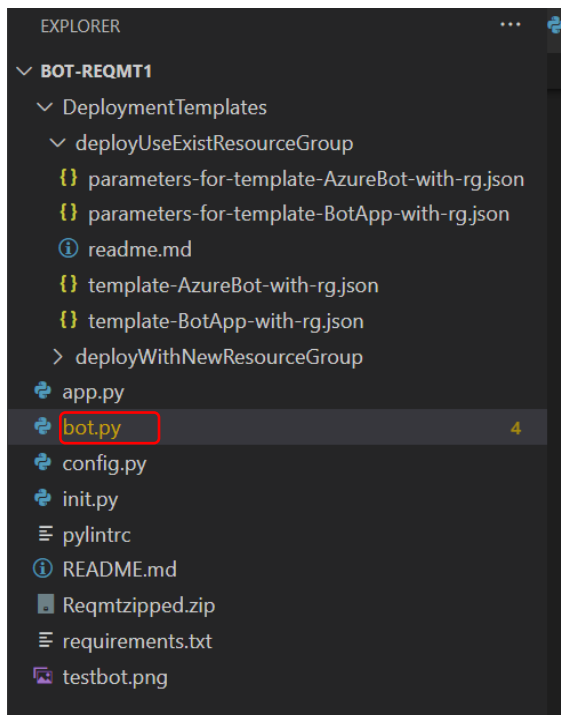
Fill in the values for Appid and Password from Step 14 above and save the file.



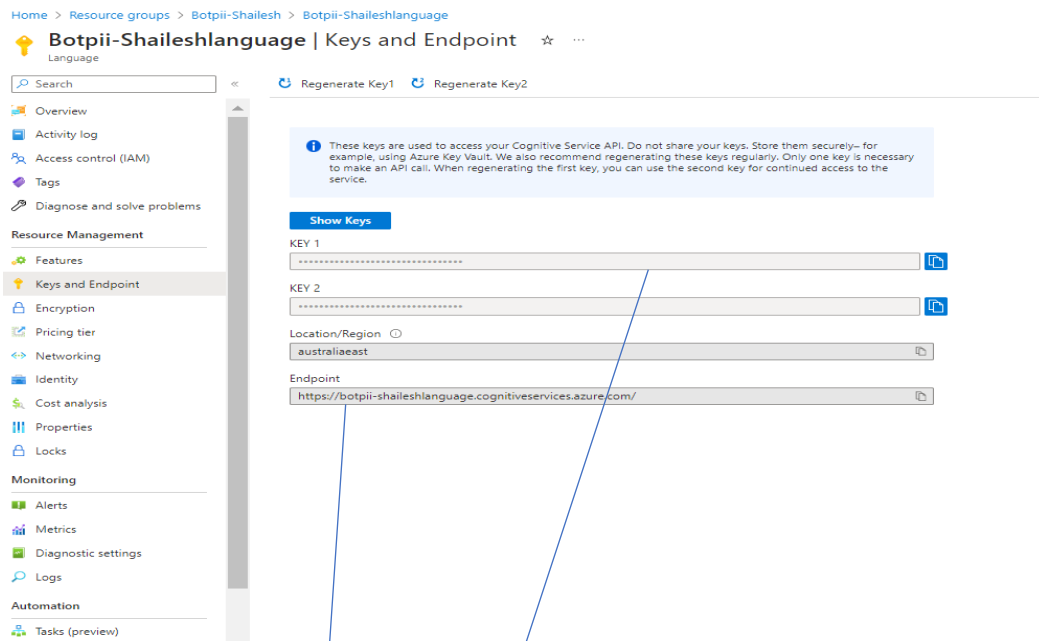
```
1 #!/usr/bin/env python3
2 # Copyright (c) Microsoft Corporation. All rights reserved.
3 # Licensed under the MIT License.
4
5 import os
6
7 class DefaultConfig:
8     """ Bot Configuration """
9
10     PORT = 3978
11
12     APP_TYPE = os.environ.get("MicrosoftAppType", "MultiTenant")
13
14     # Enter details below
15     APP_ID = os.environ.get("MicrosoftAppId", "676ccf55-388d-4504-b9cf-fb425d705a06")
16     APP_PASSWORD = os.environ.get("MicrosoftAppPassword", "skK8Q~_3qDV1a0tM7Ry4n3NWz0-292XJOEwdkb5r")
17
18
```

- Step 16

Go to bot.py in the Explorer



Bring in the end points and key saved in Step 10 above in the Azure Portal for the Resource created



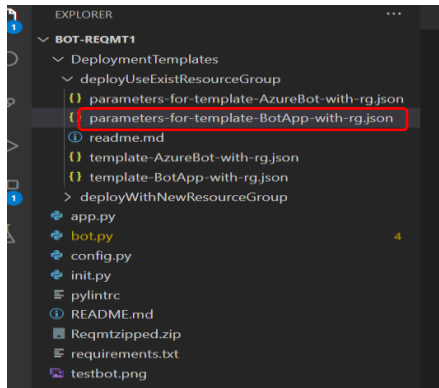
```

config.py • {} parameters-for-template-BotApp-with-rg.json {} parameters-for-template-AzureBot-with-rg.json bot.py 4 x ▶ ▢
bot.py > ...
1 # Copyright (c) Microsoft Corporation. All rights reserved.
2 # Licensed under the MIT License.
3
4 from botbuilder.core import ActivityHandler, TurnContext
5 from botbuilder.schema import ChannelAccount
6
7 import os
8 from azure.core.credentials import AzureKeyCredential
9 from azure.ai.textanalytics.aio import TextAnalyticsClient
10
11 # Language Resource credentials
12 endpoint = "https://botpii-shaileshlanguage.cognitiveservices.azure.com/"
13 key = "c7511437/f7f4615b826f21640/56e40"
14
15 class MyBot(ActivityHandler):
16     async def on_message_activity(self, turn_context: TurnContext):
17         documents = []
18
19         text_analytics_client = TextAnalyticsClient(
20             endpoint=endpoint, credential=AzureKeyCredential(key)
21         )
22
23         documents.append(turn_context.activity.text)
24

```

- Step 17

Go to 'Parameters for template Botapp with rg.json'



Name your app service and app service plan, any personalised name will do

```
{
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentParameters.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {
    "appServiceName": {
      "value": "shaileshbotpiiapp"
    },
    "existingAppServicePlanName": {
      "value": ""
    },
    "existingAppServicePlanLocation": {
      "value": ""
    },
    "newAppServicePlanName": {
      "value": "shaileshbotpiiasp"
    },
    "newAppServicePlanLocation": {
      "value": "australiaeast"
    },
    "newAppServicePlanSku": {
      "value": {
        "name": "S1",
        "tier": "Standard",
        "size": "S1",

```

Name the location


```
    },
    "newAppServicePlanSku": {
      "value": {
        "name": "S1",
        "tier": "Standard",
        "size": "S1",
        "family": "S",
        "capacity": 1
      }
    },
    "appId": {
      "value": "076ccf55-380d-4504-b9cf-fb425d705a06"
    },
    "appSecret": {
      "value": "dkK8Q~_3qDV1a0tM7Ry4nSNWzD.i92XJOEwdKb5r"
    }
  }
}
```

Let the default values remain

App id as found in step 13

App password as found in step 14

- Step 18

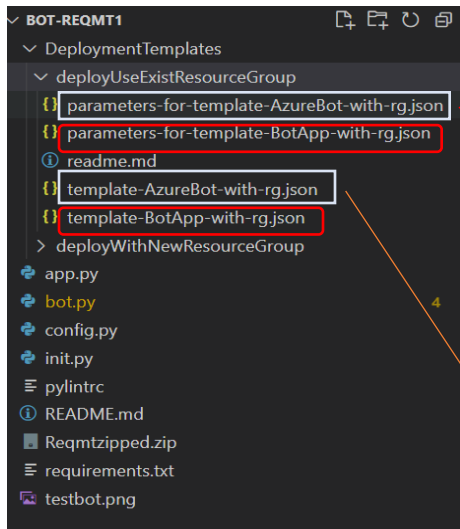
We now change the directory of the terminal and go to the Deployment Terminal directory and within the Deployment Terminal Directory into the deploy use Exist Resource group directory.

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> cd deploymentTemplates
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1\deploymentTemplates> cd deployUseExistResourceGroup
```

- Step 19

The Resource Group named is the same as that we have created in Azure 'Botpii-Shailesh'

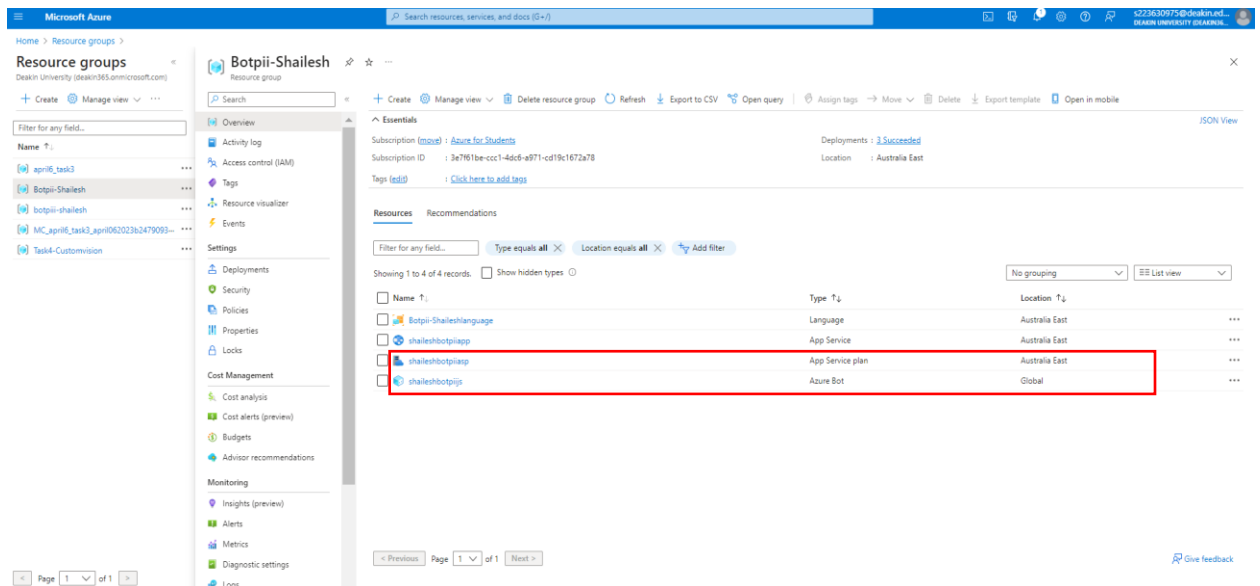
```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1\deploymentTemplates\deployUseExistResourceGroup> az deployment group create --resource-group "Botpii-Shailesh" --template-file "template-BotApp-with-rg.json" --parameters "@parameters-for-template-BotApp-with-rg.json"
```



- Step 20

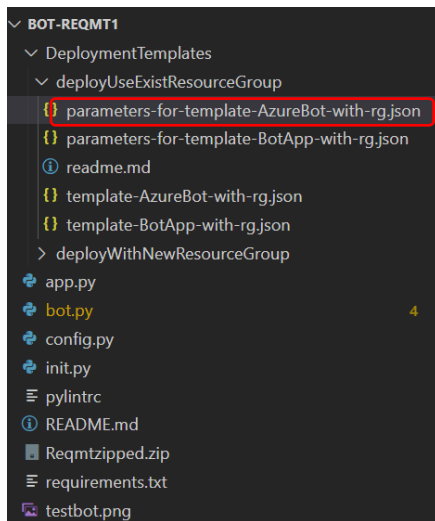
The resources are deployed in Azure as an output to the above codes. Azure portal is checked

App service and the App Service Plan are launched



- Step 21

Go to 'Parameters for template AzureBot with rg.json'

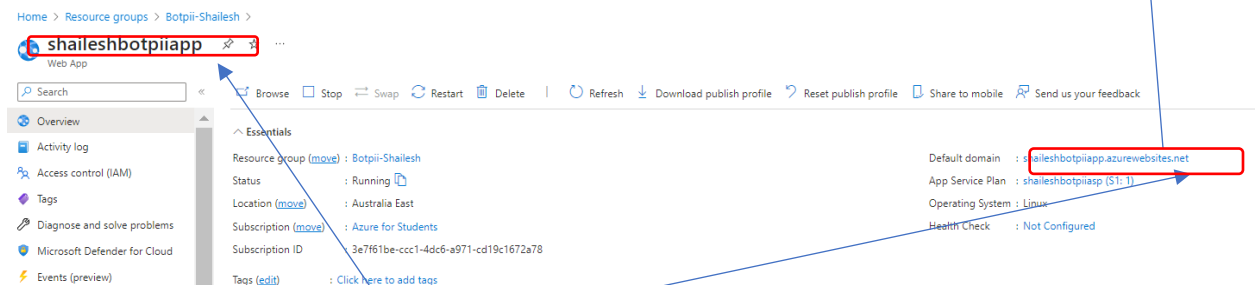


```
{
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentParameters.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {
    "azureBotId": {
      "value": "shaileshbotpiijs"
    },
    "azureBotSku": {
      "value": "S1"
    },
    "azureBotRegion": {
      "value": "global"
    },
    "botEndpoint": {
      "value": "https://shaileshbotpiapp.azurewebsites.net/api/messages"
    },
    "appId": {
      "value": "076ccf55-380d-4504-b9cf-fb425d705a06"
    }
  }
}
```

Name the Azure Bot Id – any name will do

This is the domain id of the shaileshbotpiapp obtained from Azure. We will need to add https:// in the beginning of the domain name and ' /api/messages' at the end of the domain .name.

App password



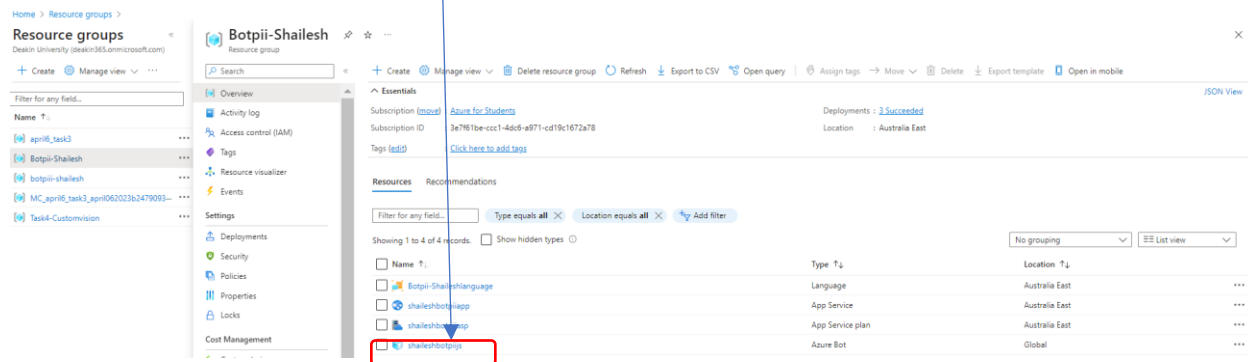
Default Domain of shaileshbotpiapp as obtained from Azure portal.

- Step 22

The same steps as in Step 17 are repeated to deploy the AzureBot template file and AzureBot parameters

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1\deploymentTemplates\deployUseExistResourceGroup> az deployment group create --resource-group "Botpii-Shailesh" --template-file "template-AzureBot-with-rg.json" --parameters "@parameters-for-template-AzureBot-with-rg.json"
```

Azure Bot by the name 'shaileshbotpiijs' is launched in the Azure portal



- Step 23

The ending of the output of the code in step 22 will show 'succeeded'

```
}
  },
  "provisioningState": "Succeeded",
  "templateHash": "1921719378434239196",
  "templateLink": null,
  "timestamp": "2023-04-27T06:36:41.447102+00:00",
  "validatedResources": null
},
"resourceGroup": "Botpii-Shailesh",
"status": 4,
"status_text": "",
"url": "https://shaileshbotpiiapp.scm.azurewebsites.net/api/deployments/latest"
}
```

- Step 24

Change the directory and come back to Bot-Reqmt1 directory

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> cd ..
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads> cd Bot-Reqmt1
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> dir

Directory: C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1

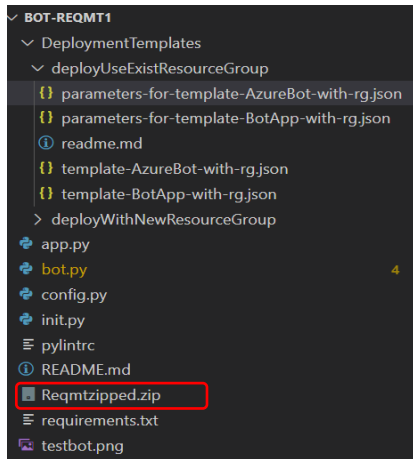
Mode                LastWriteTime         Length Name
----                -
da----            4/26/2023  4:26 PM              DeploymentTemplates
-a----            4/26/2023  3:14 PM             2887 app.py
-a----            4/27/2023  1:10 PM             1762 bot.py
-a----            4/27/2023  9:39 AM              487 config.py
-a----            4/26/2023  4:26 PM              0 init.py
-a----            4/26/2023  3:13 PM             15462 pylintrc
-a----            4/26/2023  3:32 PM             2827 README.md
-a----            4/27/2023  1:12 PM            132254 Reqmtzipped.zip
-a----            4/26/2023  3:33 PM              118 requirements.txt
-a----            4/26/2023  3:33 PM            119378 testbot.png
```

- Step 25

Web app deployment config code is deployed

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az webapp deployment source config-zip --resource-group "Bot
pii-Shailesh" --name "shaileshbotpiiapp" --src Reqmtzipped.zip
Getting scm site credentials for zip deployment
Starting zip deployment. This operation can take a while to complete ...
Deployment endpoint responded with status code 202
{
  "active": true,
  "author": "N/A",
  "author_email": "N/A",
  "build_summary": {
    "errors": [],
    "warnings": []
  },
  "complete": true,
  "deployer": "Push-Deployer",
  "end_time": "2023-04-27T14:15:46.6653926Z",
  "id": "ebf92878-c30c-4b2d-8c71-a7897f693d21",
  "is_readonly": true,
  "is_temp": false,
  "last_success_end_time": "2023-04-27T14:15:46.6653926Z",
  "log_url": "https://shaileshbotpiiapp.scm.azurewebsites.net/api/deployments/latest/log",
  "message": "Created via a push deployment",
  "progress": "",
  "received_time": "2023-04-27T14:14:16.340311Z",
  "site_name": "shaileshbotpiiapp",
  "start_time": "2023-04-27T14:14:17.7604978Z",
  "status": 4,
  "status_text": "",
  "url": "https://shaileshbotpiiapp.scm.azurewebsites.net/api/deployments/latest"
}
```

Reqmtzipped.zip is the zipped file where all the pre-requisite resources are stored



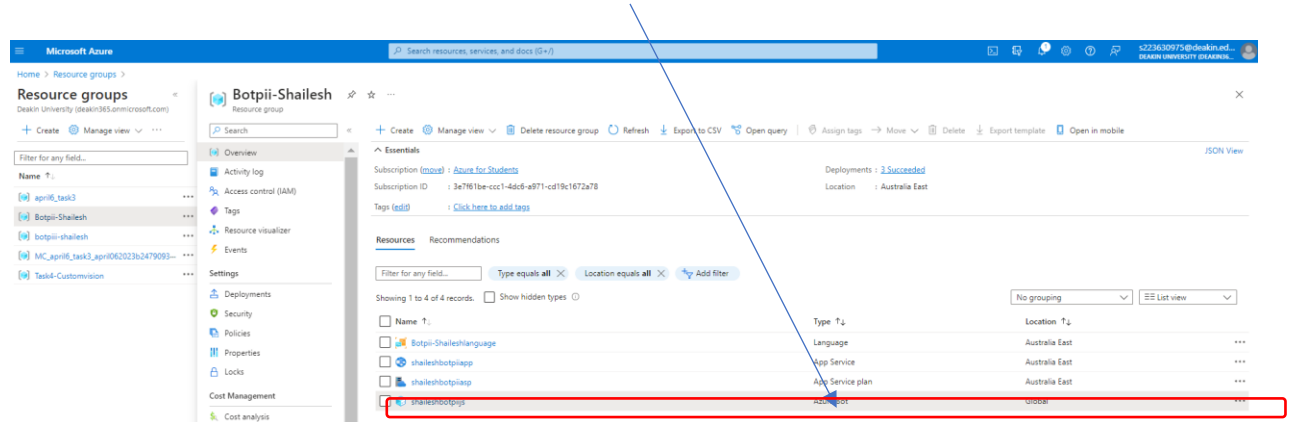
- Step 26

```
PS C:\Users\shail\Dropbox\My PC (DESKTOP-7AKR1VD)\Downloads\Bot-Reqmt1> az webapp deployment source config-zip --resource-group "Bot
pii-Shailesh" --name "shaileshbotpiiapp" --src "Reqmtzipped.zip"
Getting scm site credentials for zip deployment
Starting zip deployment. This operation can take a while to complete ...
Deployment endpoint responded with status code 202
{
  "active": true,
  "author": "N/A",
  "author_email": "N/A",
  "build_summary": {
    "errors": [],
    "warnings": []
  },
  "complete": true,
  "deployer": "Push-Deployer",
  "end_time": "2023-04-27T14:15:46.6653926Z",
  "id": "ebf92878-c30c-4b2d-8c71-a7897f693d21",
  "is_readonly": true,
  "is_temp": false,
  "last_success_end_time": "2023-04-27T14:15:46.6653926Z",
  "log_url": "https://shaileshbotpiiapp.scm.azurewebsites.net/api/deployments/latest/log",
  "message": "Created via a push deployment",
  "progress": "",
  "received_time": "2023-04-27T14:14:16.340311Z",
  "site_name": "shaileshbotpiiapp",
  "start_time": "2023-04-27T14:14:17.7604978Z",
  "status": 4,
  "status_text": "",
  "url": "https://shaileshbotpiiapp.scm.azurewebsites.net/api/deployments/latest"
```

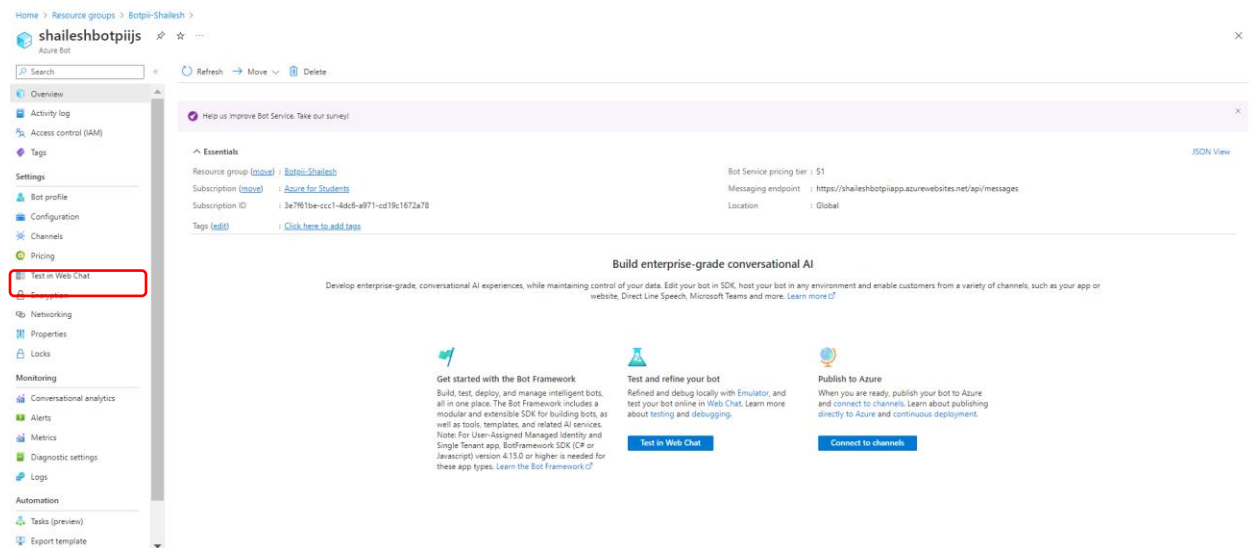
The app deployment is successful.

- Step 27

We go to the Azure portal and launch the Azure Bot – 'shaileshbotpiijs'



- Step 28



- Step 29

The bot is launched and is redacting personal information

shaileshbotpiijs | Test in Web Chat ☆ ...

Azure Bot

- Overview
- Activity log
- Access control (IAM)
- Tags

Settings

- Bot profile
- Configuration
- Channels
- Pricing
- Test in Web Chat**
- Encryption
- Networking
- Properties
- Locks


Monitoring

- Conversational analytics
- Alerts
- Metrics
- Diagnostic settings
- Logs

Automation

- Tasks (preview)
- Export template

Test

 Start over

Hello and welcome to the PII Detection Bot

Just now

My name is Shailesh Pande

Just now

Document text: My name is Shailesh Pande

Redacted document text: My name is

Entity 'Shailesh Pande' with category 'Person' got redacted

Just now

My telephone number is 1234578

Just now

Document text: My telephone number is 1234578

Redacted document text: My telephone number is

Entity '1234578' with category 'PhoneNumber' got redacted

Just now



Type your message



