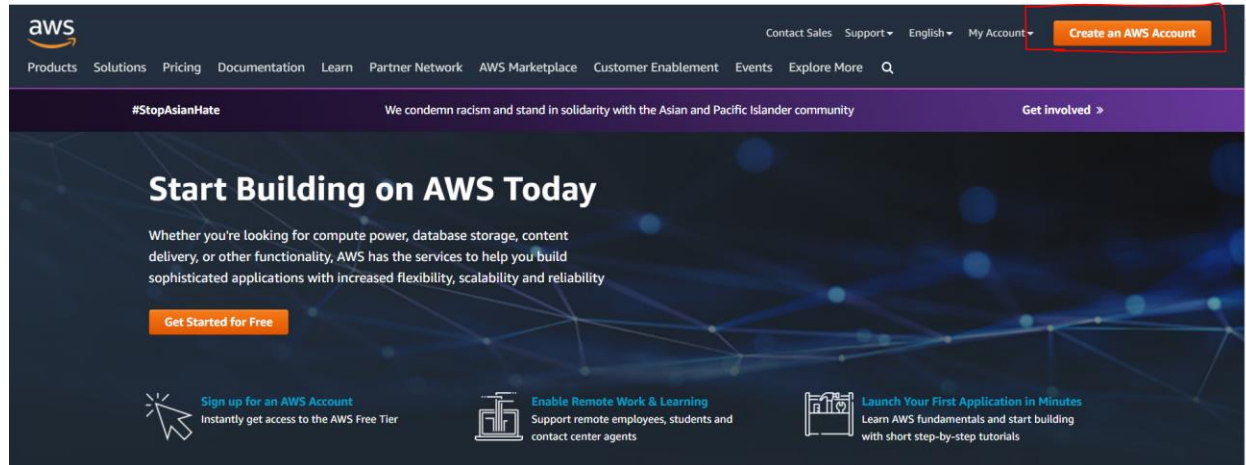



AWS Deployment:

Create an aws account

Link: aws.amazon.com




AWS in India



Explore Free Tier products with a new AWS account.

To learn more, visit aws.amazon.com/free.



Sign up for AWS

Email address
You will use this email address to sign in to your new AWS account.

Password

Confirm password

AWS account name
Choose a name for your account. You can change this name in your account settings after you sign up.




Continue (step 1 of 5)


[Sign in to an existing AWS account](#)

Sign up for AWS

Select a support plan

Choose a support plan for your business or personal account. [Compare plans and pricing examples](#)
[?](#) You can change your plan anytime in the AWS Management Console.

<input checked="" type="radio"/> Basic support - Free <ul style="list-style-type: none">Recommended for new users just getting started with AWS24x7 self-service access to AWS resourcesFor account and billing issues onlyAccess to Personal Health Dashboard & Trusted Advisor 	<input type="radio"/> Developer support - From \$29/month <ul style="list-style-type: none">Recommended for developers experimenting with AWSEmail access to AWS Support during business hours12 (business)-hour response times 	<input type="radio"/> Business support - From \$100/month <ul style="list-style-type: none">Recommended for running production workloads on AWS24x7 tech support via email, phone, and chat1-hour response timesFull set of Trusted Advisor best-practice recommendations 
--	--	---



[Products](#) [Solutions](#) [Pricing](#) [Documentation](#) [Learn](#) [Partner Network](#) [AWS Marketplace](#) [Customer Enablement](#) [Events](#) [Explore More](#) [Q](#)

[Contact Sales](#) [Support](#) [English](#) [My Account](#) [Sign In to the Console](#)

Welcome to Amazon Web Services

Thank you for creating an Amazon Web Services Account. We are activating your account, which should only take a few minutes. You will receive an email when this is complete.

[Sign In to the Console](#)

[Check your tax details for accurate invoicing >>](#)

[Contact Sales](#)

Personalize Your Experience

Fill in the blanks below to receive recommendations catered to your role and interests.

My role is: [select role](#)

I am interested in: [select area](#)

Yes, I'd like [Amazon Web Services \(AWS\)](#) to share the latest news about AWS services and related offerings with me by email, post or telephone.



Sign in

☒ Root user

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ IAM user

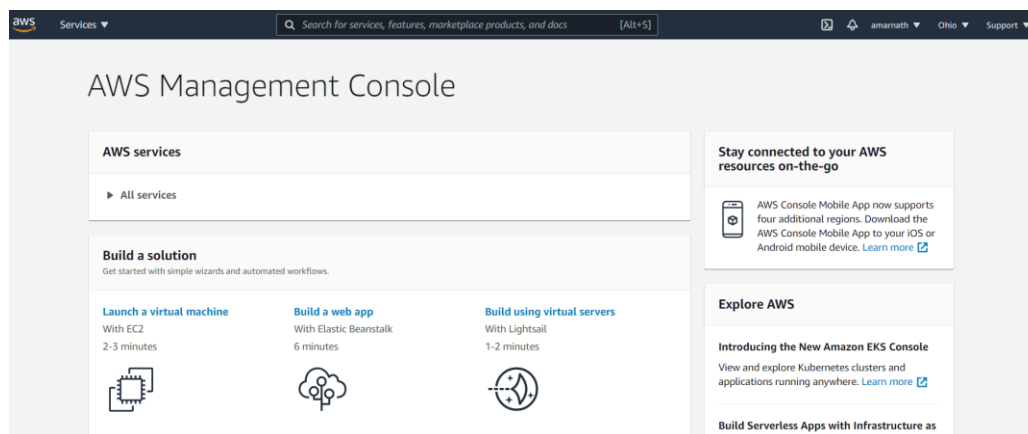
User within an account that performs daily tasks. [Learn more](#)

Root user email address

username@example.com

Next

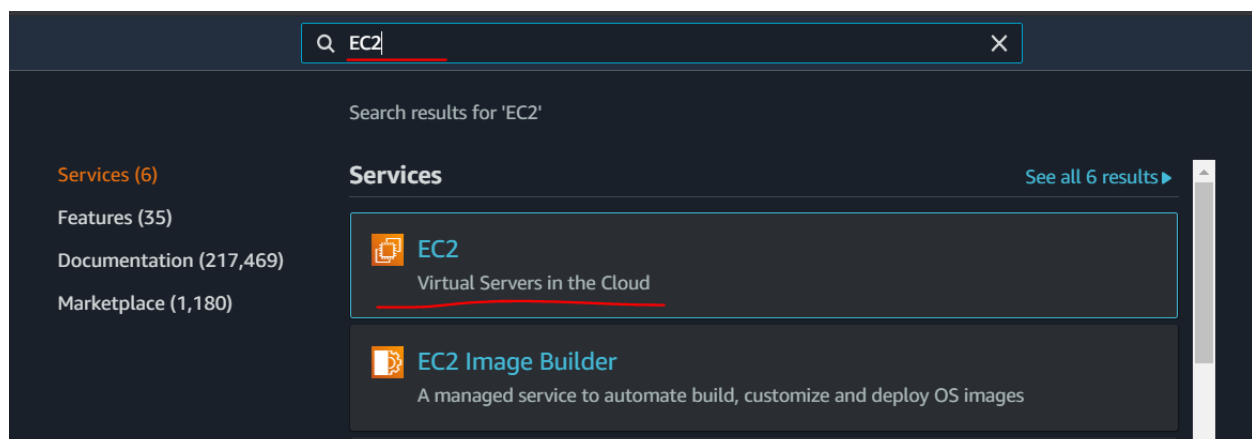
By continuing, you agree to the [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.



AWS EC2 instance – In EC2 we are supposed to select our configurations of our virtual machine for deployment.

Aws Elastic Beanstalk (EB) – Here we are going to use the Elastic Beanstalk

EC2:



Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance ▲

Launch instance

Launch instance from template

US East (Ohio)

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Search by Systems Manager parameter

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☐ Free tier only ⓘ



Amazon Linux
Free tier eligible

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-05d72852800cbf29e (64-bit x86) / ami-081c76abbdaaaf7 (64-bit Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)



macOS

macOS Big Sur 11.2.3 - ami-0ef98d91ff9126a43

The macOS Big Sur AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

64-bit (Mac)

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

☒ Free tier only ⓘ



Red Hat
Free tier eligible

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-03d64741867e7bb94 (64-bit x86) / ami-0b7d7a0004178e677 (64-bit Arm)

Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)



SUSE Linux
Free tier eligible

SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-0f052119b3c7e61d1 (64-bit x86) / ami-0b99ca359a84941ee (64-bit Arm)

SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Amazon EC2 AMI Tools preinstalled, Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)



Ubuntu
Free tier eligible

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-08962a4068733a2b6 (64-bit x86) / ami-064446ad1d755489e (64-bit Arm)

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)



Windows
Free tier eligible

Microsoft Windows Server 2019 Base - ami-0db6a09e9ade44bb3

Microsoft Windows 2019 Datacenter edition. [English]

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

64-bit (x86)

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance families Current generation Show/Hide Columns

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs ⓘ	Memory (GiB)	Instance Storage (GB) ⓘ	EBS-Optimized Available ⓘ	Network Performance ⓘ	IPv6 Support ⓘ
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes

Cancel

Previous

Review and Launch

Next: Configure Instance Details

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

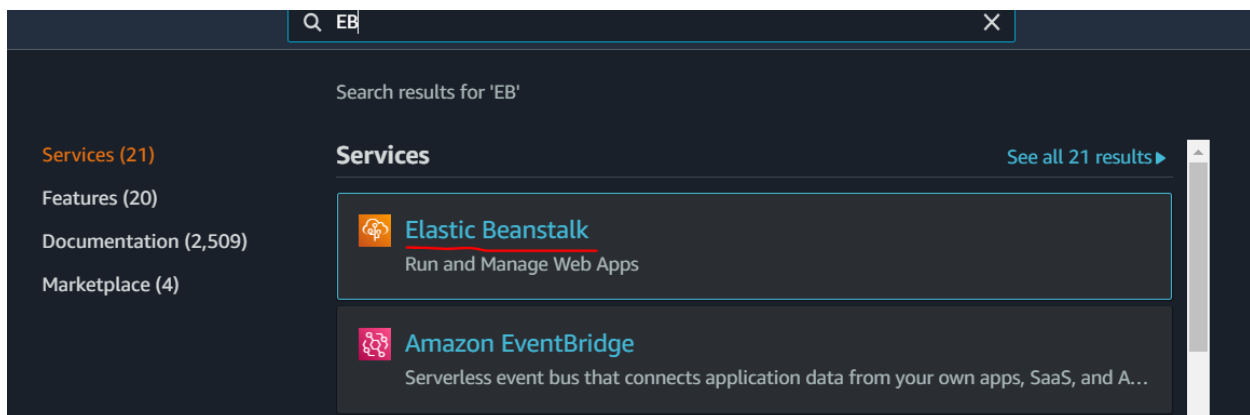
Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of Instances	1	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	vpc-5590193e (default)	Create new VPC
Subnet	No preference (default subnet in any Availability Zone)	Create new subnet
Auto-assign Public IP	Use subnet setting (Enable)	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	Open	
Domain join directory	No directory	Create new directory
IAM role	None	Create new IAM role
CPU options	<input type="checkbox"/> Specify CPU options	

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

This EC2 option is more complicated to select the resources and to overcome that there is another option is available that is called Elastic Beanstalk.



EB is another service and which will be used for web application(Web Api in our application)

Elastic Beanstalk

Environments
Applications
Change history

Compute

AWS Elastic Beanstalk

End-to-end web application management.

AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.

Get started

Easily deploy your web application in minutes.

[Create Application](#)

Pricing

There's no additional charge for Elastic Beanstalk. You pay for AWS resources that we create to store and run your web application, like Amazon S3 buckets and Amazon EC2 instances.

How it works

You simply upload your code and Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing, and automatic scaling to web application health monitoring, with ongoing fully managed patch and security updates. [Learn more](#)

In our code we need to do some changes for EC2 instance.

Step 1: Our main python file name should be application.py

Step 2: Flask object name should be which we have defined in application.py should also be the application.

Step 3: Create a folder name called **.ebignore** – some files I don't want to push it into the cloud.

Step 4: Create a requirements.txt file – pip freeze > requirements.txt

Step 5: Create a folder called **.ebextensions**

Step 6: Inside the .ebextension we need to create a new file name called **python.config**

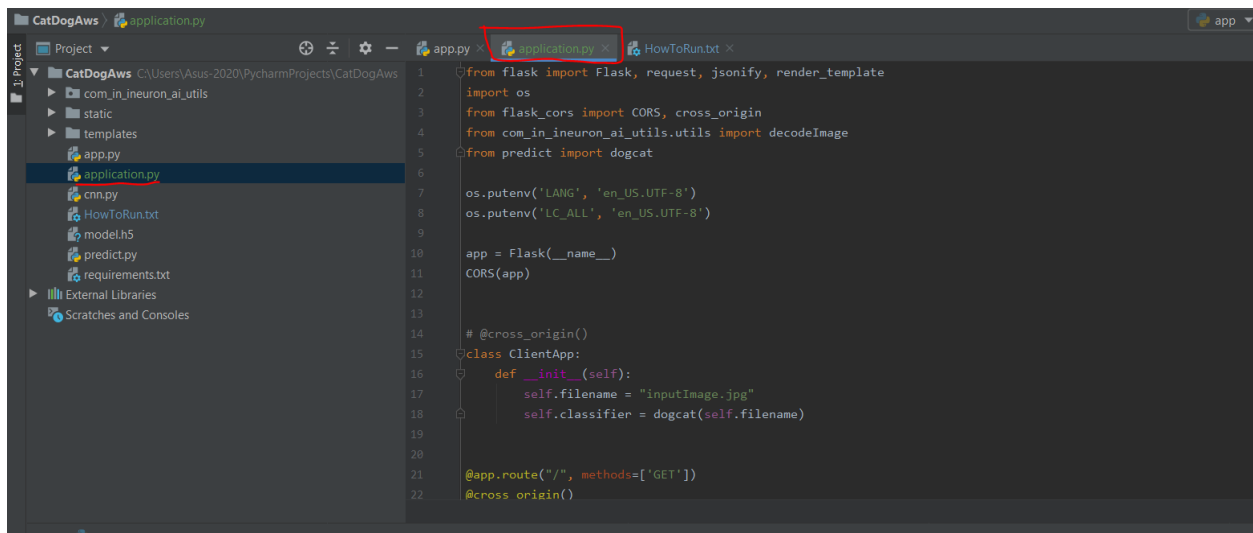
Step 7: In python.config we need to add few commands like below:

option_settings:

“aws:elasticbeanstalk:container:python”:

WSGIPath: application:application

Step 1: Our main python file name should be application.py

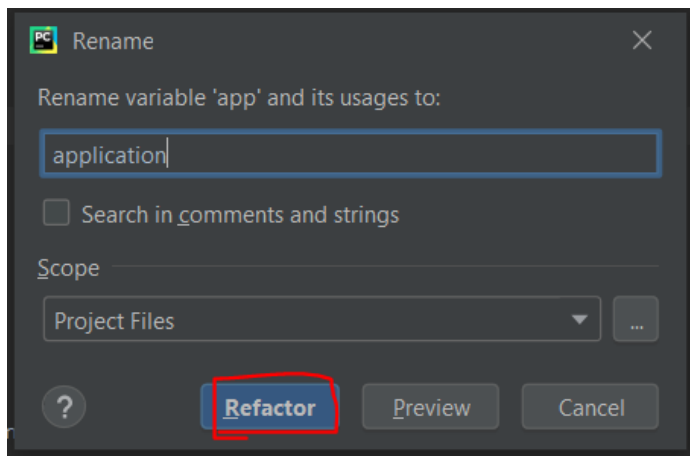
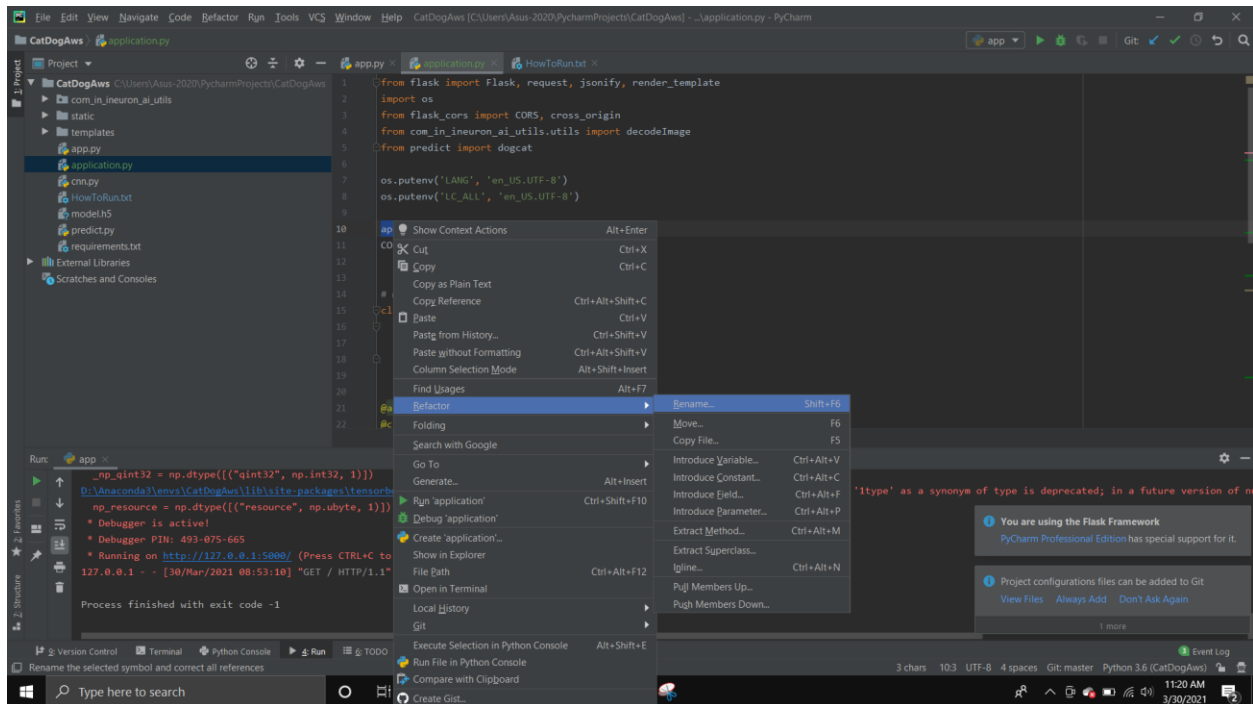


Step 2: Flask object name should be which we have defined in application.py should also be the application.

In order to change the name manually because in this code we have app object name for three times, let's suppose if we have it for 100 times and it's a difficult task for us to change it manually

In order to do that we have one option called rename

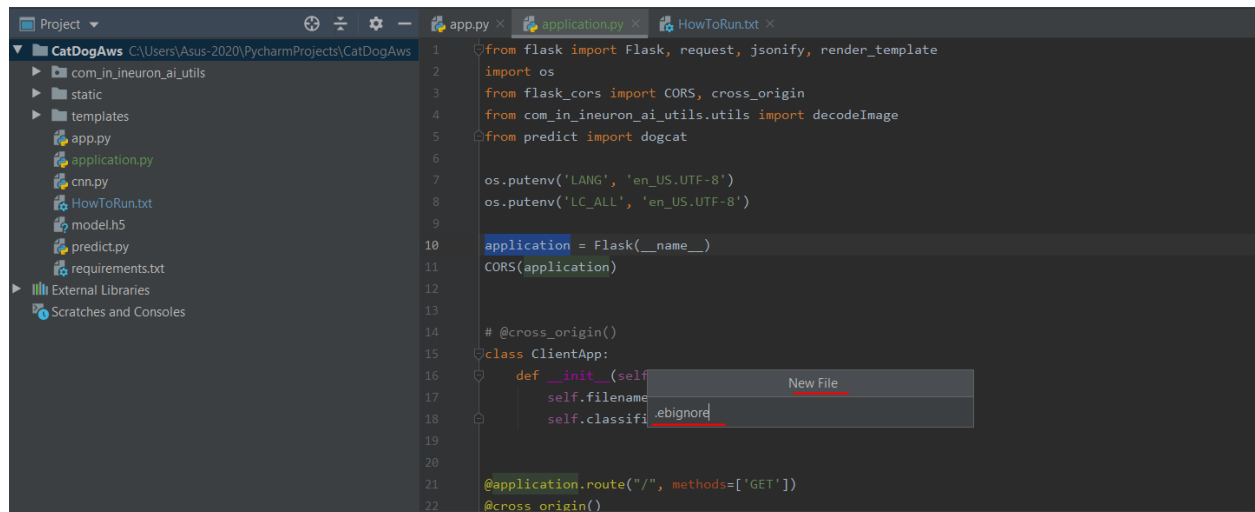
Double click the object name of the flask (app) --> right click --> Refactor --> Rename



```
app.py x application.py x HowToRun.txt x
1 from flask import Flask, request, jsonify, render_template
2 import os
3 from flask_cors import CORS, cross_origin
4 from com_in_ineuron_ai_utils.utils import decodeImage
5 from predict import dogcat
6
7 os.putenv('LANG', 'en_US.UTF-8')
8 os.putenv('LC_ALL', 'en_US.UTF-8')
9
10 application = Flask(__name__)
11 CORS(application)
12
13 # @cross_origin()
14 class ClientApp:
15     def __init__(self):
16         self.filename = "inputImage.jpg"
17         self.classifier = dogcat(self.filename)
18
19
20
21 @application.route("/", methods=['GET'])
22 @cross_origin()
```

Step 3: Create a file name called **.ebignore** – some files I don't want to push it into the cloud. (Not mandatory)

Right click on the project -- > create a new file.



```
Project
└─ CatDogAws C:\Users\Asus-2020\PycharmProjects\CatDogAws
   ├── com_in_ineuron_ai_utils
   ├── static
   ├── templates
   ├── app.py
   ├── application.py
   ├── cnr.py
   ├── HowToRun.txt
   ├── model.h5
   ├── predict.py
   ├── requirements.txt
   └─ External Libraries
       └─ Scratches and Consoles

application.py
1 from flask import Flask, request, jsonify, render_template
2 import os
3 from flask_cors import CORS, cross_origin
4 from com_in_ineuron_ai_utils.utils import decodeImage
5 from predict import dogcat
6
7 os.putenv('LANG', 'en_US.UTF-8')
8 os.putenv('LC_ALL', 'en_US.UTF-8')
9
10 application = Flask(__name__)
11 CORS(application)
12
13 # @cross_origin()
14 class ClientApp:
15     def __init__(self):
16         self.filename = "inputImage.jpg"
17         self.classifier = dogcat(self.filename)
18
19
20
21 @application.route("/", methods=['GET'])
22 @cross_origin()
```

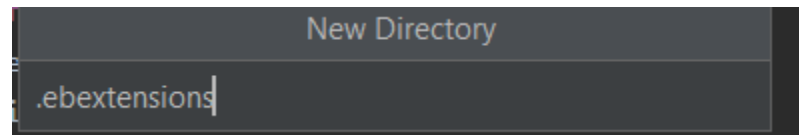
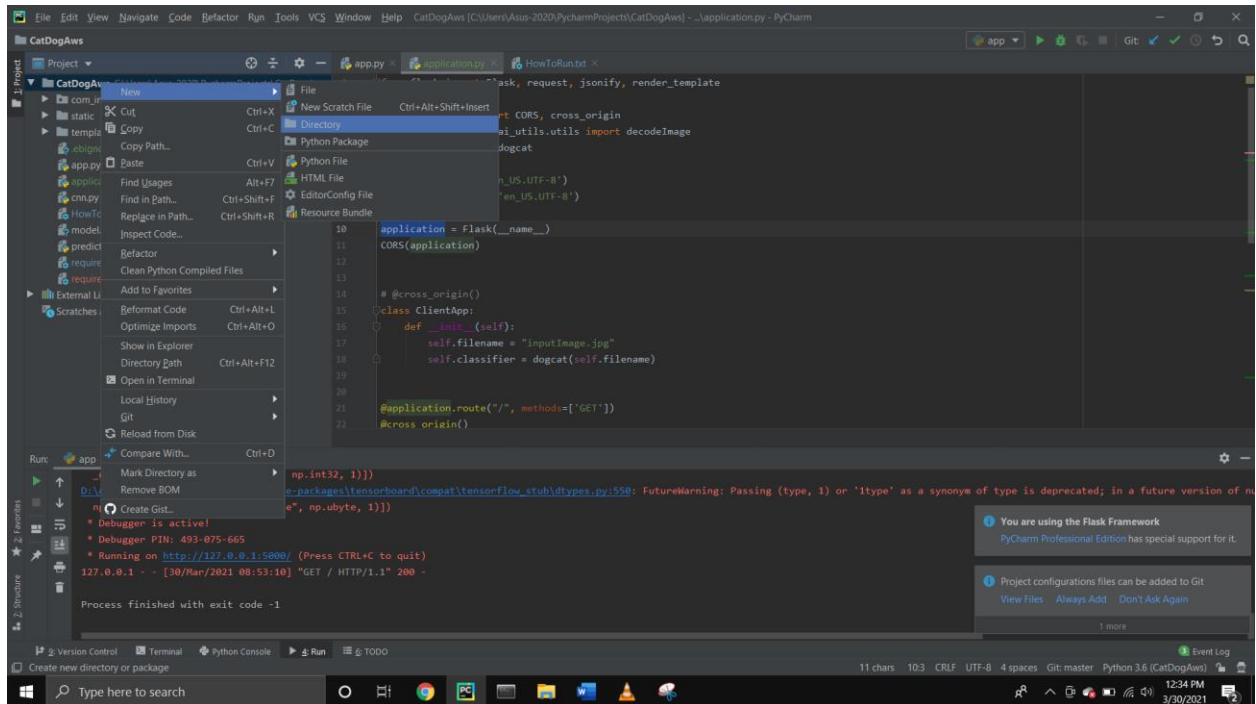
Step 4: Create a requirements.txt file – pip freeze > requirements.txt

```
(CatDogAws) C:\Users\Asus-2020>pip freeze > requirements.txt
(CatDogAws) C:\Users\Asus-2020>
```

Copy the file and paste it into the project folder or navigate to the project folder in terminal and execute the command and the file will be generated inside the project folder.

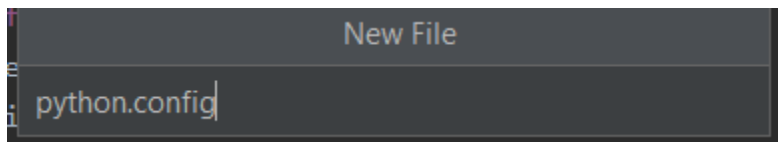
Step 5: Create a folder called **.ebextensions**

Right click on the project -- > new directory



Step 6: Inside the .ebextension we need to create a new file name called **python.config**

Right click on the .ebextensions -- > new file -- > python.config



Step 7: In python.config we need to add few commands like below:

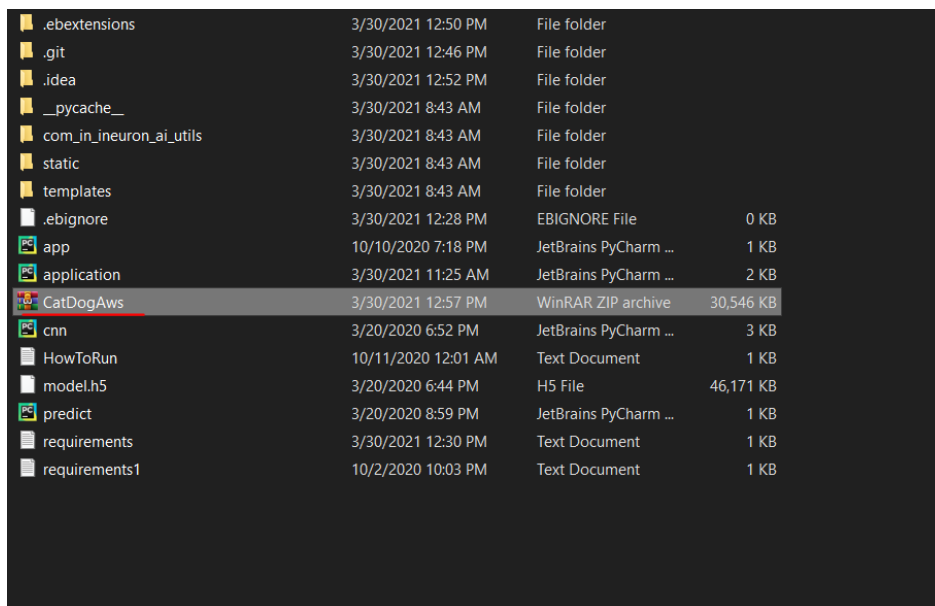
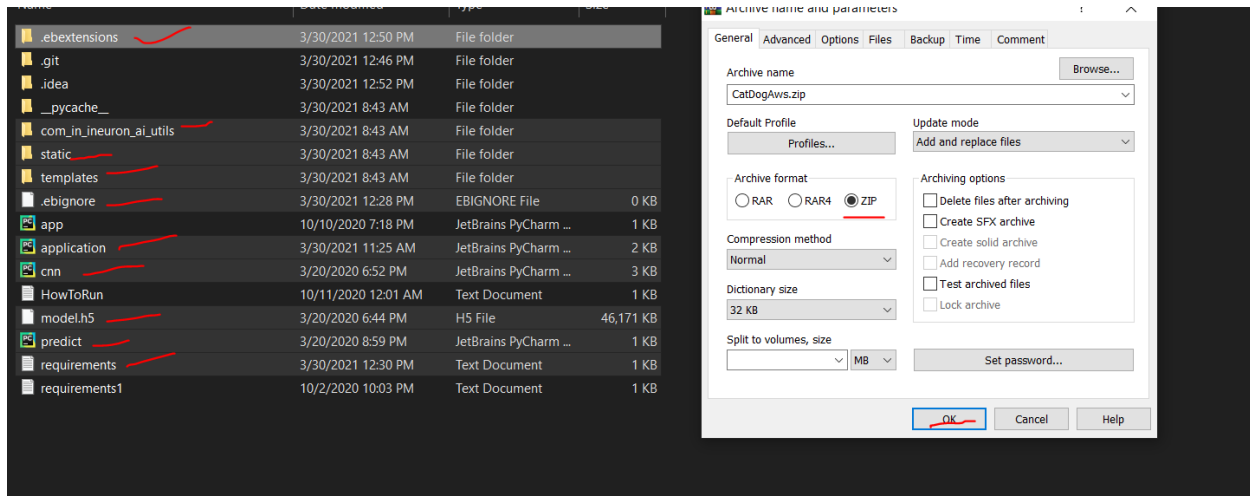
option_settings:

"aws:elasticbeanstalk:container:python":

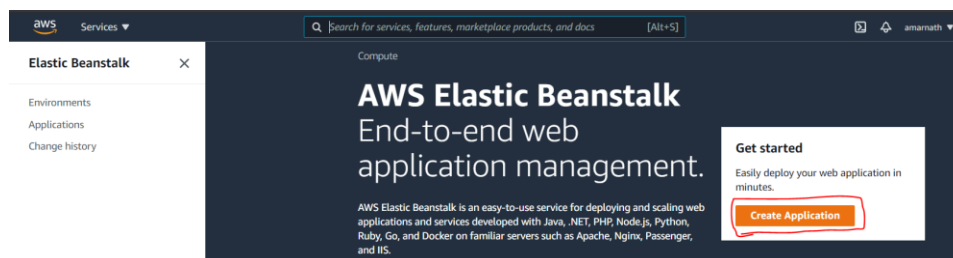
WSGIPath: application:application

Now navigate to the project folder and create the **zip file** of that project.

Whatever files which are needed are marked with red color tic and I make the zip file.



Go back to the cloud



Application information

Application name

DogCatAws

Up to 100 Unicode characters, not including forward slash (/).

Application tags

Apply up to 50 tags. You can use tags to group and filter your resources. A tag is a key-value pair. The key must be unique within the resource and is case-sensitive. [Learn more](#)

Key

Value

Remove tag

Add tag

50 remaining

Platform

Platform

Python

Platform branch

Python 3.7 running on 64bit Amazon Linux 2

Platform version

3.2.0 (Recommended)

Application code

☐ Sample application

Get started right away with sample code.

☒ Upload your code

Upload a source bundle from your computer or copy one from Amazon S3.

Source code origin

Version label

Unique name for this version of your application code.

dogcataws-source

Source code origin

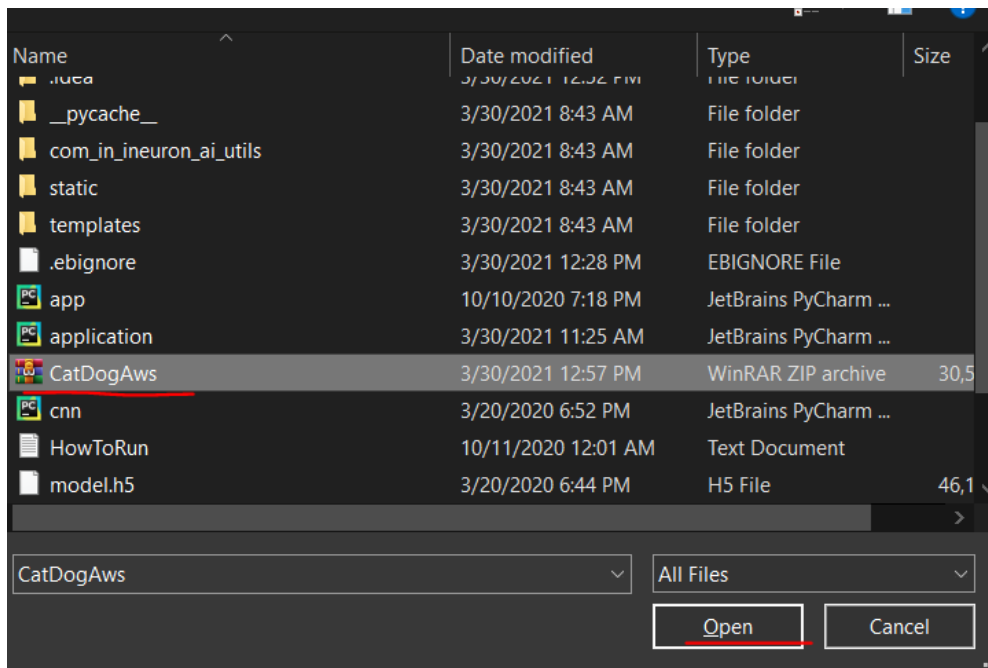
Maximum size 512 MB

☒ Local file

☐ Public S3 URL

Choose file

No file uploaded



Source code origin

Version label

Unique name for this version of your application code.

dogcataws-source

Source code origin

Maximum size 512 MB

☒ Local file

☐ Public S3 URL

Choose file

File name : CatDogAws.zip



Source code origin

Version label

Unique name for this version of your application code.

dogcataws-source

Source code origin

Maximum size 512 MB

☒ Local file

☐ Public S3 URL

Choose file

File name : CatDogAws.zip

✓ File successfully uploaded

Source code origin


Version label

Unique name for this version of your application code.


Source code origin

Maximum size 512 MB

- ☒ Local file
- ☐ Public S3 URL

 Choose file

File name : **CatDogAws.zip**

 File successfully uploaded

► Application code tags

Cancel

Configure more options

Create application

11:25am Using elasticbeanstalk-us-east-2-527599073490 as Amazon S3 storage bucket for environment data.

11:25am createEnvironment is starting.

11:25am Created security group named:
sg-010be308aa3e28822

11:25am Created target group named:
arn:aws:elasticloadbalancing:us-east-2:527599073490:targetgroup/awseb-AW5EB-2E4BU544XNXL/ae0490b82f958003

11:25am Using elasticbeanstalk-us-east-2-527599073490 as Amazon S3 storage bucket for environment data.

11:25am createEnvironment is starting.

```
11:26am Created Auto Scaling launch configuration named:
awseb-e-irxr924pym-stack-AWSEBAutoScalingLaunchConfiguration-R01MCI6VP9ER

11:26am Created security group named:
awseb-e-irxr924pym-stack-AWSEBSecurityGroup-7F5LWMR75KX9

11:25am Created security group named:
sg-010be308aa3e28822

11:25am Created target group named:
arn:aws:elasticloadbalancing:us-east-2:527599073490:targetgroup/awseb-AWSEB-2E4BU544XNXL/ae0490b82f958003

11:25am Using elasticbeanstalk-us-east-2-527599073490 as Amazon S3 storage bucket for environment data.

11:25am createEnvironment is starting.
```

```
11:27am Created CloudWatch alarm named:
awseb-e-irxr924pym-stack-AWSEBCloudwatchAlarmLow-W7014VGWR5T

11:27am Created CloudWatch alarm named:
awseb-e-irxr924pym-stack-AWSEBCloudwatchAlarmHigh-DWR48BP5G06A

11:27am Created Auto Scaling group policy named:
arn:aws:autoscaling:us-east-2:527599073490:scalingPolicy:9ccf8f12-e49d-44c8-a006-44e495a20631:autoScalingGroupName/awseb-e-irxr924pym-stack-AWSEBAutoScalingGroup-1VG2UBE7JUV00:policyName/awseb-e-irxr924pym-stack-AWSEBAutoScalingScaleDownPolicy-34AJOD3VLR5

11:27am Created Auto Scaling group policy named:
arn:aws:autoscaling:us-east-2:527599073490:scalingPolicy:8bbdfbcd-5e43-41a6-b75a-d8d1e63432c2:autoScalingGroupName/awseb-e-irxr924pym-stack-AWSEBAutoScalingGroup-1VG2UBE7JUV00:policyName/awseb-e-irxr924pym-stack-AWSEBAutoScalingScaleUpPolicy-10BUUA9MASRL6

11:27am Waiting for EC2 instances to launch. This may take a few minutes.

11:27am Created Auto Scaling group named:
awseb-e-irxr924pym-stack-AWSEBAutoScalingGroup-1VG2UBE7JUV00

11:26am Environment health has transitioned to Pending. Initialization in progress (running for 50 seconds). There are no instances.

11:26am Created Auto Scaling launch configuration named:
awseb-e-irxr924pym-stack-AWSEBAutoScalingLaunchConfiguration-R01MCI6VP9ER

11:26am Created security group named:
awseb-e-irxr924pym-stack-AWSEBSecurityGroup-7F5LWMR75KX9
```

Go to environment

Configuration

Logs

Health

Monitoring

Alarms

Managed updates

Events

Tags

Causes

Python 3.7 running on 64bit
Amazon Linux 2/3.1.3

Change

Recent events


Show all

< 1 >


Time	Type	Details
2020-12-19 11:28:50 UTC+0530	INFO	Successfully launched environment: Dogcatclassifier-env
2020-12-19 11:28:50 UTC+0530	INFO	Application available at Dogcatclassifier-env.eba-cswz6jfm.us-east-2.elasticbeanstalk.com.
2020-12-19 11:28:37 UTC+0530	INFO	Instance deployment completed successfully.
2020-12-19 11:28:34 UTC+0530	INFO	Instance deployment successfully generated a 'Profile'.
2020-12-19 11:28:32 UTC+0530	INFO	Added instance [i-0bb52c6b65320415f] to your environment.

Dogcatclassifier-env
[Dogcatclassifier-env.eba-cswz6jfm.us-east-2.elasticbeanstalk.com](#) (e-lrx924pym)
 Application name: **DogCatClassifier**

Refresh
 Actions

Health

 Ok
 Causes

Running version
 dogcatclassifier-source
 Upload and deploy

Platform

 Python 3.7 running on 64bit Amazon Linux 2/3.1.3
 Change

Recent events
Show all

Time	Type	Details
2020-12-19 11:29:32 UTC+0530	INFO	Environment health has transitioned from Pending to Ok. Initialization completed 10 seconds ago and took 3 minutes.
2020-12-19 11:28:50 UTC+0530	INFO	Successfully launched environment: Dogcatclassifier-env
2020-12-19 11:28:50 UTC+0530	INFO	Application available at Dogcatclassifier-env.eba-cswz6jfm.us-east-2.elasticbeanstalk.com.
2020-12-19 11:28:37 UTC+0530	INFO	Instance deployment completed successfully.
2020-12-19 11:28:34 UTC+0530	INFO	Instance deployment successfully generated a 'Profile'.

App URL is generated.


If you open the app url then you will see your application.

a****h3**@g***l.com


Terminate:

Dogcatclassifier-env
[Dogcatclassifier-env.eba-cswz6jfm.us-east-2.elasticbeanstalk.com](#) (e-lrx924pym)
 Application name: **DogCatClassifier**

Refresh
 Actions

Health

 Ok
 Causes

Running version
 dogcatclassifier-source
 Upload and deploy

Platform

 Python 3.7 running on 64bit Amazon Linux 2/3.1.3
 Change

Recent events
Show all

Load configuration
 Save configuration
 Swap environment URLs
 Clone environment
 Clone with latest platform
 Abort current operation
 Restart app server(s)
 Rebuild environment
Terminate environment

Delete Application:

All applications



Actions ▲

Create a new application

Q Filter results matching the display values

Application name ▲	Environments ▼	Date created ▼	Last modified ▼	ARN	
DogCatClassifier	Dogcatclassifier-env	2020-12-19 11:25:21 UTC+0530	2020-12-19 11:25:21 UTC+0530	arn:aws:elasticbe	<div><div>1 > ⌵</div><div>Create environment</div><div><u>Delete application</u></div><div>View application versions</div><div>View saved configurations</div><div>Restore terminated environment</div></div>