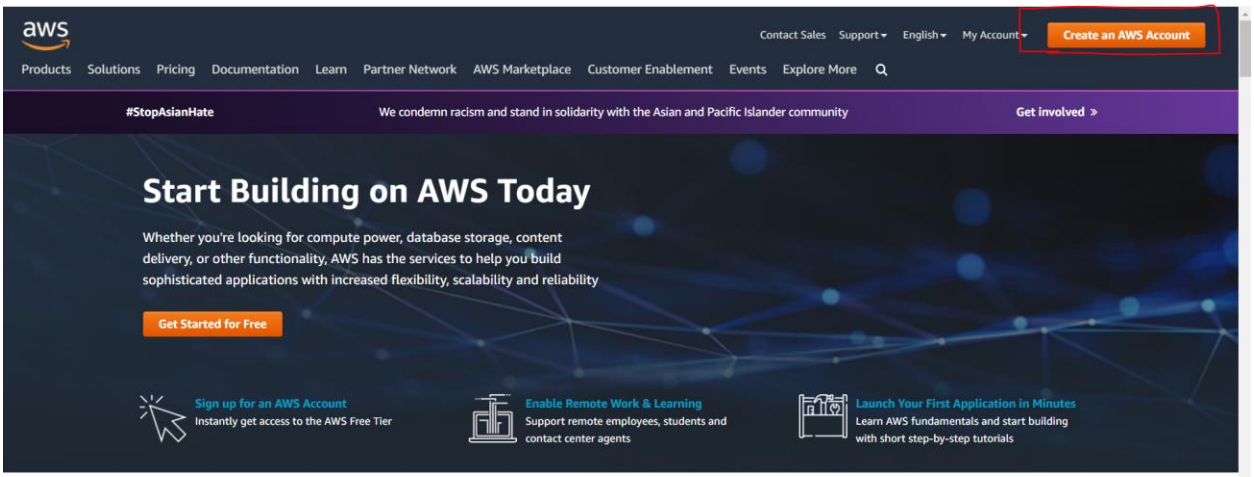
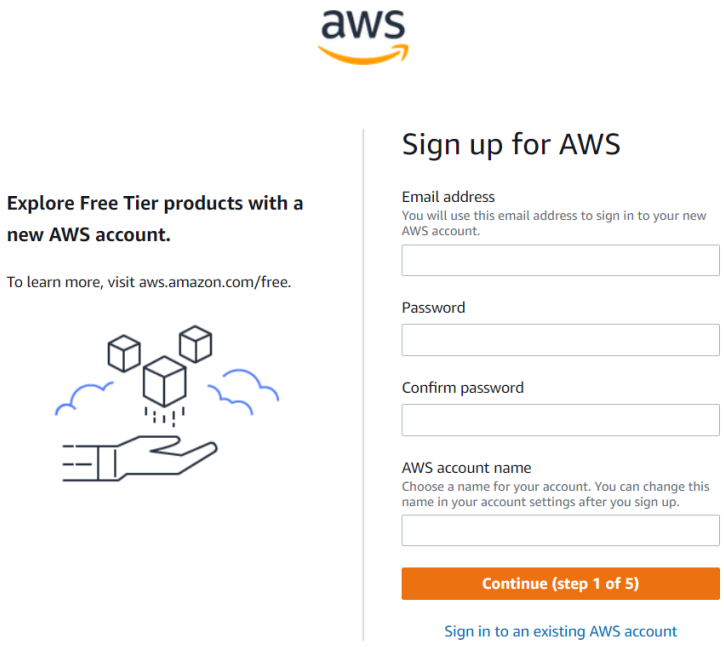
AWS Deployment:

Create an aws account

Link: aws.amazon.com



AWS in India



Sign up for AWS

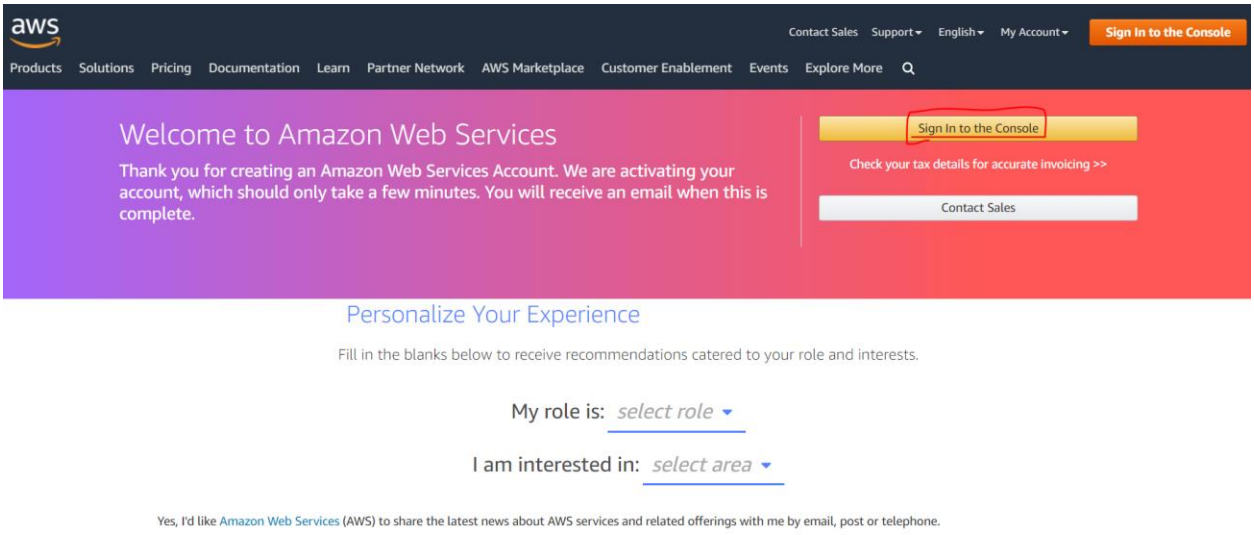
Select a support plan

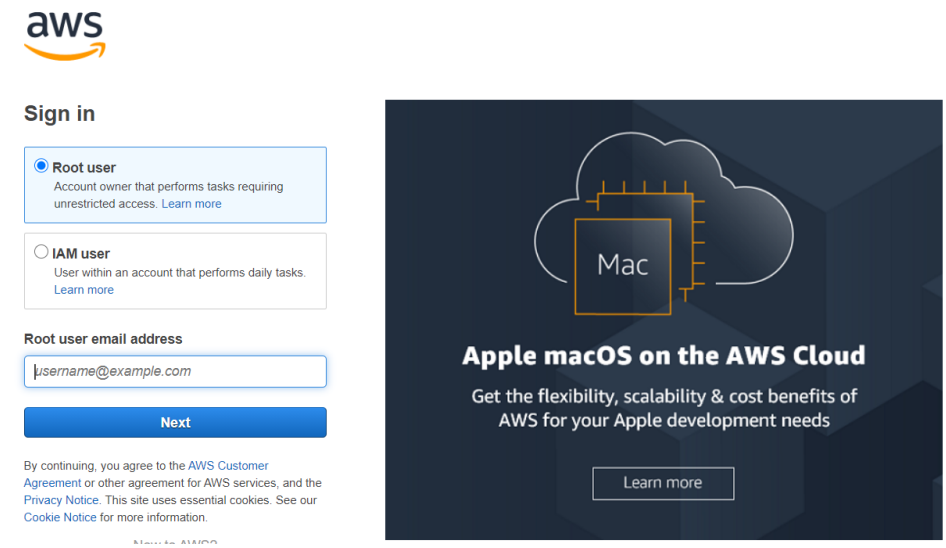
Choose a support plan for your business or personal account. Compare plans and pricing examples. You can change your plan anytime in the AWS Management Console.

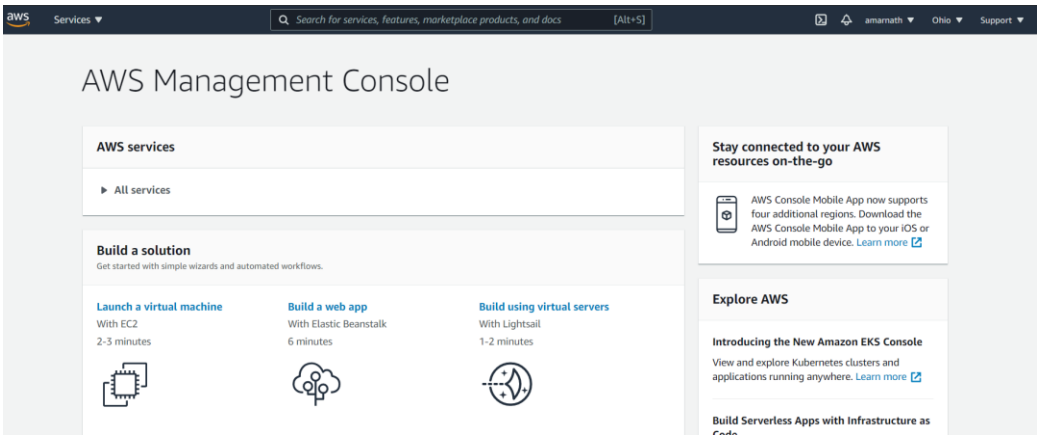
Basic support - Free
- Recommended for new users just getting started with AWS
- 24x7 self-service access to AWS resources
- For account and billing issues only
- Access to Personal Health Dashboard & Trusted Advisor

Developer support - From $29/month
- Recommended for developers experimenting with AWS
- Email access to AWS Support during business hours
- 12 (business)-hour response times

Business support - From $100/month
- Recommended for running production workloads on AWS
- 24x7 tech support via email, phone, and chat
- 1-hour response times
- Full set of Trusted Advisor best-practice recommendations



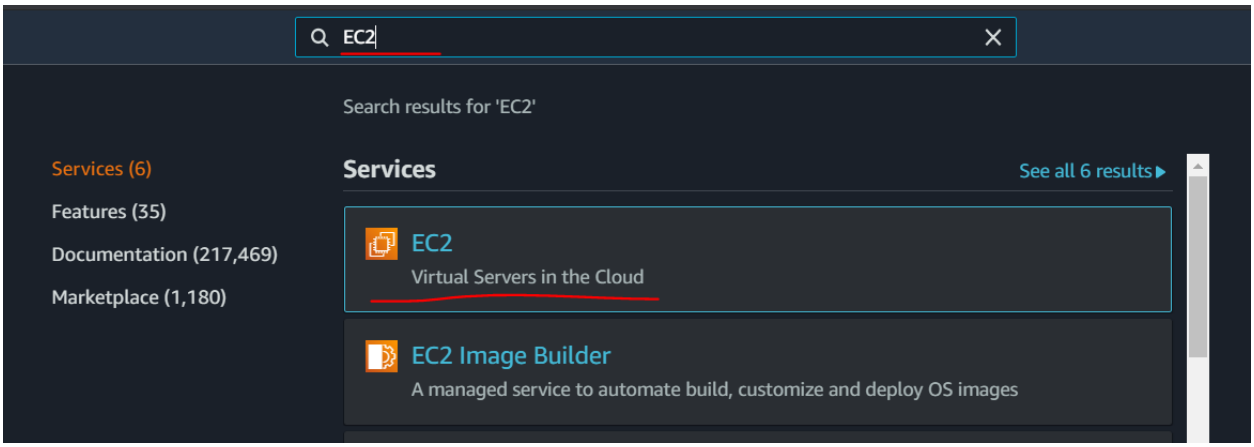


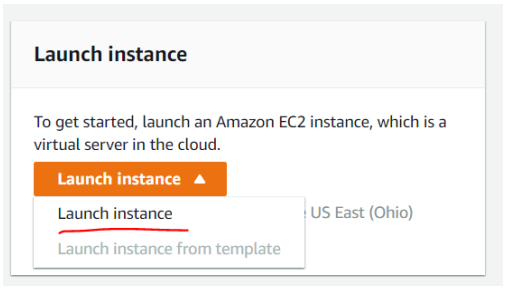


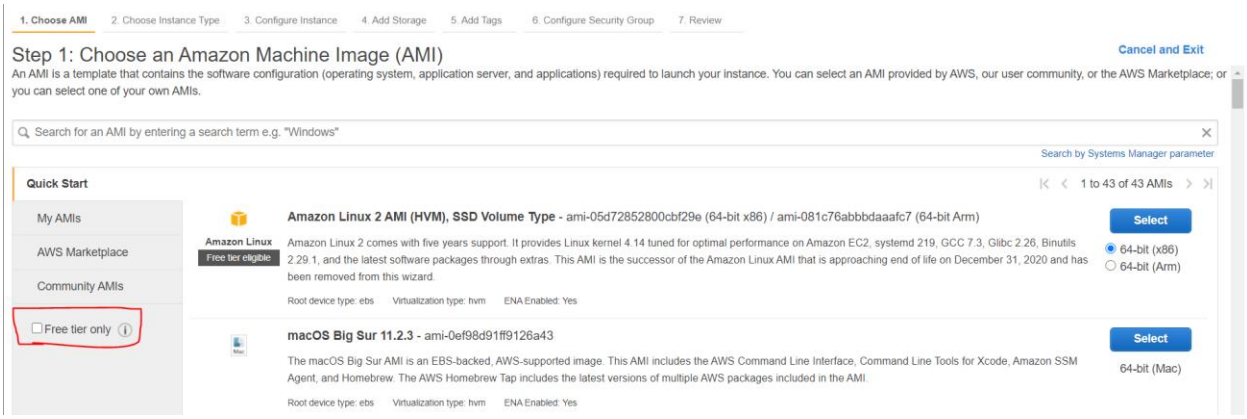
AWS EC2 instance – In EC2 we are supposed to select our configurations of our virtual machine for deployment.

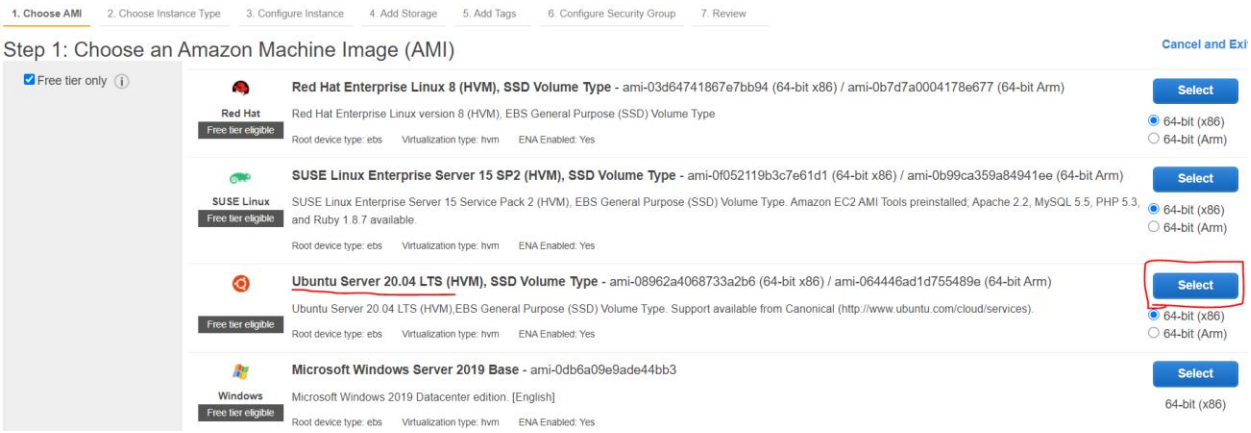
Aws Elastic Beanstalk (EB) – Here we are going to use the Elastic Beanstalk

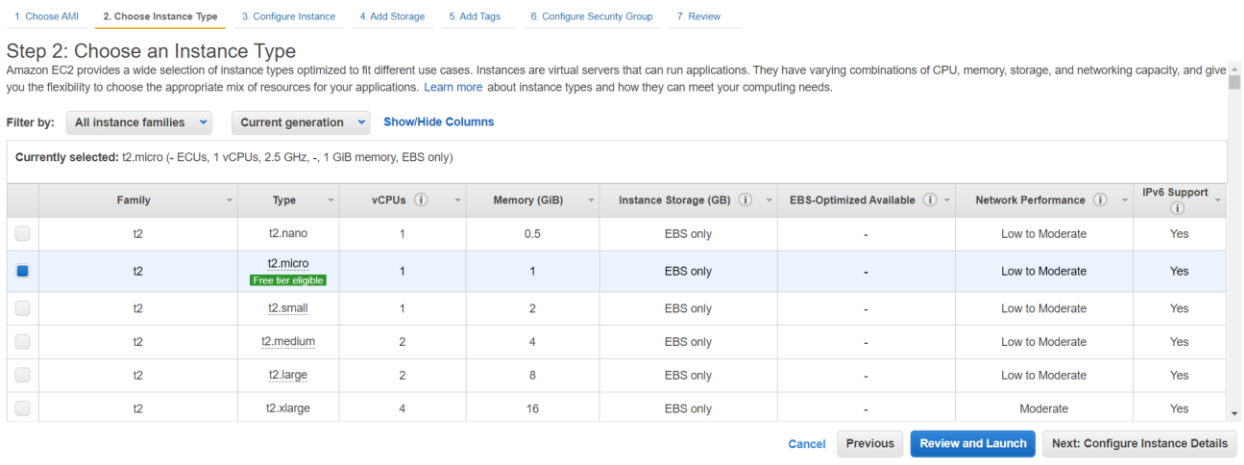
EC2:

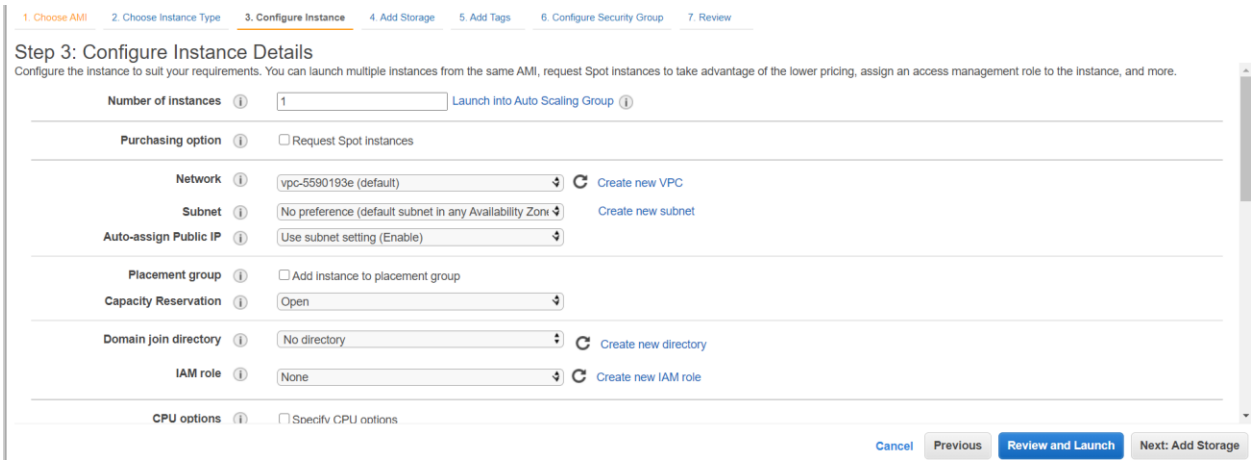



Launch instance
To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.
Launch instance
Launch instance
Launch instance from template
US East (Ohio)

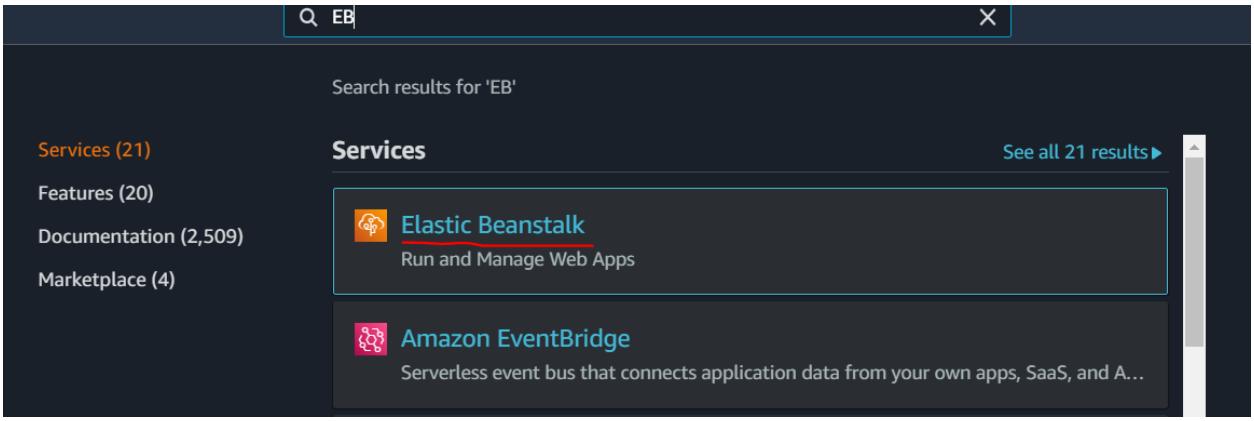

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
An AMI is a template that contains the software configuration (operating system, application server, and applications) 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
1 to 43 of 43 AMIs
My AMIs
AWS Marketplace
Community AMIs
Free tier only
Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-05d72852800cbf29e (64-bit x86) / ami-081c76abbbdaaafc7 (64-bit Arm)
Amazon Linux
Free tier eligible
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 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 Exi
Free tier only
Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-03d64741867e7bb94 (64-bit x86) / ami-0b7d7a0004178e677 (64-bit Arm)
Red Hat
Free tier eligible
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 Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-0f052119b3c7e61d1 (64-bit x86) / ami-0b99ca359a84941ee (64-bit Arm)
SUSE Linux
Free tier eligible
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 Server 20.04 LTS (HVM), SSD Volume Type - ami-08962a4068733a2b6 (64-bit x86) / ami-064446ad1d755489e (64-bit Arm)
Free tier eligible
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)
Microsoft Windows Server 2019 Base - ami-0db6a09e9ade44bb3
Windows
Free tier eligible
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
t2 t2.nano 1 0.5 EBS only - Low to Moderate Yes
t2 t2.micro Free tier eligible 1 1 EBS only - Low to Moderate Yes
t2 t2.small 1 2 EBS only - Low to Moderate Yes
t2 t2.medium 2 4 EBS only - Low to Moderate Yes
t2 t2.large 2 8 EBS only - Low to Moderate Yes
t2 t2.xlarge 4 16 EBS only - Moderate Yes
Cancel
Previous
Review and Launch
Next: Configure Instance Details



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)

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**

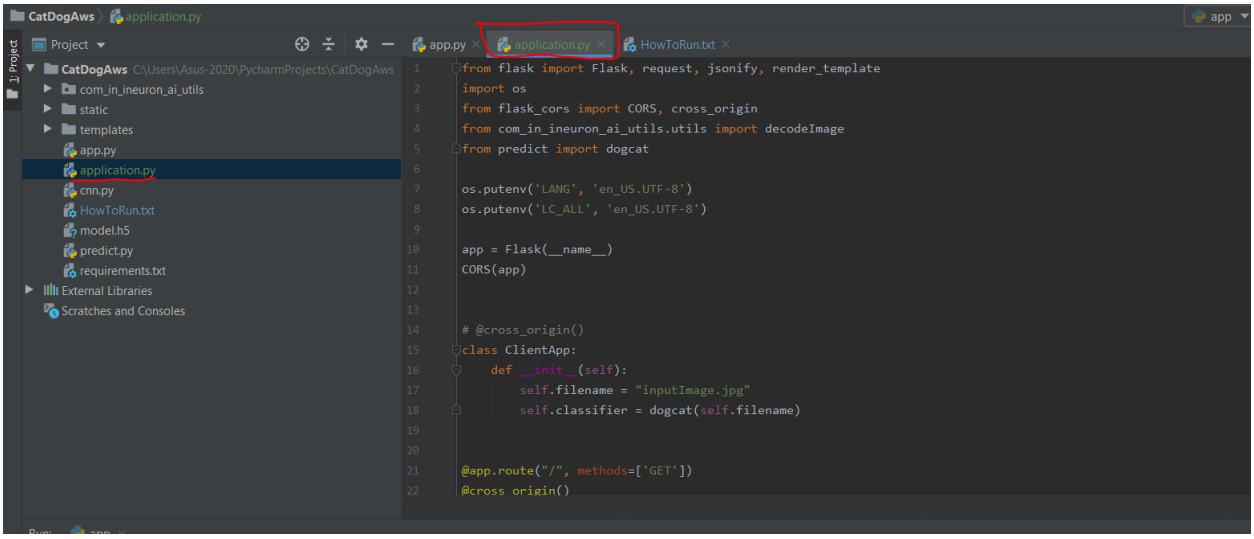
Step 7: In python.config we need to add few commands like below:

option_settings:

"aws:elasticbeanstalk:container:python":

WSGIPath: application:application

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

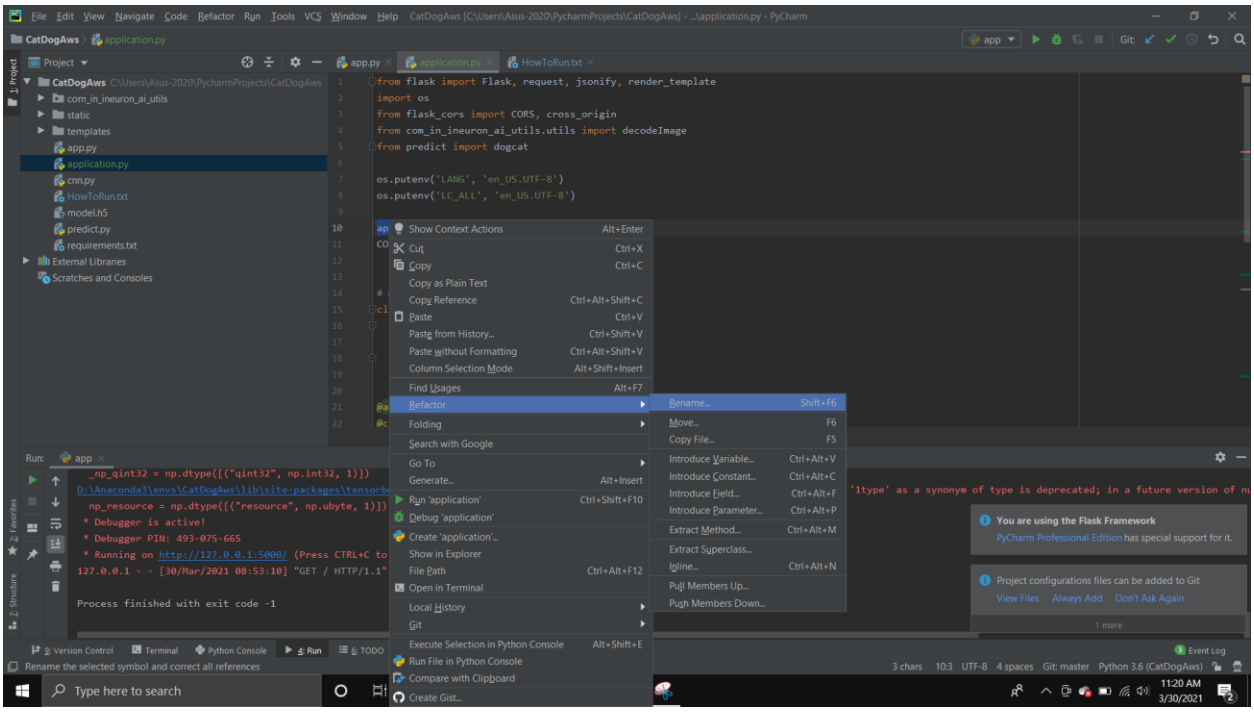


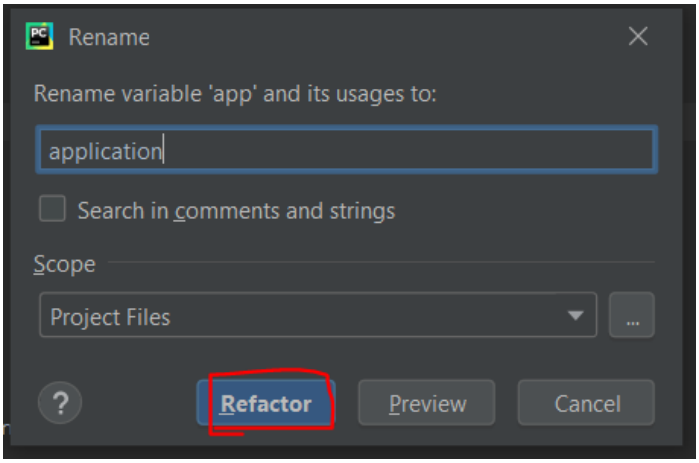
Step 2: Flask object name should be which we have defined in application.py should also be the application.

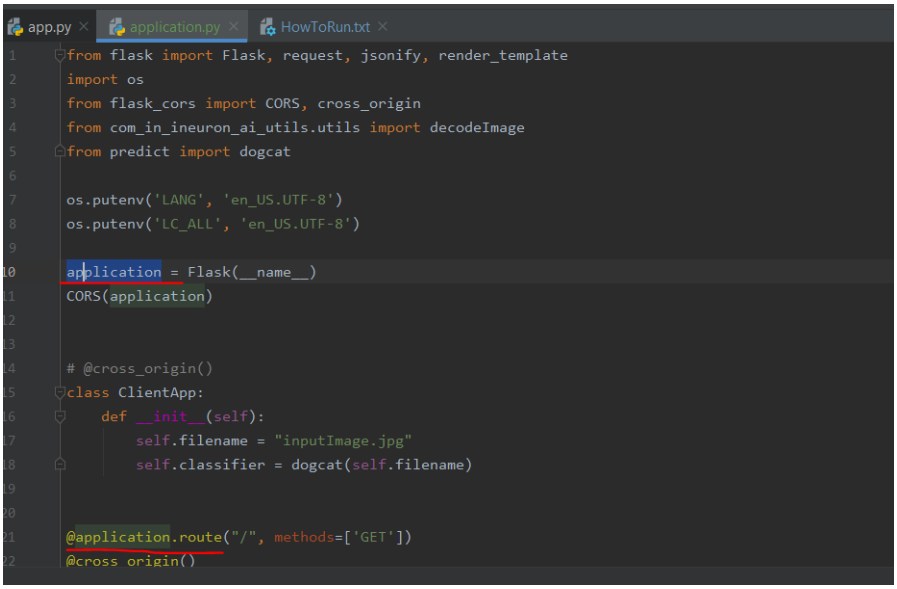
In order to change the name manually because in this code we have app object name for three times, let's suppose if we have it for 100 times and it's a difficult task for us to change it manually

In order to do that we have one option called rename

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

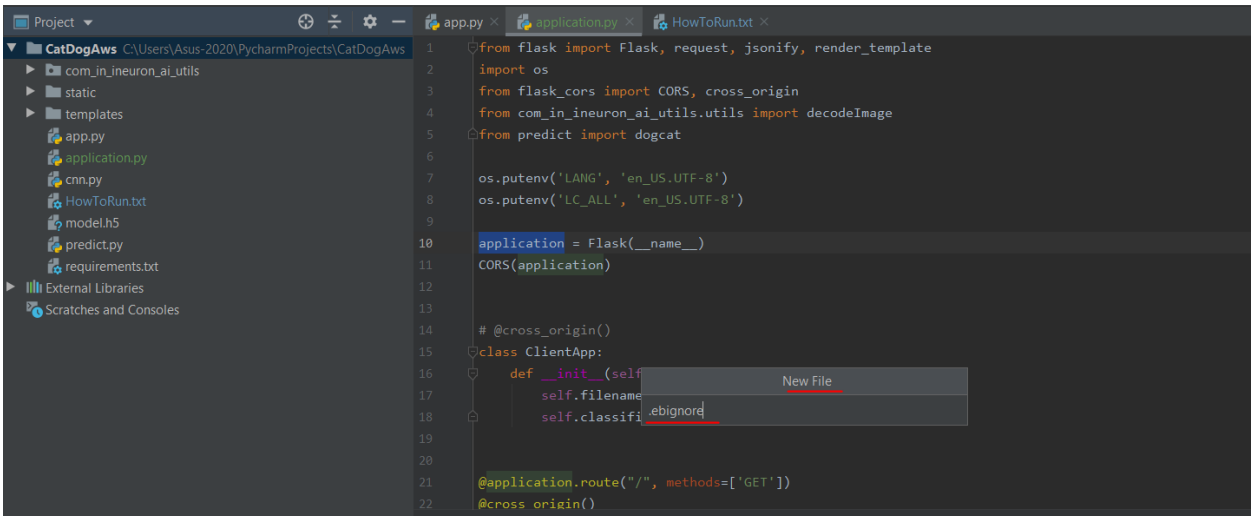




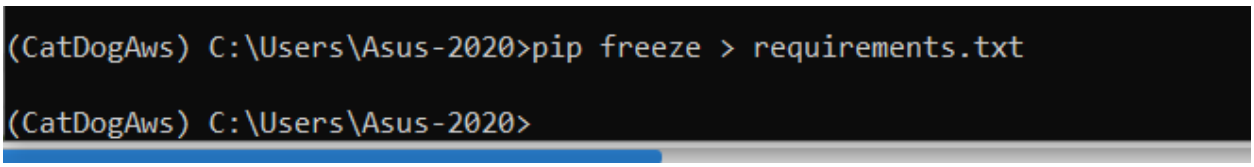


Step 3: Create a file name called **.ebignore** – some files I don't want to push it into the cloud. (Not mandatory)

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



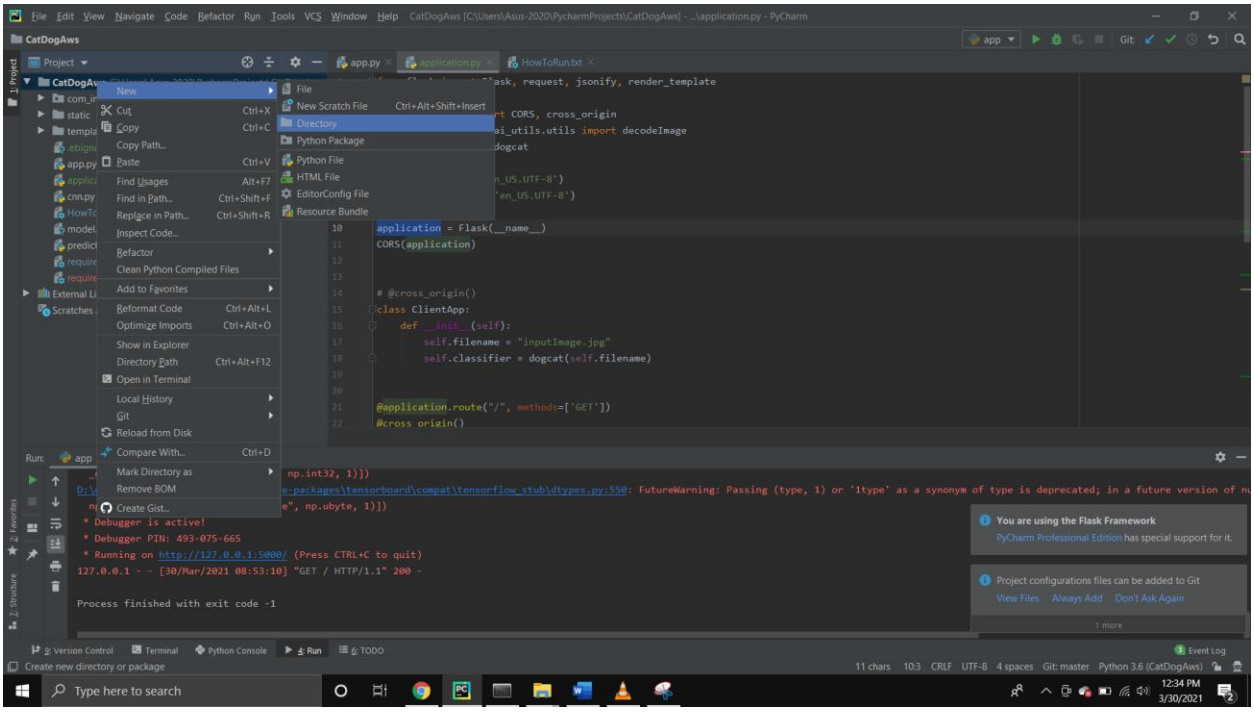
Step 4: Create a requirements.txt file – pip freeze > requirements.txt

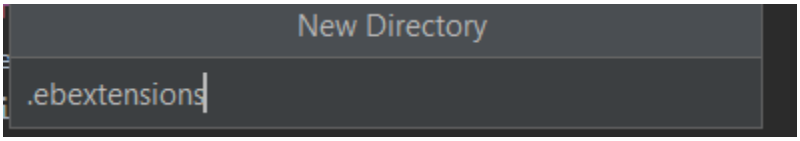


Copy the file and paste it into the project folder or navigate to the project folder in terminal and execute the command and the file will be generated inside the project folder.

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

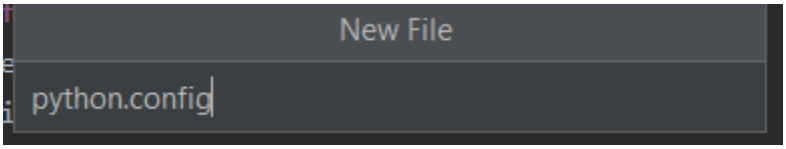
Right click on the project -- > new directory





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:

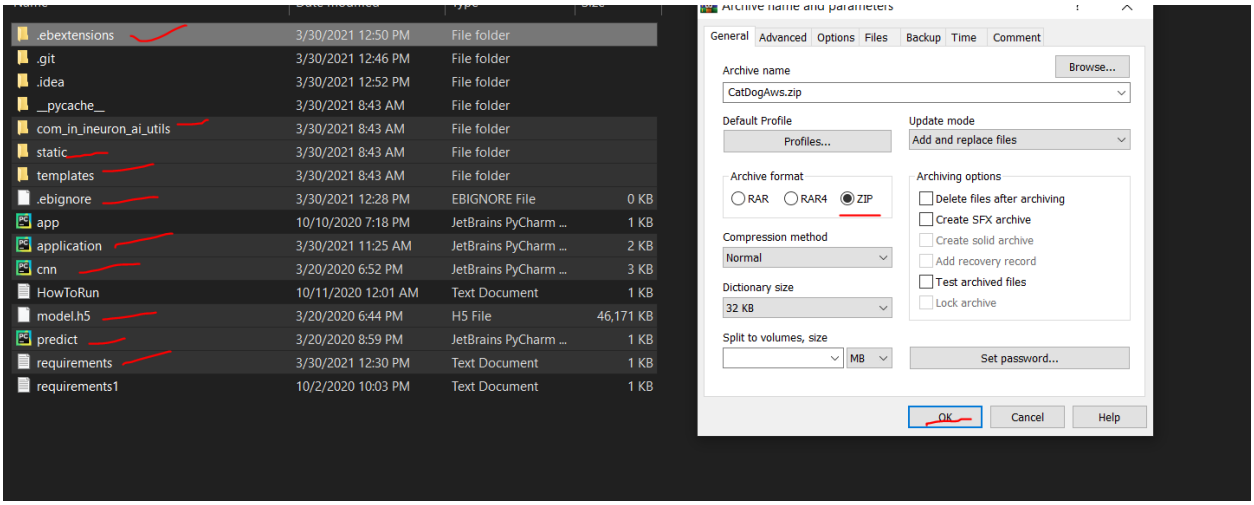
option_settings:

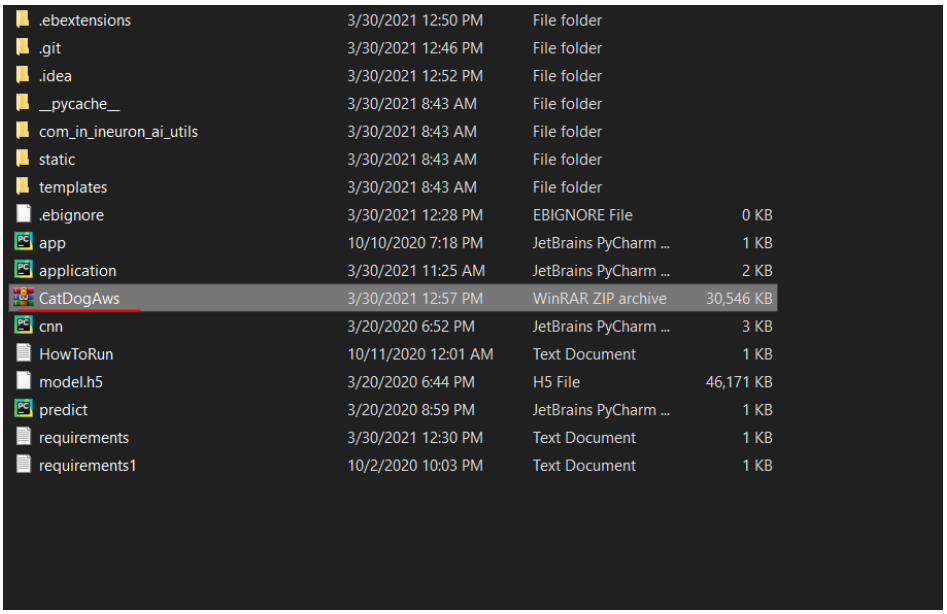
"aws:elasticbeanstalk:container:python":

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

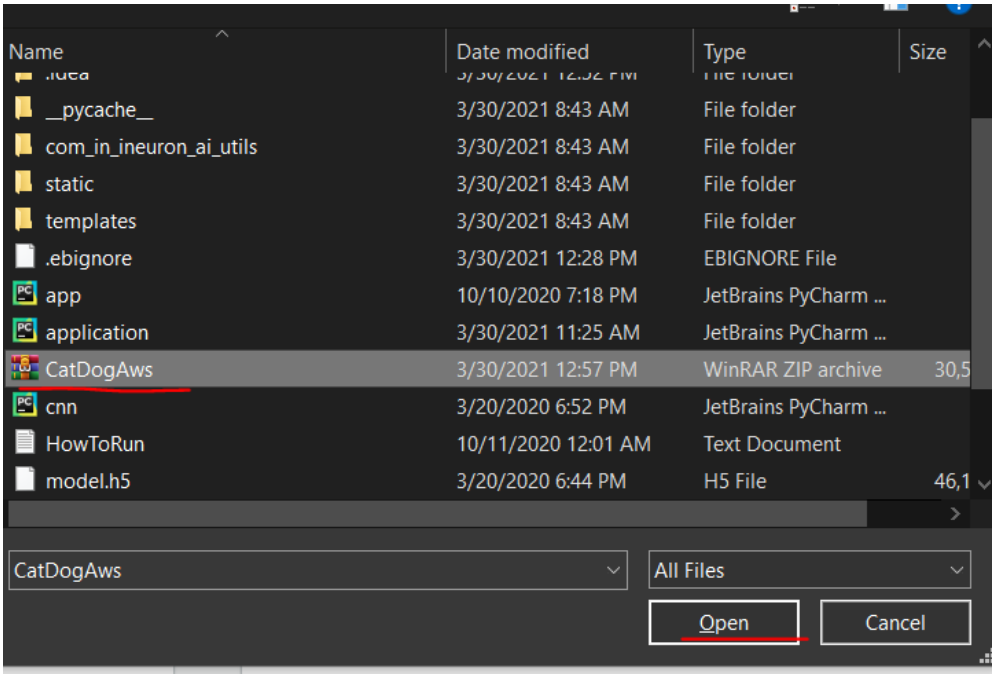
Source code origin

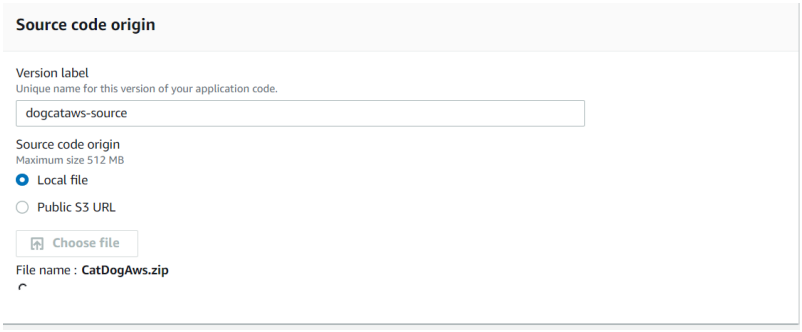
Maximum size 512 MB

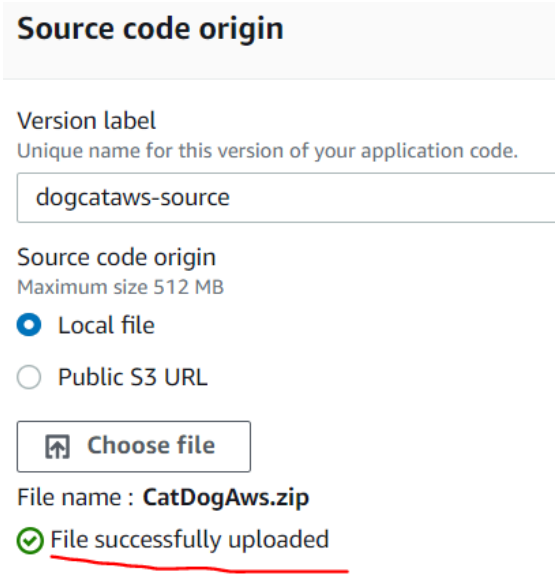
- Local file
- Public S3 URL

Choose file

No file uploaded


Name
Date modified
Type
Size
__pycache__
3/30/2021 8:43 AM
File folder
com_in_ineuron_ai_utils
3/30/2021 8:43 AM
File folder
static
3/30/2021 8:43 AM
File folder
templates
3/30/2021 8:43 AM
File folder
.ebignore
3/30/2021 12:28 PM
EBIGNORE File
app
10/10/2020 7:18 PM
JetBrains PyCharm ...
application
3/30/2021 11:25 AM
JetBrains PyCharm ...
CatDogAws
3/30/2021 12:57 PM
WinRAR ZIP archive
cnn
3/20/2020 6:52 PM
JetBrains PyCharm ...
HowToRun
10/11/2020 12:01 AM
Text Document
model.h5
3/20/2020 6:44 PM
H5 File
CatDogAws
All Files
Open
Cancel


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.

dogcataws-source

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.

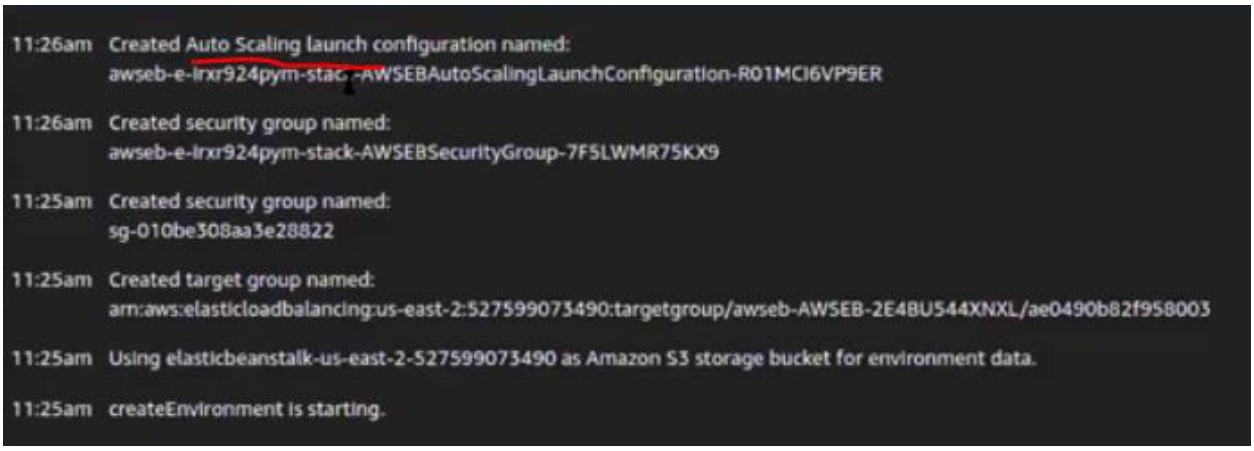
11:25am createEnvironment is starting.

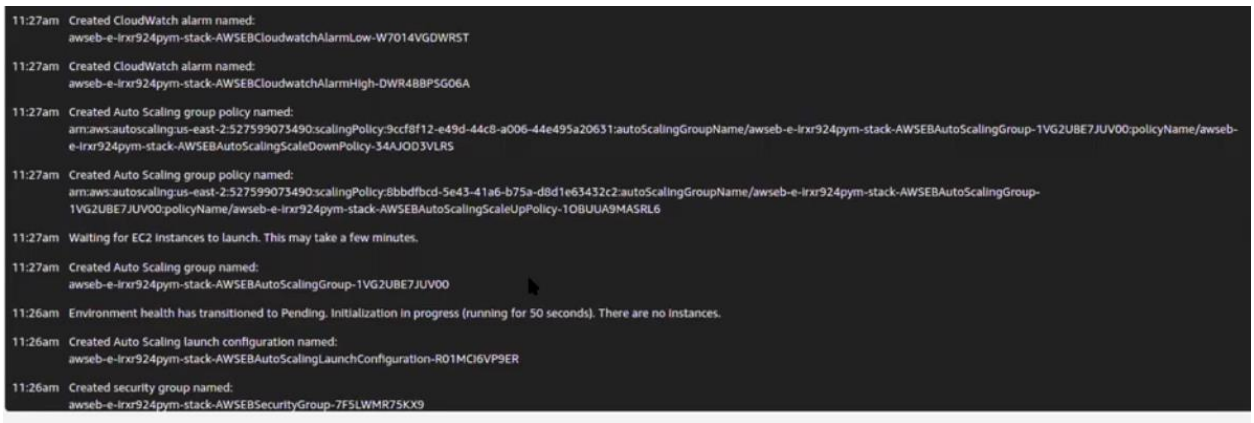
11:25am Created security group named:
sg-010be308aa3e28822

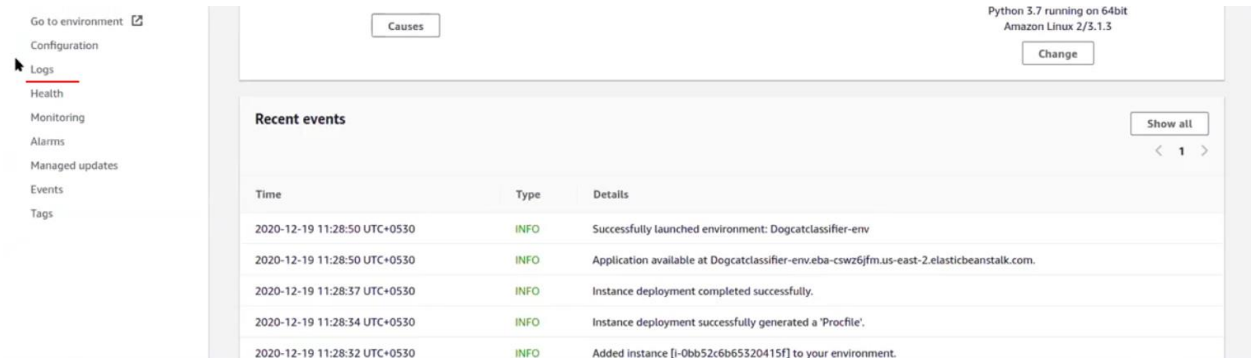
11:25am Created target group named:
arn:aws:elasticloadbalancing:us-east-2:527599073490:targetgroup/awseb-AWSEB-2E4BU544XNXL/ae0490b82f958003

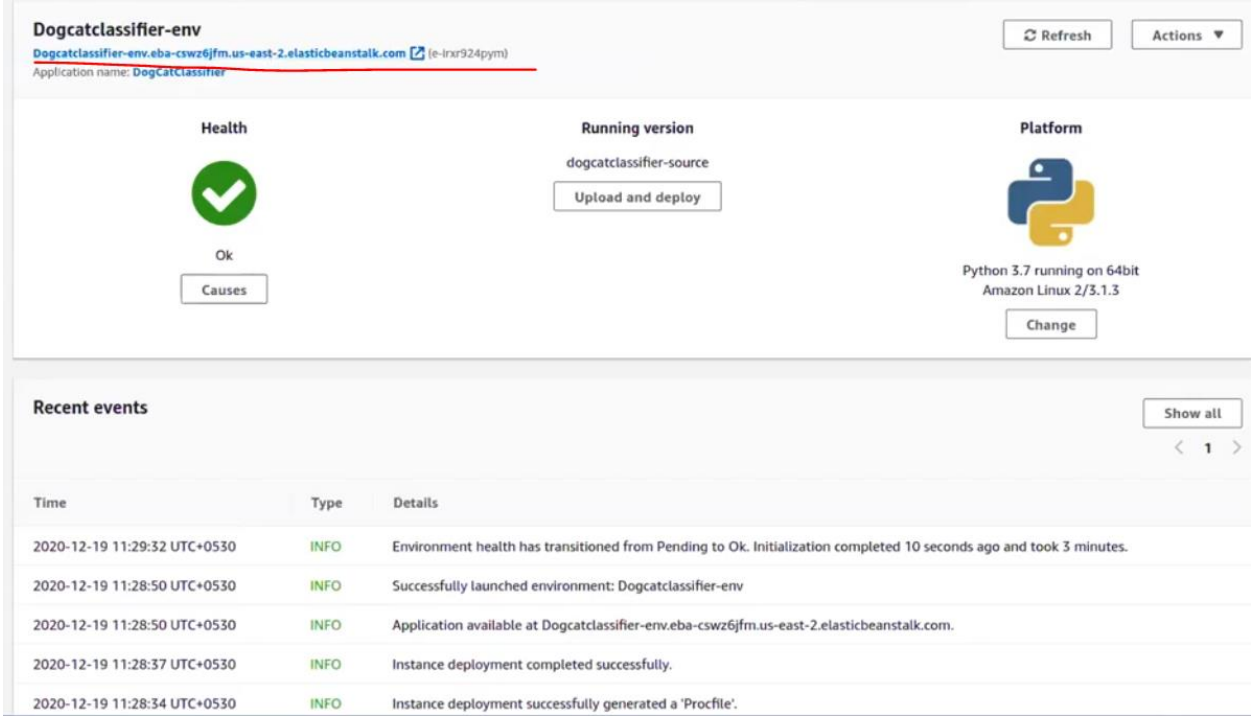
11:25am Using elasticbeanstalk-us-east-2-527599073490 as Amazon S3 storage bucket for environment data.

11:25am createEnvironment is starting.


11:26am 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-W7014VGDWRST
11:27am Created CloudWatch alarm named:
awseb-e-irxr924pym-stack-AWSEBCloudwatchAlarmHigh-DWR4BBPSG06A
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-34AJOD3VLRS
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-1OBUUA9MASRL6
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 'Procfile'.
2020-12-19 11:28:32 UTC+0530
INFO
Added instance [i-0bb52c6b65320415f] to your environment.

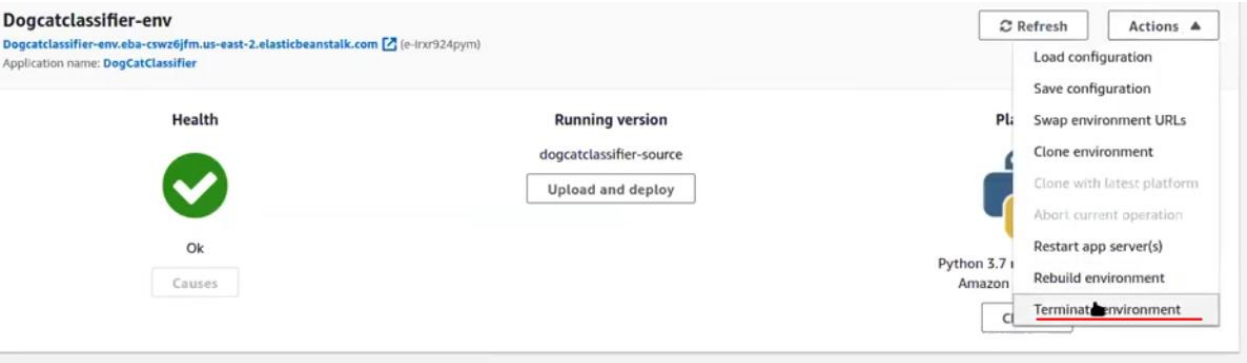


App URL is generated.

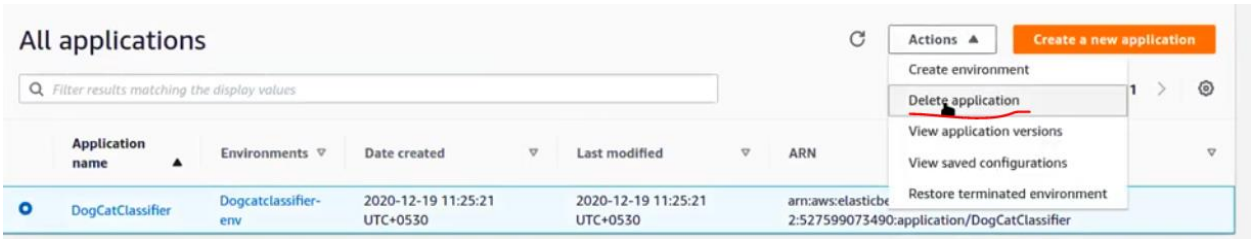
If you open the app url then you will see your application.

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

Terminate:



Delete Application:


All applications
Actions
Create a new application
Create environment
Delete application
View application versions
View saved configurations
Restore terminated environment
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
2:527599073490:application/DogCatClassifier