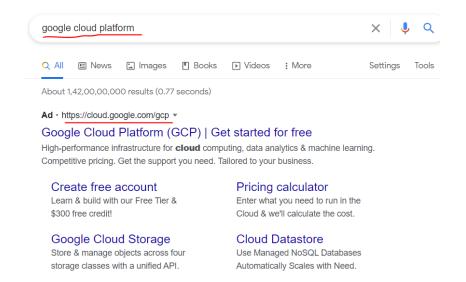
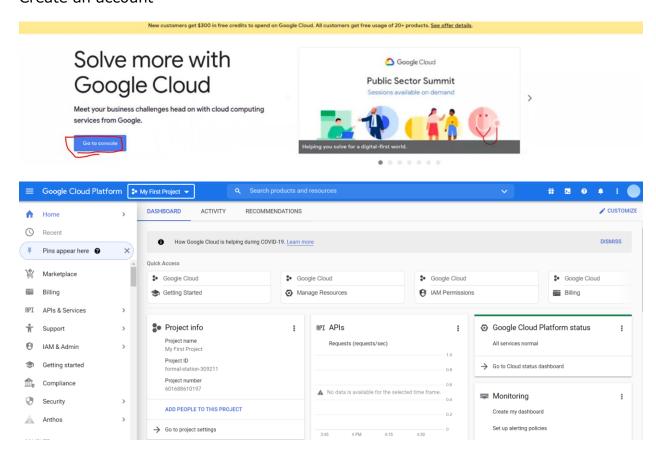
# Google Cloud Platform (GCP) Deployment:

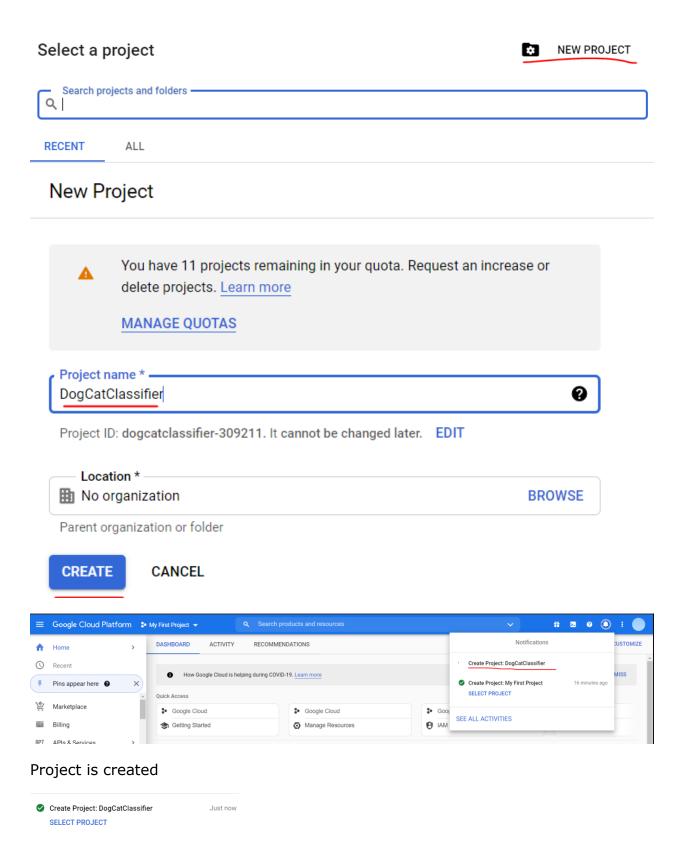


#### Create an account

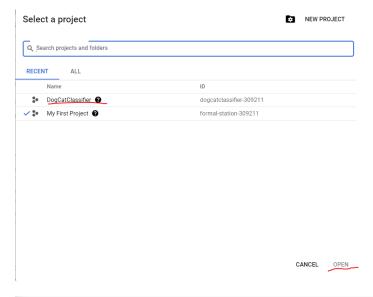


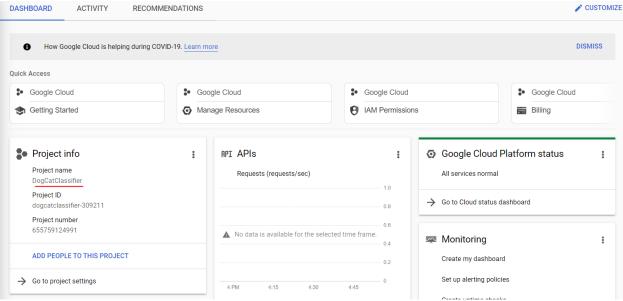
Create a project inside the GCP and push all code in to that.





Select the project which we had created previously.





Now open your project

## Steps:

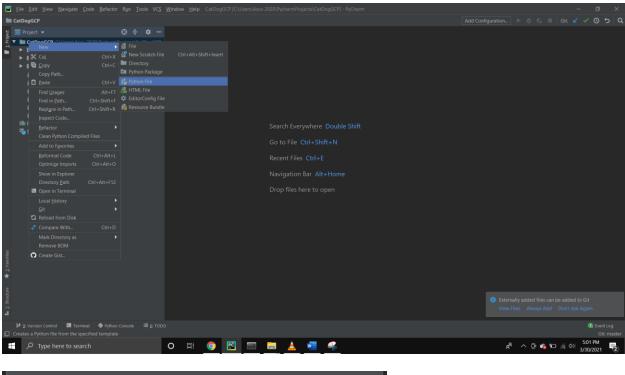
Step 1: your main python file name should be main.py

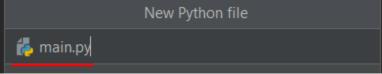
Step 2: flask object name should be application.py

Step 3: create a new file and name it as app.yaml

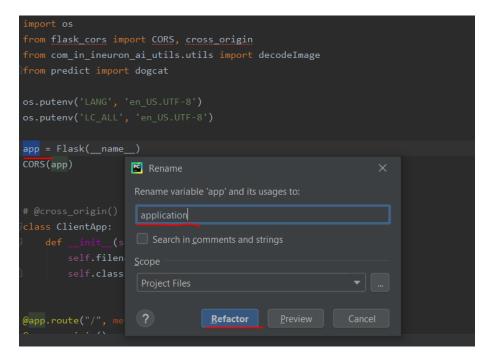
Step 1: your main python file name should be **main.py** 

Click on the project --- > new file --- > python file



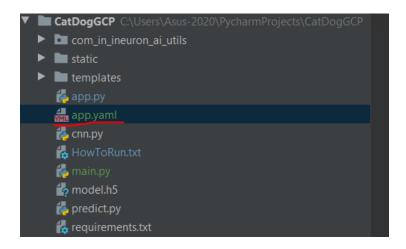


Step 2: flask object name should be application.py



Step 3: create a new file and name it as app.yaml (Config file)

Right click on the project --- > new file --- > app.yaml



Step 4: Add some contents inside the app.yaml file

runtime: python

env: flex

entrypoint: gunicorn -b :\$PORT main:application

runtime\_config:

python\_version: 3

manual\_scaling:

instances: 1

resources:

cpu: 1

memory\_gb: 0.5

disk\_size\_gb: 10

```
main.py × requirements.txt × pop.py × app.yaml ×

runtime: python

env: flex

entrypoint: gunicorn -b :$PORT main:application

runtime_config:

python_version: 3

manual_scaling:

instances: 1

resources:

cpu: 1

memory_gb: 0.5

disk_size_gb: 10
```

Step 5: Initialize local git folder using below commands

Navigate to the project folder -- > right click -- > select git bash

```
MINGW64:/c/Users/Asus-2020/PycharmProjects/CatDogGCP
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP
$ |
```

1. git init

2. git add.

# Asus-2020@LAPTOP-3VKRL6IT MINGW64 **~/PycharmProjects/CatDogGCP (master)**§ git add .|

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

$ git add .

warning: LF will be replaced by CRLF in .idea/inspectionProfiles/profiles_settin
gs.xml.

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in HowToRun.txt.

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in cnn.py.

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in predict.py.

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in requirements.txt.

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/css/style.css.

The file will have its original line endings in your working directory
```

## 3. git status

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)
$ git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
                      .idea/.gitignore
         new file:
                      .idea/CatDogGCP.iml
        new file:
                      .idea/inspectionProfiles/profiles_settings.xml
         new file:
         new file:
         new file:
                     .idea/modules.xml
        new file:
                      .idea/vcs.xml
        new file:
                      HowToRun.txt
        new file:
                      __pycache__/predict.cpython-36.pyc
        new file:
                      app.yaml
        new file:
                      cnn.py
        new file:
                      com_in_ineuron_ai_utils/__init__.py
                      com_in_ineuron_ai_utils/__pycache__/__init__.cpython-36.pyc
com_in_ineuron_ai_utils/__pycache__/utils.cpython-36.pyc
         new file:
         new file:
```

### 4. git commit

```
MINGW64:/c/Users/Asus-2020/PycharmProjects/CatDogGCP
                                                                         new file:
                   .idea/CatDogGCP.iml
                    .idea/inspectionProfiles/profiles_settings.xml
       new file:
       new file:
                    .idea/misc.xml
                   .idea/modules.xml
        new file:
                    .idea/vcs.xml
        new file:
                   HowToRun.txt
        new file:
                   __pycache__/predict.cpython-36.pyc
       new file:
                   app.yaml
        new file:
                   cnn.py
        new file:
                   com_in_ineuron_ai_utils/__init__.py
       new file:
                   com_in_ineuron_ai_utils/__pycache__/__init__.cpython-36.pyc
                   com_in_ineuron_ai_utils/__pycache__/utils.cpython-36.pyc
                   com_in_ineuron_ai_utils/utils.py
                   main.py
                   model.h5
       new file:
       new file:
                   predict.py
       new file:
                   requirements.txt
                   static/css/main.css
       new file:
                   static/css/style.css
       new file:
                   templates/index.html
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)
$ git commit -m "initial commit"|
```

```
$ git commit -m "initial commit"
[master (root-commit) bdfbba9] initial commit
 21 files changed, 689 insertions(+)
 create mode 100644 .idea/.gitignore
 create mode 100644 .idea/CatDogGCP.iml
 create mode 100644 .idea/inspectionProfiles/profiles_settings.xml
 create mode 100644 .idea/misc.xml
 create mode 100644 .idea/modules.xml
 create mode 100644 .idea/vcs.xml
 create mode 100644 HowToRun.txt
 create mode 100644 __pycache__/predict.cpython-36.pyc
 create mode 100644 app.yaml
 create mode 100644 cnn.py
 create mode 100644 com_in_ineuron_ai_utils/__init__.py
 create mode 100644 com_in_ineuron_ai_utils/__pycache__/__init__.cpython-36.pyc
 create mode 100644 com_in_ineuron_ai_utils/__pycache__/utils.cpython-36.pyc
 create mode 100644 com_in_ineuron_ai_utils/utils.py
 create mode 100644 main.py
 create mode 100644 model.h5
 create mode 100644 predict.py
 create mode 100644 requirements.txt
 create mode 100644 static/css/main.css
 create mode 100644 static/css/style.css
 create mode 100644 templates/index.html
```

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)
$ git status
On branch master
nothing to commit, working tree clean
```

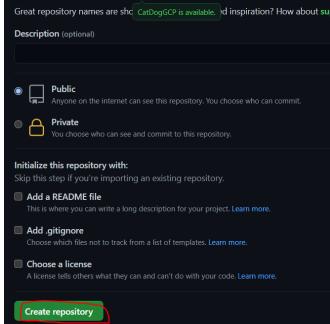
# Pushing code on the git hub:

Git Hub - local to github

Login to your git hub account

Create a new repo







Copy the url

In git we work or deal with branches basically.

Example: In one project multiple teams are working on multiple modules and every have don't access to the main repo they just push the code whatever they are trying to do in their separate branch

Ui team - ui branch

Back end team - backend branch

So that it is very easy to keep track of each branches. Senior person will check and once it approved the changes that we had done and they try to merge the changes into the main branch.

Git Push:

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

$ git branch

* master

Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

$ git push https://github.com/amarnath2706/CatDogGCP.git main
```

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)
$ git push https://github.com/amarnath2706/CatDogGCP.git main
error: src refspec main does not match any
error: failed to push some refs to 'https://github.com/amarnath2706/CatDogGCP.gi
t'
```

We got an error because we are in the master branch and we don't have any main branch. So now we need to create a main branch

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

$ git branch main

Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

$ git branch main

* master
```

Now we are able to see two branches which are available.

Change the branch:

```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (master)

Switched to branch 'main'
```

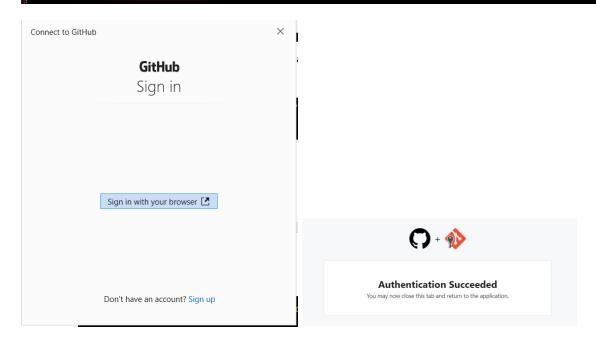
```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (main)

§ git add .

Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (main)

§ git status
On branch main
nothing to commit, working tree clean
```

Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (main)
\$ git push https://github.com/amarnath2706/CatDogGCP.git main\_



```
Asus-2020@LAPTOP-3VKRL6IT MINGW64 ~/PycharmProjects/CatDogGCP (main)

$ git push https://github.com/amarnath2706/CatDogGCP.git main
Enumerating objects: 31, done.

Counting objects: 100% (31/31), done.

Delta compression using up to 8 threads

Compressing objects: 100% (26/26), done.

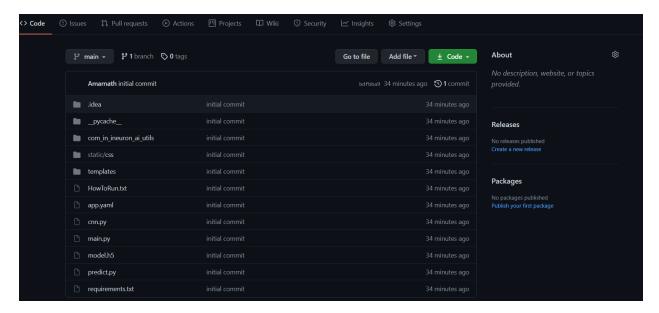
Writing objects: 100% (31/31), 29.89 MiB | 1.92 MiB/s, done.

Total 31 (delta 0), reused 0 (delta 0), pack-reused 0

To https://github.com/amarnath2706/CatDogGCP.git

* [new branch] main -> main
```

Go back to your git hub page and refresh the page then you can able to see the code.

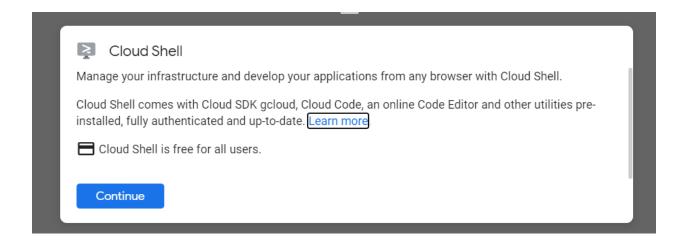


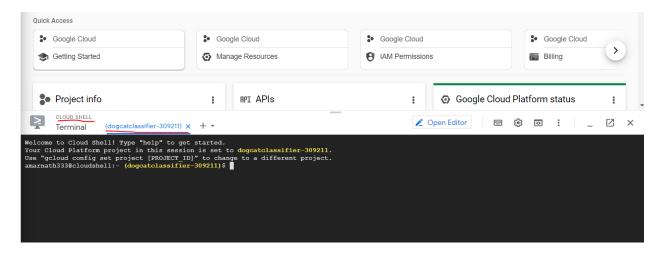
After this now switch back to your GCP account.



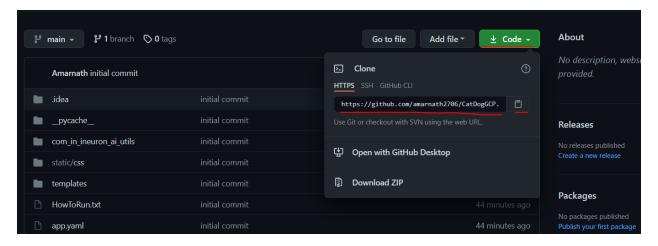
## Cloud Shell







Now we are going to clone the code from the git hub



### Copy the url to clone.

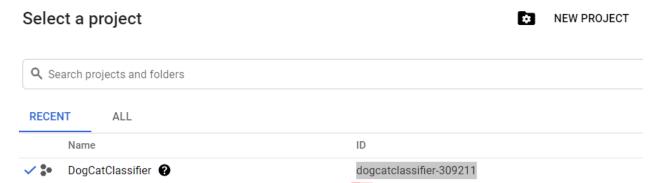
CatDogGCP README-cloudshell.txt

```
amarnath333@cloudshell:~ (dogcatclassifier-309211)$ git clone https://github.com/amarnath2706/CatDogGCP.git
Cloning into 'CatDogGCP'...
remote: Enumerating objects: 31, done.
remote: Counting objects: 100% (31/31), done.
remote: Compressing objects: 100% (26/26), done.
remote: Total 31 (delta 0), reused 31 (delta 0), pack-reused 0

amarnath333@cloudshell:~ (dogcatclassifier-309211)$ git clone https://github.com/amarnath2706/CatDogGCP.git
Cloning into 'CatDogGCP'...
remote: Enumerating objects: 31, done.
remote: Counting objects: 100% (31/31), done.
remote: Compressing objects: 100% (26/26), done.
remote: Total 31 (delta 0), reused 31 (delta 0), pack-reused 0
Unpacking objects: 100% (31/31), done.
amarnath333@cloudshell:~ (dogcatclassifier-309211)$ ]

amarnath333@cloudshell:~ (dogcatclassifier-309211)$ ]
```

```
amarnath333@cloudshell:~ (dogcatclassifier-309211)$ cd CatDogGCP/amarnath333@cloudshell:~/CatDogGCP (dogcatclassifier-309211)$ Deployment:
```



We need the project id for deployment so take the project id.

```
amarnath333@cloudshell:~\CatDogGCP (dogcatclassifier-309211) $ gcloud config set project dogcatclassifier-309211
Updated property [core/project].
amarnath333@cloudshell:~\CatDogGCP (dogcatclassifier-309211) $ [
```

```
amarnath333@cloudshell:~/CatDogGCP (dogcatclassifier-309211)$ gcloud app deploy
```

```
[8] europe-west
                   (supports standard and flexible and search_api)
[9] europe-west2
                   (supports standard and flexible and search_api)
[10] europe-west3 (supports standard and flexible and search api)
[11] europe-west6 (supports standard and flexible and search api)
[12] northamerica-northeast1 (supports standard and flexible and search api)
[13] southamerica-east1 (supports standard and flexible and search api)
[14] us-central
                   (supports standard and flexible and search api)
                    (supports standard and flexible and search api)
[15] us-east1
                    (supports standard and flexible and search api)
[16] us-east4
                    (supports standard and flexible and search api)
[17] us-west2
[18] us-west3
                    (supports standard and flexible and search api)
[19] us-west4
                    (supports standard and flexible and search api)
[20] cancel
Please enter your numeric choice: 1
```

Select any region

Creating App Engine application in project [dogcatclassifier-309211] and region [asia-east2].... 🖫

```
Creating App Engine application in project [dogcatclassifier-309211] and region [asia-east2]....done.

Services to deploy:

descriptor: [/home/amarnath333/CatDogGCP/app.yaml]
source: [/home/amarnath333/CatDogGCP]
target project: [dogcatclassifier-309211]
target service: [default]
target version: [20210330t134534]
target url: [https://dogcatclassifier-309211.df.r.appspot.com]

Do you want to continue (Y/n)? y
```

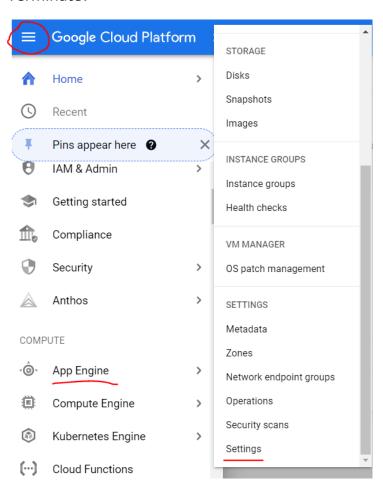
```
| Second column | Internation | | Intern
```

```
c5f91450ff31: Preparing
d8a990217f22: Preparing
88cace8eb20: Preparing
ae5630d5a50a: Preparing
f4abe2e82c92: Preparing
d43e6a3baa91: Preparing
d42e30e96a949: Preparing
d47e30e96a949: Preparing
60f3360243c1: Preparing
60f3360243c1: Preparing
60f3360243c1: Preparing
60f3360247f22: Waiting
88cace8eb20: Waiting
d8a630ba902. Waiting
d43e62e024: Waiting
d43e6a3baa91: Waiting
d47e30e96a949: Waiting
d47e30e96a949: Waiting
d6f36a5a4994: Waiting
d6f36a5a4994: Waiting
d6f36a5a491: Waiting
d6f36a5a5a52: Waiting
d6f36a5a63baa91: Wayer already exists
d6f36a5a63baa91: Layer already exists
d6f36a5a63baa91: Layer already exists
d6f36a6a5a63baa91: Layer already exists
d6f36a6a6a91: Layer already exists
d6f36a6a96a91: Layer already exists
d6f1362d21ac: Layer already exists
d6f1562d2f1c2. Layer already exists
```

```
f4abe2e82c92: Waiting
a43e6a3baa91: Waiting
41e2d890e349: Waiting
6971362c21ac: Waiting
6971362c21ac: Waiting
6971362c21ac: Waiting
3ec03be1bb38: Layer already exists
68a90c217722: Layer already exists
68a90c217722: Layer already exists
68a90c217722: Layer already exists
68a90c217722: Layer already exists
68a93c26a53c1 Layer already exists
68a6a30a6a5ac1 Layer already exists
64abc2e8c2c2: Layer already exists
64abc2e8c2c2: Layer already exists
64abc2e8c2c2: Layer already exists
64a5e6a3baa91: Layer already exists
64a5e6a3baa91: Layer already exists
64a5e6a5a5ac64: Pushed
905c7ac221f2: Pushed
905c7ac221f2: Pushed
905c7ac221f2: Pushed
905c7ac221f2: Pushed
905c7ac221f2: Pushed
905c7ac221f2: Pushed
11f2c6f0965: Layer already exists
660f1362c21ac: Layer already exists
660f1362c21ac: Layer already exists
660f1362c21ac: Layer already exists
60f1362c21ac: Layer already exists
60f1362c21
```

Jpdating service [default] (this may take several minutes)...done. Setting traffic split for service [default]...done. Deployed service [default] to [attps://dogcatclassifierv2.df.r.appspot.com]

# Terminate:



## Settings

Application settings

Custom domains

SSL certificates

Email senders

Edit

Google login cookie expiration

Default (1 day)

Referrers

Google Accounts API

#### Disable application

Disabling an application will stop all serving requests, but you will not lose any data or state. Billing charges will still incur when applicable. You can re-enable your application at any time.

Disable application

#### Default Cloud Storage Bucket

Up to 5GB of Cloud Storage may be used with App Engine applications without enabling billing. Learn more  $\,L^{\!\!N}$ 

dogcatclassifier-309211.appspot.com

#### Identity-Aware Proxy

Manage access to services hosted on App Engine.

DISABLED

Configure Now

#### Disable dogcatclassifier-309211?

#### If you disable this app, a few things will happen:

- The app will stop serving
- All data and state will be saved
- Billing charges will still incur when applicable
- Your task queues will continue to run. They can be paused in the Cloud Tasks
  UI

To disable dogcatclassifier-309211, type your app's ID: dogcatclassifier-309211

dogcatclassifier-309211

CANCEL DISABLE