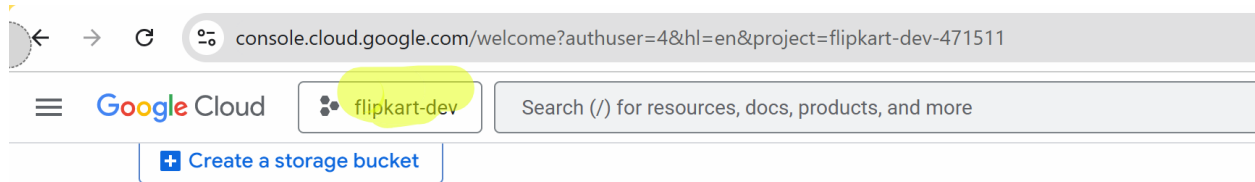



WORKING WITH APP ENGINE




New project

New Project

 You have 23 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[Manage Quotas](#)

- Project name * 

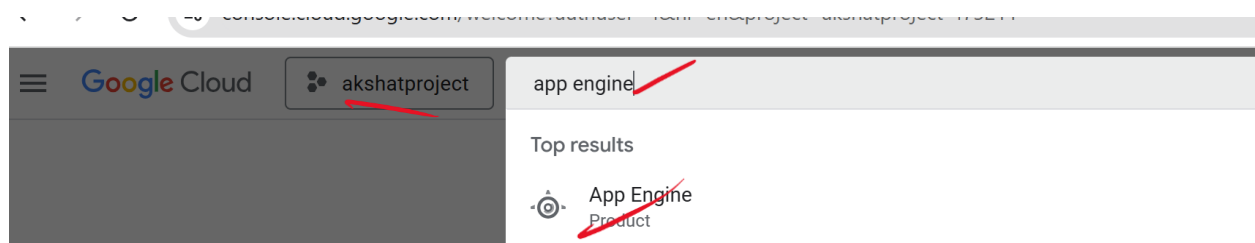
Project ID: akshatproject-473211. It cannot be changed later. [Edit](#)

- Location * [Browse](#)

Parent organization or folder

[Create](#) [Cancel](#)

Create



Create a application

Location: us-central

No other changes

Next

The screenshot shows the Google Cloud App Engine dashboard for a project named 'akshatproject'. The page title is 'app engine'. The breadcrumb navigation is 'App Engine / Dashboard / Start / Get started'. The left sidebar contains a 'Dashboard' link and a list of services: Services, Versions, Instances, Task queues, Cron jobs, Firewall rules, Quotas, Memcache, Search, and Settings. The main content area has a green success message: 'Your App Engine application has been created. Choose the deployment method that works best for you.' Below this is a 'Resources' section with two dropdown menus: 'Language' set to 'Python' and 'Environment' set to 'Standard'. It includes links to 'Read App Engine Python Standard Environment Documentation' and 'Visit Github for Python Standard Environment code samples'. The 'Github' link is circled in red, with an arrow pointing to the handwritten note 'Here you will find sample scripts'. To the right is a 'Deploy with Google Cloud SDK' section with a 'Download the Cloud SDK' button. Below the button are two code blocks: 'Initialize your SDK' with the command '\$ gcloud init' and 'Deploy to App Engine' with the command '\$ gcloud app deploy'. Both code blocks are circled in red, with an arrow pointing to the handwritten note 'This the code we will use to deploy app on app engine'.

Google Cloud akshatproject app engine

App Engine / Dashboard / Start / Get started

Dashboard

Services

Versions

Instances

Task queues

Cron jobs

Firewall rules

Quotas

Memcache

Search

Settings

✓ Your App Engine application has been created. Choose the deployment method that works best for you.

Resources

Language Python

Environment Standard

Read App Engine Python Standard Environment [Documentation](#).

Visit [Github](#) for Python Standard Environment code samples.

Deploy with Google Cloud SDK

[Download the Cloud SDK](#)

Initialize your SDK

```
$ gcloud init
```

Deploy to App Engine

```
$ gcloud app deploy
```

This the code we will use to deploy app on app engine.

Here you will find sample scripts

Open cloud shell

Code which we will deploy in app engine : <https://github.com/akshu20791/app-engine-standard-demo>

```
flipkart-dev-471511-a3054c7463cb.json  README-cloudshell.txt
thecareerbeer@cloudshell:~$ git clone https://github.com/akshu20791/app-engine-standard-demo
Cloning into 'app-engine-standard-demo'...
remote: Enumerating objects: 18, done.
remote: Counting objects: 100% (18/18), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 18 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (18/18), 5.75 KiB | 1.92 MiB/s, done.
Resolving deltas: 100% (1/1), done.
thecareerbeer@cloudshell:~$ ls
app-engine-standard-demo  flipkart-dev-471511-a3054c7463cb.json  README-cloudshell.txt
thecareerbeer@cloudshell:~$
```

git clone <https://github.com/akshu20791/app-engine-standard-demo>

cd app-engine-standard-demo

gcloud init

it will ask you reconfigure and select the new project which we created

gcloud app deploy

ERROR !!!

```
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$ gcloud app deploy
WARNING: You might be using automatic scaling for a standard environment deployment, without providing a value for automatic_scaling.max_instances. Starting from 2025, App Engine sets the automatic scaling maximum instances default for standard environment deployments to 20. This change doesn't impact existing apps. To override the default, specify the new max_instances value in your app.yaml file, and deploy a new version or redeploy over an existing version. For details on max_instances, see https://cloud.google.com/appengine/docs/standard/reference/app-yaml#scaling_elements.

Services to deploy:
descriptor:      [/home/thecareerbeer/app-engine-standard-demo/app.yaml]
source:          [/home/thecareerbeer/app-engine-standard-demo]
target project:  [akshatproject-473211]
target service:  [default]
target version:  [20250220113732]
target url:      [https://akshatproject-473211.uc.r.appspot.com]
target service account: [akshatproject-473211@appspot.gserviceaccount.com]

Do you want to continue (Y/n)? y
Beginning deployment of service [default]...
Created gcloudignore file. See 'gcloud topic gcloudignore' for details.
Uploading 4 files to Google Cloud Storage
25%
50%
75%
100%
File upload done.
Updating service [default]...failed.
ERROR: (gcloud.app.deploy) Error Response: (13) Failed to create cloud build: com.google.net.rpc3.client.RpcClientException: <env> title='/ArpAdmin@CloudBuild', failed: 3882001710M /> APPENGINE_UPLOAD_BUCKET: Invalid bucket "storage.googleapis.com/akshatproject-473211.appspot.com", service account akshatproject-473211@appspot.gserviceaccount.com does not have access to the bucket;AppErrorCode=9;StartTimeMs=1758600186000;Format=uncompressed;ServerInstance=0.475018014;LogByte=236;Run-FailFast;EndUserCredsRequested;EffSecLevel=privacy_and_integrity;ReqFormat=uncompressed;ReqSize=19951a3c6e8a5b1a1b0f8e7e1f002a0c460027443a044179217e67174001.
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$
```

ERROR MESSAGE

```
ERROR: (gcloud.app.deploy) Error Response: [13] Failed to create cloud build:
com.google.net.rpc3.client.RpcClientException: <eye3
title='/ArgoAdminNoCloudAudit.CreateBuild, FAILED_PRECONDITION'/>
APPLICATION_ERROR;google.devtools.cloudbuild.v1/ArgoAdminNoCloudAudit.CreateBuild;invalid bucket "staging.akshatproject-473211.appspot.com"; service account akshatproject-473211@appspot.gserviceaccount.com does not have access to the bucket;AppErrorCode=9;StartTimeMs=1758800302287;unknown;ResFormat=uncompressed;ServerTimeSec=0.675018014;LogBytes=256;Non-FailFast;EndUserCredsRequested;EffSecLevel=privacy_and_integrity;ReqFormat=uncompressed;ReqID=739501a35c56a5bb;GlobalID=0;Server=[2002:a05:6600:2744:b0:441:7527:6a57]:4001.
```

What does this error mean:

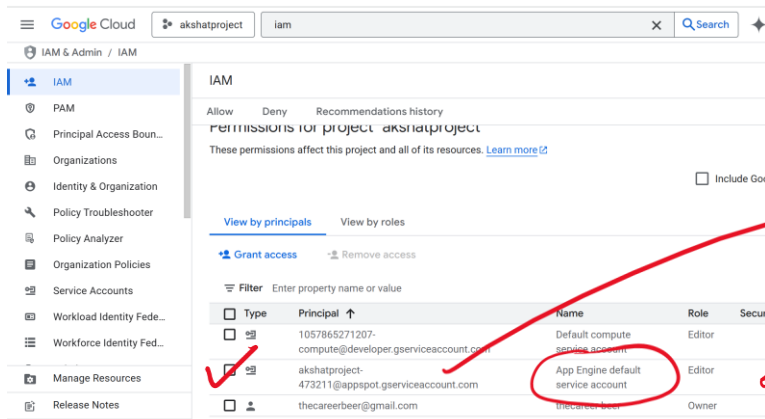
When you deploy to app engine standard, gcp uses cloud build on the background . Cloud build stores files in staging bucket (staging. Project_id.appspot.com)

In our case above the default app engine service account akshatproject-473211@appspot.gserviceaccount.com does not have correct permission

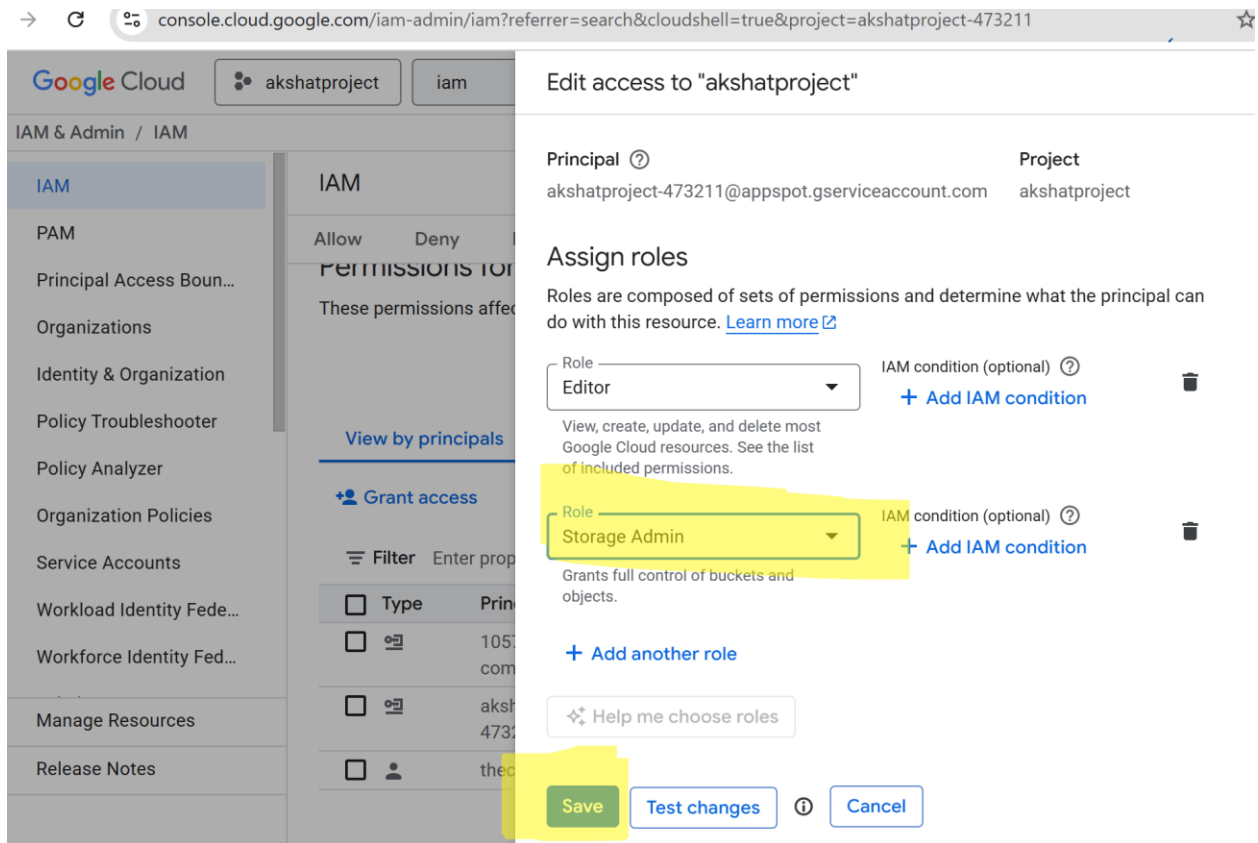
This is the reason why deployment is failing

To solve this error,

Go to iam and admin



edit this service a/c



Again go to cloud shell and run
gcloud app deploy

You will see that it is success now .

Go to app engine in gui

Google Cloud console showing the App Engine dashboard for project 'akshatproject'. The dashboard displays the version '20250925t114708 (100...)' and chart settings for the 'Summary' view. A red arrow points to the 'akshatproject' link in the top right corner, with the handwritten text 'Click on link here' next to it. The address bar shows the URL 'console.cloud.google.com/appengine?serviceId=default&cloudshell=true&project=akshatproject-473211'.

akshatproject-473211.uc.r.appspot.com

Lets learn GCP with Akshat

Quickly refresh you app link and check the instances (whenever there is request you will see instances)

Google Cloud console showing the App Engine dashboard for project 'akshatproject'. The dashboard displays the version '20250925t114708 (100...)' and chart settings for the 'Summary' view. A red arrow points to the 'akshatproject' link in the top right corner, with the handwritten text 'Click on link here' next to it. The address bar shows the URL 'console.cloud.google.com/appengine?serviceId=default&cloudshell=true&project=akshatproject-473211'.

akshatproject-473211.uc.r.appspot.com

we can see the list of instances via cloud shell as well

```
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$ gcloud app instances list
SERVICE: default
VERSION: 20250925t114708
ID: 0069c7a988763e5164fe07b103db42f8f3ef4cdabbdf01702fda5607413e11c8d526ddadb14d4d798c9ddd7a42c9b0fa9c0bd411d34c4fc1639013a240ede337f645
VM_STATUS: N/A
VM_LIVENESS:
DEBUG_MODE:
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$
```

gcloud app instances list

lets see if autoscaling is happening (the machine automatically increase) by sending 10000 request via below command

ab -c 1000 -n 10000 http://<your app id>.appspot.com/

here

-c 1000: concurrency level = 1000

that means 1000 requests at the same time

-n 10000 -> total number of request 10000

http://youappid .appspot.com -> replace with your actual app engine url

so this command sends 10,000 requests total , with upto 1,000 simultaneous request at momey

You might get ab command not found error:

Solution:

sudo apt update

sudo apt install apache2-utils -y

Then test :-----> ab -V

```
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$ ab -c 1000 -n 10000 https://akshatproject-473211.uc.r.appspot.com/
this is ApacheBench, Version 2.3 <$Revision: 1903618 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking akshatproject-473211.uc.r.appspot.com (be patient)
SSL read failed (1) - closing connection
036DD2AE17B0000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
c
Server Software: Google
Server Hostname: akshatproject-473211.uc.r.appspot.com
Server Port: 443
SSL/TLS Protocol: TLSv1.3,TLS_AES_256_GCM_SHA384,256,256
Server Temp Key: X25519 253 bits
```

in message some warning of ssh will be there ignore

UTC+5:30 4:30 PM 4:35 PM 4:40 PM 4:45 PM 4:50 PM 4:55 PM 5:00 PM 5:05 PM 5:10 PM 5:15 PM 5:20 PM								
Instances (autoscaled) ?								
<input type="checkbox"/>	ID ↑	QPS ?	Latency ?	Requests	Errors	Memory	Start Time	Availability
<input type="checkbox"/>	✓ 0...	67.115	5 ms	896	0	88.5 MB	Sep 25, 2025, 5:31:12 PM	Dynamic
<input type="checkbox"/>	✓ 0...	16.267	18 ms	989	0	94 MB	Sep 25, 2025, 5:20:22 PM	Dynamic
<input type="checkbox"/>	✓ 0...	18.875	15 ms	251	0	71.5 MB	Sep 25, 2025, 5:31:12 PM	Dynamic

lets create a new version of the app (version 2)

```

Cloud Shell Editor

(akshatproject-473211) x Gemini CLI x + v

thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211) $ pwd
/home/thecareerbeer/app-engine-standard-demo
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211) $

```

ls

vi server.js

```

var http = require('http');
var handleRequest = function(request, response) {
  response.writeHead(200);
  response.end("<h1>Lets learn GCP together </h1>");
}
var www = http.createServer(handleRequest);
www.listen(8080);
~
~
~

```

content is edited

gcloud app deploy -v version2

```
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$ gcloud app deploy -v version2
WARNING: You might be using automatic scaling for a standard environment deployment, without providing a value for automatic scaling.
m March, 2025, App Engine sets the automatic scaling maximum instances default for standard environment deployments to 20. This change
pps. To override the default, specify the new max instances value in your app.yaml file, and deploy a new version or redeploy over an
ils on max_instances, see https://cloud.google.com/appengine/docs/standard/reference/app-yaml.md#scaling_elements.

Services to deploy:

descriptor:      [/home/thecareerbeer/app-engine-standard-demo/app.yaml]
source:          [/home/thecareerbeer/app-engine-standard-demo]
target project:  [akshatproject-473211]
target service:  [default]
target version:  [version2]
target url:      [https://akshatproject-473211.uc.r.appspot.com]
target service account: [akshatproject-473211@appspot.gserviceaccount.com]

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

```
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$ gcloud app deploy -v version2
WARNING: You might be using automatic scaling for a standard environment deployment, without providing a value for automatic
m March, 2025, App Engine sets the automatic scaling maximum instances default for standard environment deployments to 20. Th
pps. To override the default, specify the new max instances value in your app.yaml file, and deploy a new version or redeploy
ils on max_instances, see https://cloud.google.com/appengine/docs/standard/reference/app-yaml.md#scaling_elements.

Services to deploy:

descriptor:      [/home/thecareerbeer/app-engine-standard-demo/app.yaml]
source:          [/home/thecareerbeer/app-engine-standard-demo]
target project:  [akshatproject-473211]
target service:  [default]
target version:  [version2]
target url:      [https://akshatproject-473211.uc.r.appspot.com]
target service account: [akshatproject-473211@appspot.gserviceaccount.com]

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

Beginning deployment of service [default]...
Uploading 1 file to Google Cloud Storage
100%
100%
File upload done.
Updating service [default]...working.WARNING: *** Improve build performance by generating and committing package-lock.json.
Updating service [default]...done.
Setting traffic split for service [default]...done.
Deployed service [default] to [https://akshatproject-473211.uc.r.appspot.com]

You can stream logs from the command line by running:
$ gcloud app logs tail -s default

To view your application in the web browser run:
$ gcloud app browse
thecareerbeer@cloudshell:~/app-engine-standard-demo (akshatproject-473211)$
```

← → ↺ 🌐 akshatproject-473211.uc.r.appspot.com

Lets learn GCP together

Google Cloud | akshatproject | app engine

App Engine / Dashboard / Versions

all traffic is going on new version

Less traffic so less Instance

Refresh Delete Stop Start Migrate

Filter Filter versions

<input type="checkbox"/>	Version	Status	Traffic Allocation	Ins
<input type="checkbox"/>	version2	Serving	100%	0
<input type="checkbox"/>	20250925t114708	Serving	0%	5

to delete app engine you need to delete the whole project...

but we can disable the app engine

App Engine / Dashboard / Settings

Settings

Application settings Custom domains SSL certificates E

Google login cookie expiration	Default (1 day)
Referrers	Google Accounts API
Default service account	akshatproject-473211@appspot.gserviceaccount.com
SSL Policy	TLS 1.0+ (Obsolete)

Edit Application Settings

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

