```
keertanacloud09@cloudshell:~ (refined-sunup-455515-d0)$ gcloud services enable appengine.googleapis.com
Operation "operations/acat.p2-372816833289-3244bd6f-5cb7-4f3a-8a25-7c6bf09e54f3" finished successfully.
keertanacloud09@cloudshell:~ (refined-sunup-455515-d0)$ gcloud app create --region=us-central1
You are creating an app for project [refined-sunup-455515-d0].
WARNING: Creating an App Engine application for a project is irreversible and the region
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.

WARNING: Starting from March, 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 more details on max_instances, see
<https://cloud.google.com/appengine/docs/standard/reference/app-yaml.md#scaling_elements>.

Creating App Engine application in project [refined-sunup-455515-d0] and region [us-central1]...done.
Success! The app is now created. Please use `gcloud app deploy` to deploy your first app.
keertanacloud09@cloudshell:~ (refined-sunup-455515-d0)$
```

```
keertanacloud09@cloudshell:~ (refined-sunup-455515-d0)$ mkdir app-engine-demo && cd app-engine-demo
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ nano main.py
```

```
  GNU nano 7.2                                                                    main.py *
from flask import Flask

app = Flask(__name__)

@app.route('/')
def index():
    return "Hello, World! Welcome to App Engine with Auto Scaling."

if __name__ == '__main__':
    app.run(host="0.0.0.0", port=8080)




File Name to Write: main.py
^G Help              ^T DOS Format        ^A Append           ^B Backup File
^C Cancel            ^M Mac Format        ^P Prepend          ^B Browse
```

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ pip install flask
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: flask in /usr/local/lib/python3.12/dist-packages (3.1.0)
Requirement already satisfied: Werkzeug>=3.1 in /usr/local/lib/python3.12/dist-packages (from flask) (3.1.3)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.12/dist-packages (from flask) (3.1.5)
Requirement already satisfied: itsdangerous>=2.2 in /usr/local/lib/python3.12/dist-packages (from flask) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.12/dist-packages (from flask) (8.1.8)
Requirement already satisfied: blinker>=1.9 in /usr/local/lib/python3.12/dist-packages (from flask) (1.9.0)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.12/dist-packages (from Jinja2>=3.1.2->flask) (3.0.2)
```

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ nano app.yaml
```

```
  GNU nano 7.2                                                                    app.yaml
runtime: python310  # define the runtime
entrypoint: gunicorn -b :$PORT main:app

automatic_scaling:
  min_instances: 1
  max_instances: 5
  target_cpu_utilization: 0.65
  target_throughput_utilization: 0.75

handlers:
- url: /.*
  script: auto




                                        [ Read 12 lines ]
^G Help       ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    ^U Undo        ^A Set Mark    ^] To Bracket  ^_ Previous    ^B Back        ^Y Prev Word
^X Exit       ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  ^E Redo        ^^ Copy        ^Q Where Was   ^V Next        ^F Forward     ^Z Next Word
```

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ nano requirements.txt
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ pip install -r requirements.txt
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: Flask in /usr/local/lib/python3.12/dist-packages (from -r requirements.txt (line 1)) (3.1.0)
Requirement already satisfied: gunicorn in /home/keertanacloud09/.local/lib/python3.12/site-packages (from -r requirements.txt (line 2)) (23.0.0)
Requirement already satisfied: Werkzeug>=3.1 in /usr/local/lib/python3.12/dist-packages (from Flask->-r requirements.txt (line 1)) (3.1.3)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.12/dist-packages (from Flask->-r requirements.txt (line 1)) (3.1.5)
Requirement already satisfied: itsdangerous>=2.2 in /usr/local/lib/python3.12/dist-packages (from Flask->-r requirements.txt (line 1)) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.12/dist-packages (from Flask->-r requirements.txt (line 1)) (8.1.8)
Requirement already satisfied: blinker>=1.9 in /usr/local/lib/python3.12/dist-packages (from Flask->-r requirements.txt (line 1)) (1.9.0)
Requirement already satisfied: packaging in /usr/local/lib/python3.12/dist-packages (from gunicorn->-r requirements.txt (line 2)) (24.2)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.12/dist-packages (from Jinja2>=3.1.2->Flask->-r requirements.txt (line 1)) (3.0.2)
```

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ gcloud app deploy
Services to deploy:

descriptor:                  [/home/keertanacloud09/app-engine-demo/app.yaml]
source:                      [/home/keertanacloud09/app-engine-demo]
target project:              [refined-sunup-455515-d0]
target service:              [default]
target version:              [20250401t152039]
target url:                  [https://refined-sunup-455515-d0.uc.r.appspot.com]
target service account:      [refined-sunup-455515-d0@appspot.gserviceaccount.com]


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

Beginning deployment of service [default]...
Uploading 0 files to Google Cloud Storage
100%
File upload done.
Updating service [default]...done.
Setting traffic split for service [default]...done.
Deployed service [default] to [https://refined-sunup-455515-d0.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
```

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ gcloud app browse
Did not detect your browser. Go to this link to view your app:
https://refined-sunup-455515-d0.uc.r.appspot.com
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$
```

Hello, World! Welcome to App Engine with Auto Scaling.

```
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ gcloud app instances list
SERVICE: default
VERSION: 20250401t152039
ID: 00afae8049b39235db1ff24dc6ce9246a2e0f5213b346e4d10c272e1001058ad73c0b8b6ff1235af0aa30fc806588f8d41bbc9ac28c4fd17126d8a2eae287a02e91f8acbcb93c09a2ae3669090a
VM_STATUS: N/A
VM_LIVENESS:
DEBUG_MODE:
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ gcloud app logs tail -s default
Waiting for new log entries...
2025-04-01 15:33:49 default[20250401t152039]  "GET / HTTP/1.1" 200
2025-04-01 15:33:50 default[20250401t152039]  [2025-04-01 15:33:50 +0000] [11] [INFO] Starting gunicorn 23.0.0
2025-04-01 15:33:50 default[20250401t152039]  [2025-04-01 15:33:50 +0000] [11] [INFO] Listening at: http://0.0.0.0:8081 (11)
2025-04-01 15:33:50 default[20250401t152039]  [2025-04-01 15:33:50 +0000] [11] [INFO] Using worker: sync
2025-04-01 15:33:50 default[20250401t152039]  [2025-04-01 15:33:50 +0000] [14] [INFO] Booting worker with pid: 14
2025-04-01 15:33:50 default[20250401t152039]  "GET /favicon.ico HTTP/1.1" 404
keertanacloud09@cloudshell:~/app-engine-demo (refined-sunup-455515-d0)$ gcloud app services list
SERVICE: default
NUM_VERSIONS: 2
```