

```
Enter a Project ID. Note that a Project ID CANNOT be changed later.
Project IDs must be 6-30 characters (lowercase ASCII, digits, or
hyphens) in length and start with a lowercase letter. cloud-app-dev-21
Waiting for [operations/cp.4622893728023956466] to finish...done.
Your current project has been set to: [cloud-app-dev-21].
```

```
Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.
```

```
The Google Cloud CLI is configured and ready to use!
```

Create project and set default

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK>mkdir hello-world-app
C:\Users\aliha\AppData\Local\Google\Cloud SDK>cd hello-world-app
C:\Users\aliha\AppData\Local\Google\Cloud SDK\hello-world-app>
```

Create Directory

```
C:\Users\aliha>pip install flask
Collecting flask
  Obtaining dependency information for flask from https://files.pythonhosted.org/packages/61/80/ffe1da13ad9300f87c93af113edd0638c75138c42a0994becfacac078c06/flask-3.0.3-py3-none-any.whl.metadata
  Downloading flask-3.0.3-py3-none-any.whl.metadata (3.2 kB)
Collecting Werkzeug>=3.0.0 (from flask)
  Obtaining dependency information for Werkzeug>=3.0.0 from https://files.pythonhosted.org/packages/4b/84/997bbf7c2bf2dc3f09565c6d0b4959fefe5355c18c4096cfd26d83e0785b/werkzeug-3.0.4-py3-none-any.whl.metadata
  Downloading werkzeug-3.0.4-py3-none-any.whl.metadata (3.7 kB)
Collecting Jinja2>=3.1.2 (from flask)
  Obtaining dependency information for Jinja2>=3.1.2 from https://files.pythonhosted.org/packages/31/80/3a54838c3fb461ffec263ebf3a3a41771bd05190238dc3486aae8540c36/jinja2-3.1.4-py3-none-any.whl.metadata
  Downloading jinja2-3.1.4-py3-none-any.whl.metadata (2.6 kB)
Collecting itsdangerous>=2.1.2 (from flask)
  Obtaining dependency information for itsdangerous>=2.1.2 from https://files.pythonhosted.org/packages/84/96/92447566d16df59b2a776c0fb82dbc4d9e07cd95062562af01e408583fcd/itsdangerous-2.2.0-py3-none-any.whl.metadata
  Downloading itsdangerous-2.2.0-py3-none-any.whl.metadata (1.9 kB)
Collecting click>=8.1.3 (from flask)
  Obtaining dependency information for click>=8.1.3 from https://files.pythonhosted.org/packages/00/2e/d53fa4befbf2cfa713304affc7ca780ce4fc1fd8710527771b58311a3229/click-8.1.7-py3-none-any.whl.metadata
  Downloading click-8.1.7-py3-none-any.whl.metadata (3.0 kB)
Collecting blinker>=1.6.2 (from flask)
  Obtaining dependency information for blinker>=1.6.2 from https://files.pythonhosted.org/packages/bb/2a/10164ed1f31196a2f7f3799368a821765c62851ead0e630ab52b8e14b4d0/blinker-1.8.2-py3-none-any.whl.metadata
  Downloading blinker-1.8.2-py3-none-any.whl.metadata (1.6 kB)
Collecting colorama (from click>=8.1.3->flask)
  Obtaining dependency information for colorama from https://files.pythonhosted.org/packages/d1/d6/3965ed04c63042e047cb6a3e6ed1a63a35087b6a609aa3a15ed8ac56c221/colorama-0.4.6-py2.py3-none-any.whl.metadata
  Downloading colorama-0.4.6-py2.py3-none-any.whl.metadata (17 kB)
Collecting MarkupSafe>=2.0 (from Jinja2>=3.1.2->flask)
  Obtaining dependency information for MarkupSafe>=2.0 from https://files.pythonhosted.org/packages/3f/14/c3554d512d5f9100a05e737502f4a2323a1959f6d0d01e0d0997b35f7b10/MarkupSafe-2.1.5-cp312-cp312-win_amd64.whl.m
  etadata
  Downloading MarkupSafe-2.1.5-cp312-cp312-win_amd64.whl.metadata (3.1 kB)
Download flask-3.0.3-py3-none-any.whl (101 kB)
----- 101.7/101.7 kB 391.0 kB/s eta 0:00:00
Download blinker-1.8.2-py3-none-any.whl (9.5 kB)
Download click-8.1.7-py3-none-any.whl (97 kB)
----- 97.0/97.0 kB 2.8 MB/s eta 0:00:00
Download itsdangerous-2.2.0-py3-none-any.whl (16 kB)
Download Jinja2-3.1.4-py3-none-any.whl (133 kB)
----- 133.0/133.3 kB 3.8 MB/s eta 0:00:00
Download werkzeug-3.0.4-py3-none-any.whl (227 kB)
----- 227.0/227.6 kB 1.7 MB/s eta 0:00:00
Download MarkupSafe-2.1.5-cp312-cp312-win_amd64.whl (17 kB)
Download colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Installing collected packages: MarkupSafe, itsdangerous, colorama, blinker, Werkzeug, Jinja2, click, flask
Successfully installed Jinja2-3.1.4 MarkupSafe-2.1.5 Werkzeug-3.0.4 blinker-1.8.2 click-8.1.7 colorama-0.4.6 flask-3.0.3 itsdangerous-2.2.0

[notice] A new release of pip is available: 23.2.1 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
```

Install Flask

app – Блокнот

Файл Правка Формат Вид Справка

runtime: python39

handlers:

- url: /*
script: auto

Create .yaml file

```
blinker==1.8.2
click==8.1.7
colorama==0.4.6
Flask==3.0.3
gunicorn==23.0.0
importlib_metadata==8.5.0
itsdangerous==2.2.0
Jinja2==3.1.4
MarkupSafe==2.1.5
packaging==24.1
Werkzeug==3.0.4
zipp==3.20.2
```

Create requirements.txt file

Please choose the region where you want your App Engine application located:

- [1] asia-east1 (supports standard and flexible)
- [2] asia-east2 (supports standard and flexible and search_api)
- [3] asia-northeast1 (supports standard and flexible and search_api)
- [4] asia-northeast2 (supports standard and flexible and search_api)
- [5] asia-northeast3 (supports standard and flexible and search_api)
- [6] asia-south1 (supports standard and flexible and search_api)
- [7] asia-southeast1 (supports standard and flexible)
- [8] asia-southeast2 (supports standard and flexible and search_api)
- [9] australia-southeast1 (supports standard and flexible and search_api)
- [10] europe-central2 (supports standard and flexible)
- [11] europe-west (supports standard and flexible and search_api)
- [12] europe-west2 (supports standard and flexible and search_api)
- [13] europe-west3 (supports standard and flexible and search_api)
- [14] europe-west6 (supports standard and flexible and search_api)
- [15] northamerica-northeast1 (supports standard and flexible and search_api)
- [16] southamerica-east1 (supports standard and flexible and search_api)
- [17] us-central (supports standard and flexible and search_api)
- [18] us-east1 (supports standard and flexible and search_api)
- [19] us-east4 (supports standard and flexible and search_api)
- [20] us-west1 (supports standard and flexible)
- [21] us-west2 (supports standard and flexible and search_api)
- [22] us-west3 (supports standard and flexible and search_api)
- [23] us-west4 (supports standard and flexible and search_api)
- [24] cancel

Please enter your numeric choice: 13

Choose region

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK\hello-world-app>gcloud app deploy
Services to deploy:

descriptor:          [C:\Users\aliha\AppData\Local\Google\Cloud SDK\hello-world-app\app.yaml]
source:              [C:\Users\aliha\AppData\Local\Google\Cloud SDK\hello-world-app]
target project:      [cloud-app-dev-222222]
target service:      [default]
target version:      [20241007t223421]
target url:          [https://cloud-app-dev-222222.el.r.appspot.com]
target service account: [cloud-app-dev-222222@appspot.gserviceaccount.com]

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

Beginning deployment of service [default]...

= Uploading 0 files to Google Cloud Storage =

File upload done.
Updating service [default]...done.
Setting traffic split for service [default]...done.
```





Deploy files

<https://cloud-app-dev-21.ey.r.appspot.com/>

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud projects create cloud-app-dev-222
Create in progress for [https://cloudresourcemanager.googleapis.com/v1/projects/cloud-app-dev-222].
Waiting for [operations/cp.6061015136583270466] to finish...done.
Enabling service [cloudapis.googleapis.com] on project [cloud-app-dev-222]...
Operation "operations/acat.p2-531153297626-e27b2af9-815f-42c2-808c-e5d29b1dec63" finished successfully.

C:\Users\aliha\AppData\Local\Google\Cloud SDK>gcloud config set project cloud-app-dev-222
Updated property [core/project].
```

Create project and set default

Name	ID	Billing account 
 cloud-app-dev-222	cloud-app-dev-222	My Billing Account
 cloud-app-dev-21	cloud-app-dev-21	Billing is disabled
 My First Project	civic-meridian-435815-u4	Billing is disabled
 My First Project	i-woodland-435815-e8	Billing is disabled

Activate Billing account

Basics

Environment

Cloud Run function



Function name *

helloWorldFunction



Region *

europe-central2 (Warsaw)



Trigger

Trigger type


HTTPS



URL

https://europe-central2-cloud-app-dev-222.cloudfunctions.net/helloWorldFunction



Authentication 

☒ Allow unauthenticated invocations

Check this if you are creating a public API or website.

☐ Require authentication

Manage authorized users with Cloud IAM.

On Cloud Run functions press to “Create Function”
Then choose your options

Runtime
Node.js 18

Source code
Inline Editor

index.js

package.json

Entry point *
helloWorld

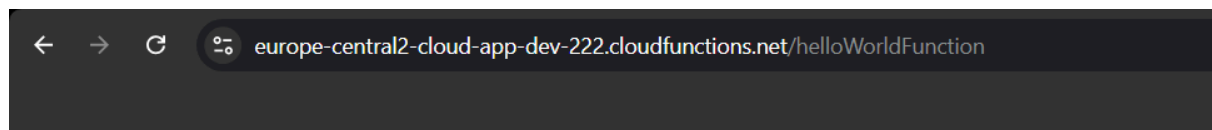
TEST FUNCTION

Press Alt+F1 for Accessibility Options.

```
1 exports.helloWorld = (req, res) => {  
2   res.send('Hello, World!');  
3 };  
4
```

Deploy function

<https://europe-central2-cloud-app-dev-222.cloudfunctions.net/helloWorldFunction>



Hello, World!

```

Your current project has been set to: [cloud-app-dev-23].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use alihanmurat11@gmail.com by default
* Commands will reference project `cloud-app-dev-23` by default
Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.

```

Create project

```

app.py
1  print("Hello from inside the container!")
2

```

Create app.py

```

Dockerfile – Блокнот
Файл  Правка  Формат  Вид  Справка
# Use an official Python runtime as a parent image
FROM python:3.9-slim

# Set the working directory in the container
WORKDIR /app

# Copy the current directory contents into the container at /app
COPY . /app

# Run the application
CMD ["python", "app.py"]

```

Create Dockefile

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK\app3>docker build -t hello-world-app .
[+] Building 10.3s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 305B
=> [internal] load metadata for docker.io/library/python:3.9-slim
=> [auth] library/python:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/3] FROM docker.io/library/python:3.9-slim@sha256:49f94609e5a997dc16086a66ac9664591854031d48e375945a9dbf4d1d53abbc
=> => resolve docker.io/library/python:3.9-slim@sha256:49f94609e5a997dc16086a66ac9664591854031d48e375945a9dbf4d1d53abbc
=> => sha256:62a08b8dd4f53ad5493dabf2af00ccde91abb3771fb2187040bcf2fe94a7ced7 248B / 248B
=> => sha256:fdeec85abbad3878f2008f9445f15a19a5a224d1b7e7715ac6b923072333e57 14.74MB / 14.74MB
=> => sha256:4c0965d3919510b506d8856ebc050a96e996c7dae96e4fb420882dbe7e037e67 3.51MB / 3.51MB
=> => sha256:302e3ee498053a7b5332ac79e8efebec16e900289fc1ecd1c754ce8fa047fcab 29.13MB / 29.13MB
=> => extracting sha256:302e3ee498053a7b5332ac79e8efebec16e900289fc1ecd1c754ce8fa047fcab
=> => extracting sha256:4c0965d3919510b506d8856ebc050a96e996c7dae96e4fb420882dbe7e037e67
=> => extracting sha256:fdeec85abbad3878f2008f9445f15a19a5a224d1b7e7715ac6b923072333e57
=> => extracting sha256:62a08b8dd4f53ad5493dabf2af00ccde91abb3771fb2187040bcf2fe94a7ced7
=> [internal] load build context
=> => transferring context: 383B
=> [2/3] WORKDIR /app
=> [3/3] COPY . /app
=> exporting to image
=> => exporting layers
=> => exporting manifest sha256:9dc7ef543eb136921cbbe222fe965e6b59f00f5aa971ef57a9815f370cc70f78
=> => exporting config sha256:9d982b4a677cebc47ab7d6f3558c6d78f477dfaf6044faad026cd68c433cbc87
=> => exporting attestation manifest sha256:1d5349406e67e9bd6daa5e1fb70ca57645c640d3c6170d111b7d17310831183f
=> => exporting manifest list sha256:a11247f92743ca11db75cb383436712c87423dba7bdcd00267cb70bc58fc4727
=> => naming to docker.io/library/hello-world-app:latest
=> => unpacking to docker.io/library/hello-world-app:latest
```

run the code “**docker build -t hello-world-app**”

```
C:\Users\aliha\AppData\Local\Google\Cloud SDK\app3>docker run --rm hello-world-app
Hello from inside the container!
```

run the code “**docker run --rm hello-world-app**”