gcloud

Instalar a versão mais recente do SDK do Cloud (245.0.0)

Como instalar o Cloud SDK
Esta página apresenta as instruções de download e instalação do Google Cloud SDK.
Requisitos do sistema

O Cloud SDK é executado no Linux, Mac OS X e Windows e requer o Python 2.7.x. Algumas ferramentas integradas ao Cloud SDK têm requisitos adicionais. Por exemplo, as ferramentas Java para desenvolvimento do Google App Engine requerem o Java 1.7 ou posterior.

https://cloud.google.com/sdk/docs/#deb

https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-sdk-196.0.0-linux-x86_64.tar.gz

Descompactar e executar:
./google-cloud-sdk/install.sh

./google-cloud-sdk/bin/gcloud init

Debian/Ubuntu

Crie uma variável de ambiente para a distribuição correta:
export CLOUD_SDK_REPO="cloud-sdk-$(lsb_release -c -s)"

Adicione o URI de distribuição do SDK do Cloud como a origem do pacote:
echo "deb http://packages.cloud.google.com/apt $CLOUD_SDK_REPO main" | sudo tee -a /etc/apt/sources.list.d/google-cloud-sdk.list

Importe a chave pública do Google Cloud:
curl https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key add -

sudo apt update && sudo apt install -y google-cloud-sdk

Alternativa:
https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-sdk-196.0.0-linux-x86_64.tar.gz

./google-cloud-sdk/install.sh

Execute gcloud init para começar:
gcloud init

Criar configuração
gcloud config configurations create [NAME]

Como visualizar propriedades da configuração

Para ver as propriedades em uma configuração, execute gcloud config configurations describe:

gcloud config configurations describe [NAME]

Ou para ver as propriedades na configuração ativa:

gcloud config list

gcloud projects list

gcloud projects list --filter=test

Criar projeto
gcloud projects create PROJECT_ID

gcloud projects create PROJECT_ID --organization=ORGANIZATION_ID

gcloud projects create PROJECT_ID --folder=FOLDER_ID

gcloud projects describe PROJECT_ID
Excluir project
gcloud projects delete PROJECT_ID

5. Se preferir, instale qualquer um destes componentes adicionais:
   - google-cloud-sdk-app-engine-python
   - google-cloud-sdk-app-engine-python-extras
   - google-cloud-sdk-app-engine-java
   - google-cloud-sdk-app-engine-go
   - google-cloud-sdk-datalab
   - google-cloud-sdk-datastore-emulator
   - google-cloud-sdk-pubsub-emulator
   - google-cloud-sdk-cbt
   - google-cloud-sdk-bigtable-emulator
   - kubectl

   Por exemplo, é possível instalar o componente google-cloud-sdk-app-engine-java da seguinte maneira:

   sudo apt-get install google-cloud-sdk-app-engine-java
6. Execute gcloud init para começar:

   gcloud init

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic -h` to learn about advanced features of the SDK like arg files and output formatting

Transferring files
There are several ways to transfer files to your VM instance that runs your web server, including FTP and the gcloud command. For full details, see Transferring files to Linux Instances. This tutorial uses the gcloud command, which is part of the Cloud SDK. Copy files to your instance

using the copy-files command. The following example copies a file from your workstation to the home directory on the instance.

gcloud compute scp [LOCAL_FILE_PATH] lamp-tutorial:/var/www/html

Replace [LOCAL_FILE_PATH] with the path to the file on your workstation.
You can also copy files from an instance to your local workstation by reversing the source and destination variables. The following example copies a file from your instance to your workstation.

gcloud compute scp lamp-tutorial:/var/www/html [LOCAL_FILE_PATH]

Replace [LOCAL_FILE_PATH] with the path where you want to put the file on your workstation.

Clique no ícone >_ na barra de navegação na parte superior do console para abrir o Cloud Shell.

Veja que no tutorial tem um ícone do console à direita que cola o comando selecionado no console. Ou podemos selecionar, Ctrl+C e Ctrl+V no console

Agora seu aplicativo está sendo executado no Cloud Shell. Use a visualização da Web <> (no menu do console) para se conectar à porta 8080 e acessar o aplicativo.

gcloud init

You must log in to continue. Would you like to log in (Y/n)?

Your browser has been opened to visit:

https://accounts.google.com/o/oauth2/auth?code_challenge=DTGuDm8WOAxy4_nB_HLfTnI5QrBHQH71ZDyStf2Lx3Q&prompt=select_account&code_challenge_method=S256&access_type=offline&redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&response_type=code&client_id=32555940559.apps.googleusercontent.com&scope=https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth

To take a quick anonymous survey, run:
  $ gcloud alpha survey

You are logged in as: [ribafs@gmail.com].

Pick cloud project to use:
 [1] api-project-88252973516
 [2] curso-web-218313
 [3] heroic-goal-129621
 [4] magnetic-racer-186223
 [5] molten-catalyst-129621
 [6] Create a new project
Please enter numeric choice or text value (must exactly match list item): 2

Your current project has been set to: [curso-web-218313].

Do you want to configure a default Compute Region and Zone? (Y/n)?

Which Google Compute Engine zone would you like to use as project
default?
If you do not specify a zone via a command line flag while working
with Compute Engine resources, the default is assumed.

Did not print [12] options.
Too many options [62]. Enter "list" at prompt to print choices fully.
Please enter numeric choice or text value (must exactly match list
item): 1

* Commands that require authentication will use ribafs@gmail.com by default
* Commands will reference project `curso-web-218313` by default
* Compute Engine commands will use region `us-east1` by default
* Compute Engine commands will use zone `us-east1-b` 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.

Some things to try next:

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic --help` to learn about advanced features of the SDK like arg files and output formatting

Criar um aplicativo
gcloud app create

Deploy de aplicação
gcloud app deploy

Gerou em
https://curso-web-218313.appspot.com

Ver logs
gcloud app logs tail -s default

Visualizer no navegador
gcloud app browse

gcloud sql connect [INSTANCE_ID] --user=root
gcloud sql connect ribafs --user=root

gcloud
NAME
gcloud - manage Google Cloud Platform resources and developer workflow
SYNOPSIS
gcloud GROUP | COMMAND [--account=ACCOUNT] [--billing-project=BILLING_PROJECT] [--configuration=CONFIGURATION] [--flags-file=YAML_FILE] [--flatten=[KEY,…]] [--format=FORMAT] [--help] [--project=PROJECT_ID] [--quiet, -q] [--verbosity=VERBOSITY; default="warning"] [--version, -v] [-h] [--impersonate-service-account=SERVICE_ACCOUNT_EMAIL] [--log-http] [--trace-token=TRACE_TOKEN] [--no-user-output-enabled]
DESCRIPTION
The gcloud CLI manages authentication, local configuration, developer workflow, and interactions with the Google Cloud Platform APIs.
GLOBAL FLAGS
--account=ACCOUNT
Google Cloud Platform user account to use for invocation. Overrides the default core/account property value for this command invocation.
--billing-project=BILLING_PROJECT
The Google Cloud Platform project that will be charged quota for operations performed in gcloud. If you need to operate on one project, but need quota against a different project, you can use this flag to specify the billing project. If both billing/quota_project and --billing-project are specified, --billing-project takes precedence. Run $ gcloud config set --help to see more information about billing/quota_project.
--configuration=CONFIGURATION
The configuration to use for this command invocation. For more information on how to use configurations, run: gcloud topic configurations. You can also use the [CLOUDSDK_ACTIVE_CONFIG_NAME] environment variable to set the equivalent of this flag for a terminal session.
--flags-file=YAML_FILE
A YAML or JSON file that specifies a --flag:value dictionary. Useful for specifying complex flag values with special characters that work with any command interpreter. Additionally, each --flags-file arg is replaced by its constituent flags. See $ gcloud topic flags-file for more information.
--flatten=[KEY,…]
Flatten name[] output resource slices in KEY into separate records for each item in each slice. Multiple keys and slices may be specified. This also flattens keys for --format and --filter. For example, --flatten=abc.def flattens abc.def[].ghi references to abc.def.ghi. A resource record containing abc.def[] with N elements will expand to N records in the flattened output. This flag interacts with other flags that are applied in this order: --flatten, --sort-by, --filter, --limit.
--format=FORMAT
Set the format for printing command output resources. The default is a command-specific human-friendly output format. The supported formats are: config, csv, default, diff, disable, flattened, get, json, list, multi, none, object, table, text, value, yaml. For more details run $ gcloud topic formats.
--help
Display detailed help.
--project=PROJECT_ID
The Google Cloud Platform project name to use for this invocation. If omitted, then the current project is assumed; the current project can be listed using gcloud config list --format='text(core.project)' and can be set using gcloud config set project PROJECTID.

--project and its fallback core/project property play two roles in the invocation. It specifies the project of the resource to operate on. It also specifies the project for API enablement check, quota, and billing. To specify a different project for quota and billing, use --billing-project or billing/quota_project property.
--quiet, -q
Disable all interactive prompts when running gcloud commands. If input is required, defaults will be used, or an error will be raised. Overrides the default core/disable_prompts property value for this command invocation. Must be used at the beginning of commands. This is equivalent to setting the environment variable CLOUDSDK_CORE_DISABLE_PROMPTS to 1.
--verbosity=VERBOSITY; default="warning"
Override the default verbosity for this command. Overrides the default core/verbosity property value for this command invocation. VERBOSITY must be one of: debug, info, warning, error, critical, none.
--version, -v
Print version information and exit. This flag is only available at the global level.
-h
Print a summary help and exit.
OTHER FLAGS
--impersonate-service-account=SERVICE_ACCOUNT_EMAIL
For this gcloud invocation, all API requests will be made as the given service account instead of the currently selected account. This is done without needing to create, download, and activate a key for the account. In order to perform operations as the service account, your currently selected account must have an IAM role that includes the iam.serviceAccounts.getAccessToken permission for the service account. The roles/iam.serviceAccountTokenCreator role has this permission or you may create a custom role. Overrides the default auth/impersonate_service_account property value for this command invocation.
--log-http
Log all HTTP server requests and responses to stderr. Overrides the default core/log_http property value for this command invocation.
--trace-token=TRACE_TOKEN
Token used to route traces of service requests for investigation of issues. Overrides the default core/trace_token property value for this command invocation.
--user-output-enabled
Print user intended output to the console. Overrides the default core/user_output_enabled property value for this command invocation. Use --no-user-output-enabled to disable.
GROUPS
GROUP is one of the following:
access-context-manager
Manage Access Context Manager resources.
ai-platform
Manage AI Platform jobs and models.
alpha
(ALPHA) Alpha versions of gcloud commands.
app
Manage your App Engine deployments.
asset
Manage the Cloud Asset Inventory.
auth
Manage oauth2 credentials for the Google Cloud SDK.
beta
(BETA) Beta versions of gcloud commands.
bigtable

Manage your Cloud Bigtable storage.
builds
Create and manage builds for Google Cloud Build.
components
List, install, update, or remove Google Cloud SDK components.
composer
Create and manage Cloud Composer Environments.
compute
Create and manipulate Google Compute Engine resources.
config
View and edit Cloud SDK properties.
container
Deploy and manage clusters of machines for running containers.
dataflow
Manage Google Cloud Dataflow resources.
dataproc
Create and manage Google Cloud Dataproc clusters and jobs.
datastore
Manage your Cloud Datastore indexes.
debug
Commands for interacting with the Cloud Debugger.
deployment-manager
Manage deployments of cloud resources.
dns
Manage your Cloud DNS managed-zones and record-sets.
domains
Manage domains for your Google Cloud projects.
endpoints
Create, enable and manage API services.
filestore
Create and manipulate Cloud Filestore resources.
firebase
Work with Google Firebase.
functions
Manage Google Cloud Functions.
iam
Manage IAM service accounts and keys.
iot
Manage Cloud IoT resources.
kms
Manage cryptographic keys in the cloud.
logging
Manage Stackdriver Logging.
ml
Use Google Cloud machine learning capabilities.
ml-engine
Manage AI Platform jobs and models.
organizations
Create and manage Google Cloud Platform Organizations.
projects
Create and manage project access policies.
pubsub

Manage Cloud Pub/Sub topics, subscriptions, and snapshots.
redis
Manage Cloud Memorystore Redis resources.
resource-manager
Manage Cloud Resources.
scheduler
Manage Cloud Scheduler jobs and schedules.
services
List, enable and disable APIs and services.
source
Cloud git repository commands.
spanner
Command groups for Cloud Spanner.
sql
Create and manage Google Cloud SQL databases.
tasks
Manage Cloud Tasks queues and tasks.
topic
gcloud supplementary help.
COMMANDS
COMMAND is one of the following:
docker
(DEPRECATED) Enable Docker CLI access to Google Container Registry.
feedback
Provide feedback to the Google Cloud SDK team.
help
Search gcloud help text.
info
Display information about the current gcloud environment.
init
Initialize or reinitialize gcloud.
version
Print version information for Cloud SDK components.

Como inicializar o Cloud SDK
Esta página mostra como inicializar o Google Cloud SDK.
Geralmente, o próximo passo depois de instalar o SDK do Cloud é executar o comando gcloud init para realizar as tarefas de configuração inicial. Você também pode executar o gcloud init mais tarde para alterar suas configurações ou criar uma nova configuração.
gcloud init executa as seguintes etapas de configuração:
• Autoriza as ferramentas do SDK do Cloud a usar as credenciais da sua conta para acessar o Google Cloud Platform ou permite que você selecione uma conta caso tenha acesso previamente autorizado.
• Determina a configuração do SDK do Cloud e define um conjunto básico de propriedades, que inclui a conta ativa da etapa acima, o projeto atual e a região e a zona padrão do Google Compute Engine, se aplicável.
É possível executar as seguintes alternativas ao gcloud init:
Comando
Descrição
gcloud auth login
Autoriza com uma conta de usuário sem usar uma configuração.

gcloud auth activate-service-account
Autoriza com uma conta de serviço em vez de com uma conta de usuário.
Útil para autorizar de maneira não interativa e sem um navegador da Web.
gcloud config [COMMAND]
gcloud config configurations [COMMAND]
Cria e gerencia configurações e propriedades do Cloud SDK.
Executar gcloud init
Para inicializar o Cloud SDK:

1. Execute gcloud init:
   gcloud init
   Se você estiver em uma sessão de terminal remota, use a sinalização --console-only para impedir o comando de iniciar um fluxo de autorização baseado no navegador, caso necessário:
   gcloud init --console-only
2. Caso seja solicitado, crie ou selecione uma configuração.
   Se estiver inicializando uma nova instalação do Cloud SDK, o gcloud init criará uma nova chamada default para você e a definirá como a configuração ativa. Caso haja configurações existentes, o gcloud init solicitará que você escolha entre três opções: reinicialize a configuração ativa, mude para outra e a reinicialize, ou crie uma nova.
3. Conclua a etapa de autorização quando solicitado.
   Se você já tiver um acesso previamente autorizado ao Cloud Platform, poderá receber uma solicitação para fazer login e conceder acesso em um navegador da Web, ou selecionar uma conta existente.
   Se usou a sinalização --console-only e o login for necessário, você terá que recortar e colar o URL de autorização em outra janela do navegador e seguir os prompts fornecidos.
   Quando essa etapa for concluída, o gcloud init define a propriedade account na configuração para a conta especificada.
4. Se for solicitado, escolha um projeto atual do Cloud Platform.
   Se tiver acesso a apenas um projeto, incluindo o projeto padrão de sua conta de usuário, gcloud init seleciona-o para você. Caso contrário, será possível selecionar um projeto em uma lista de projetos em que você tenha as permissões proprietário, editor ou leitor. gcloud init define a propriedade project na configuração da propriedade escolhida.
5. Se for solicitado, escolha uma zona padrão do Google Compute Engine.
   Se a API do Compute Engine não estiver ativada ou você já tiver uma zona padrão nos metadados no nível do projeto, você não verá essa etapa. gcloud init define as propriedades region e zone na configuração da zona escolhida.

Quando gcloud init terminar, ele imprimirá as propriedades na configuração ativa do terminal:

```
[compute]
region = us-east1
zone = us-east1-b
[core]
account = user@google.com
disable_usage_reporting = False
project = example-project
```

É possível exibir essas propriedades a qualquer momento usando o comando gcloud config list.
A seguir

- Leia Como autorizar ferramentas do SDK do Cloud para saber mais sobre autorização de ferramentas.
- Leia Configurações do SDK do Cloud para saber mais sobre configurações.
- Leia Propriedades do SDK do Cloud para saber mais sobre configurações.

podemos criar novos projetos pela linha de comando

gcloud init

Listar imagens disponíveis para novas VMS:

gcloud compute images list

Detalhes sobre uma imagem
gcloud compute images describe debian-10-buster-v20190916 --project debian-cloud

gcloud compute regions describe us-central1 --format json

Listar VMs existentes
gcloud compute instances list

NAME ZONE MACHINE_TYPE INTERNAL_IP EXTERNAL_IP STATUS
example-instance asia-east1-b n1-standard-1 10.240.95.199 107.167.182.44 RUNNING
example-instance2 us-central1-a n1-standard-1 10.240.173.254 23.251.148.121 RUNNING
test-instance us-central1-a n1-standard-1 10.240.118.207 23.251.153.172 RUNNING

Filtre os resultados dos comandos list com expressões regulares ao incluir a sinalização --filter com um operador key ~ value. Por exemplo, filtre a lista de instâncias para incluir apenas aquelas com "test" no nome:

gcloud compute instances list --filter="name ~ .*test.*"

Para retornar uma lista de operações de zona com um status de DONE e sem um httpStatus de 200, aplique um filtro zone em um comando operations list. Em seguida, faça grep dos resultados:

gcloud compute operations list --filter="zone:(us-central1-a)" | grep DONE | grep 200

Em alguns casos, talvez você precise do link para o recurso com URI completo. Por exemplo, se a saída de um comando list for transmitida para outro comando ou aplicativo que use uma lista de links de recursos. Para mostrar esses links com URI completo, use a sinalização --uri com o comando list.

gcloud compute instances list --uri --filter="name~'^example-.*'"

Exemplos de comandos describe
Especifique uma instância, incluindo a zona, para receber detalhes sobre ela. Por exemplo, para retornar informações sobre a instância chamada "example-instance" na zona "asia-east1-b", use o comando instances describe:

gcloud compute instances describe example-instance --zone asia-east1-b

Como reinicializar uma instância
Para redefinir uma instância chamada "example-instance" na zona "us-central1-a", use o comando instances reset:

gcloud compute instances reset example-instance --zone us-central1-a

gcloud compute ssl-certificates

NAME
gcloud compute ssl-certificates - list, create, and delete Google Compute Engine SSL certificates
SYNOPSIS
gcloud compute ssl-certificates COMMAND [GCLOUD_WIDE_FLAG …]
DESCRIPTION
List, create and delete Google Compute Engine SSL certificates that can be used to configure a target HTTPS proxy. For more information, see:
https://cloud.google.com/load-balancing/docs/ssl-certificates
GCLOUD WIDE FLAGS
These flags are available to all commands: --account, --billing-project, --configuration, --flags-file, --flatten, --format, --help, --impersonate-service-account, --log-http, --project, --quiet, --trace-token, --user-output-enabled, --verbosity. Run $ gcloud help for details.
COMMANDS
COMMAND is one of the following:
create
Create a Google Compute Engine SSL certificate.
delete
Delete Google Compute Engine SSL certificates.
describe
Describe a Google Compute Engine SSL certificate.
list
List Google Compute Engine SSL certificates.
NOTES
These variants are also available:
$ gcloud alpha compute ssl-certificates
$ gcloud beta compute ssl-certificates