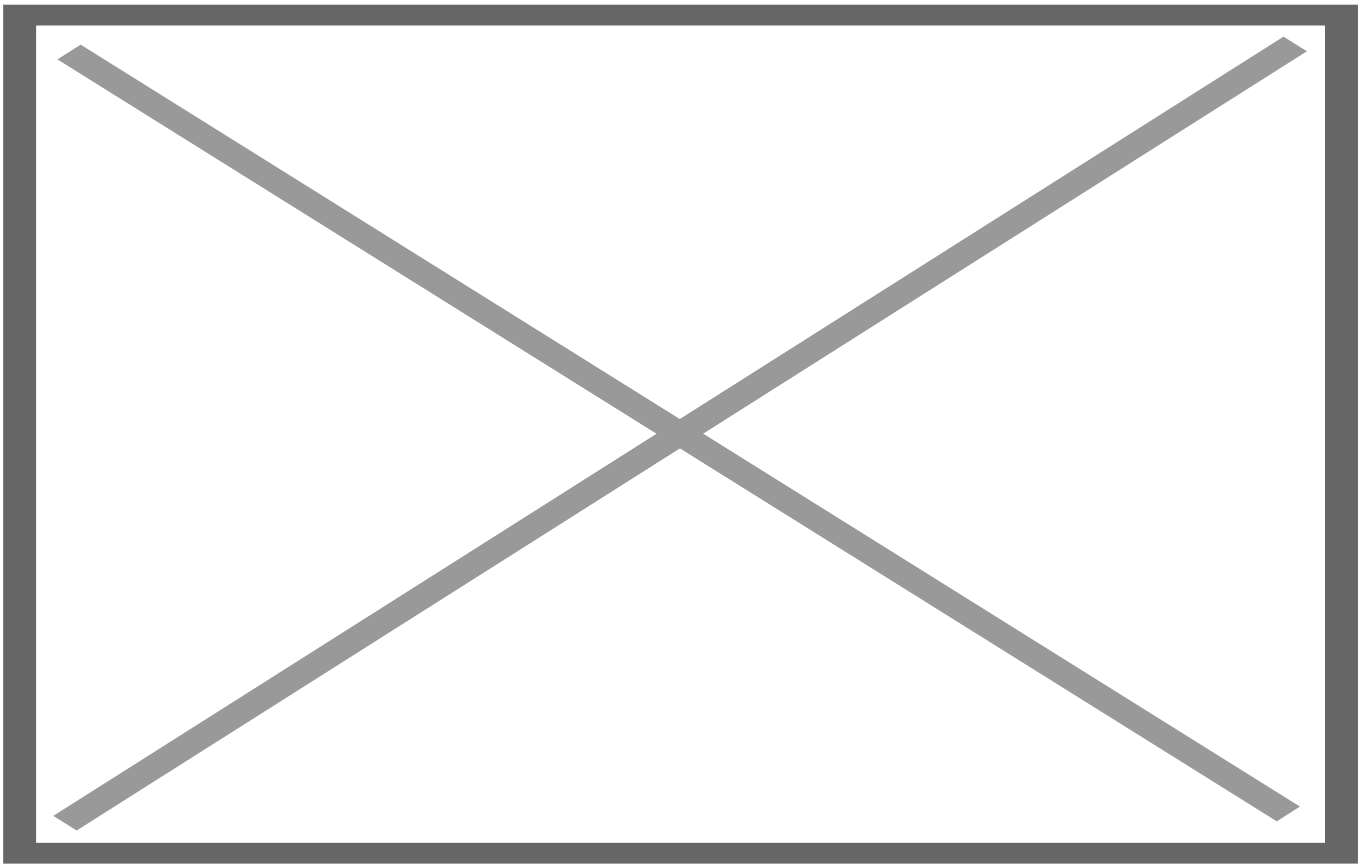
Steps to implement Hands-on Project - Mission 1

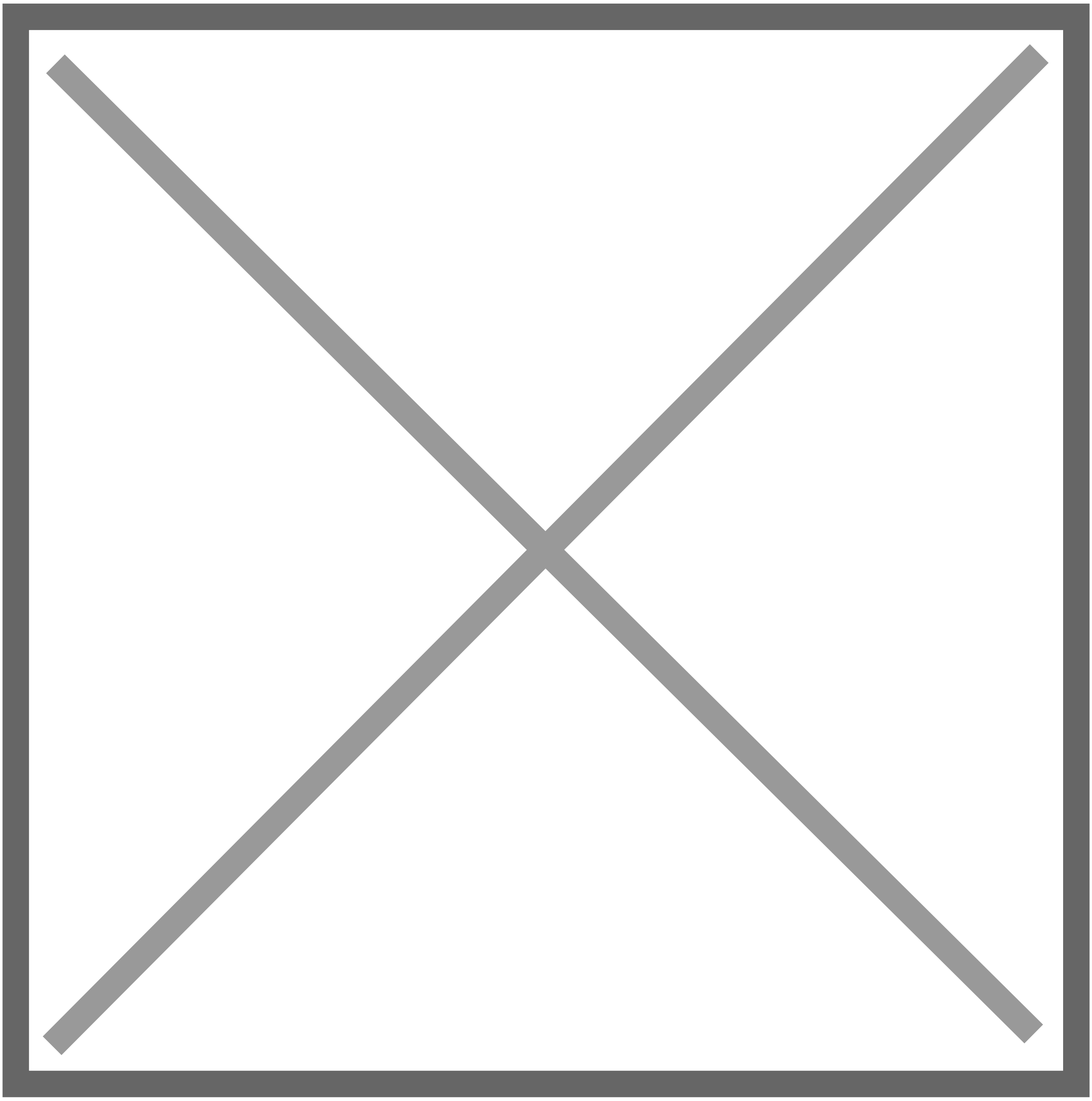
Creating the terraform-en-1 user using the IAM service

Access the AWS console (https://aws.amazon.com)
and log in with your newly created account. In the search bar, type IAM. In the Services section, click on IAM.

Click on Users and then Add users, enter the name **terraform-en-1** and click Next to create a programmatic type user.

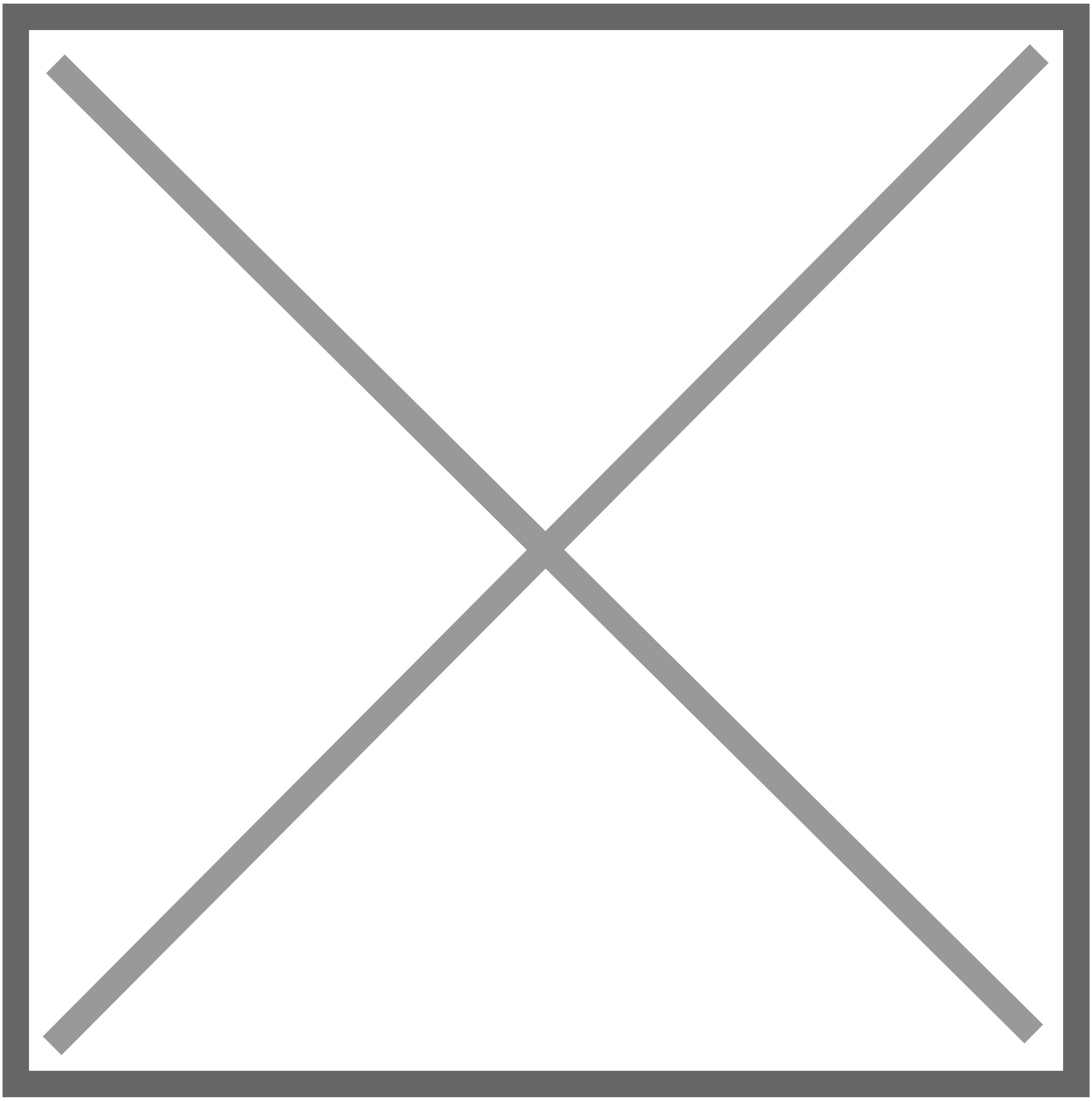


After advancing, in **Set permissions**, click on the Attach existing policies directly button.



Type **AmazonS3FullAccess** in **Search.**

Select **AmazonS3FullAccess**



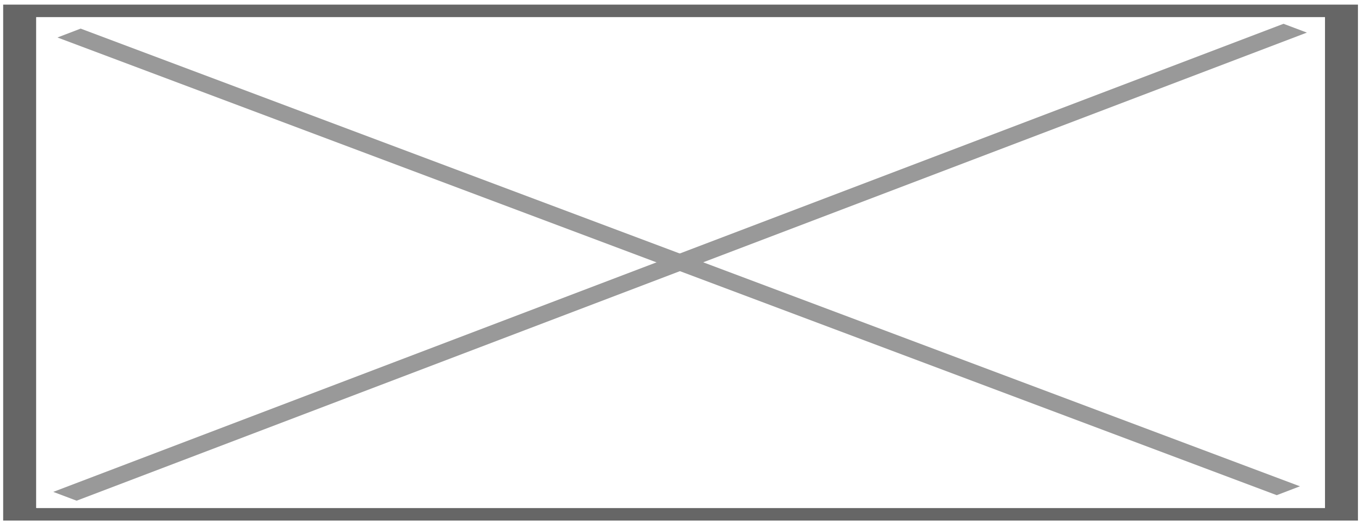
Click on **Next**

Review all the details

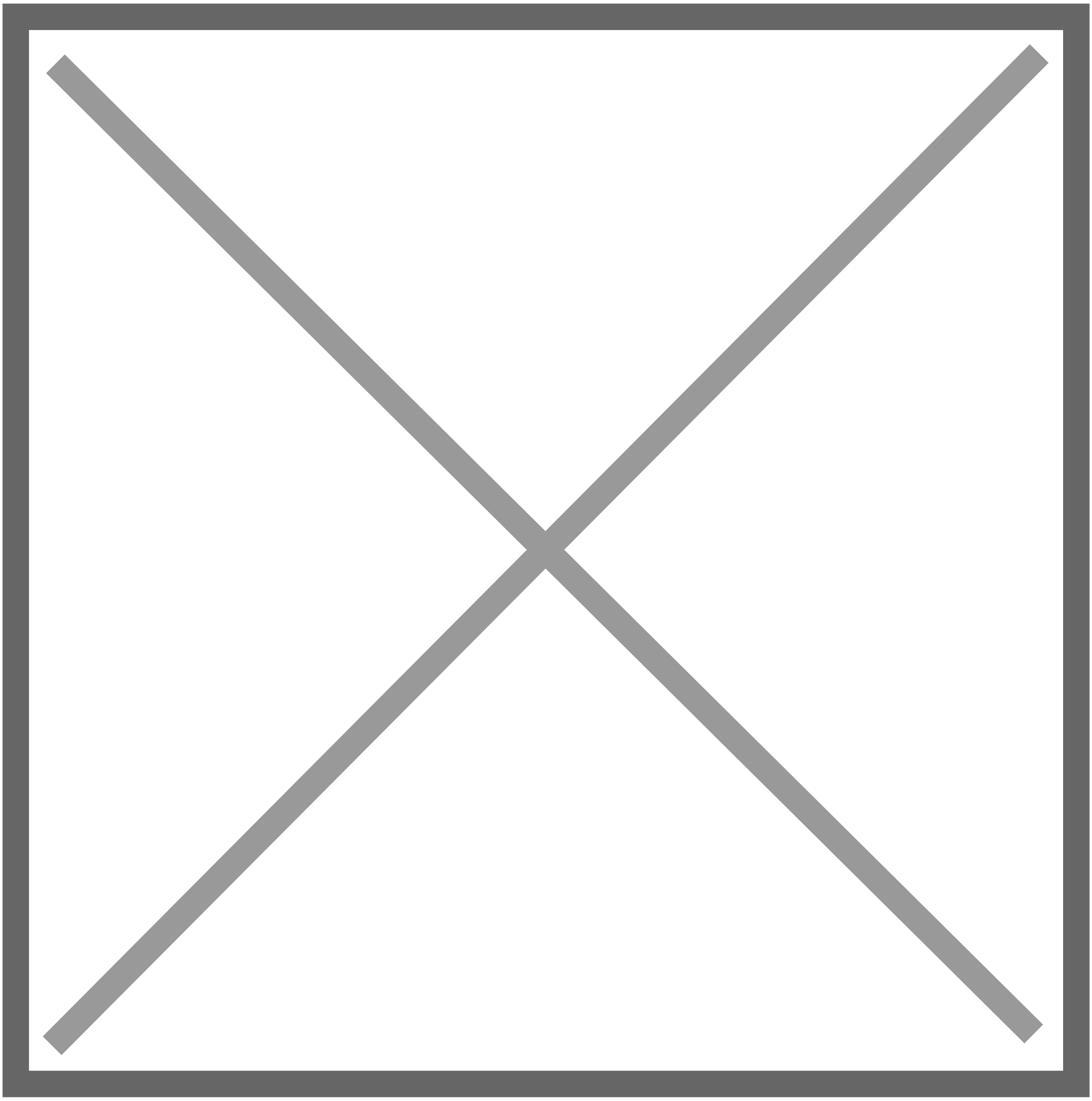
Click on **Create user**

Creating the Access Key for the terraform-en-1 user using the IAM service

Access the **terraform-en-1** user

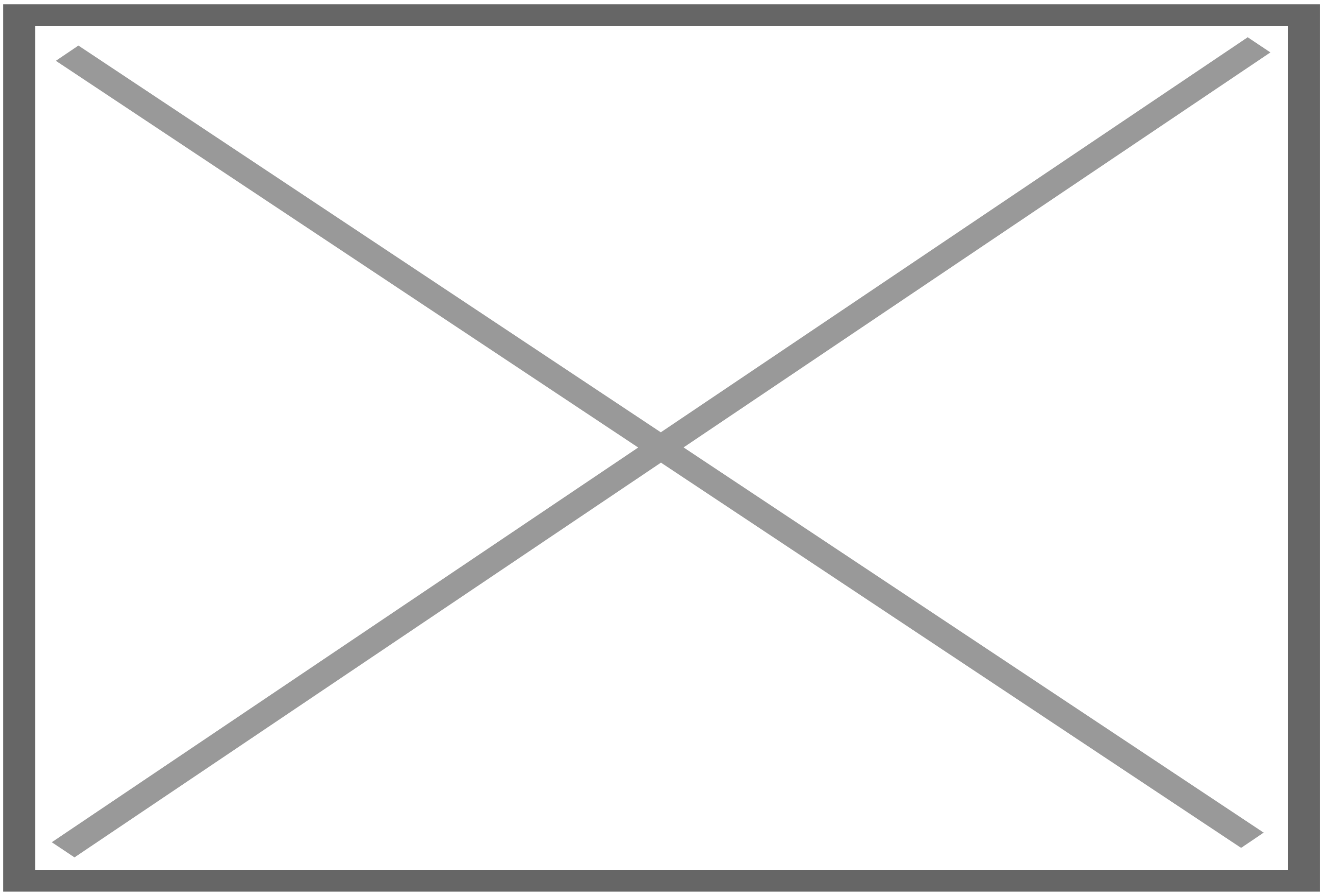


Click on the **Security credentials** tab

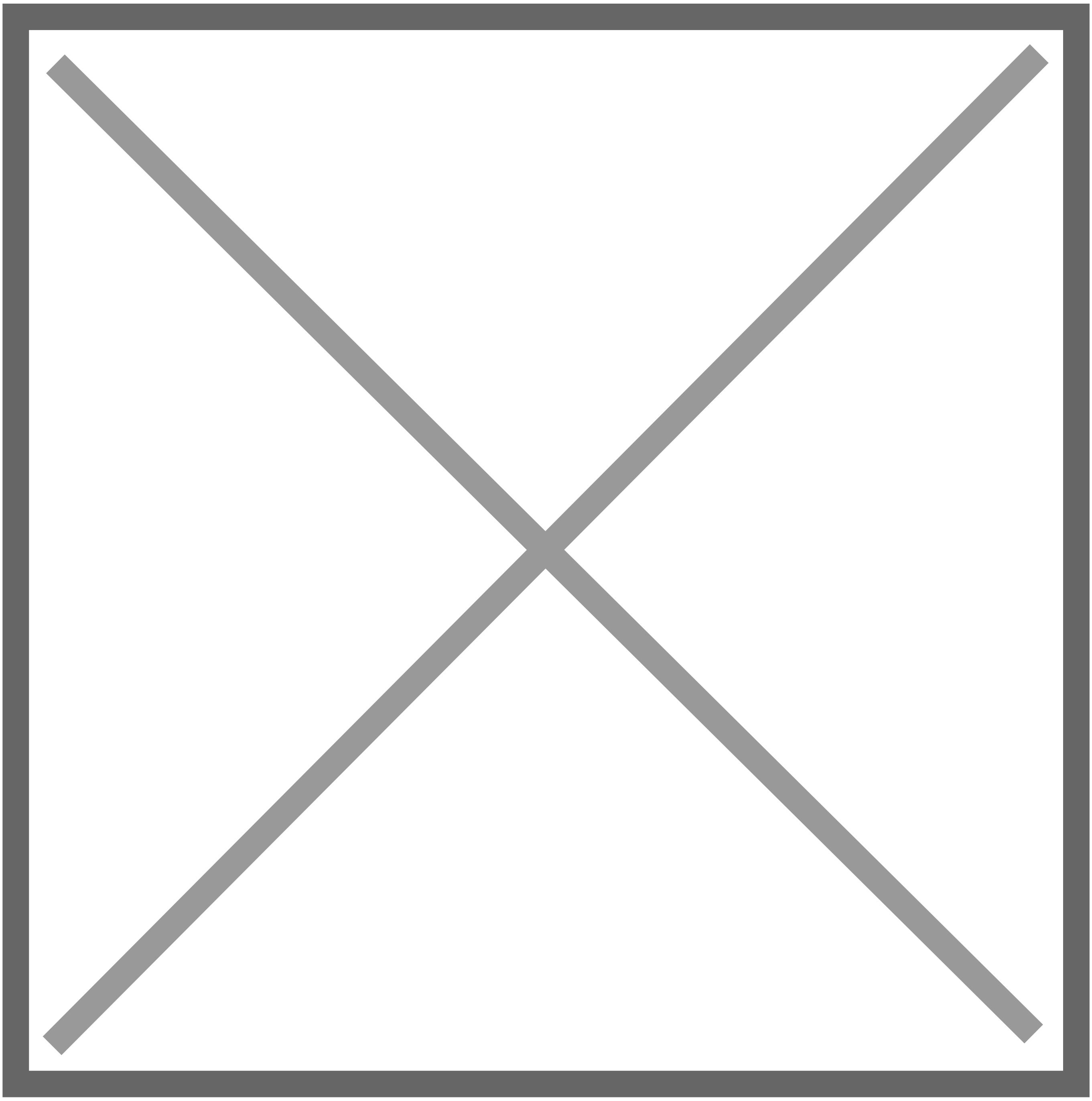


Navigate to the **Access keys** section

Click on **Create access key**

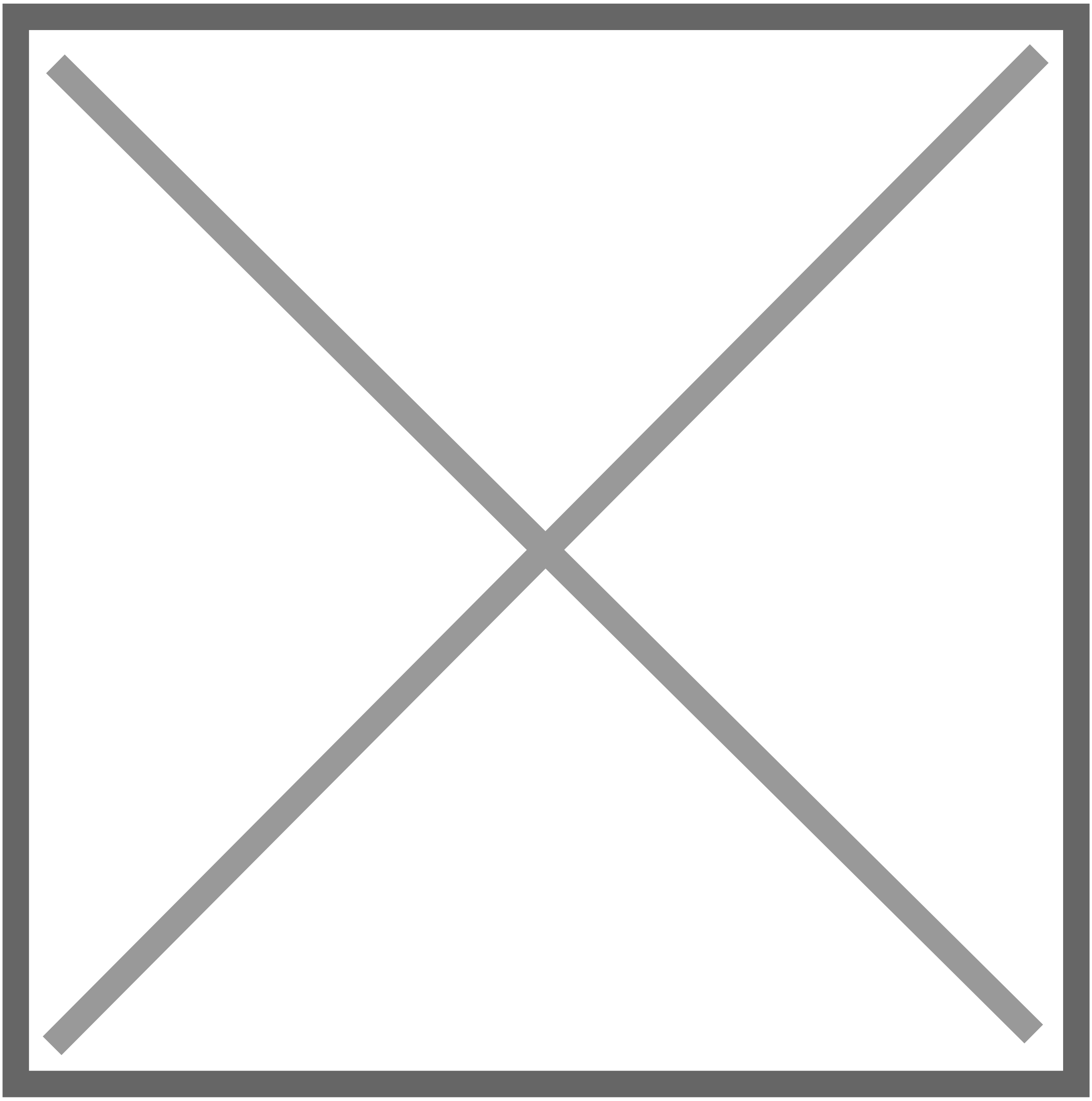


Select Command Line Interface (CLI) and **I understand the above recommendation and want to proceed to create an access key.**

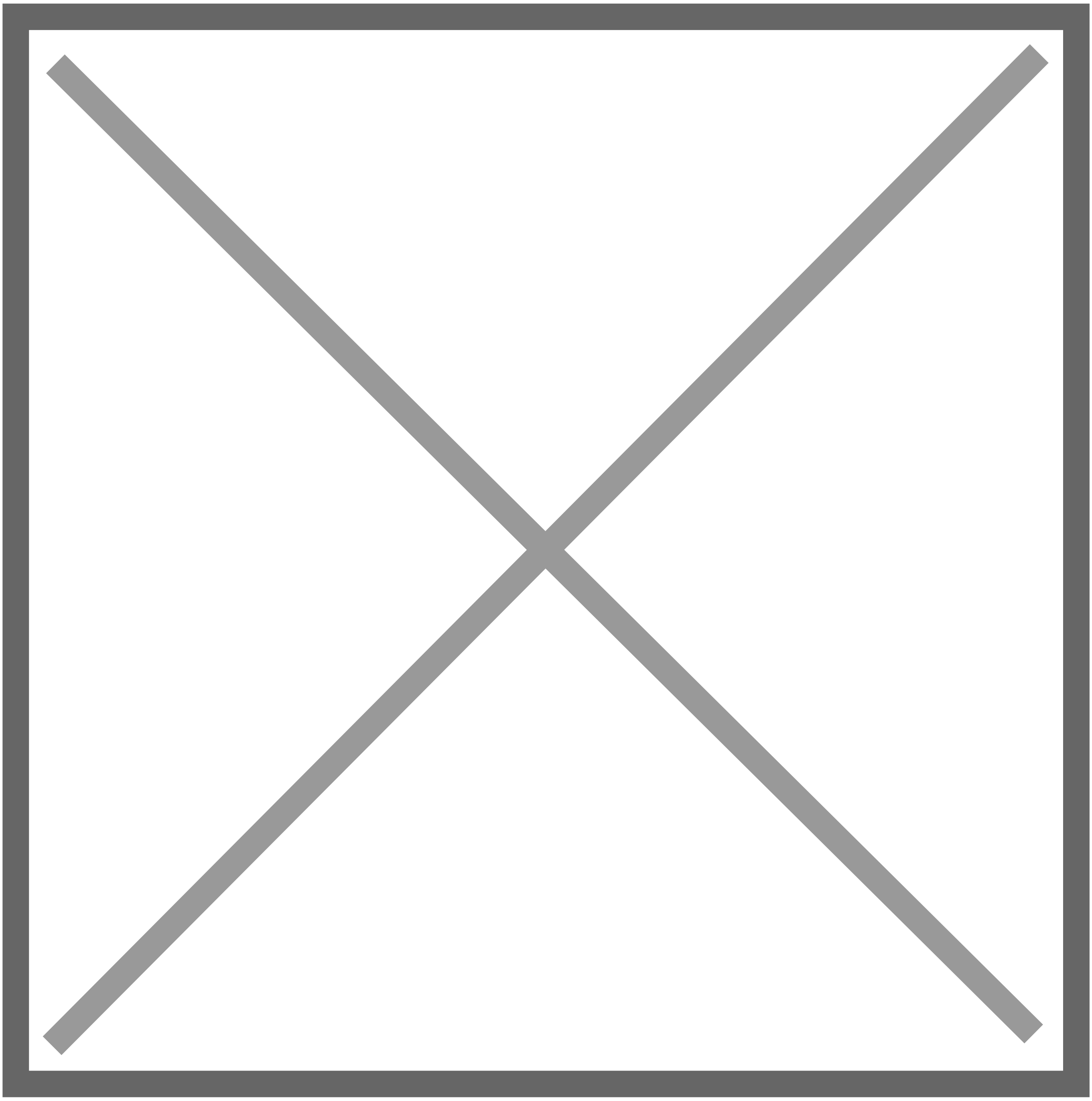


Click on **Next**.

Click on **Create access key**



Click on **Download .csv file**



After the download finishes, click on Done.

Once the download is complete, rename the **.csv** file to **key.csv**

Steps in Google Cloud Platform (GCP)

Preparing the environment to run Terraform

Access the Google Cloud Console (console.cloud.google.com)
and log in with your newly created account

Open the Cloud Shell

Download the `mission1.zip` file in the Google Cloud shell using the wget command

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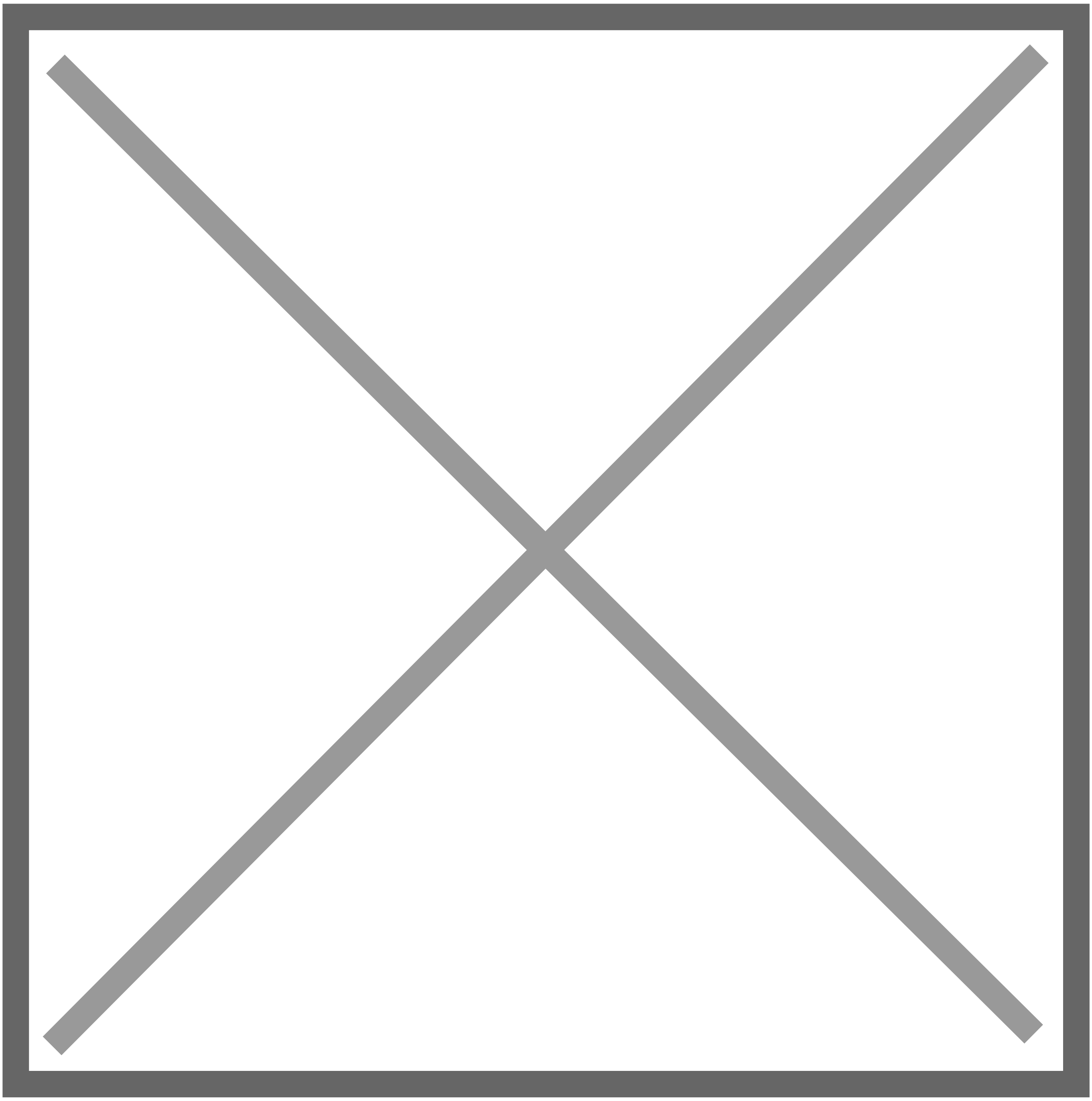
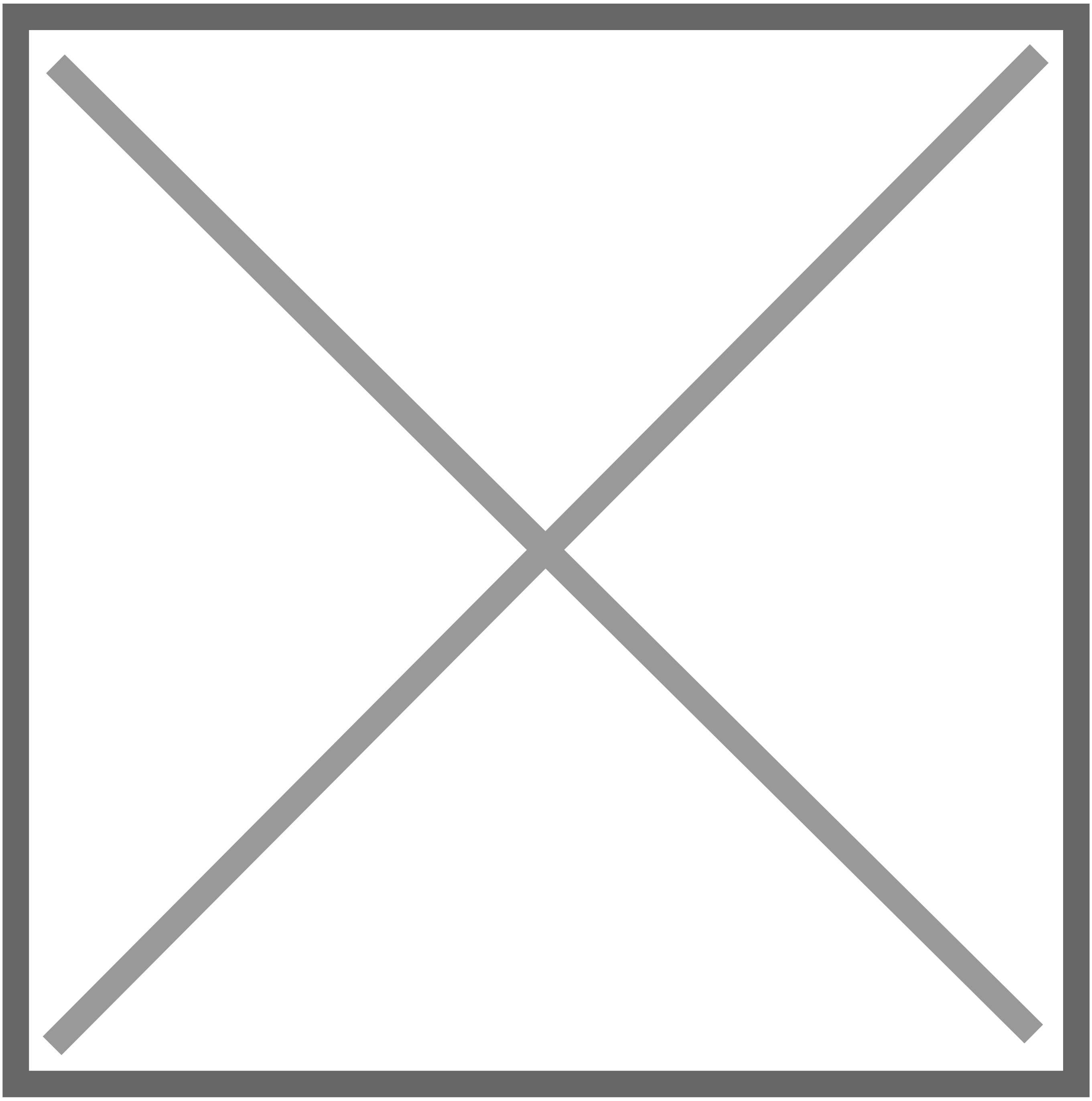
Result

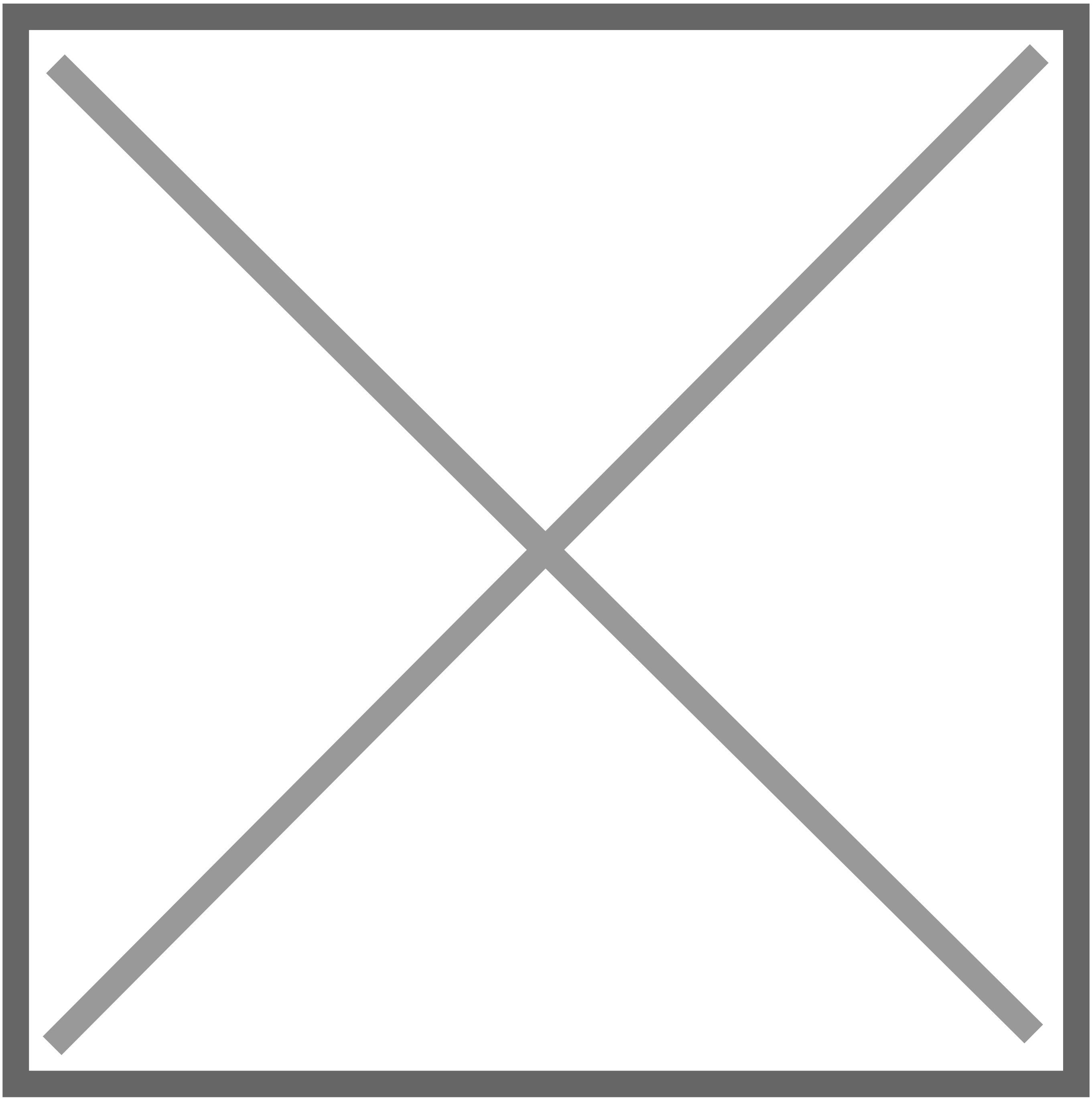


Upload the `key.csv` file to the Cloud Shell using the browser

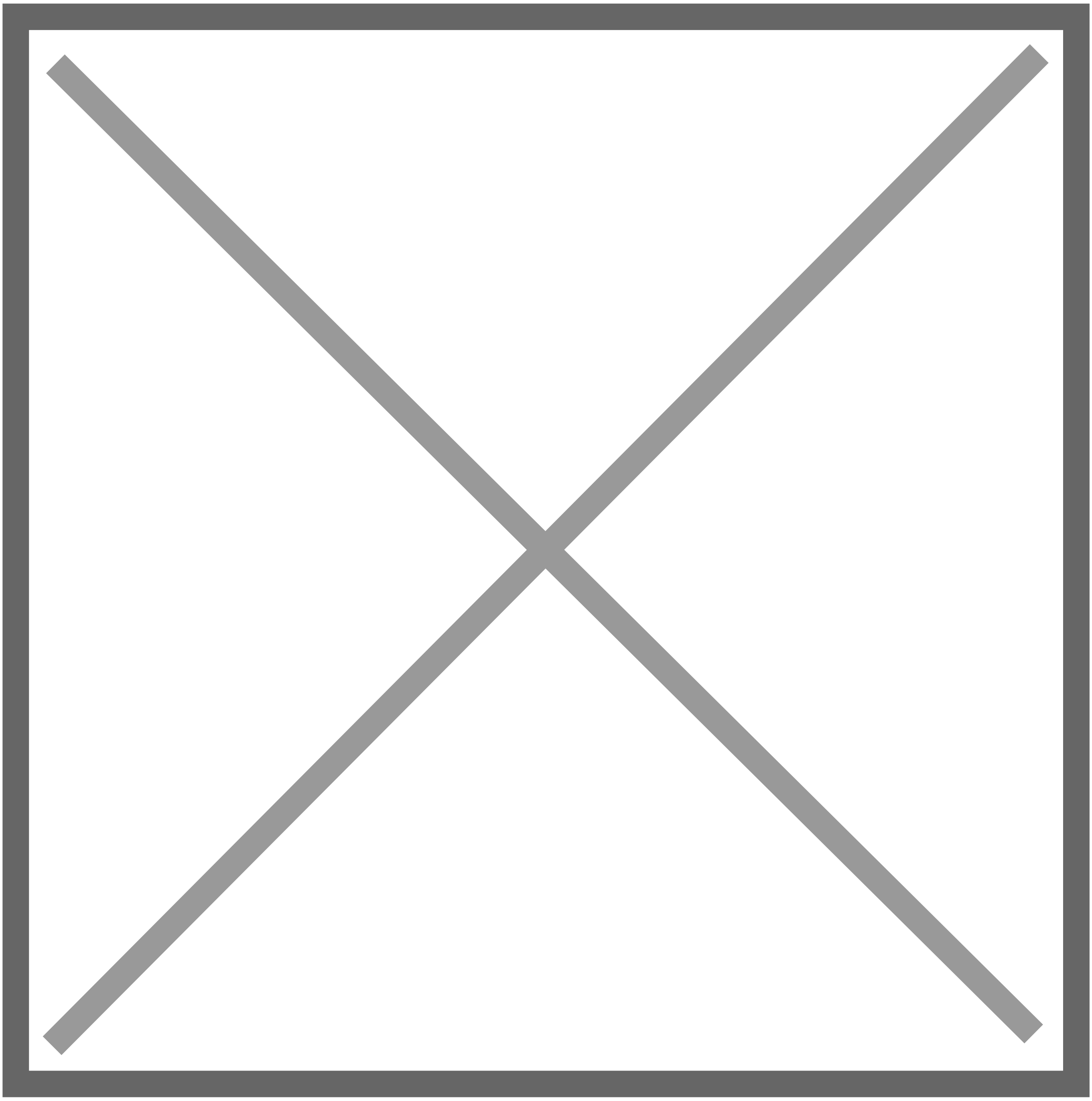
Step 1



Step 2

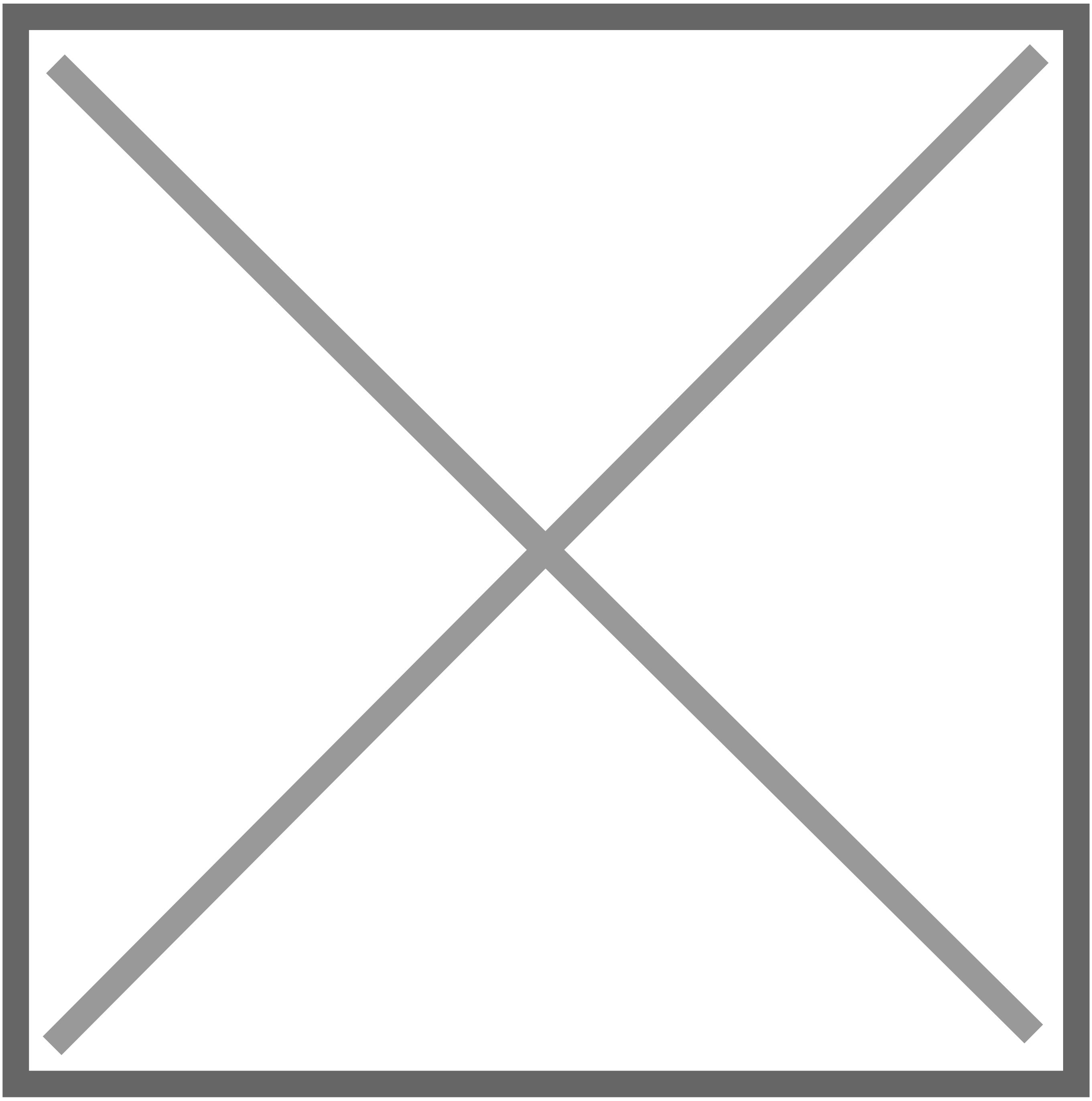


Step 3



Verify if the `mission1.zip` and `key.csv` files are in the folder in the Cloud Shell using the command below

Result



Execute the file preparation commands:

Result

Execute the commands below to prepare the AWS and GCP environment

Click on Authorize

Execute the command below to set the project in the Google Cloud Shell

Execute the commands to enable the Kubernetes, Container Registry, and Cloud SQL APIs

Running Terraform to provision MultiCloud infrastructure in AWS and Google Cloud

Execute the following commands to provision infrastructure resources

Attention: The provisioning process can take between **15 to 25 minutes** to finish. Keep the **CloudShell** open during the process. If disconnected, click on **Reconnect** when the session expires (the session expires after **5 minutes** of inactivity by default)

Appendix I - Destroying the environment and starting over

In case you have encountered any problem/error and want to reset the environment to start over, follow the step-by-step instructions below to remove the entire MultiCloud environment.

[Google Cloud] Delete VPC Peering

[Google Cloud] Delete remaining resources w/ Terraform - Cloud Shell

Clean the Cloud Shell in AWS and Google Cloud

AWS

Google Cloud

Security Tips

For production environments, it's recommended to use only the Private Network for database access.

Never provide public network access (0.0.0.0/0) to production databases.

By reaching this point, you have completed the implementation of the first part of the Hands-on Project and have implemented resources in a MultiCloud (AWS and Google Cloud) environment using Terraform!

Congratulations!

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