UoGCPoBoUoW

1 Receiving Credits

Follow the link and fill in your name and school email. Google will email you a verification email and then a coupon code once you verify it. The email with the coupon code will have a link that you can follow. You don't even need to copy the coupon code.

Say no to "Send me more information that I don't need" and yes to "I agree." Before you submit, make sure you are logged in to your preferred Google account (upper right).

This process should take less time than it did to read up to here.

2 Create a Project and Link the credits to Billing

Pretty straight forward. Use the dropdown box that says "Project" and select the only option there (unless you've used GCP before), "Create project."
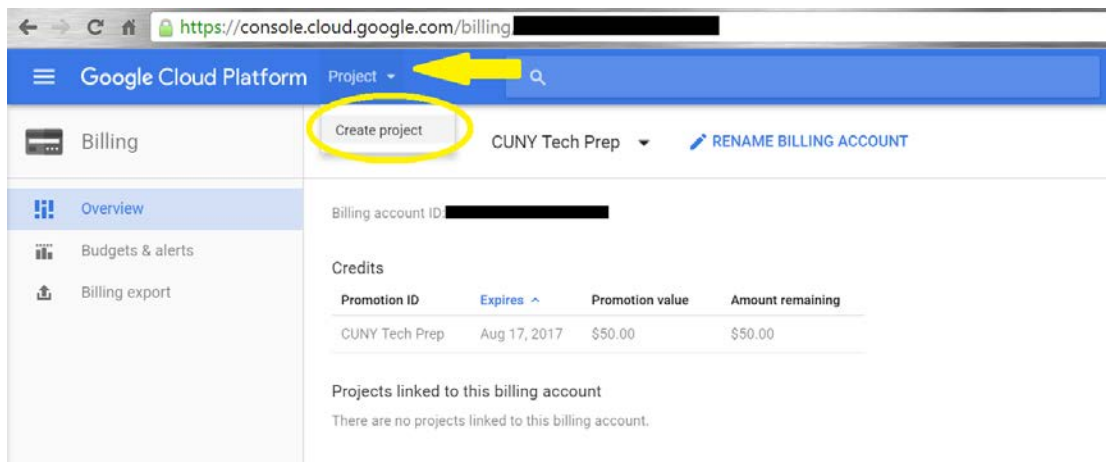
Just give your project an appropriate name. If you want, you can select the App Engine Location by clicking "Show advanced options...", but that isn't really important. Do click on "Edit" for Project ID. This is a globally unique name, but you probably want a name that makes sense instead of "mineral-math-140703."

You'll see some progress happening in your notification area. Once it's done, you'll be redirected to the dashboard. For now, use the hamburger menu on the upper left corner and select billing. Somehow, Google knew which account to bill. If this did not happen to you, use the vertical ellipse next to your project and select "Change billing account". I was pretty sure my project was named "My Project," so don't be alarmed by some strange name you didn't assign. I already experienced the surprise for you.

3 Create SSH Keys

Finally some non-trivial stuff. Since the anniversary update, Windows has added "Bash on Ubuntu on Windows" to their non-insider versions. That probably means no more git-bash for me. To get it, follow this sweet guide: http://www.pcworld.com/article/3106463/windows/how-to-get-bash-on-windows-10-with-the-anniversary-update.html
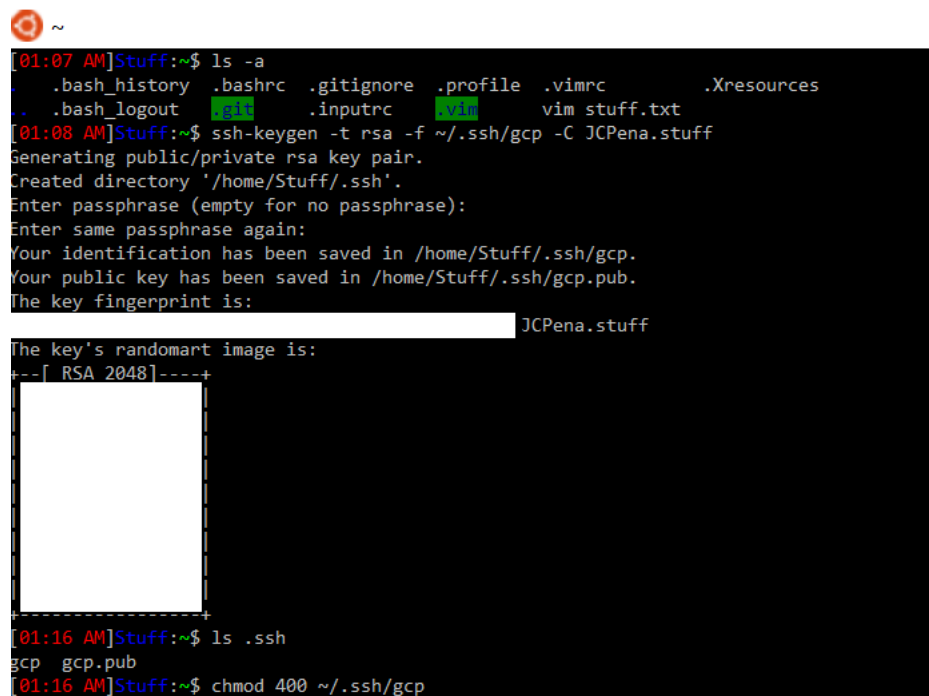
It's pretty sweet. If you have your home directory up on a repo like me, you can pull it in BoUoW and have your awesome environment set up on Windows. I expected this from git-bash, but it didn't work as well.

Just run a couple of commands:

> ssh-keygen -t rsa -f ~/.ssh/**my-gcloud-key** –C **my-google-account-name**
>
> chmod 400 ~/.ssh/**my-gcloud-key**

The passphrase it asks for is probably the google account password. I did not experiment with a new password, so if you do and it fails, try using the google account password.

```
[01:07 AM]Stuff:~$ ls -a
     .bash_history  .bashrc  .gitignore  .profile  .vimrc        .Xresources
.    .bash_logout   .git     .inputrc    .vim      vim stuff.txt
[01:08 AM]Stuff:~$ ssh-keygen -t rsa -f ~/.ssh/gcp -C JCPena.stuff
Generating public/private rsa key pair.
Created directory '/home/Stuff/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/Stuff/.ssh/gcp.
Your public key has been saved in /home/Stuff/.ssh/gcp.pub.
The key fingerprint is:
                                        JCPena.stuff
The key's randomart image is:
+--[ RSA 2048]----+
|                 |
|                 |
|                 |
|                 |
|                 |
|                 |
|                 |
|                 |
+-----------------+
[01:16 AM]Stuff:~$ ls .ssh
gcp  gcp.pub
[01:16 AM]Stuff:~$ chmod 400 ~/.ssh/gcp
```

Now that that's created, go to the hamburger menu in GCP and select "Compute Engine." Under Compute Engine, select Metadata and then SSH Keys. As soon as I entered Compute Engine, is was

preparing something. GCP claimed that it took 10 seconds, but that's a lie. It took about 2 minutes...
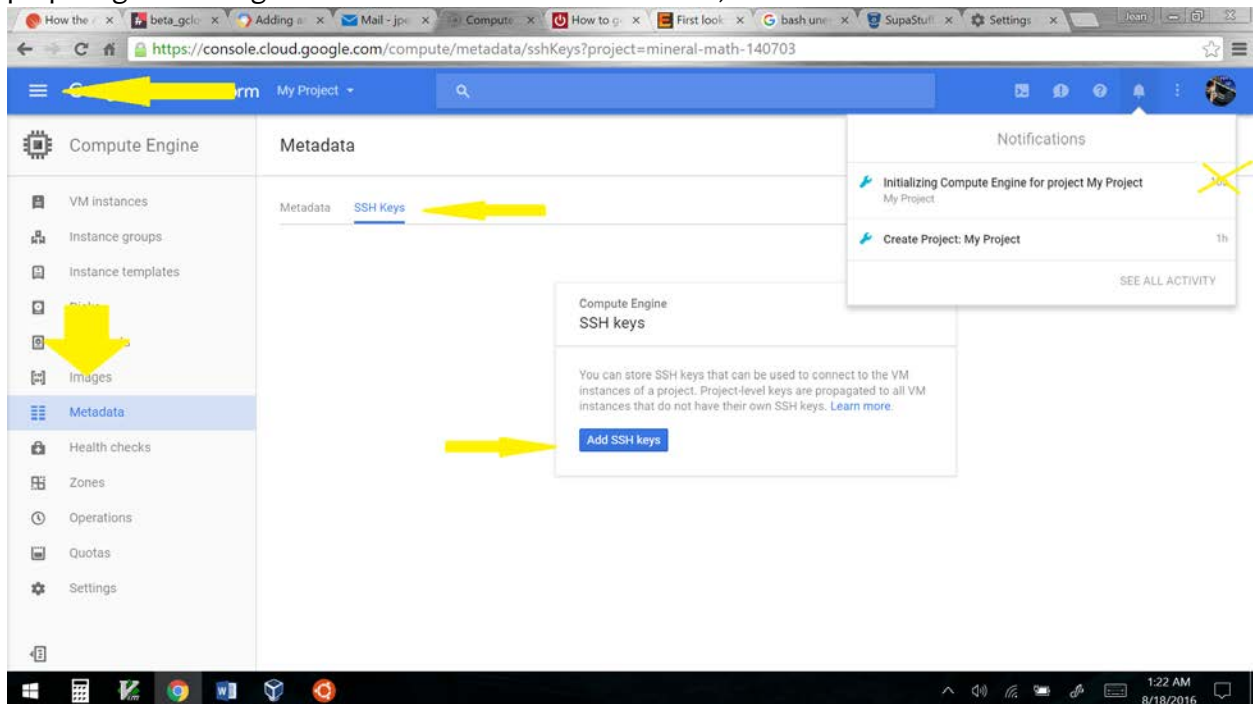
When it's finally ready, click on "Add SSH Keys." Here, you'll input the most sensitive information you've inputted so far... The entire contents of my-gcloud-key.pub. I ran into a problem here, though. BoUoW doesn't have a way for me to select text and gvim was not able to open up a display. So I had to copy the file so that I can open it from explorer.

cp ~/.ssh/**my-gcloud-key.pub** /mnt/c/

Open up the file and copy its entire contents. It will replace "Username" with your username.

Hit save and GCP will tell you that all instances of your project will inherit this key.

4 Create the instance

Now go to VM instances on the side bar and click on "Create instance." Be absolutely sure that you change Machine type to micro unless you want your VM to go down next month. Selecting Ubuntu 14 is probably important. Check allow HTTP and HTTPS traffic.

Then scroll down and click Create.

5 Login to the instance via SSH

After about a minute or so, the VM should be ready and one instance should be available. Notice the external IP. Here's how you'll log in from BoUoW:

ssh -i ~/.ssh/**my-gcloud-key my-google-account-name@external.IP._._**

VM instances   ➕ CREATE INSTANCE   🔧 CREATE INSTANCE GROUP   ↻ RESET   ▶ START   ■ STOP   🗑 DELETE

Filter by label or name   Columns ▾   🏷 Labels   💡 Recommendations

CPU utilization ▾   1 hour   6h   12h   1 day   2d   4d   7d

CPU
% CPU

There is no data for this chart.

	Name ^	Zone	Machine type	Recommendation	In use by	Internal IP	External IP	Connect
☐ ✅	instance-1	us-east1-c	1 vCPU, 0.6 GB			10.142.0.2		SSH ⋮

```
[02:12 AM]Stuff:~$ ssh -i ~/.ssh/gcp JCPena.stuff@
The authenticity of host '                    (              )' can't be established.
ECDSA key fingerprint is                                              .
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '              ' (ECDSA) to the list of known hosts.
Enter passphrase for key '/home/Stuff/.ssh/gcp':
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-34-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

  System information as of Thu Aug 18 06:03:27 UTC 2016

  System load: 0.08              Memory usage: 9%   Processes:        76
  Usage of /:  10.2% of 9.81GB   Swap usage:   0%   Users logged in: 0

  Graph this data and manage this system at:
    https://landscape.canonical.com/

  Get cloud support with Ubuntu Advantage Cloud Guest:
    http://www.ubuntu.com/business/services/cloud

0 packages can be updated.
0 updates are security updates.



The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

JCPena.stuff@instance-1:~$
```

And that's how you set up Ubuntu on Google Code Platform on Bash on Ubuntu on Windows.