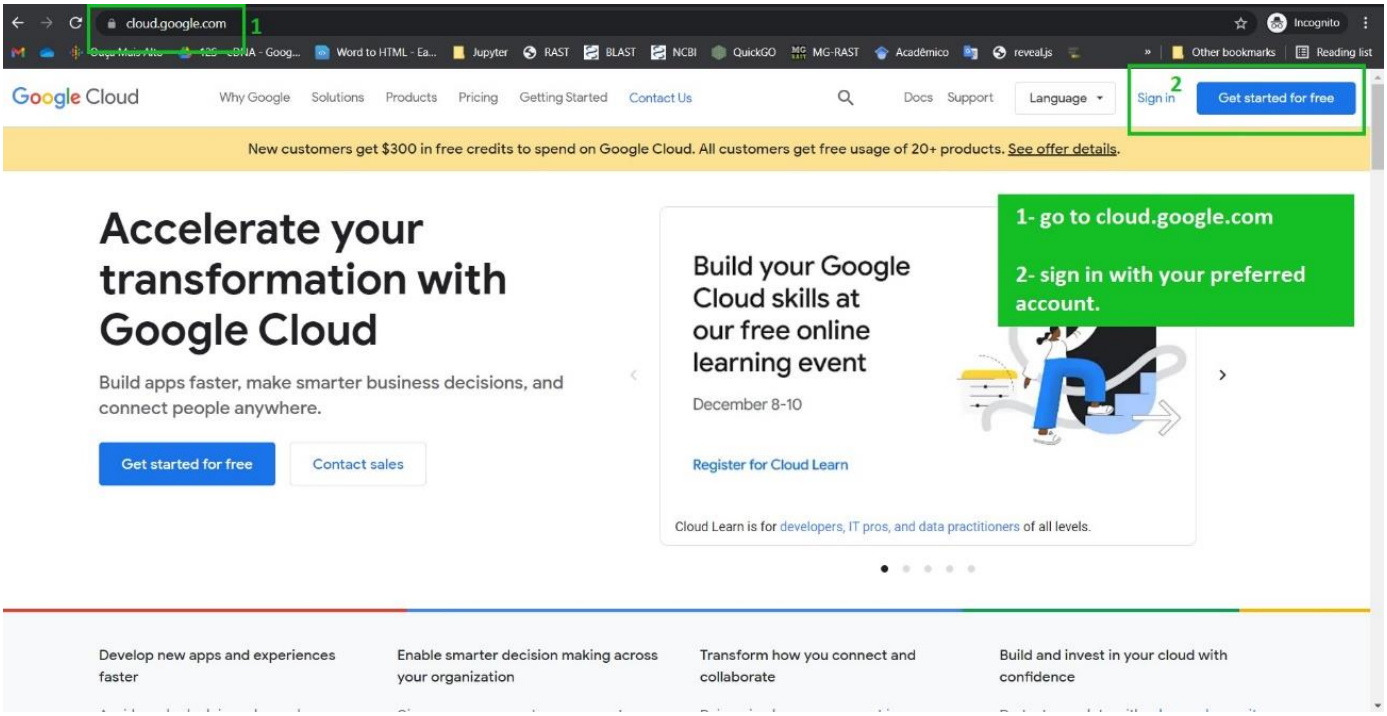
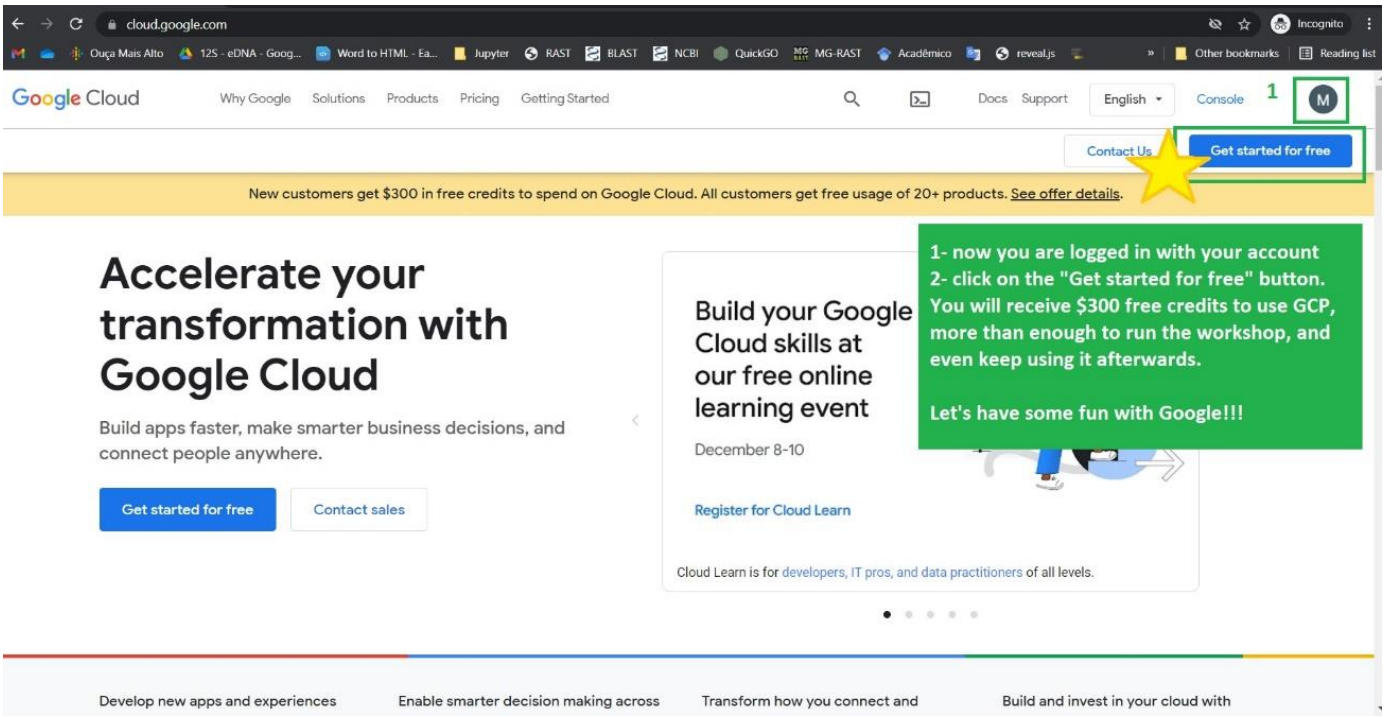
Tutorial for setting up the METAPIPE Workshop 2021 environment!

1. Go to Google Cloud Platform, GCP, and follow the steps:

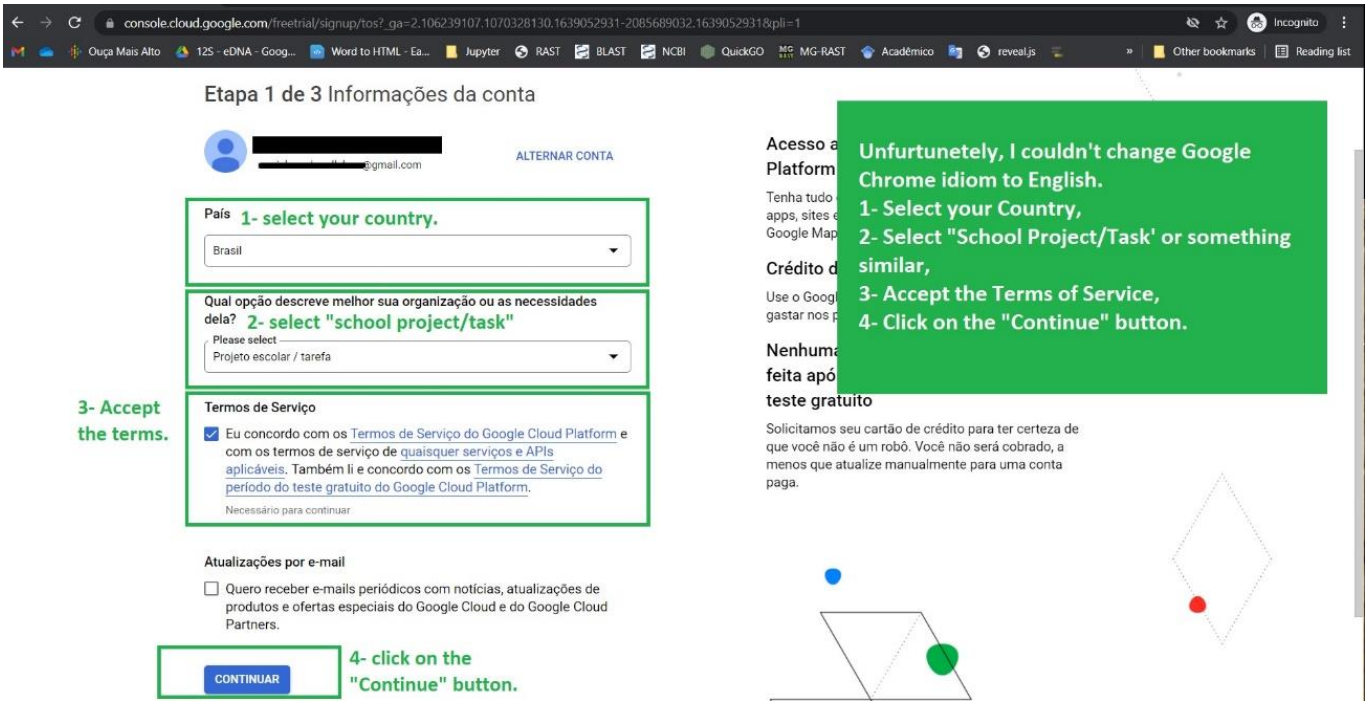
https://cloud.google.com/



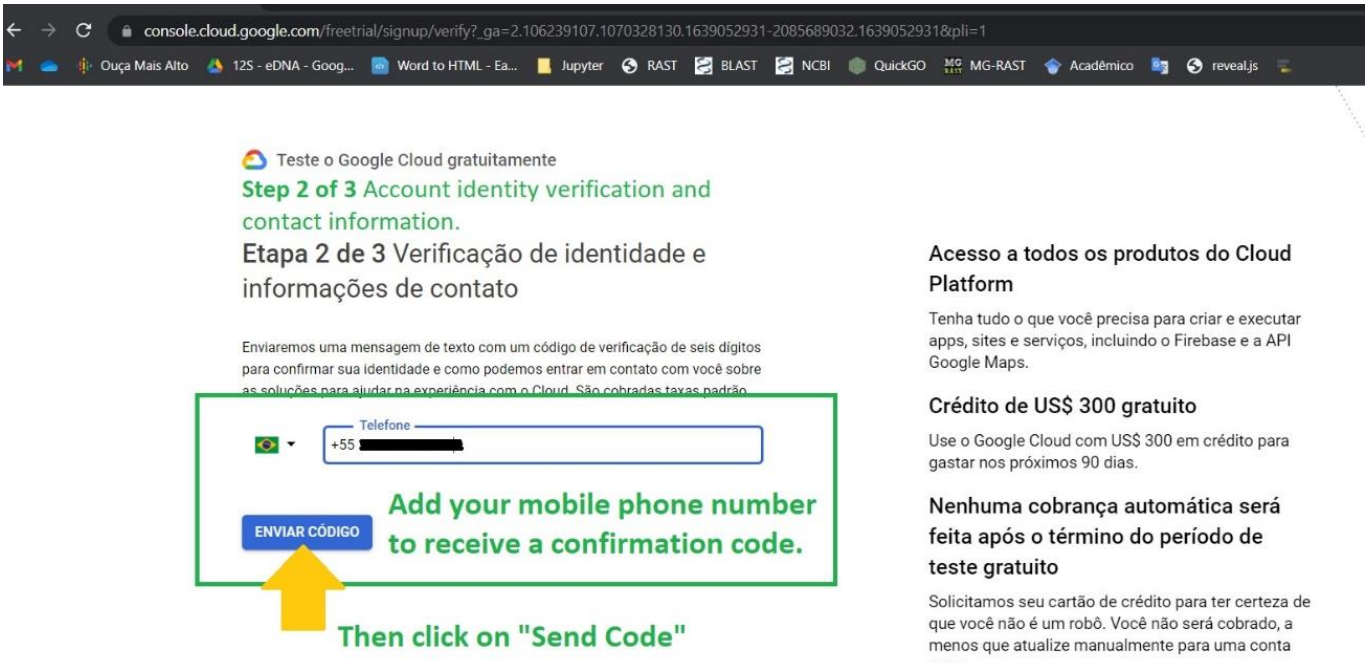
2. After you are logged in, get start with GCP:



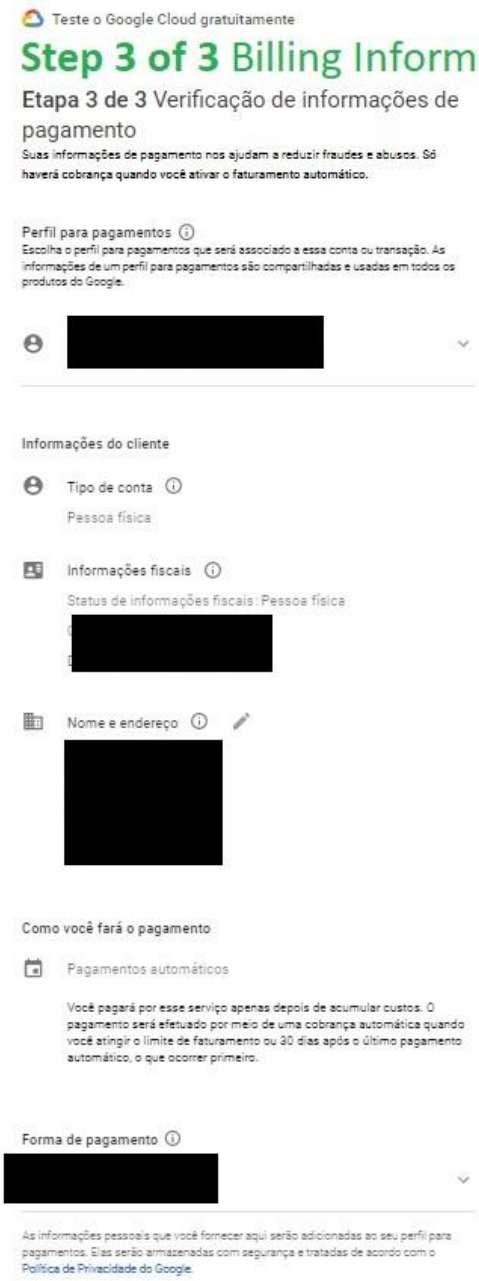
3. Enter the information requested:



4. GCP will send a code to your mobile phone:



5. Enter the billing information. Probably Google will load it automatically, since you probably pay for some Google service already, like Google Drive. Pay attention to the “Billing address”, it must be exactly the same as your credit card. **Don’t worry about charges, this whole procedure is 100% free.**

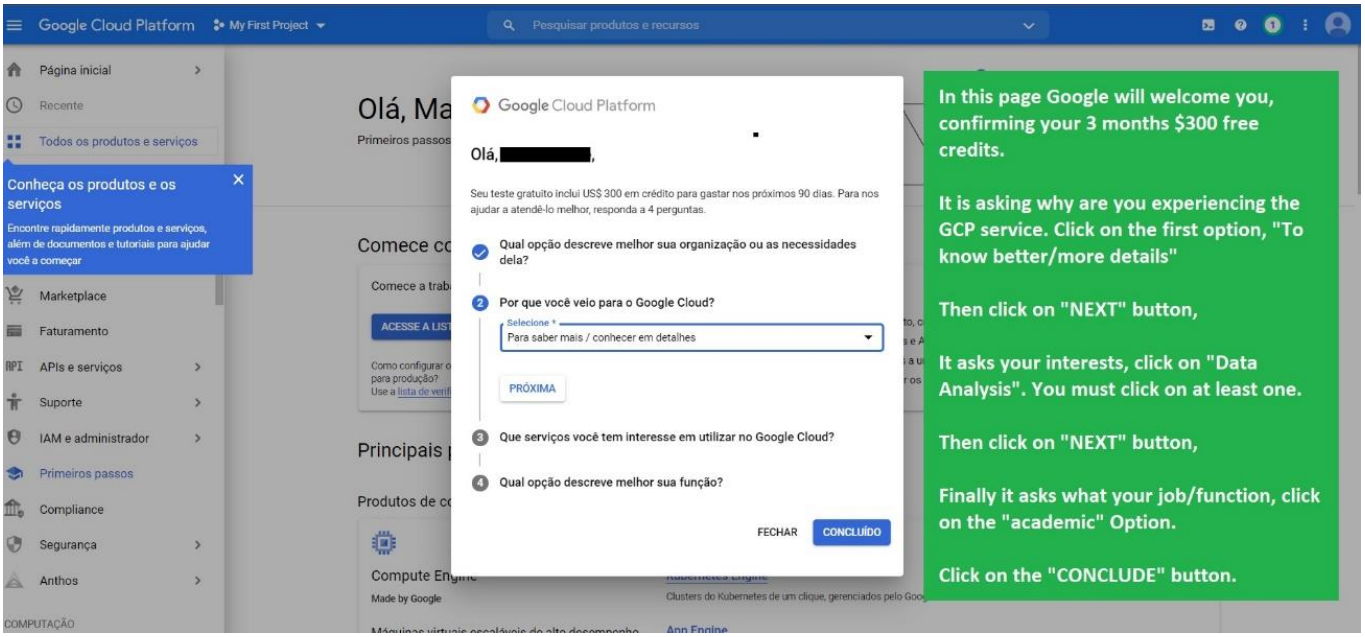


In this page Google asks for a billing account.
It is highly likely that Google has your billing information already, since it is the same for any **Google services**, like **Google Drive**.
You don't need to worry about it. Besides the $300 free credits, after 3 months, **Google will not start a subscription automatically**, as usually occurr with other trial subscriptions.
To be **actually billed** for the GCP service, you must "**ACTIVATE**" your GCP account.
If you'd like, take a look in the "Terms of service".

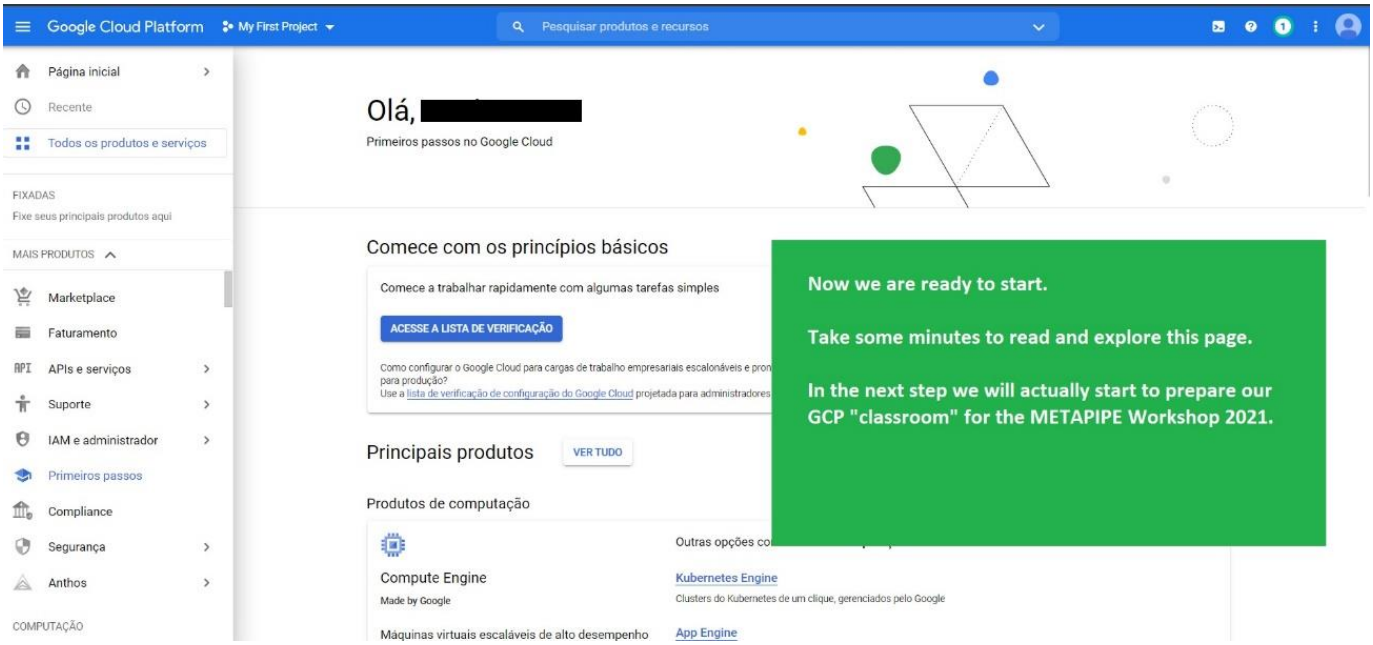
For you to have an idea of the cost, I am using GCP for almost 3 months, almost every weekday, and I still have more than half of the $300 free credits available.
There's no risk* of you being charged beyound the free credits.

*I will show you how to **TURN OFF** your session each time you use it. This is the unique way of **wasting** your credits, forgetting to **STOP** your virtual machine each time you finish your work.

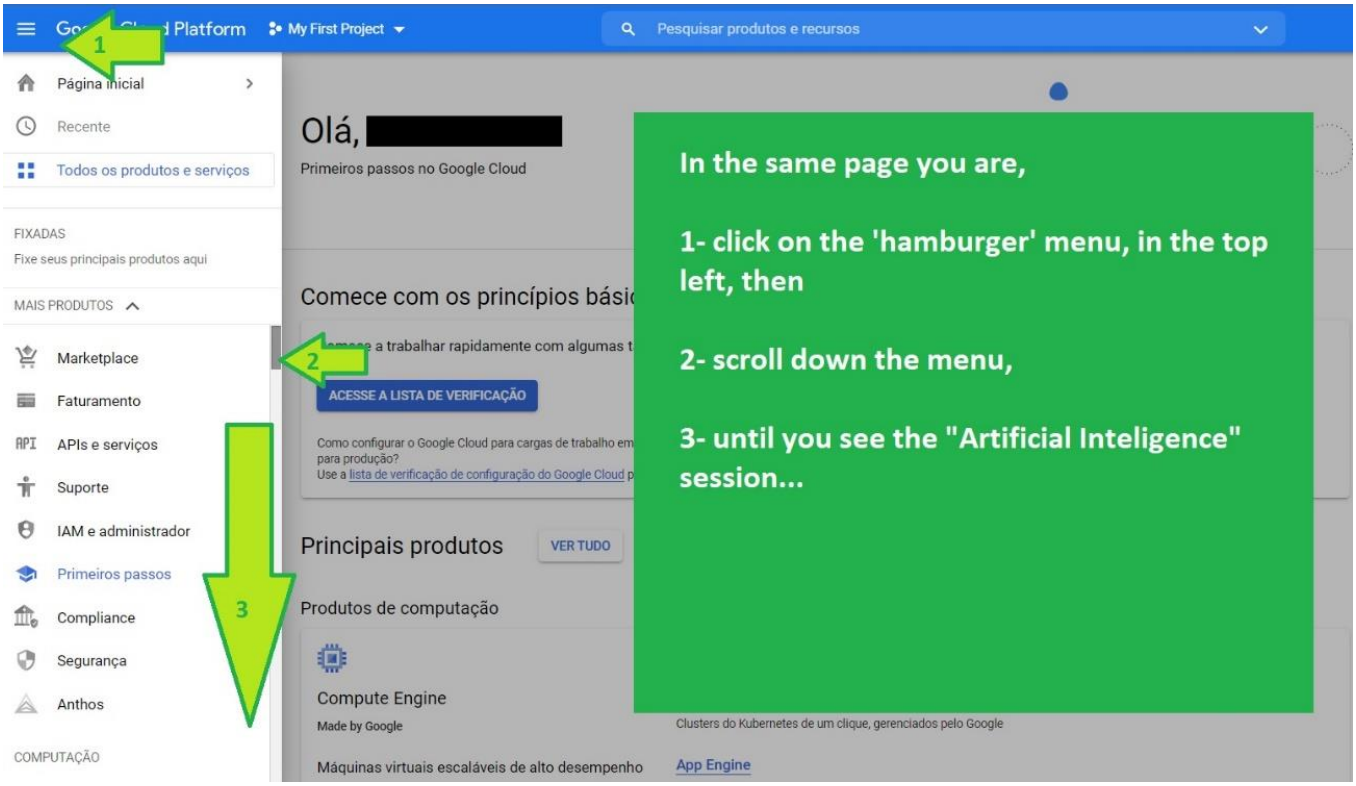
6. Answer some questions...



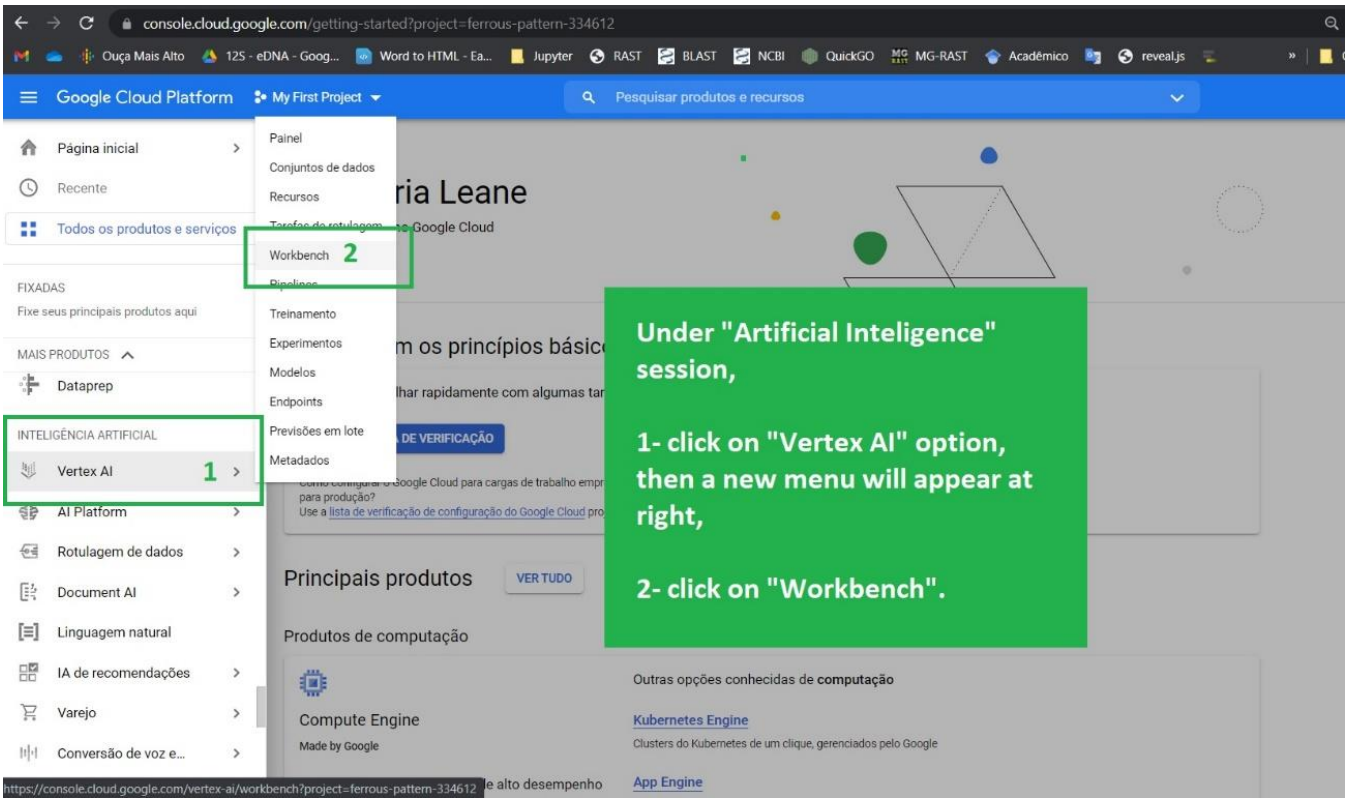
7. Your account in GCP was created.



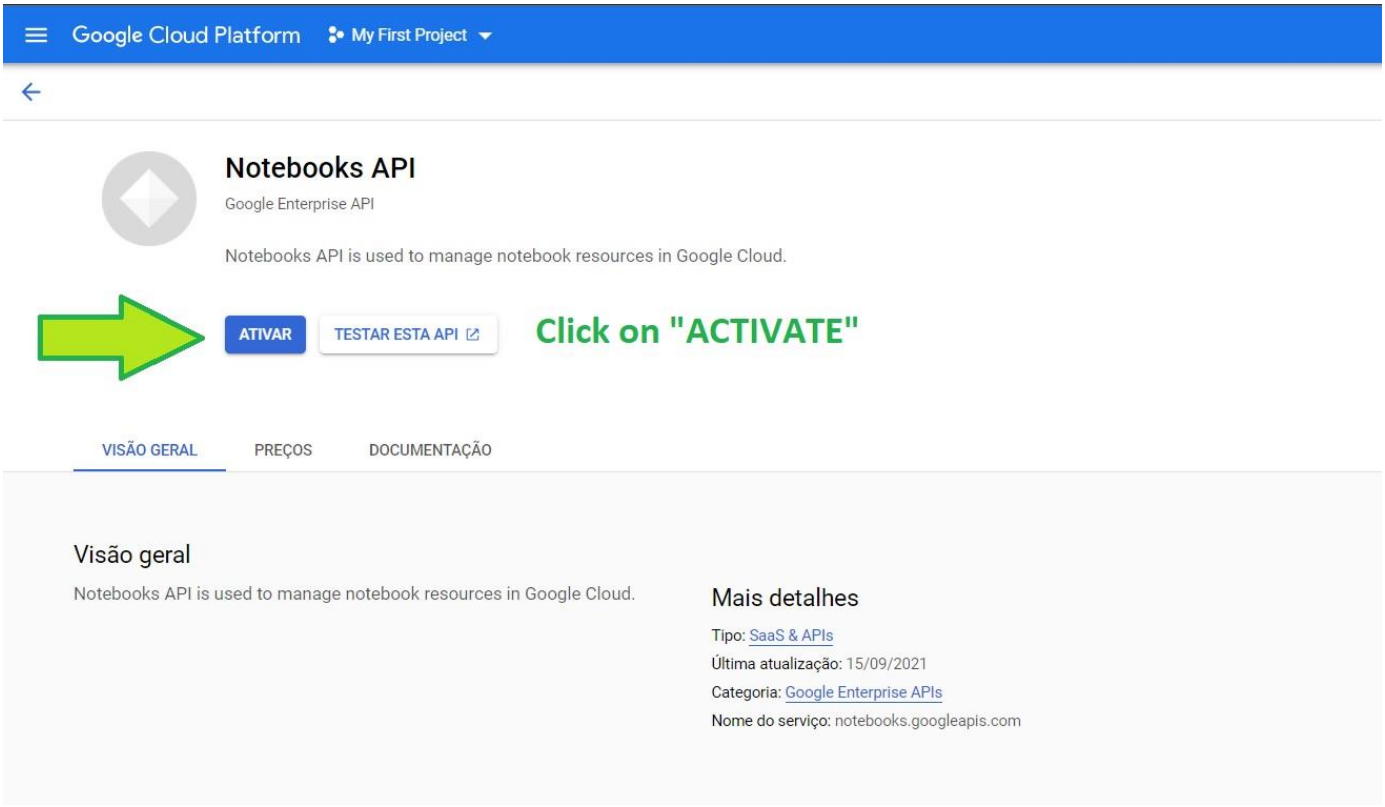
8. Now, using the top left menu, scroll down until you see “Artificial inteligence” session:



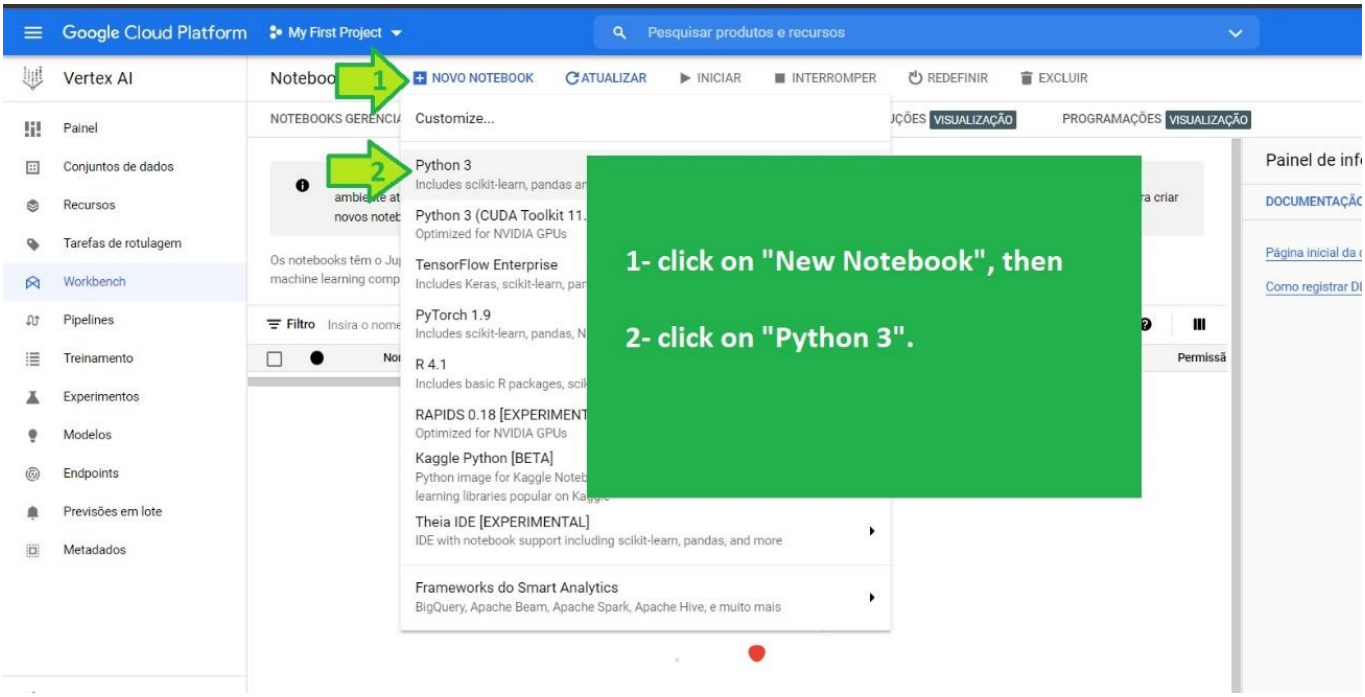
9. Click on “Vertex AI” service, then “workbench”, where the Notebooks are automatically created to run in a Default virtual machine (VM).



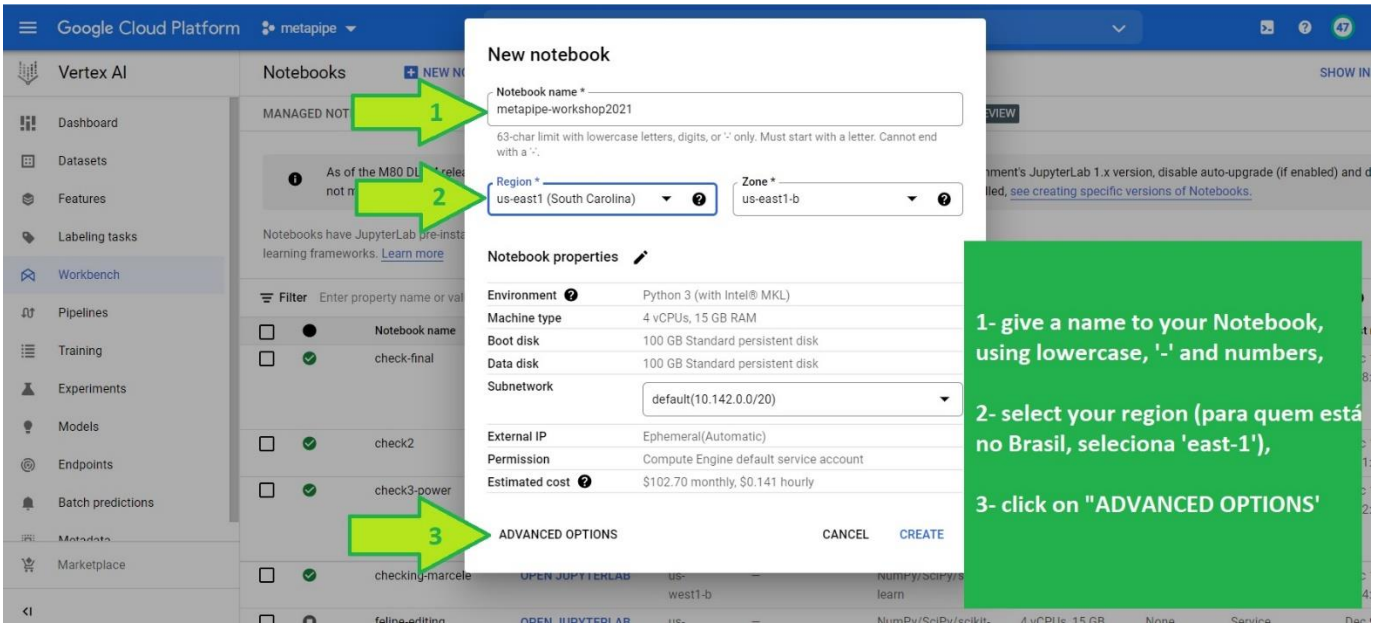
10. Activate the “Notebooks API”. This may take some minutes.



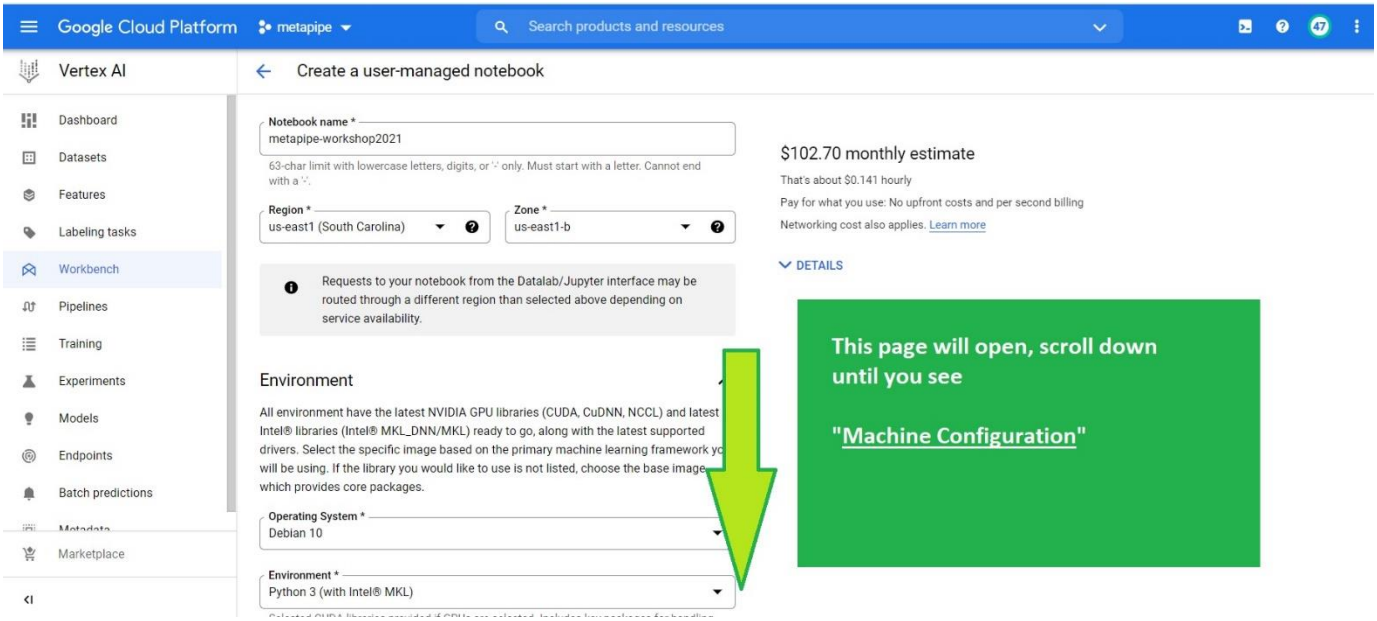
11. Create a New Notebook, using Python 3 default environment:



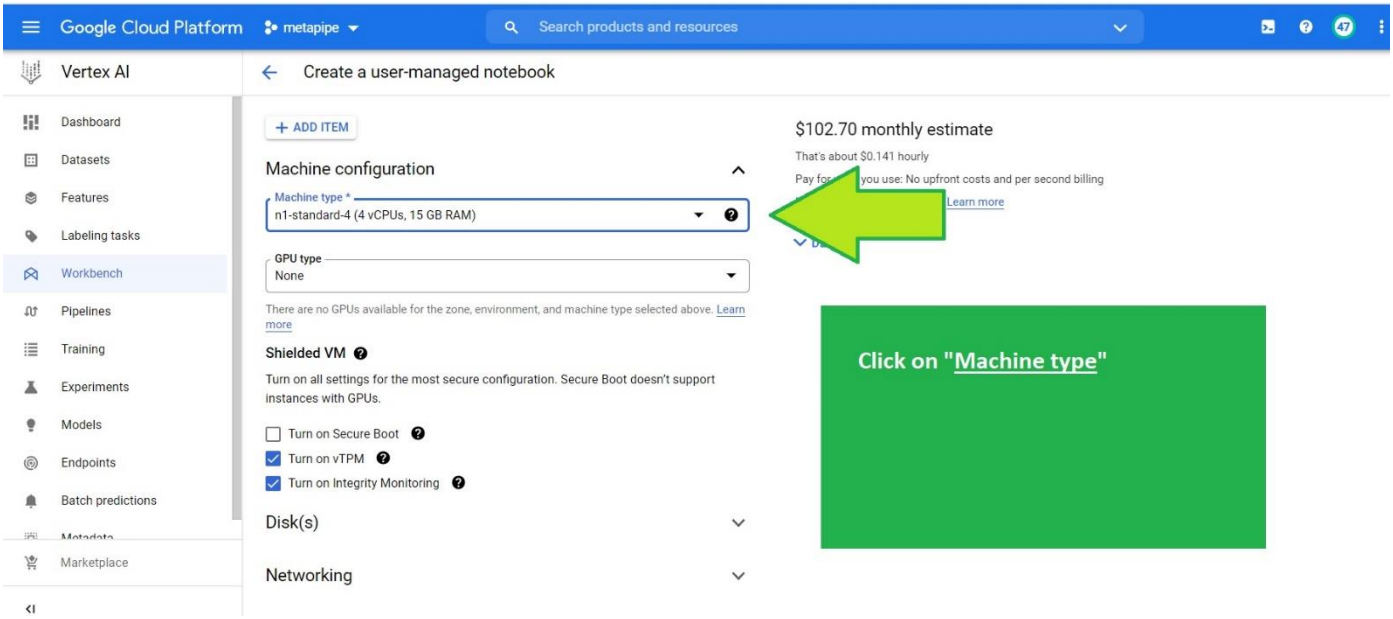
12. Enter a name for your notebook, select the region (does not need to be exact, I am in South America and I have to select one of the USA servers), and then click on "**ADVANCED OPTIONS**:



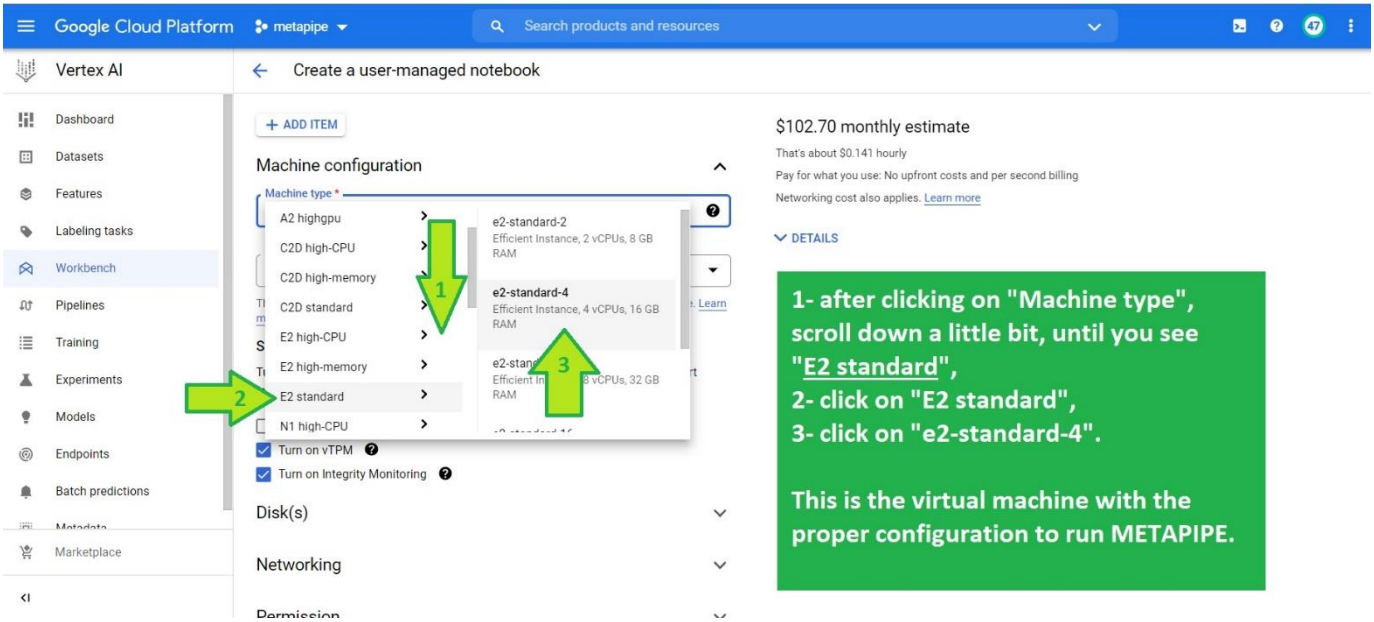
13. A new page will open, scroll down a little bit



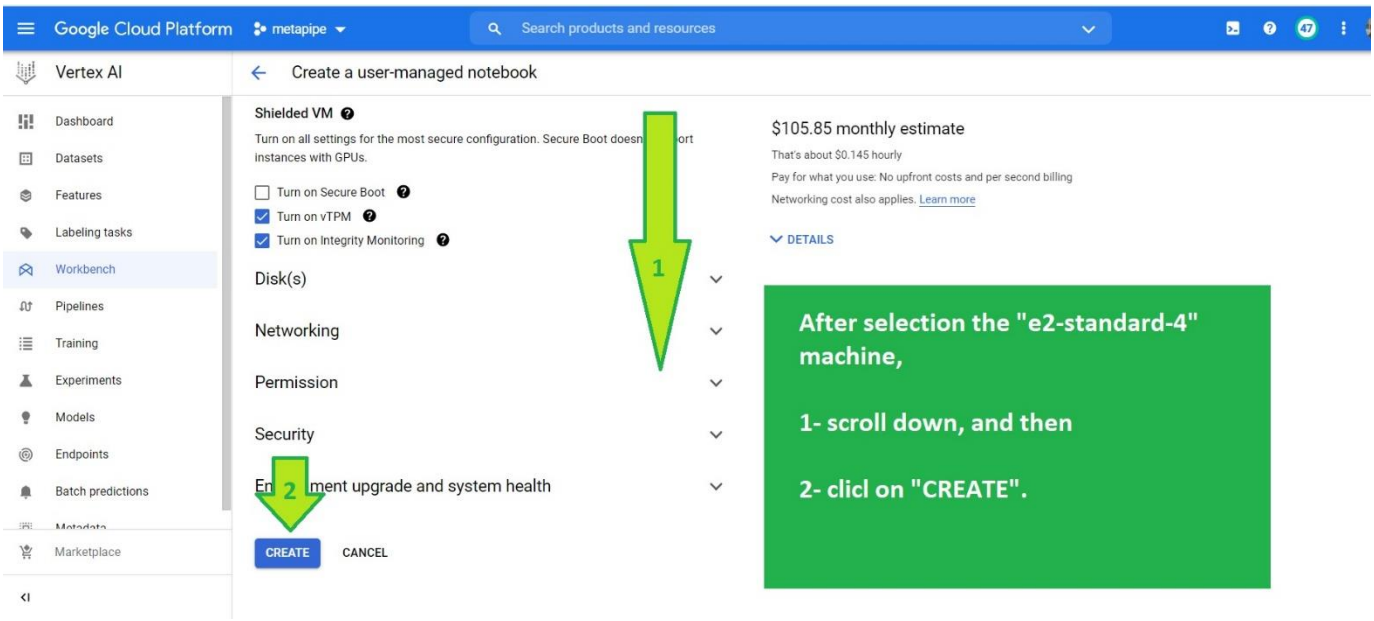
14. Then you will see the "**Machine configuration**" session. Click on "Machine type":



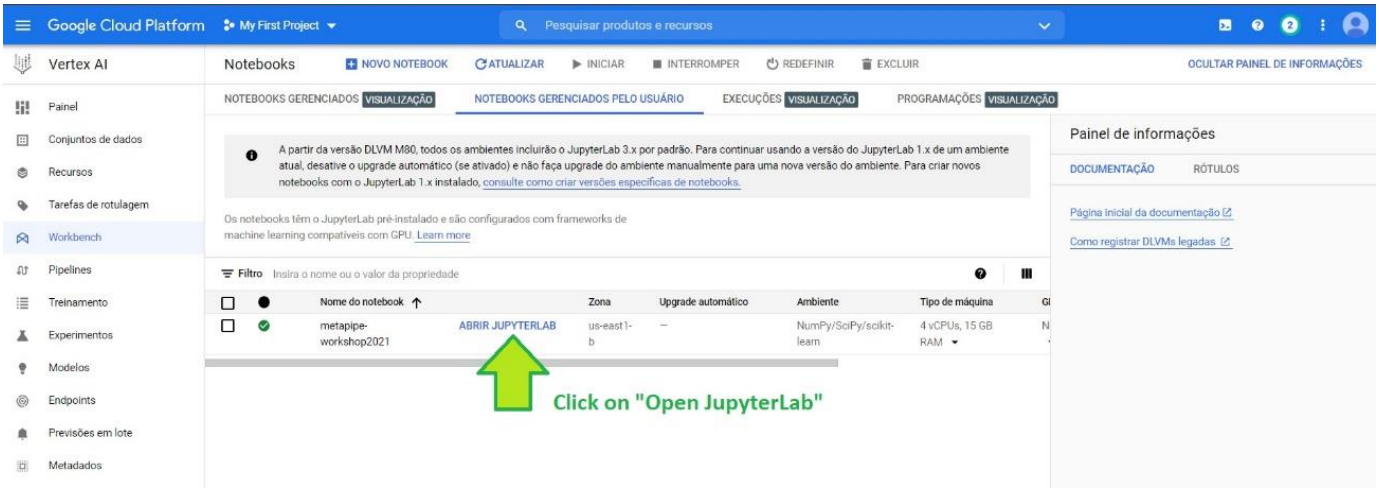
15. After clicking on "Machine type", a menu will open. Scroll down a little bit, until you see the "**E2 standard**" option. Click on it. In the right menu, select the machine "**e2-standard-4**".



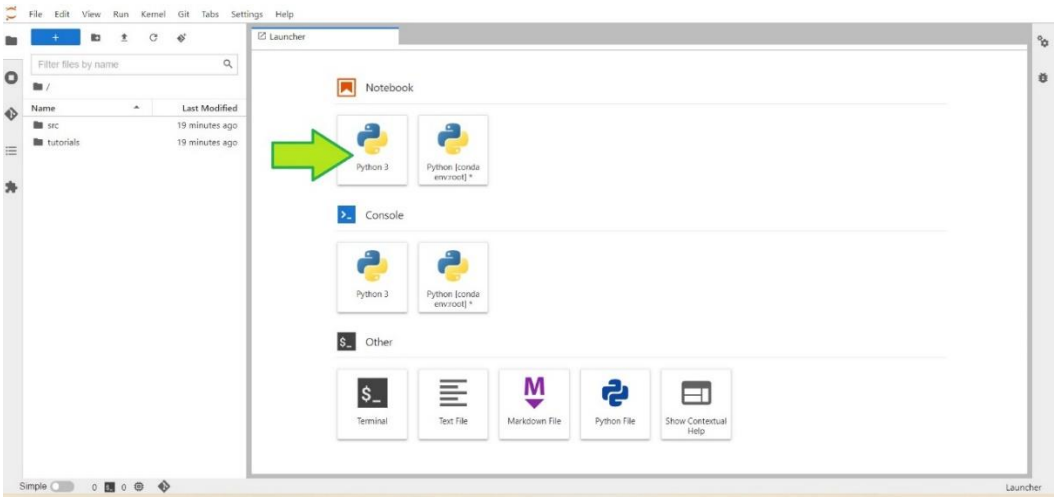
16. Then you will return to the “advanced options” page. Scroll down and click on “CREATE”. It will take about 2 minutes to open your new virtual machine and load the JupyterLab service, which will run our Notebooks.



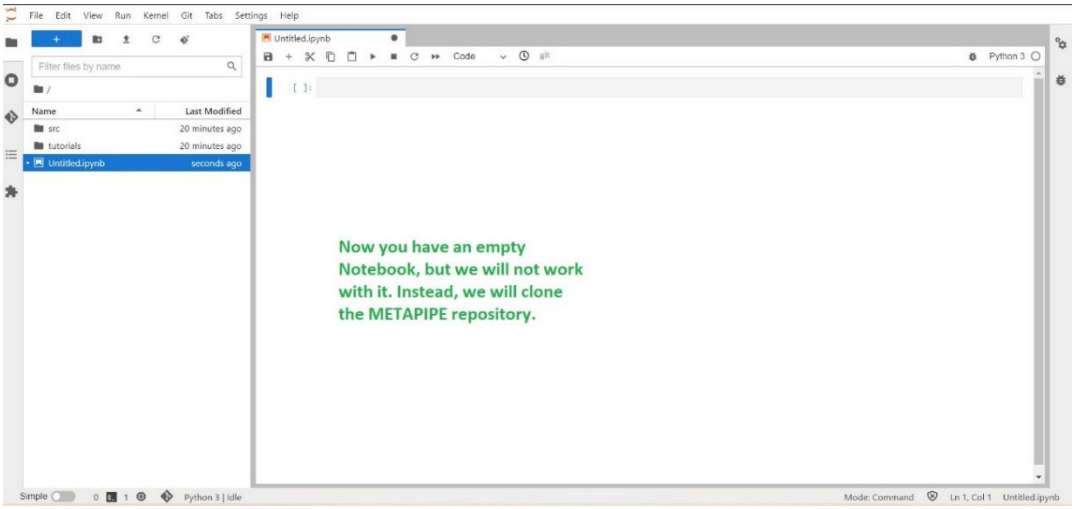
17. When ready, the “OPEN JUPYTERLAB” button will appear. Click on it to start.



18. Select the default Python 3 environment.



19. Now you have an empty Notebook. We need to call the METAPIPE scripts and files from Github. Follow the steps:



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NOW WE ARE GOING TO CLONE THE METAPIPE WORKSHOP REPOSITORY, CONTAINING ALL THE SCRIPTS, NOTEBOOKS AND FILES REQUIRED.

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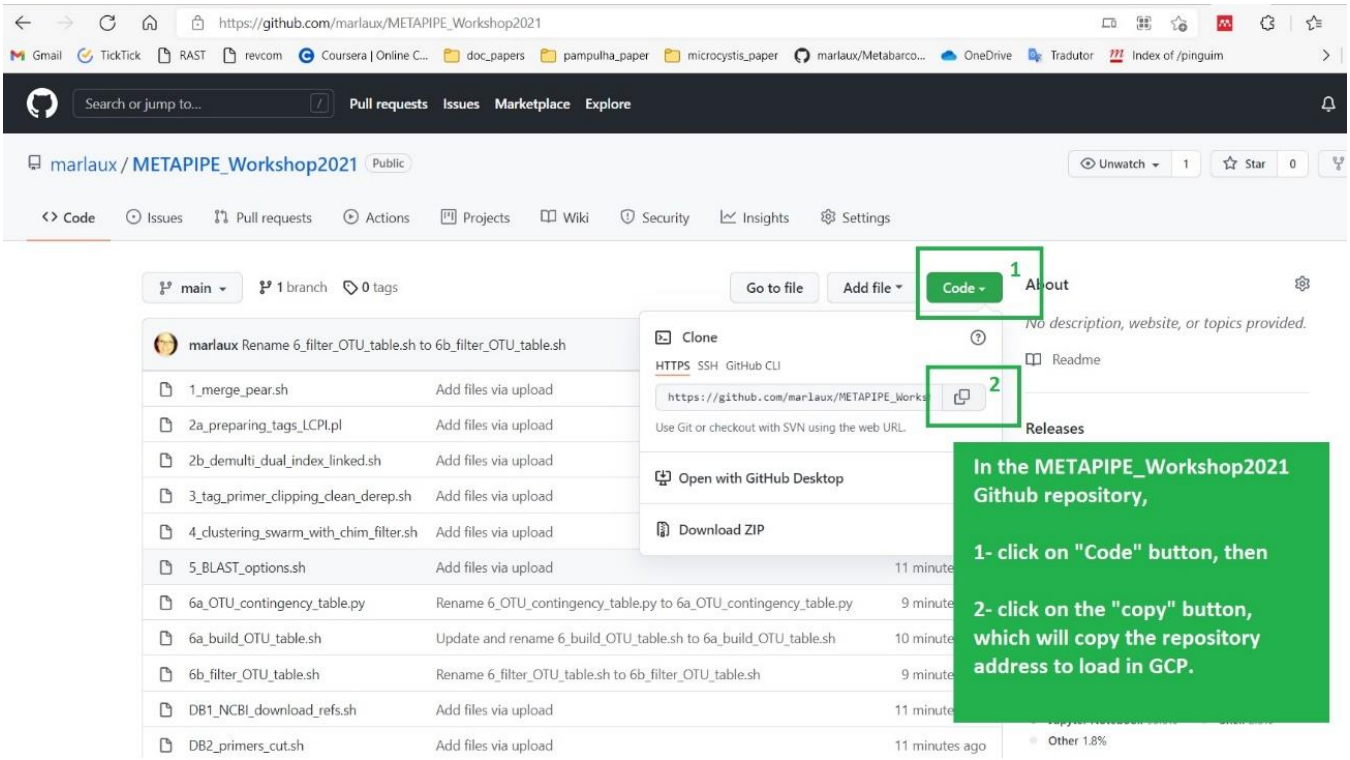
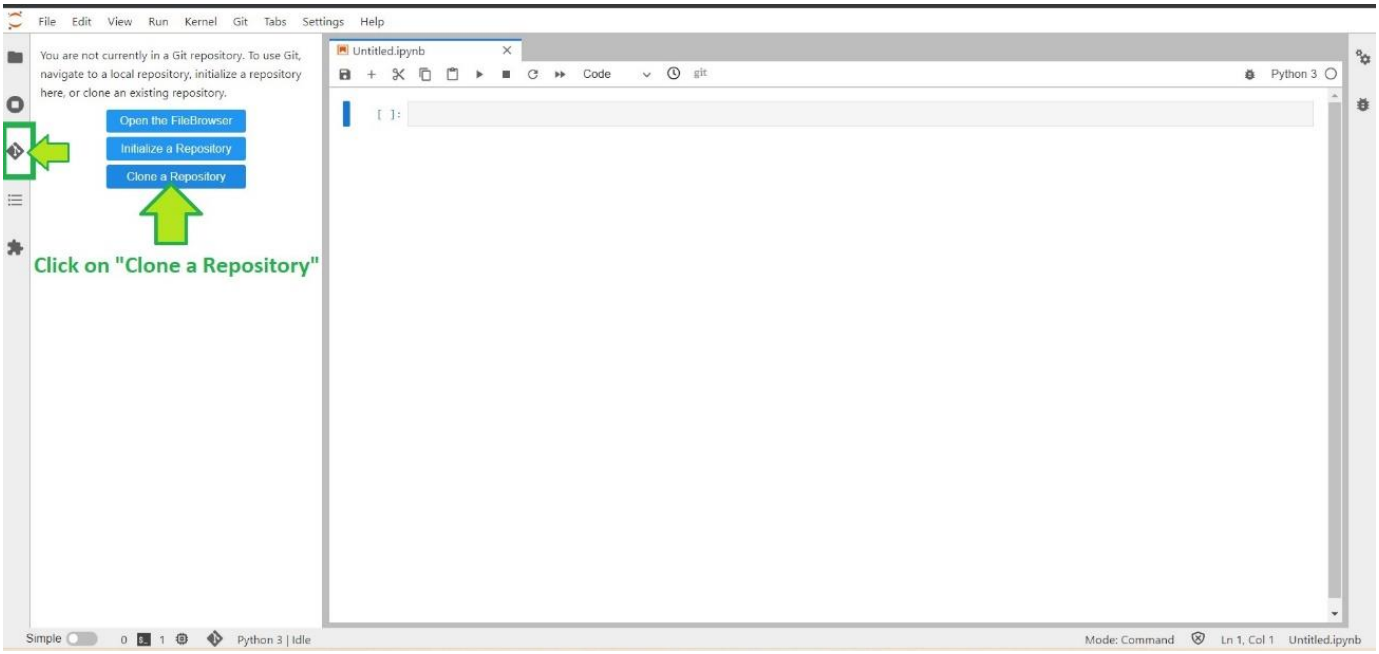
20. Go to METAPIPE Github repository:

[marlaux/METAPIPE_Workshop2021 (github.com)]

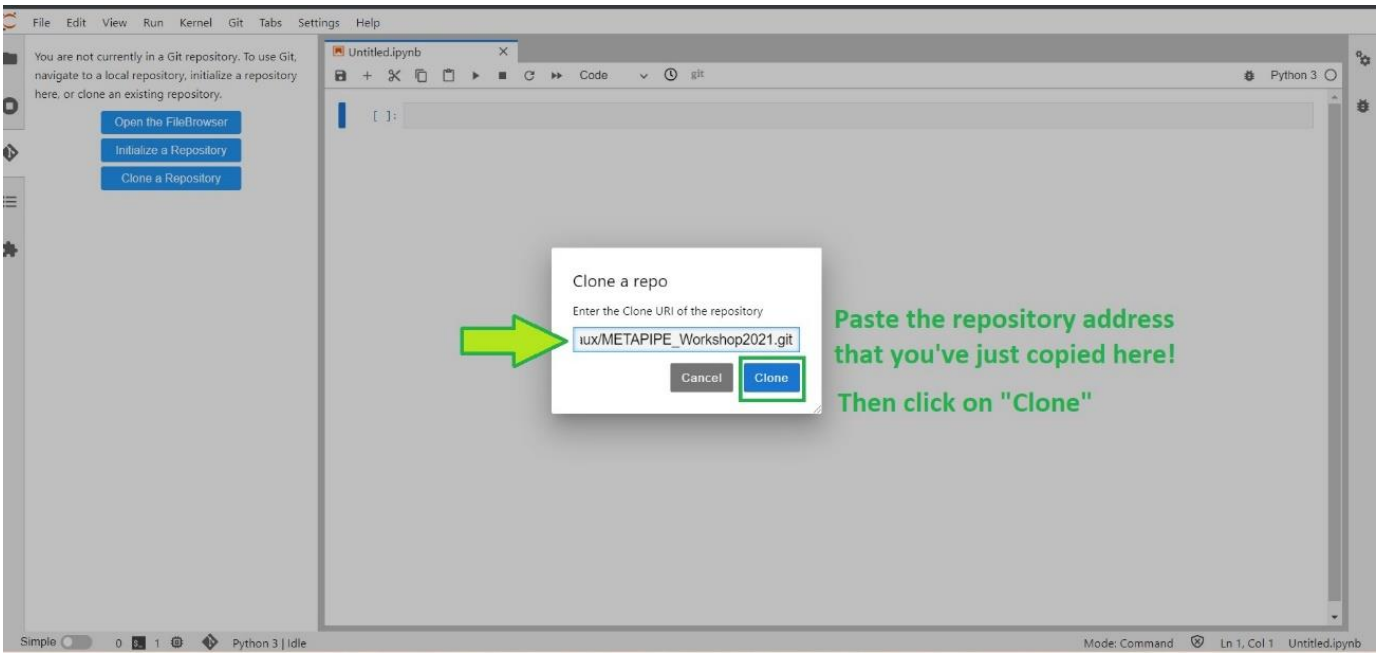
21. and copy the repository URL.



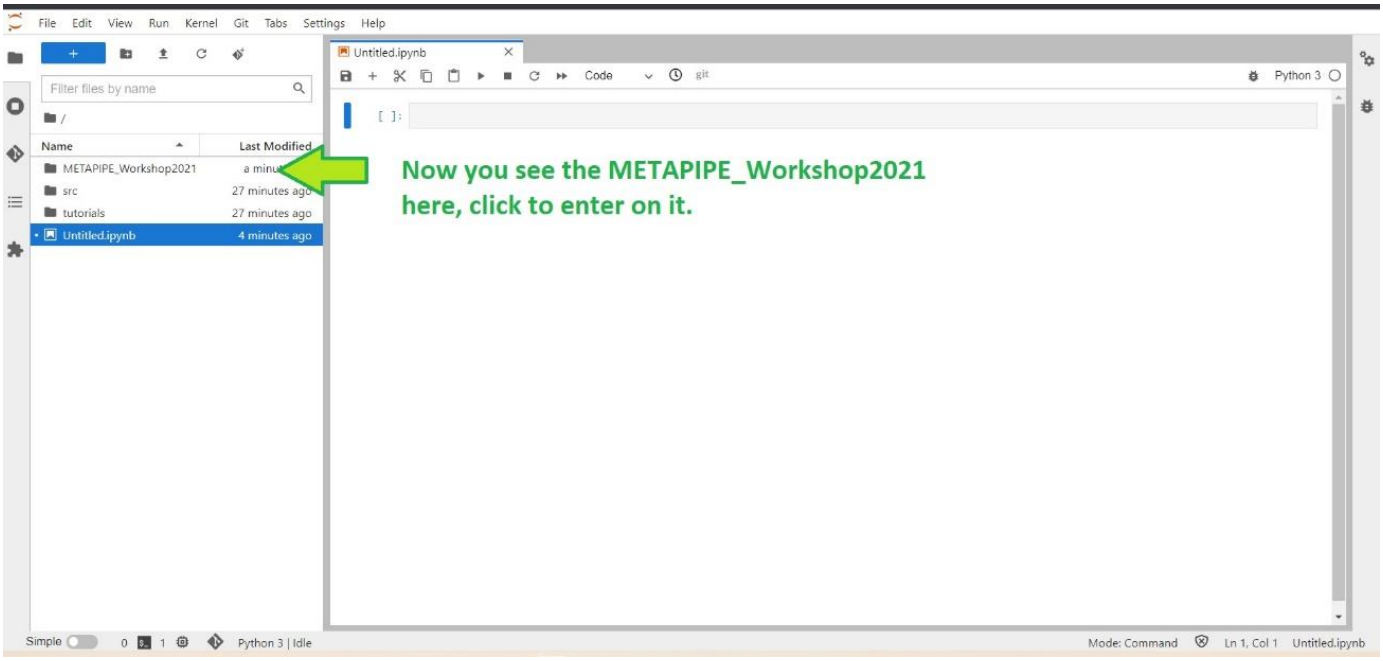
22. Go back to your Notebook. You will see a Github icon on the left, as shown in the following picture. Click on it, and then click on “Clone repository”.



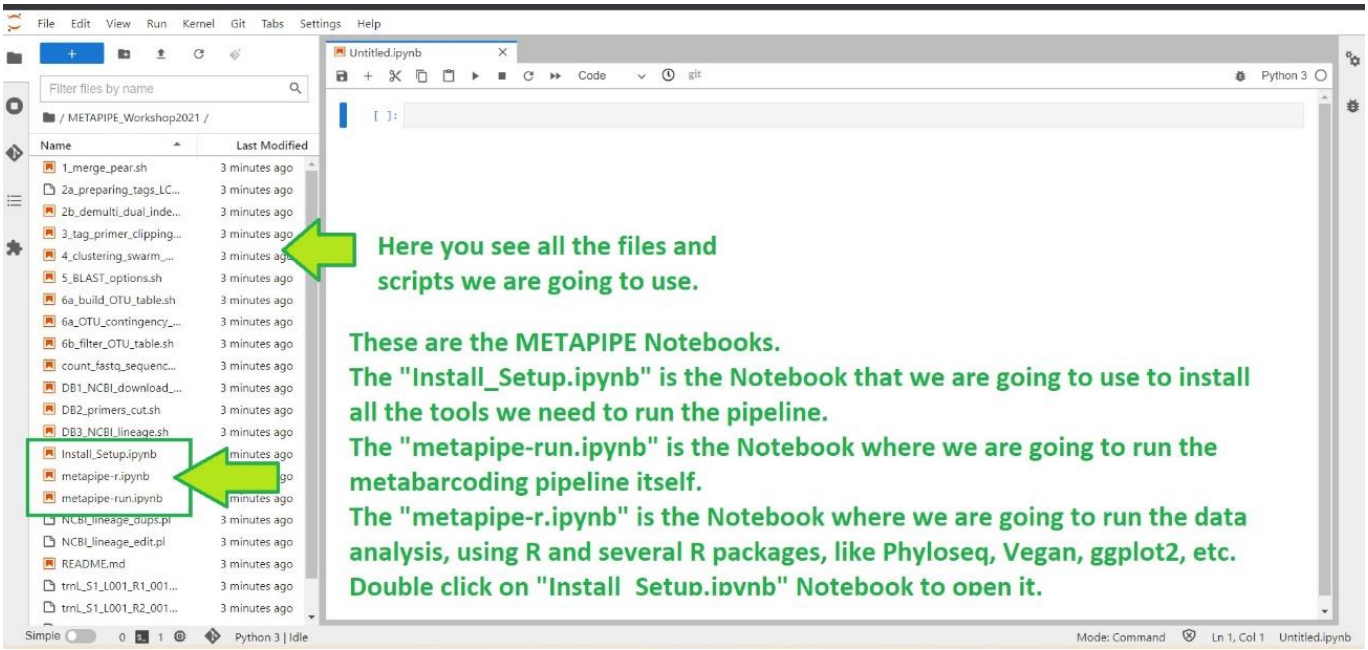
23. Paste the address you’ve just copied from Github and click on “Clone”.



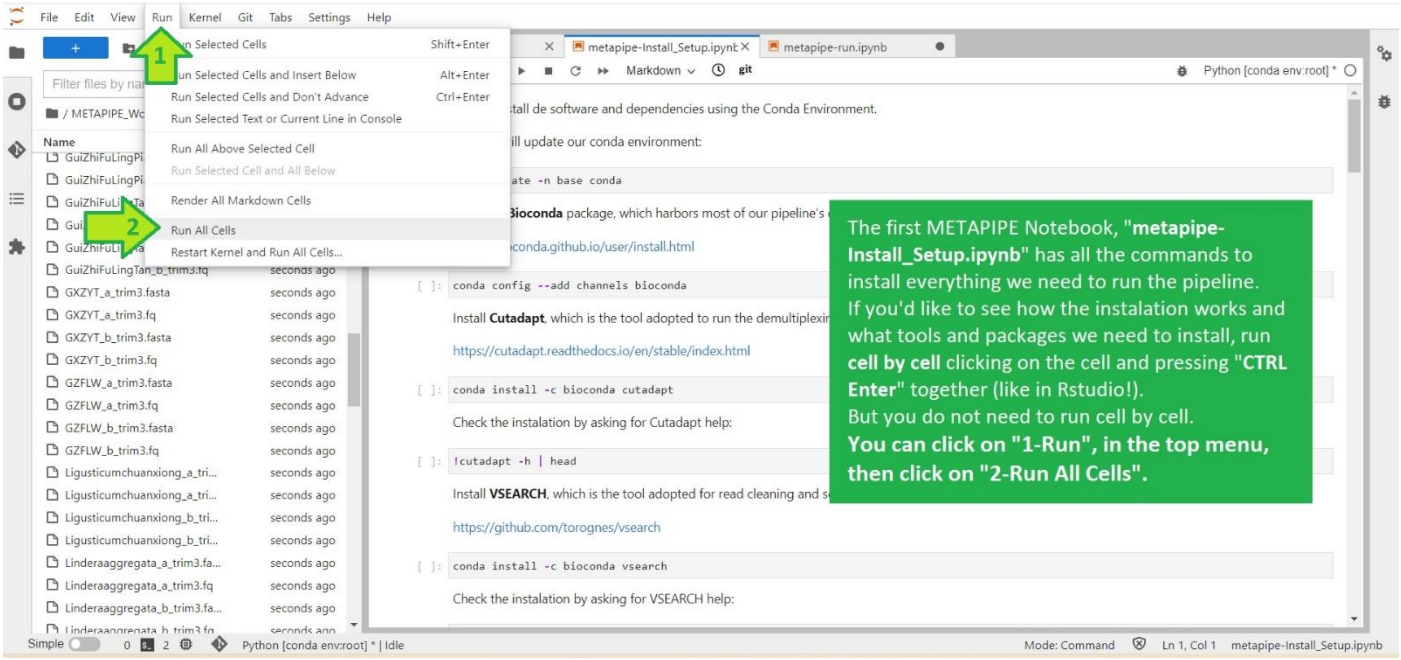
24. Now the METAPIPE repository is in your VM, ready to run. Double click to open it.



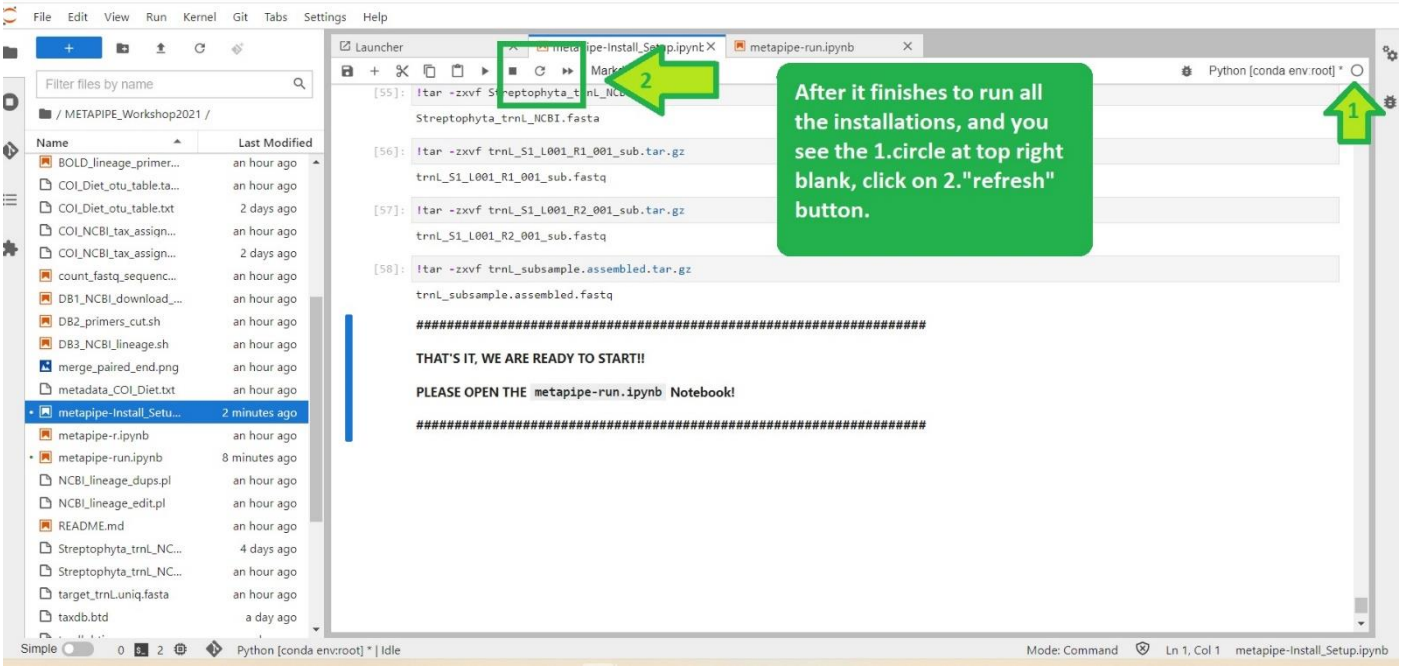
25. These are all our scripts and files. Pay attention in the description found in the following picture (Attention, the 'Install_Setup.ipynb' Notebook was renamed to '**metapipe-Install_Setup.ipynb'**):



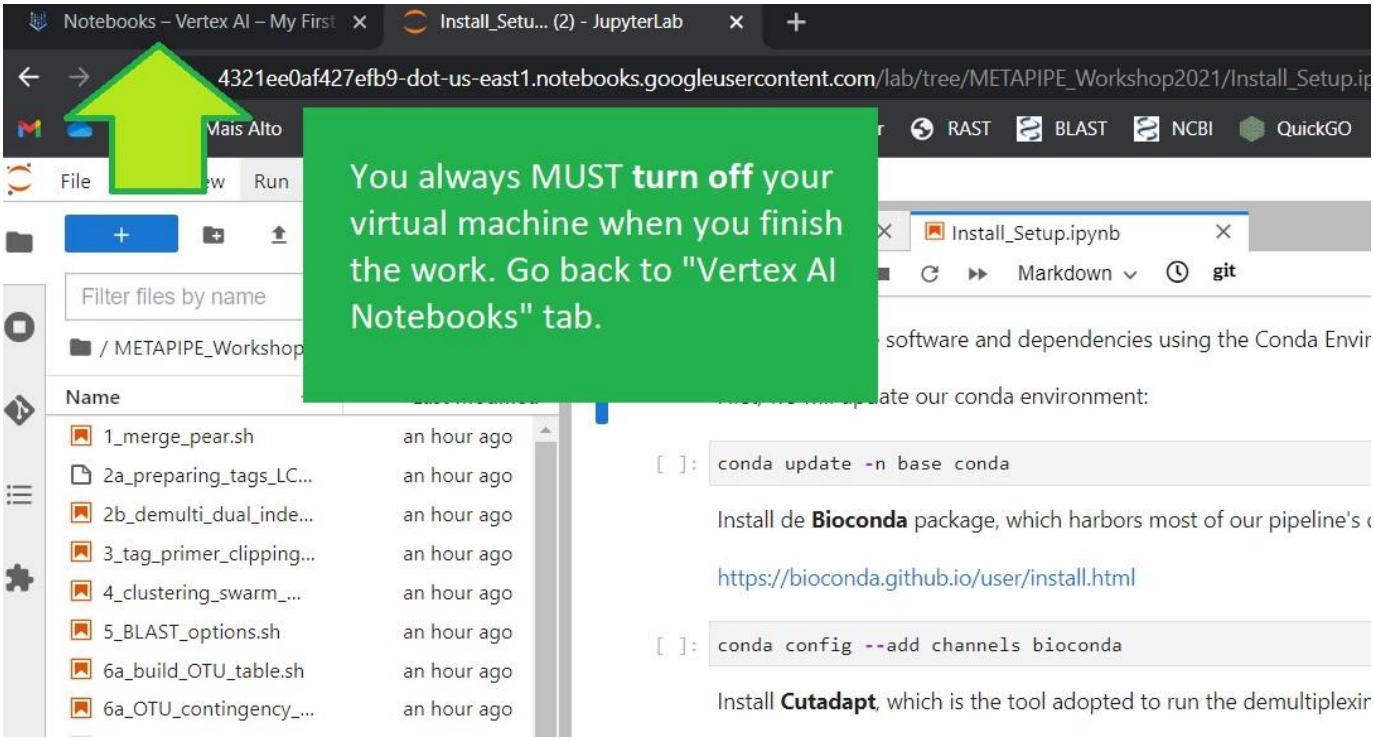
26. Double click on the “metapipe-Install_Setup.ipynb” Notebook, the first one, which has all the commands to install everything we need to run the pipeline.



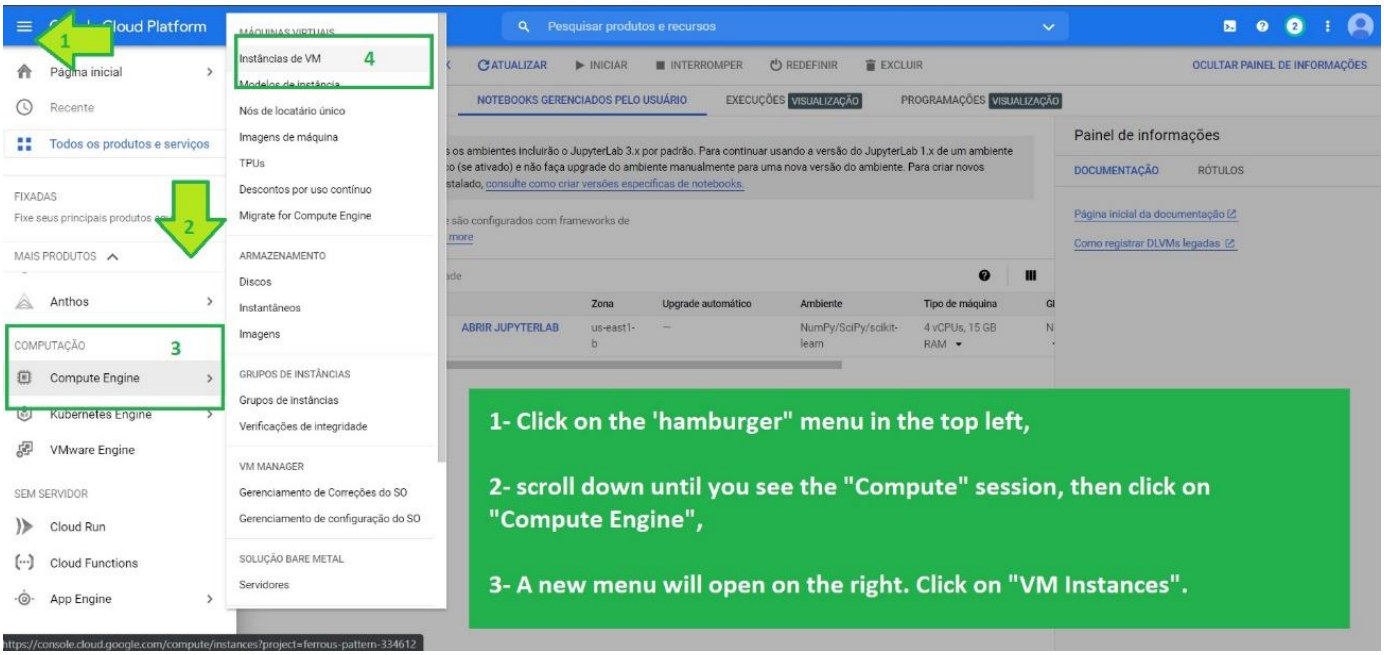
27. After it finishes to run all the installation (takes around 1 hour), you will se the little circle in the top right blank, instead of grey. This indicated that the machine is not working anymore. At this point, click on “**refresh**” button, indicated in the following picture:



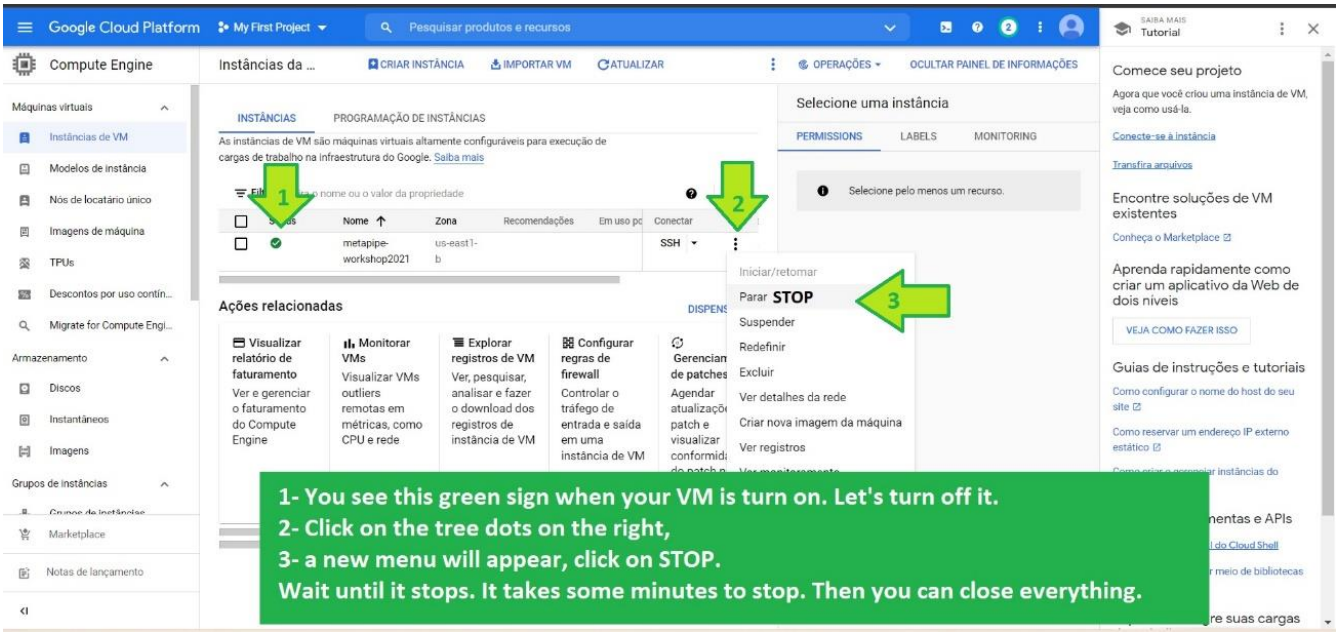
28. Now let's turn off your virtual machine. Follow the steps: Go back to "Vertex AI Notebooks" tab in your browser:



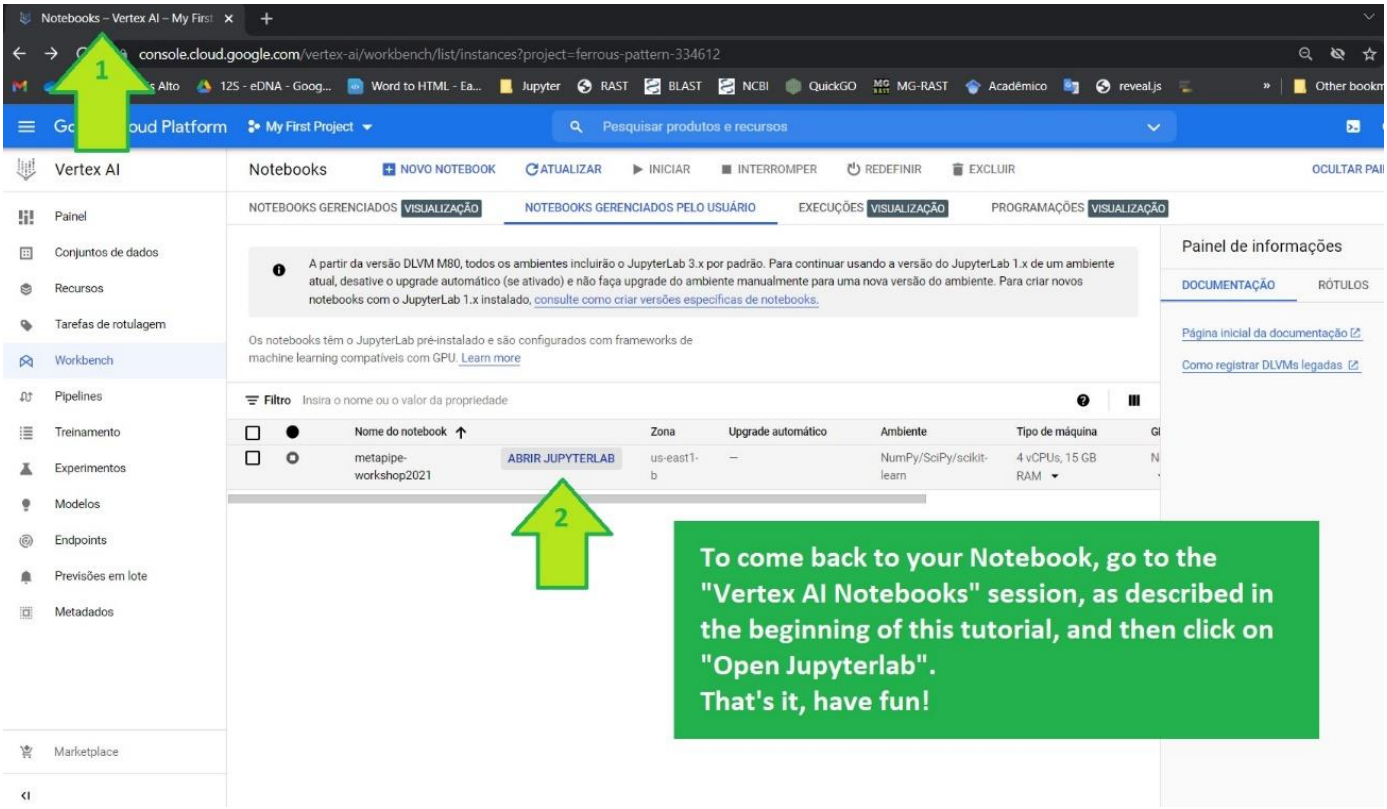
29. Click on the top left menu, scroll down until the "compute" session, then click on "Compute Engine" and "VM Instances":



30. Click on the three dots, on the right, and then click on “Stop”, and “Stop” again. That’s it, your VM is off. Wait until it finishes the stopping and close the window.



31. To go back to your Notebook, you just need to go to the “Vertex AI Notebooks”, as described before, and then click on “Open JupyterLab”.



That’s it 😊