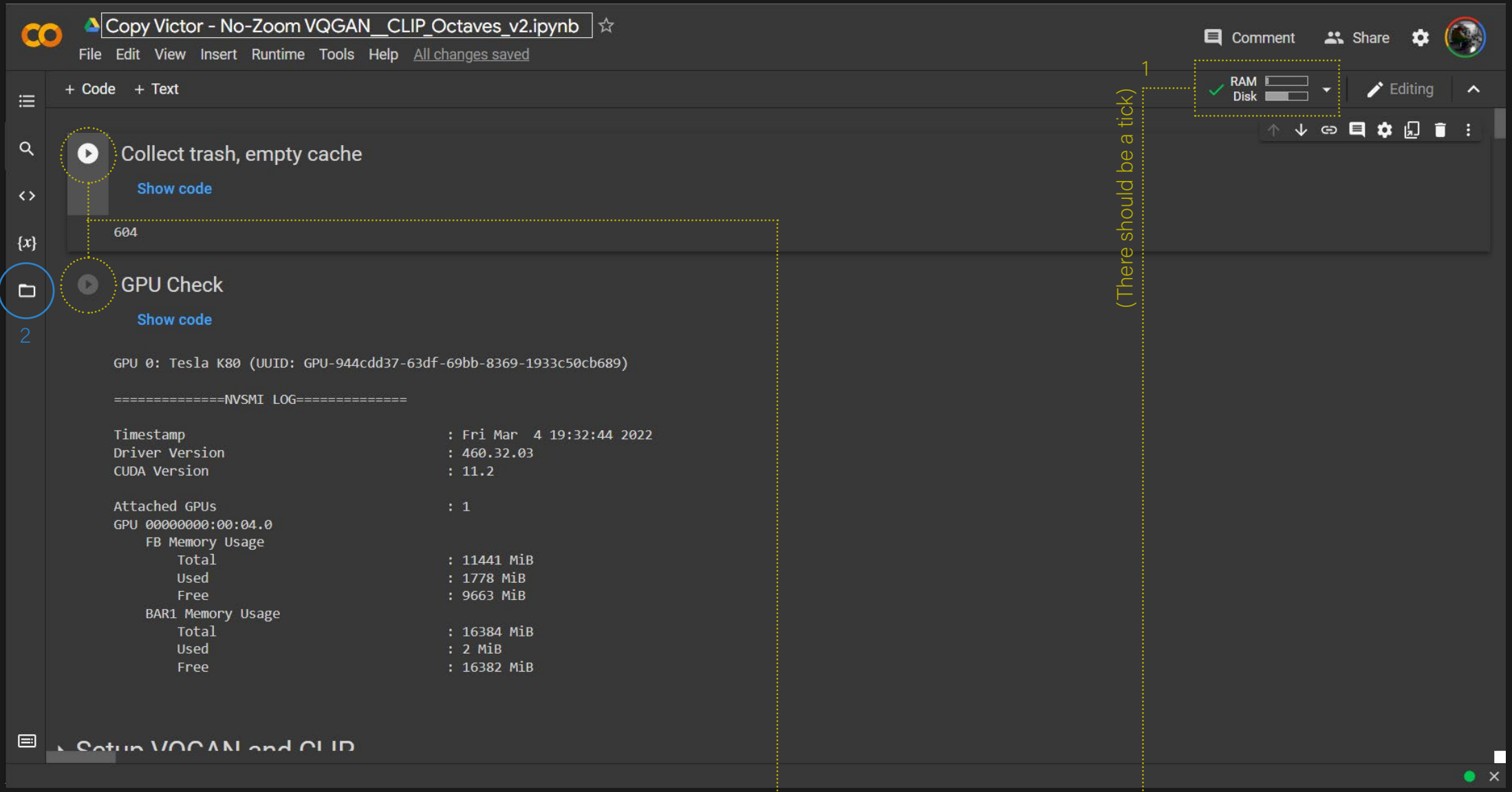
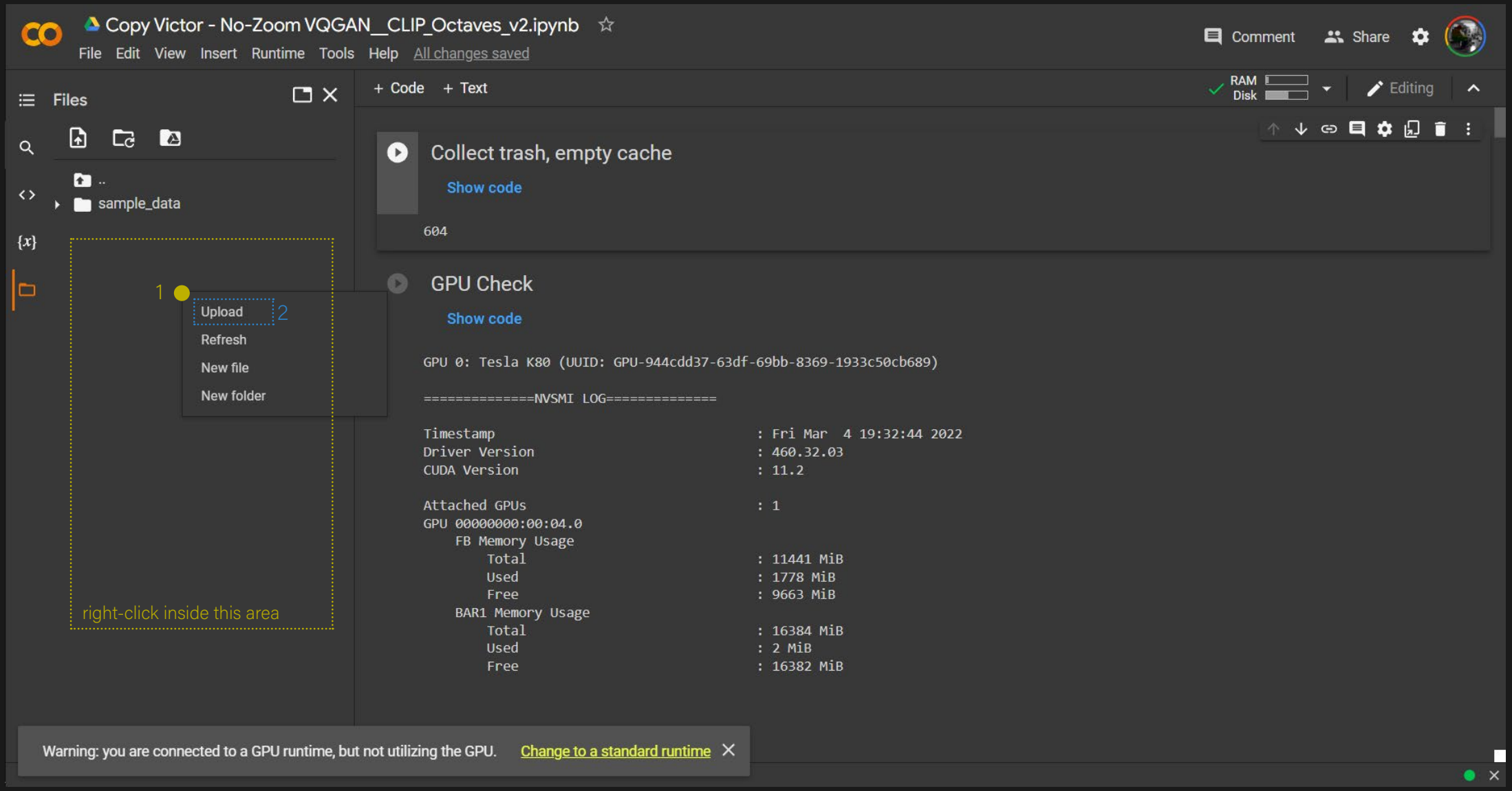


STEP 1 - Starting

1 - Check if you are connected to Google Collab GPU. (If the tick is not there, run the first 2 modules)

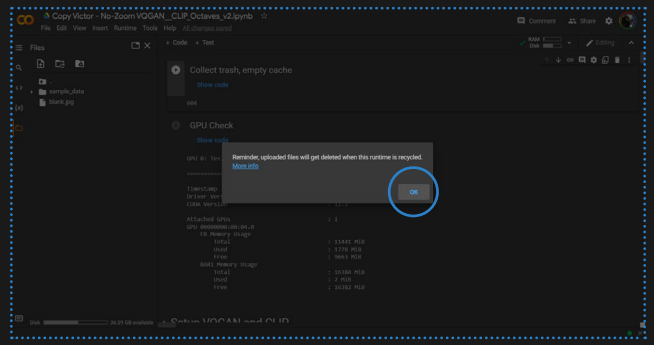
2 - Click to open the files tab

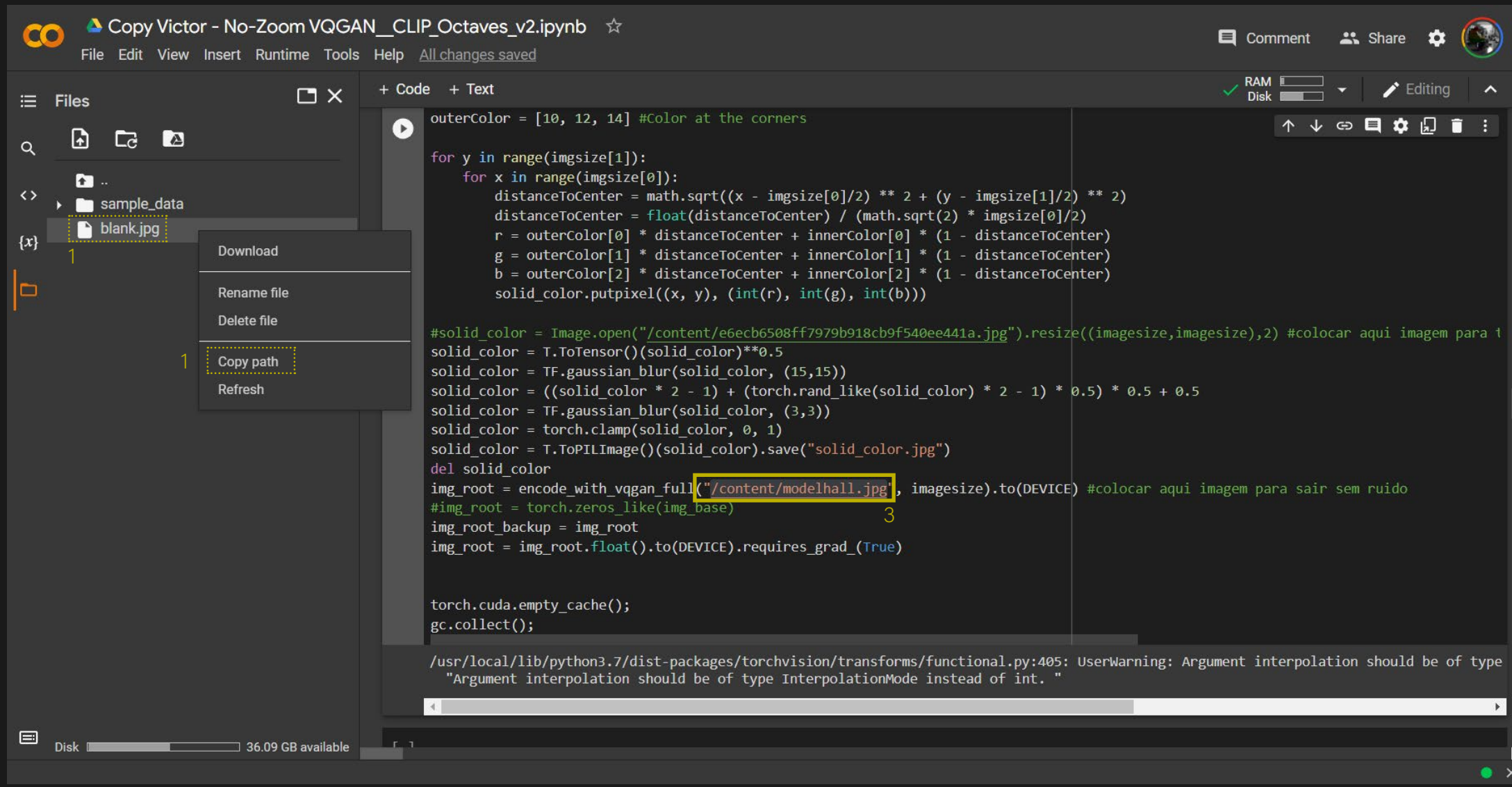


STEP 2 - Uploading the base image

1 - Right-click on the file's tab. You should see new options (Upload, Refresh, New File, New folder)

2 - Click "Upload" to insert a base image.
(This image will be background used for AI hallucinations. It could be a solid color image, a sketch or photo)
image should be: 500 x 500 pixels; jpg format; simple and short name
- Click "Ok" in the dial box to conclude the upload. It means that once the script is restarted all the files inserted and generated will be lost.



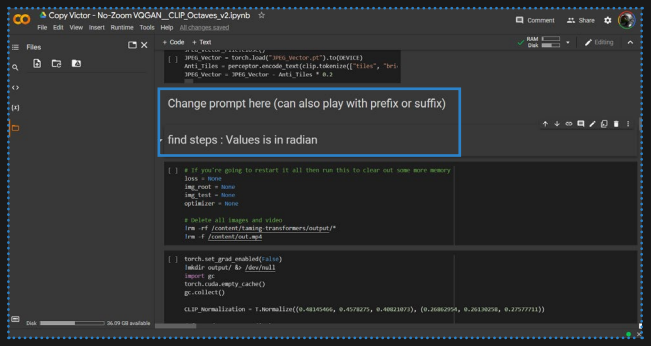


STEP 3 - Setting the path

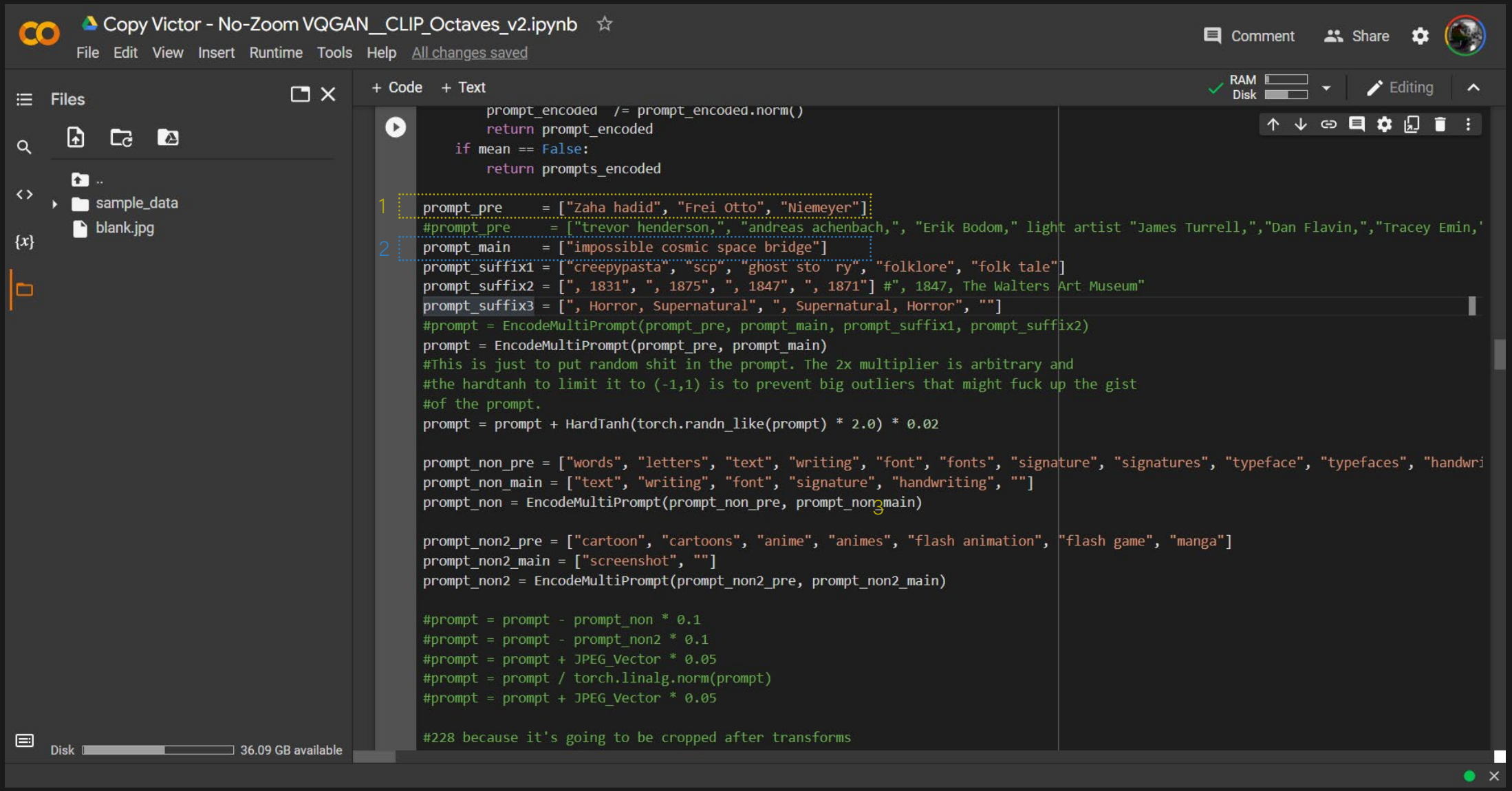
1 - Right-click on the uploaded image name. Click on the option “Copy path”

2 - Scroll down the script until you find the module **“Change prompt here”** - as in the screenshot in the left. In this module you will find the line:
> img_root = encode_with_vqgan_full(“/content/modelhall.jpg”, imagesize).to(DEVICE) #this is the line that will determine which image will be used for the background

2



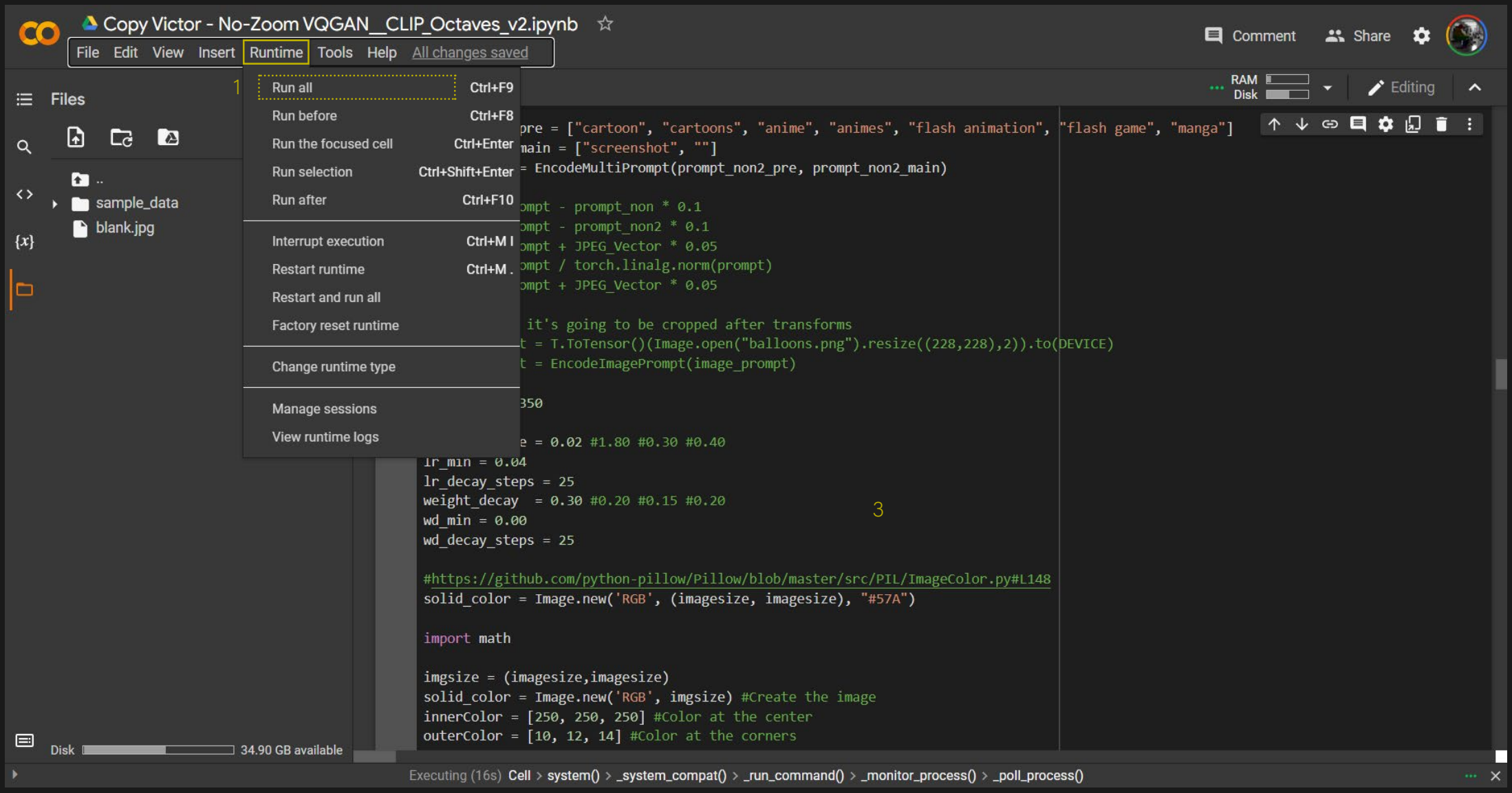
3 - Paste (CRTL + V) the copied path inside the “ ”. In this example this line will change from “/content/modelhall.jpg” to “/content/blank.jpg”



STEP 4 - Changing the parameters (this is where the fun begins!)

1 - In the same module, scroll up to find > prompt_pre = ["Zaha hadid", "Frei Otto", "Niemeyer"]
In this line you can put your own visual references (can be artists, architects or visual elements; it is a good practice to chose wide published ones, then the script can have a larger database of images to be influenced). To change/add the artists use always the following notation ["inserthere", "inserthere", "inserthere"]. There is no limit of visual references, it is also possible to write "vray", "render", "sci-fi", "modernism"... instead of famous persons. The possibilities are diverse.

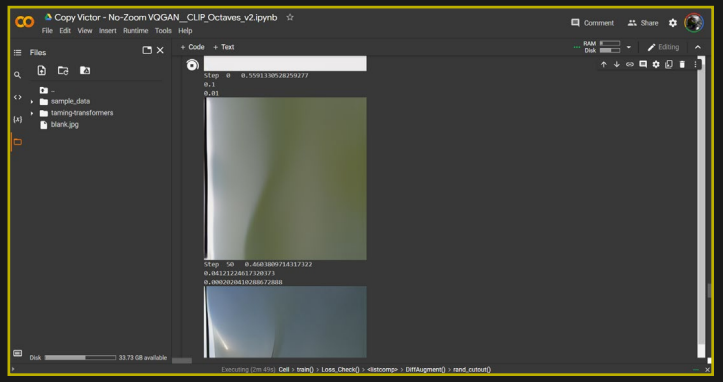
2 - prompt_main = ["impossible cosmic space bridge"] # this is the concept the script will generate. This could be an infinite variety o themes, concepts and topics. Examples: (using emotions and time inputs) prompt_main = ["sad garden in soviet future"] // (using several words to achieve different result) prompt_main = ["beautiful architecture", "modernism utopic", "arctic base", "sci-fi looking"]



STEP 4 - Changing the parameters (this is where the fun begins!)

1 - Click "Runtime". Then, click on "Run all".
The script will start generating the images (the final output is both images and a video)

To check the progress, scroll down until you find the image sequence (normally it can take a few minutes to start showing the results)



Results from example

prompt_pre = ["Zaha hadid", "Frei Otto", "Niemeyer"] #visual references
prompt_main = ["impossible cosmic space bridge"] imagesize = 350 #concept
steps = 500 #number of iterations (every 50 iterations is a new frame. To fast tests is better to stay between 200 - 500. Above 500 wil take longer, but the results can become really interesting, since it will get smarter with time)

learning_rate = 0.02 #1.80 #0.30 #0.40 #learning rate (the higher, it will make changes faster)
lr_min = 0.04
lr_decay_steps = 25
weight_decay = 0.30 #0.20 #0.15 #0.20

base image

final result - step 500 (first time running)

final result - step 500 (second time running)

Results from example

prompt_pre = ["Zaha hadid", "Frei Otto", "Niemeyer"] #visual references
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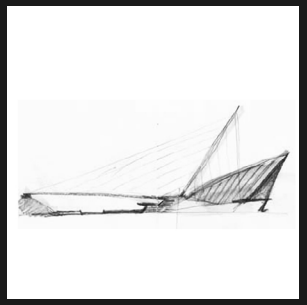
base image



first iterations - step 50 (first time running)

final result - step 500 (second time running)

STEP 4 - Observations

1 - The script works in two steps. First it translates the meaning of the concept and then identifies images corresponding to the visual reference (CLIP). Then the last part interprets it visually by crossing the meaning with the reference published works found in online databases, creating loopings to validate it gradually (VQGan).

2 - In this sense, the script can produce results highly unpredictable/exploratory, since the way CLIP works is partially a blackbox, where the meanings and databases used can change depending on each parameter. This script also is particularly good in doing scary/uncany images - like when it does human/animals.

3 - Another possible interesting approaches can be:

- Using visual artists as references to render narratives and universes
- Using architects to render complex human feelings
- Explore impossible architectures and urban forms (like, floating buildings in a lava world)
- Exploring how using the words "view from above", "view from far", "view from inside" etc.. in the concept can change the camera angle
- Write down colors to visualize how they are gonna be applied
- Visualize utopic and conceptual visions made by architects (like the invisible cities from Italo Calvino)
- Visualize the limitations of vague concepts as sustainability (usually, it starts to render grass, animals and wood everywhere)
- Use very abstract sketches to see unpredictable results
- Render realistic patterns (as metal chrome patterns, etc..)
- Visualize end of the world scenarios (cold war, far-right apocalipse, world collapse, usually renders very impressive results, which can be potentially disturbing).