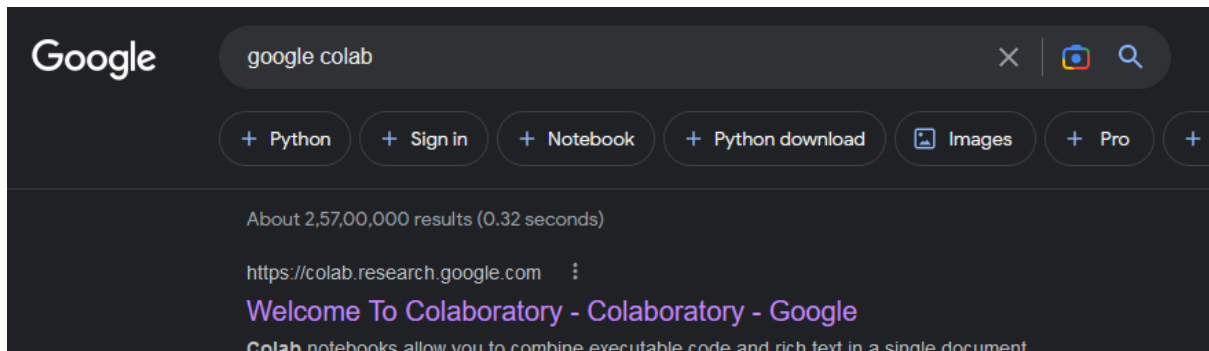
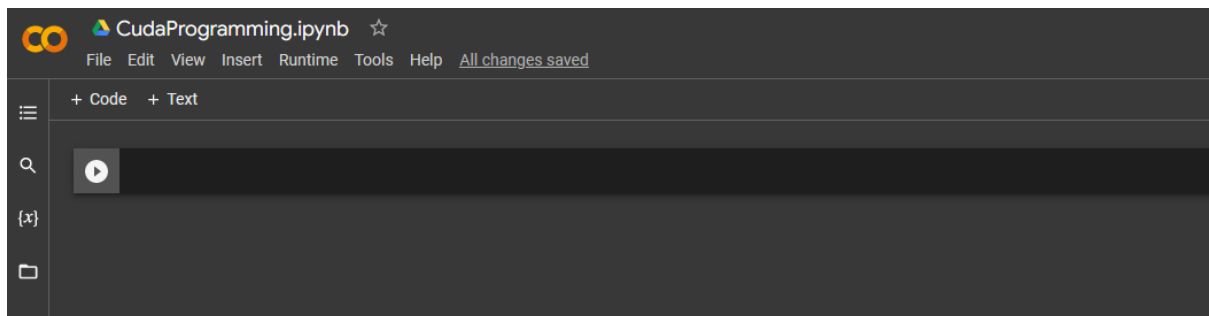


Set up an environment to run CUDA based program.

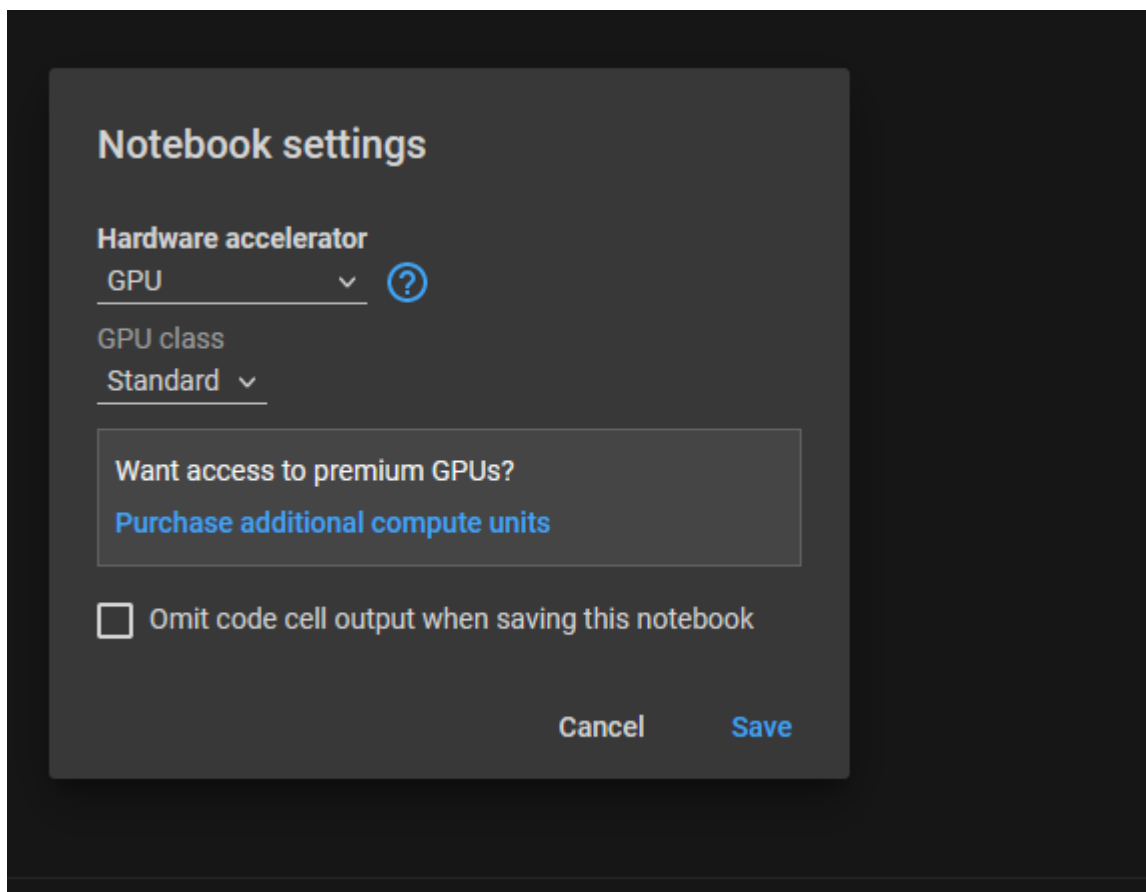
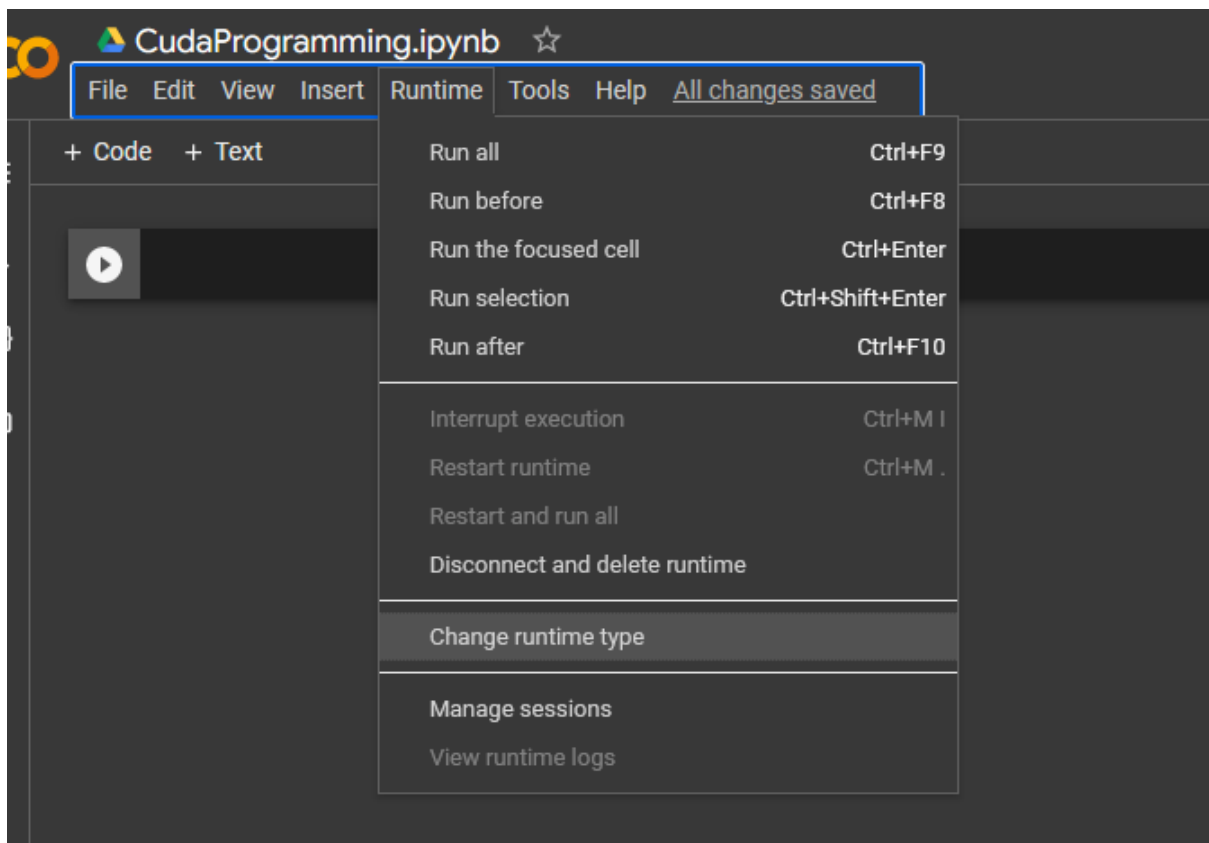
click first link:



Create new notebook:



change runtime



If we want to run any linux command use: >> **!command**

```
+ Code + Text

[1] !pwd
/content

[2] !whoami
root

!gcc --version
gcc (Ubuntu 9.4.0-1ubuntu1~20.04.1) 9.4.0
Copyright (C) 2019 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

>> **!nvcc --version**

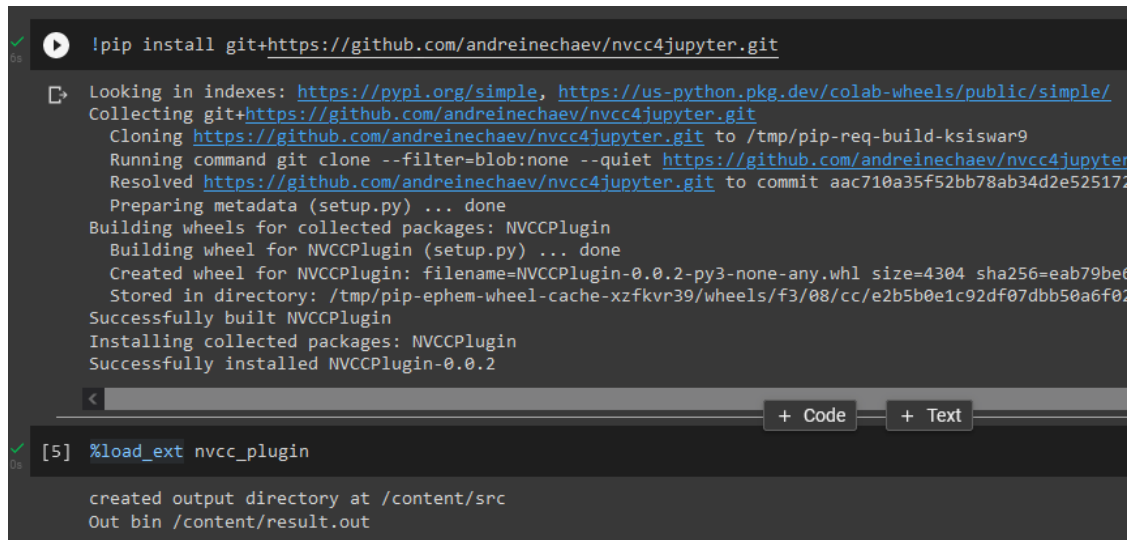
```
!nvcc --version
nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2022 NVIDIA Corporation
Built on Tue_Mar__8_18:18:20_PST_2022
Cuda compilation tools, release 11.6, V11.6.124
Build cuda_11.6.r11.6/compiler.31057947_0
```

```
*****
*****
```

Now we install extension to run our program in notebook and load it.

>> **!pip install git+<https://github.com/andreinechaev/nvcc4jupyter.git>**

%load_ext nvcc_plugin



```
✓ 0% !pip install git+https://github.com/andreinechaev/nvcc4jupyter.git

Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Collecting git+https://github.com/andreinechaev/nvcc4jupyter.git
  Cloning https://github.com/andreinechaev/nvcc4jupyter.git to /tmp/pip-req-build-ksiswar9
  Running command git clone --filter=blob:none --quiet https://github.com/andreinechaev/nvcc4jupyter.git
  Resolved https://github.com/andreinechaev/nvcc4jupyter.git to commit aac710a35f52bb78ab34d2e525172
  Preparing metadata (setup.py) ... done
Building wheels for collected packages: NVCCPlugin
  Building wheel for NVCCPlugin (setup.py) ... done
  Created wheel for NVCCPlugin: filename=NVCCPlugin-0.0.2-py3-none-any.whl size=4304 sha256=eab79be6
  Stored in directory: /tmp/pip-ephem-wheel-cache-xzfkvr39/wheels/f3/08/cc/e2b5b0e1c92df07dbb50a6f02
Successfully built NVCCPlugin
Installing collected packages: NVCCPlugin
Successfully installed NVCCPlugin-0.0.2

+ Code + Text

✓ 0% [5] %load_ext nvcc_plugin

created output directory at /content/src
Out bin /content/result.out
```

NOW RUN A SIMPLE CUDA PROGRAM:

```
%%cu
```

```
#include<iostream>
```

```
using namespace std;
```

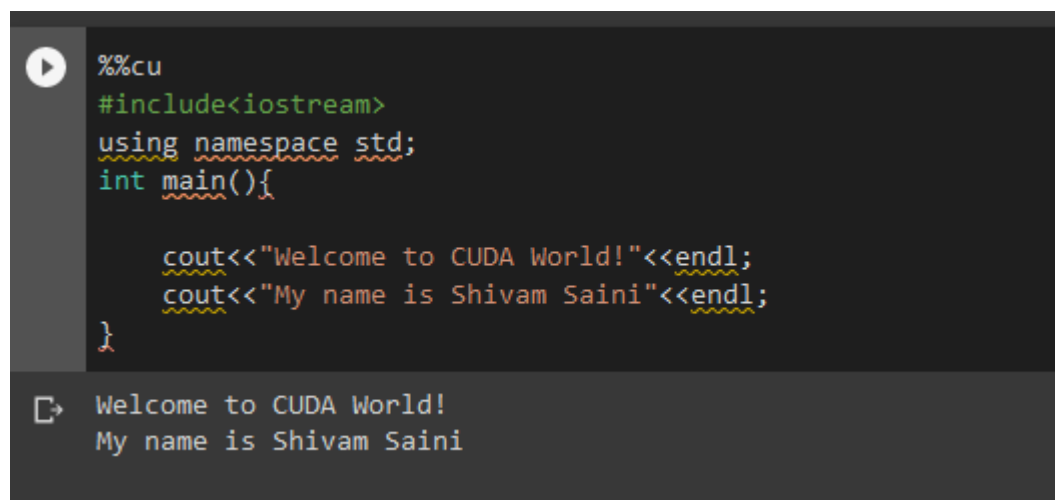
```
int main(){
```

```
    cout<<"Welcome to CUDA World!"<<endl;
```

```
    cout<<"My name is Shivam Saini"<<endl;
```

```
}
```

.....



The screenshot shows a code editor with a dark background. The code is written in C++ and is a simple program that prints two lines of text. The code is as follows:

```
%%cu
#include<iostream>
using namespace std;
int main(){
    cout<<"Welcome to CUDA World!"<<endl;
    cout<<"My name is Shivam Saini"<<endl;
}
```

Below the code, there is a terminal window showing the output of the program:

```
Welcome to CUDA World!
My name is Shivam Saini
```