**Phạm Đức Phát**

**1050080151**

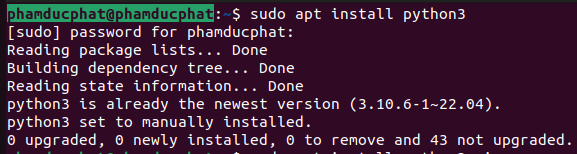
**10CNTT4**

**Big Data thực hành tuần 4**

**Lab – SQLAlchemy (Ubuntu)**

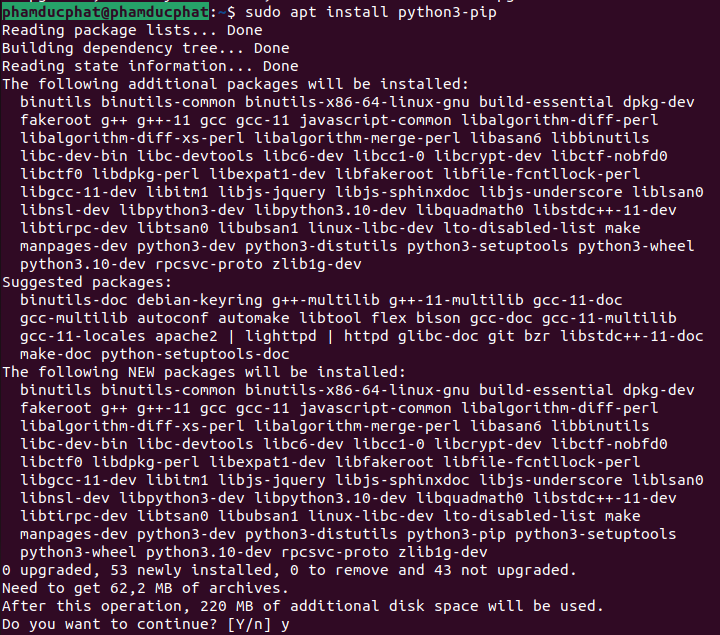
**Bước 1:** Cài Python 3

sudo apt install python3



**Bước 2:** Cài pip3

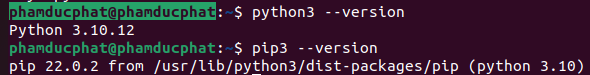
sudo apt install python3-pip



Kiểm tra Python3 và pip3

python3 --version

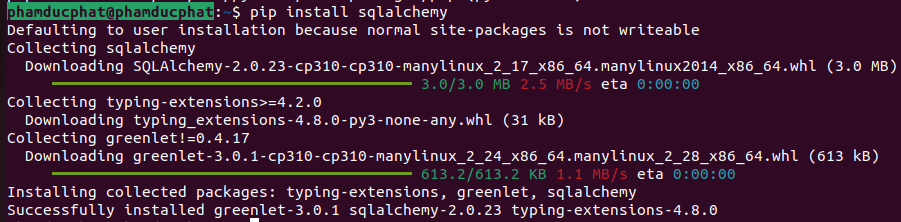
pip3 –version



* Cài thành công!

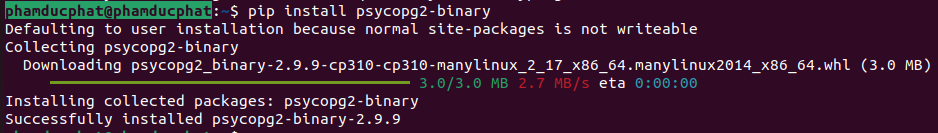
**Bước 3:** Cài SQLAlchemy

pip install sqlalchemy



**Bước 4:** Cài thư viện psycopg2-binary

pip install psycopg2-binary



**Bước 5:** Tải PostgreSQL

Xác định HĐH 64bit hay 32bit (Chọn link tải phù hợp)

uname -a

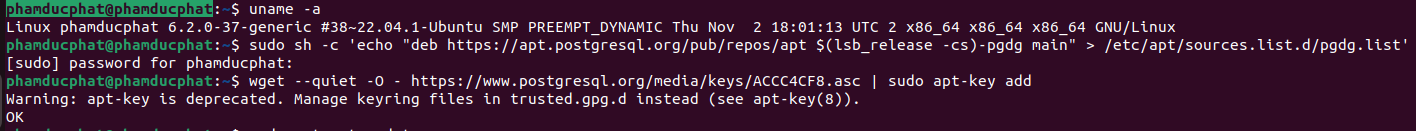


Tạo cấu hình kho lưu trữ tệp

sudo sh -c 'echo "deb https://apt.postgresql.org/pub/repos/apt $(lsb\_release -cs)-pgdg main" > /etc/apt/sources.list.d/pgdg.list'

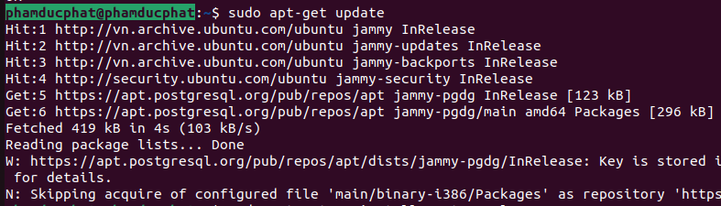
Nhập khóa ký kho lưu trữ

wget --quiet -O -https://www.postgresql.org/media/keys/ACCC4CF8.asc | sudo apt-key add



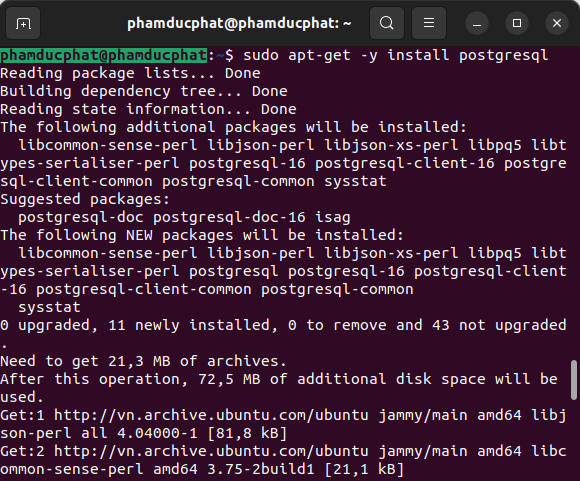
Cập nhật danh sách gói

sudo apt-get update



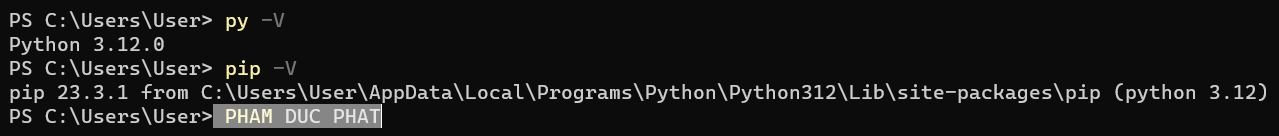
Cài đặt phiên bản PostgreSQL mới nhất

sudo apt-get -y install postgresql

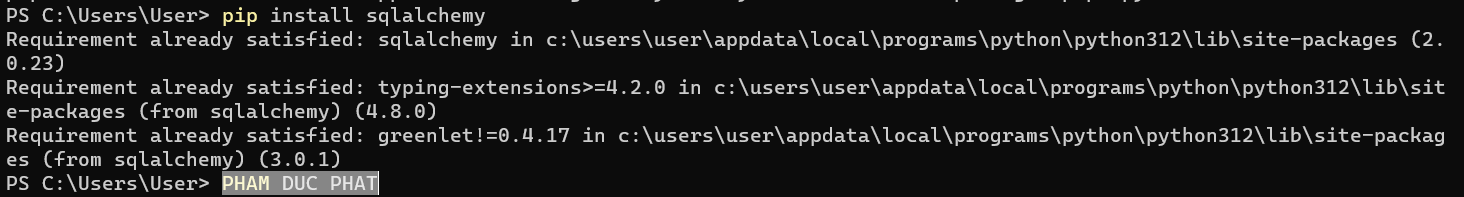


**Lab – SQLAlchemy (Windowns)**

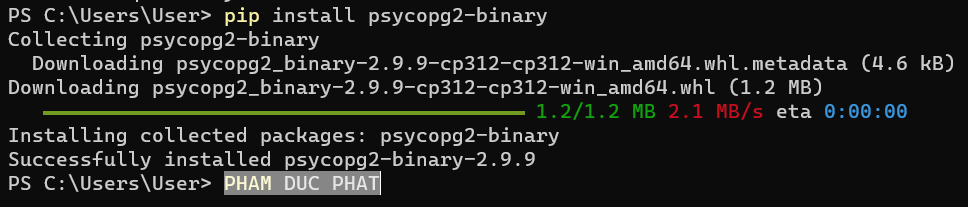
**Bước 1:** Cài Python3 và pip3



**Bước 2:** Cài SQLAlchemy



**Bước 3:** Cài thư viện psycopg2-binary



**Bước 4:** Cài PostgreSQL (đã cài)



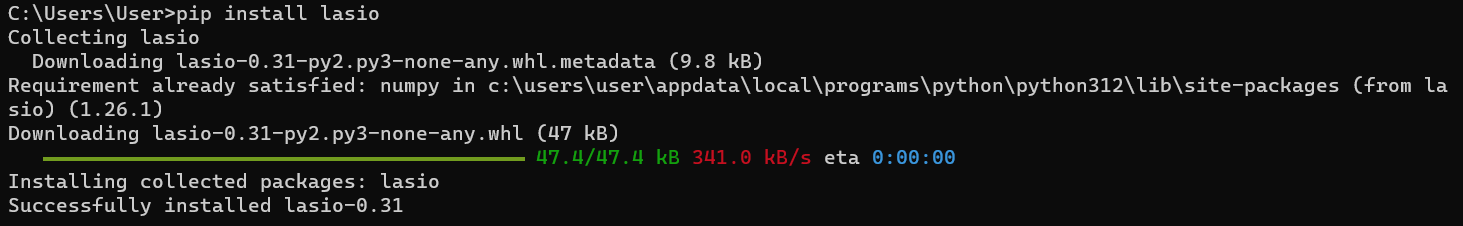
**Bước 5:** Cài pgAdmin 4



**Lab 9 Clustering**

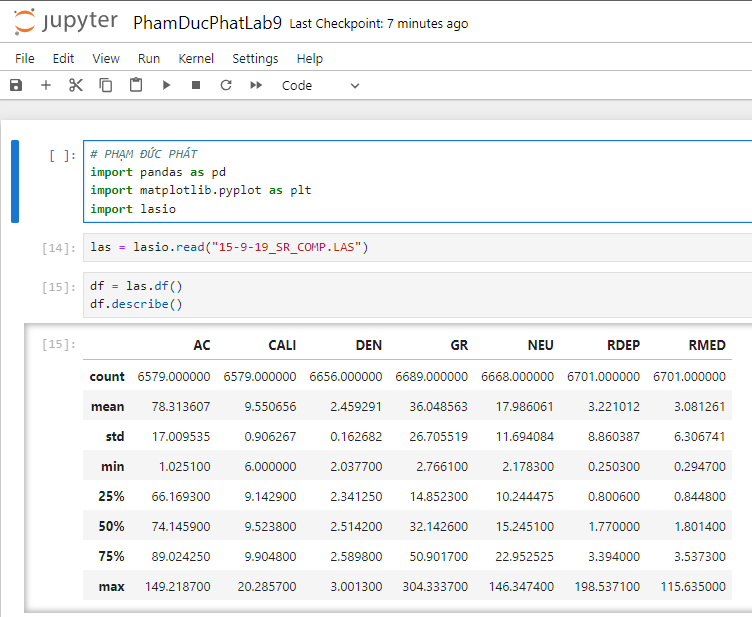
**Bước 1:** Cài thư viện cần thiết

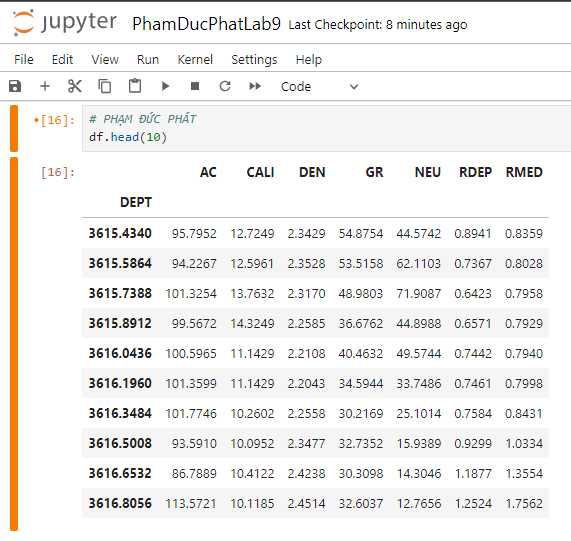
pip install lasio

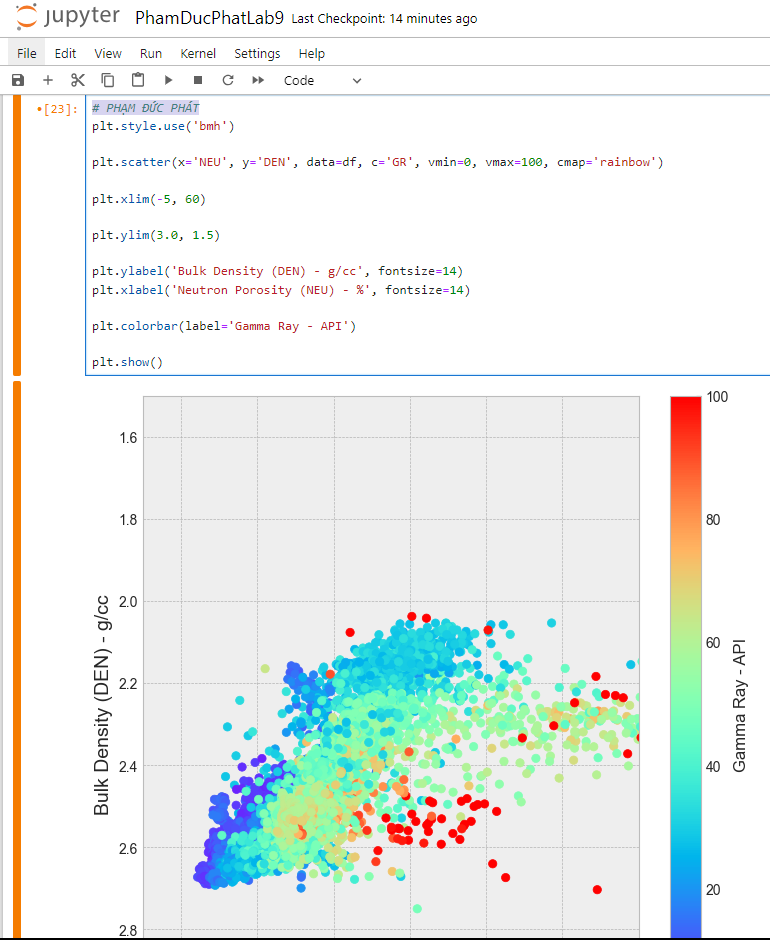
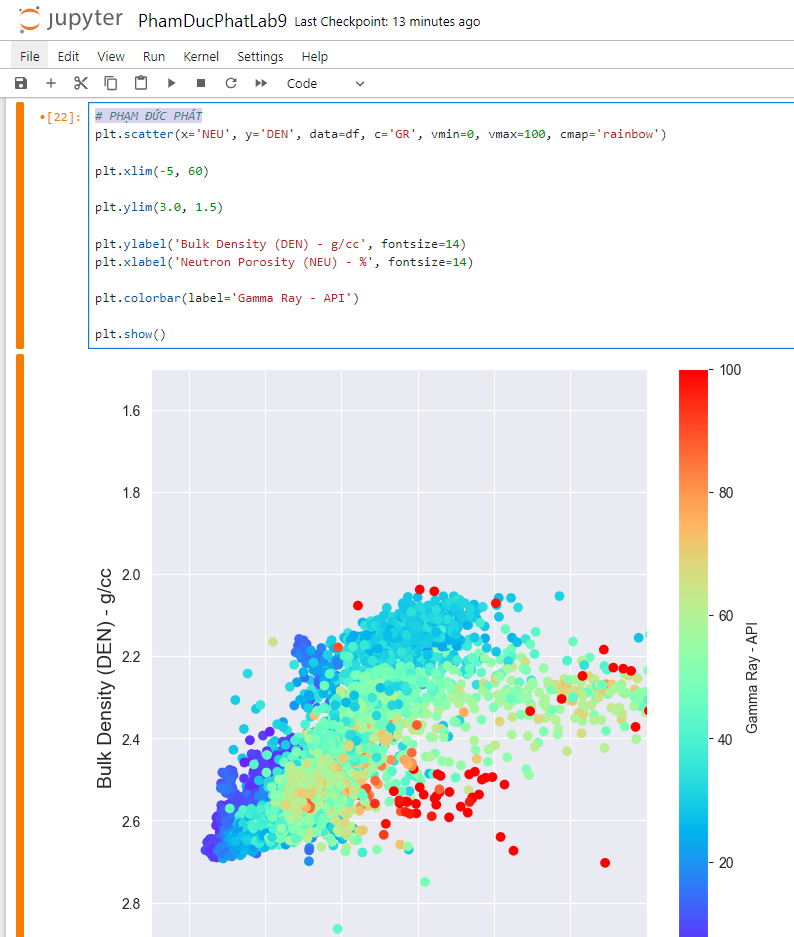
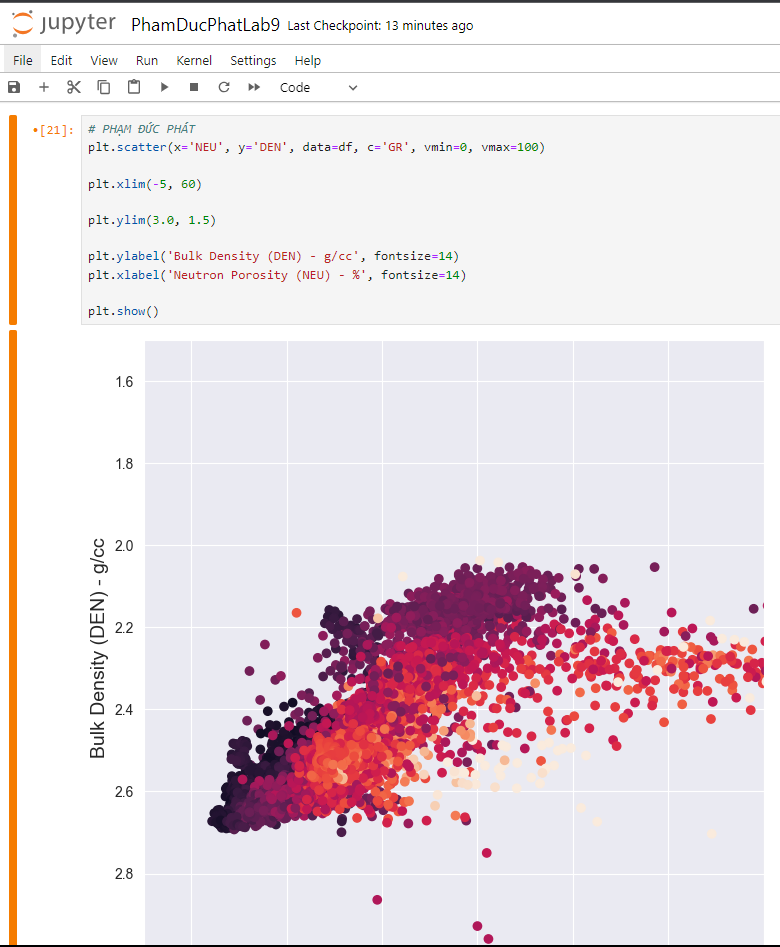
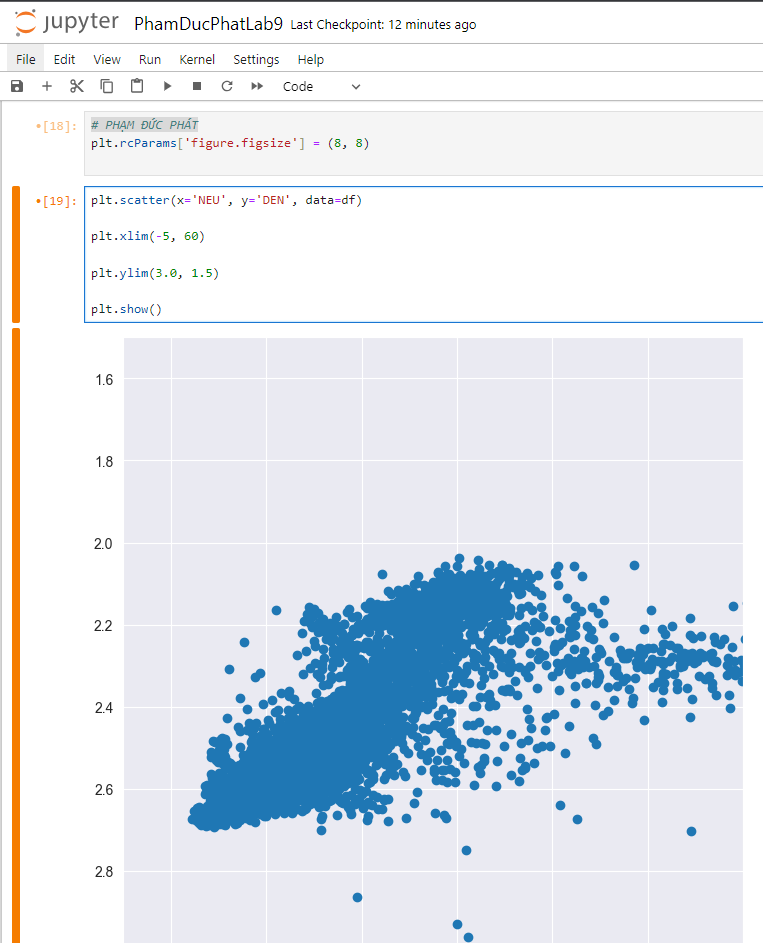
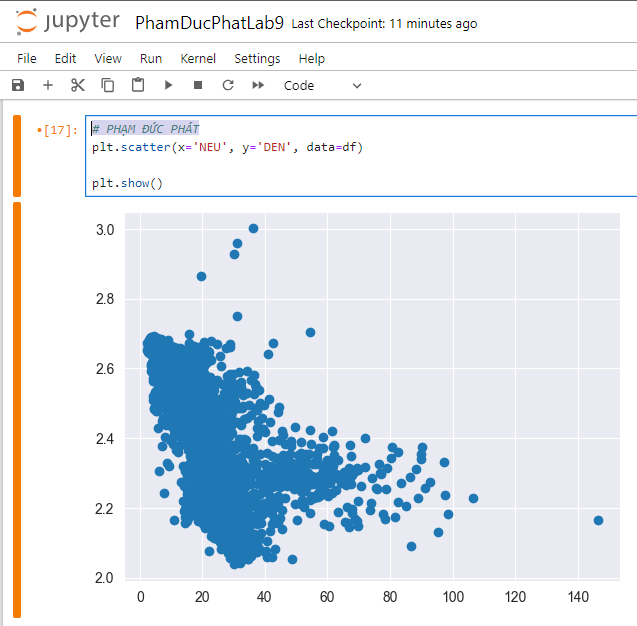
****

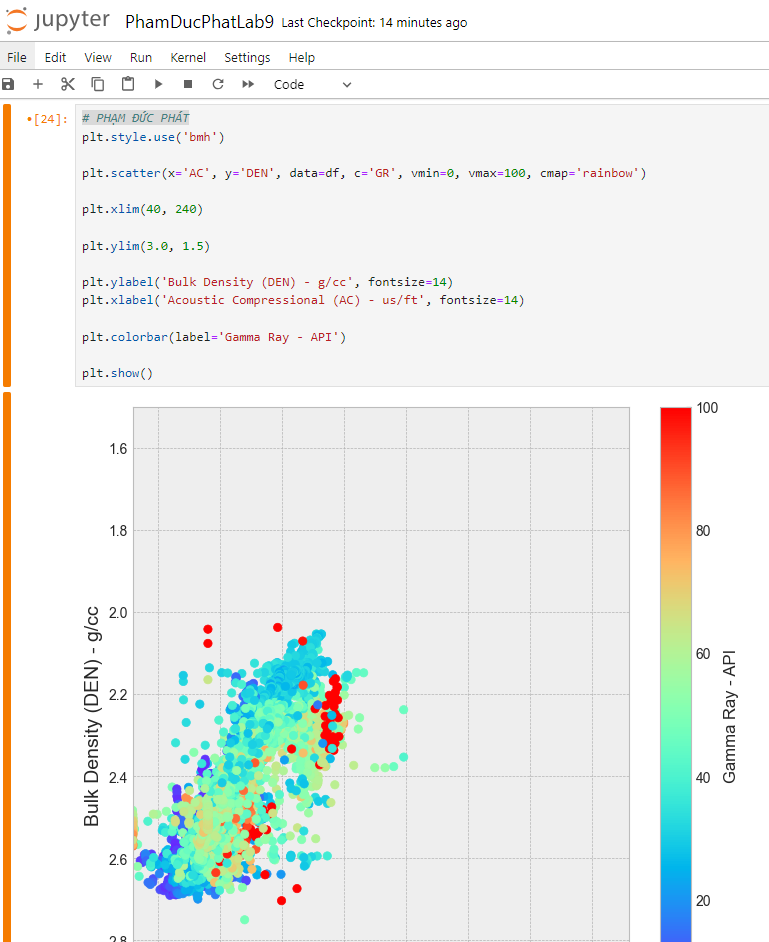
**Bước 2:** Khởi động Jupyter Notebook

**Bước 3:** Coding

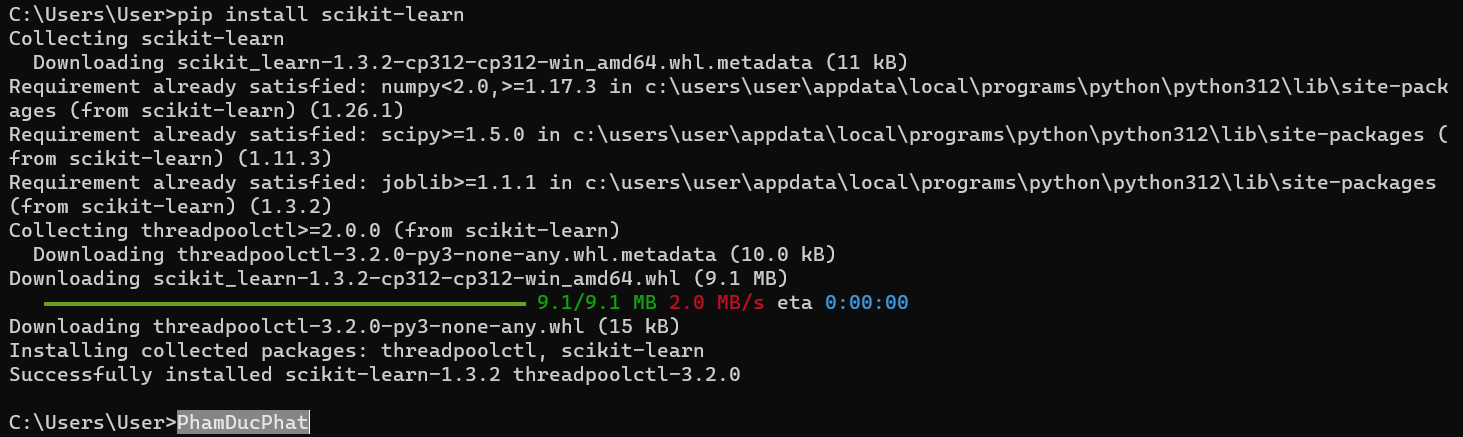
****

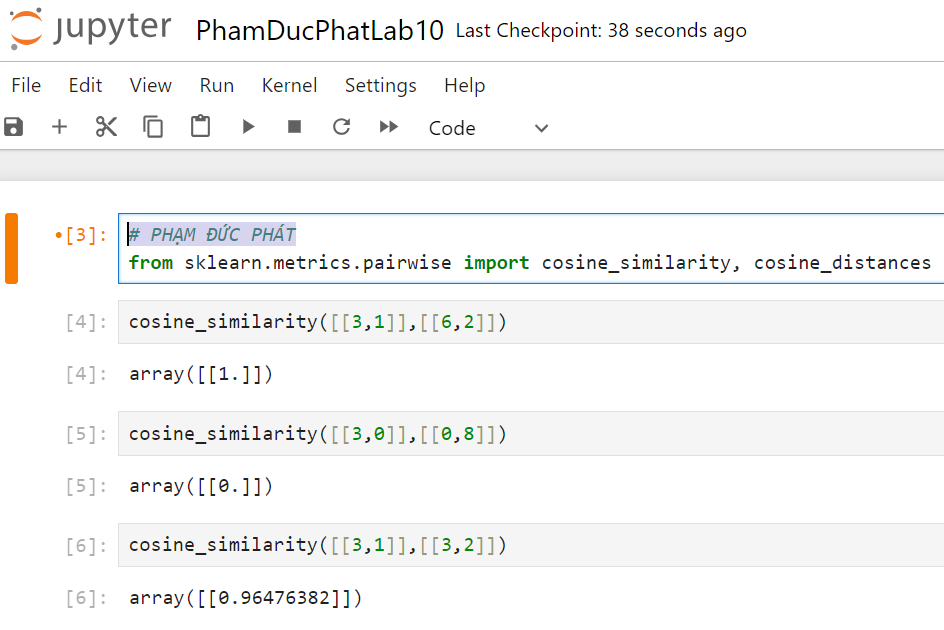
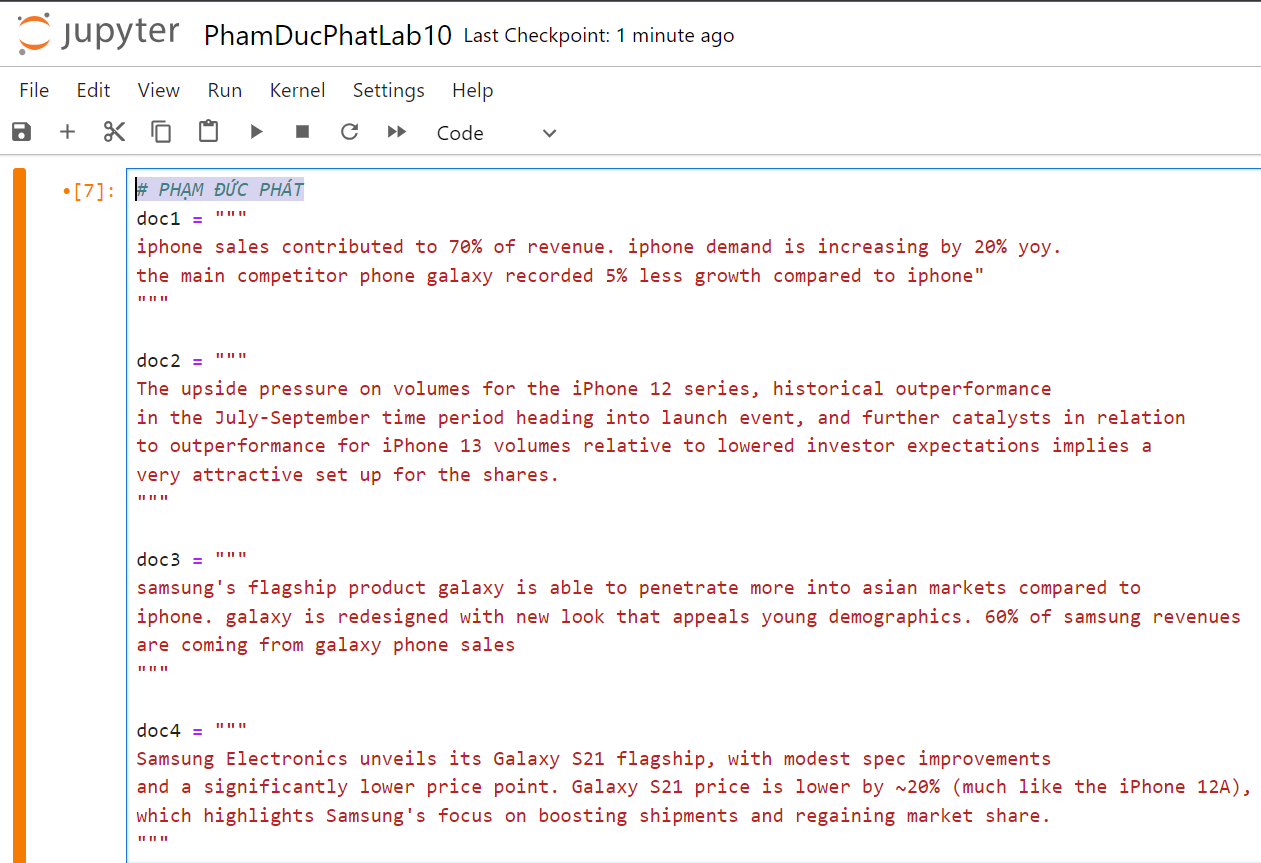
****

****

****

**Lab 10 Cosine Similarity**

****

**** **** 