In the name of Allah

Title:

Description of the project

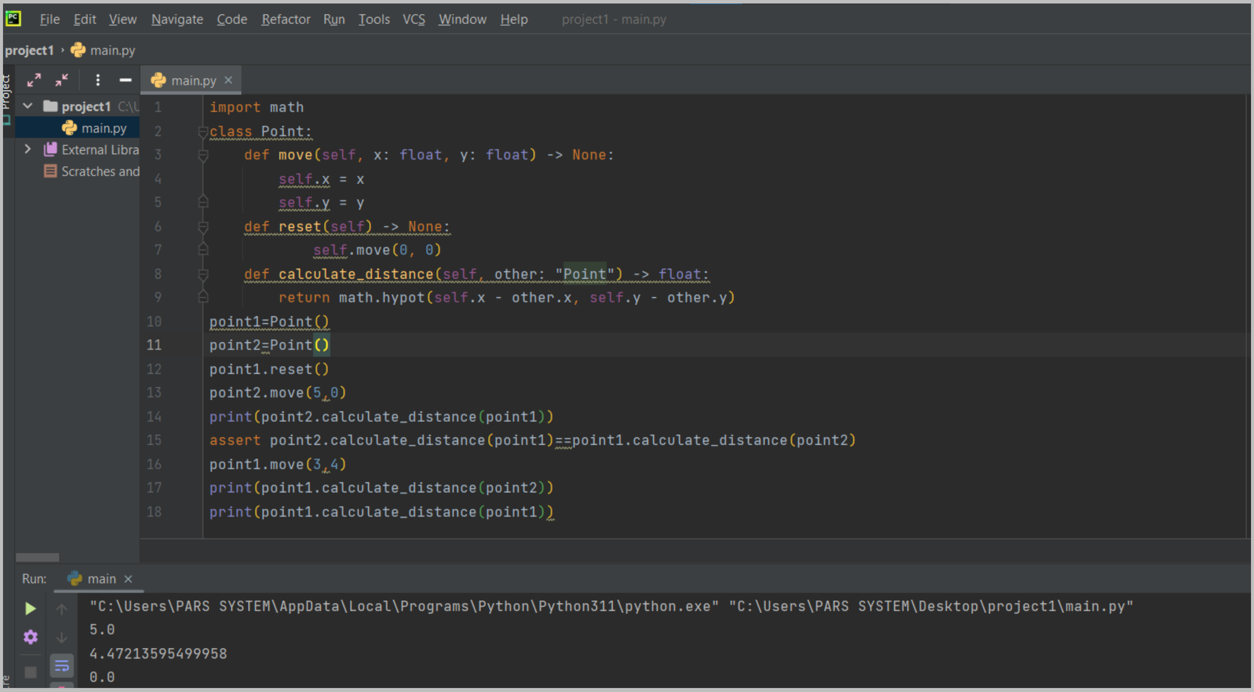
collector:

Ali fathi

student number:

40111415038

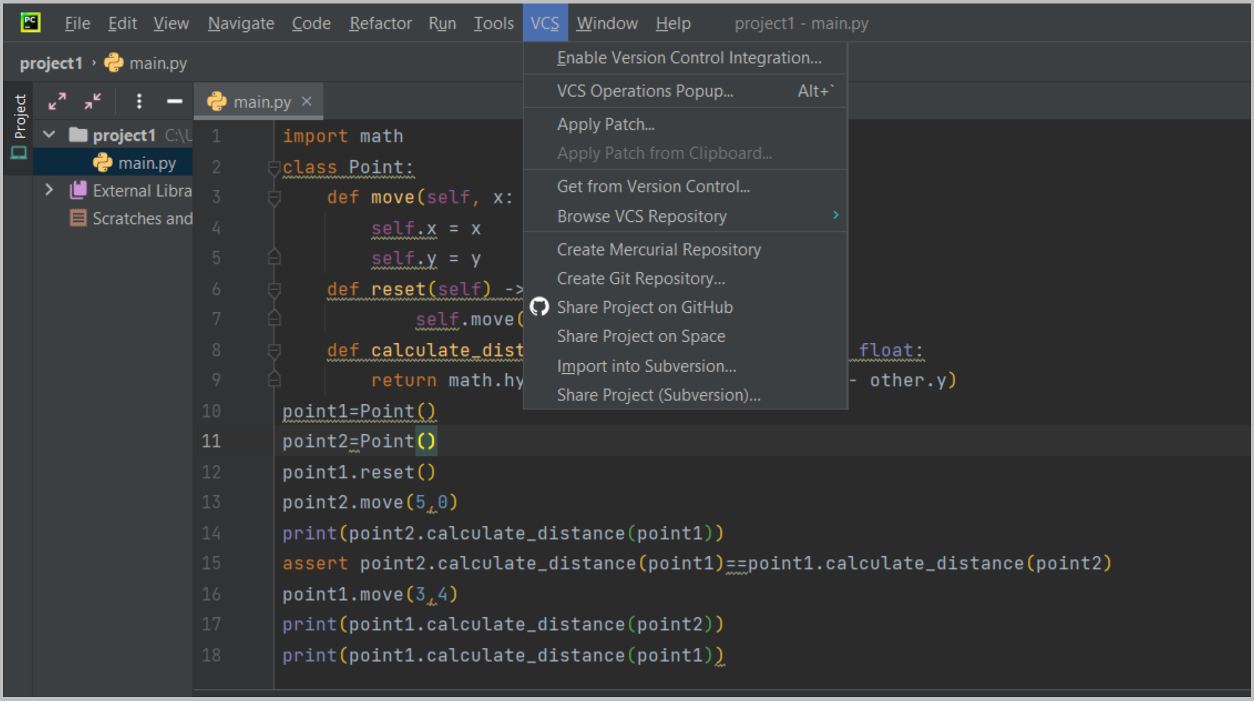
First ,we enter the code of page 48 and 49 in pycharm environment and run it:



```
import math
class Point:
    def move(self, x: float, y: float) -> None:
        self.x = x
        self.y = y
    def reset(self) -> None:
            self.move(0, 0)
    def calculate_distance(self, other: "Point") -> float:
        return math.hypot(self.x - other.x, self.y - other.y)
point1=Point()
point2=Point()
point1.reset()
point2.move(5,0)
print(point2.calculate_distance(point1))
assert point2.calculate_distance(point1)==point1.calculate_distance(point2)
point1.move(3,4)
print(point1.calculate_distance(point2))
print(point1.calculate_distance(point1))
```

```
"C:\Users\PARS SYSTEM\AppData\Local\Programs\Python\Python311\python.exe" "C:\Users\PARS SYSTEM\Desktop\project1\main.py"
5.0
4.47213595499958
0.0
```

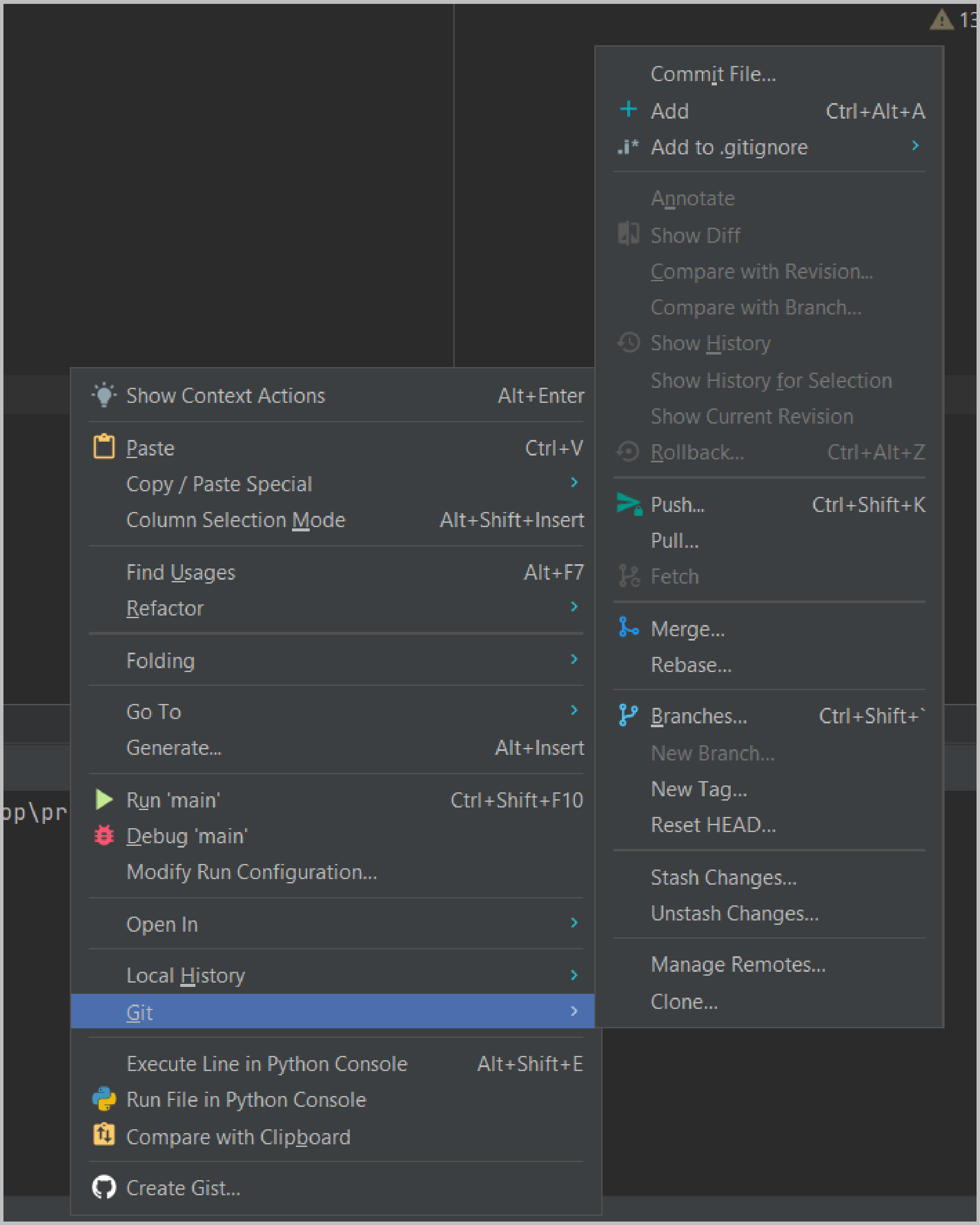
Then we click on create git repository from the vcs section:



```
import math
class Point:
    def move(self, x:
        self.x = x
        self.y = y
    def reset(self) ->
            self.move(
    def calculate_dist                                       float:
        return math.hy                                      - other.y)
point1=Point()
point2=Point()
point1.reset()
point2.move(5,0)
print(point2.calculate_distance(point1))
assert point2.calculate_distance(point1)==point1.calculate_distance(point2)
point1.move(3,4)
print(point1.calculate_distance(point2))
print(point1.calculate_distance(point1))
```

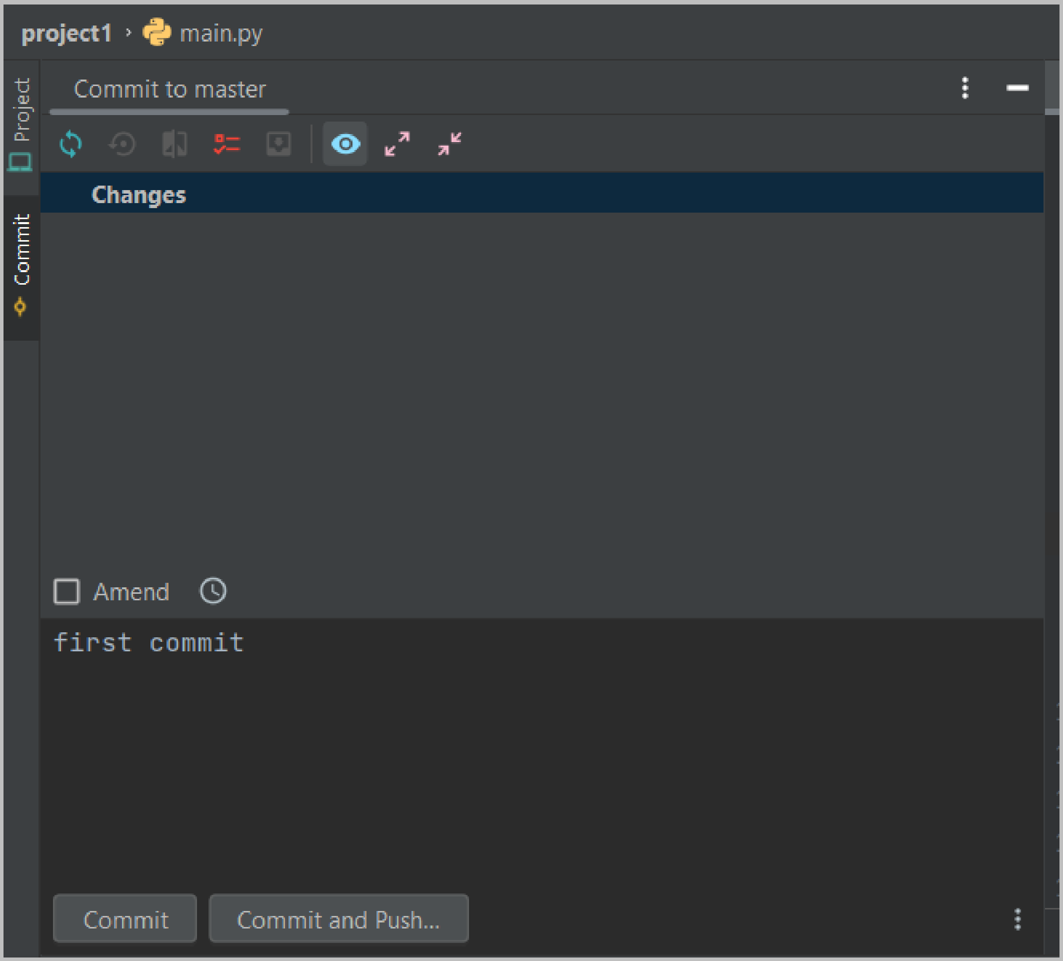
After that ,select the desired folder and click OK

Than we right-click on the page and select add from the Git section:



Well , now we can commit our file

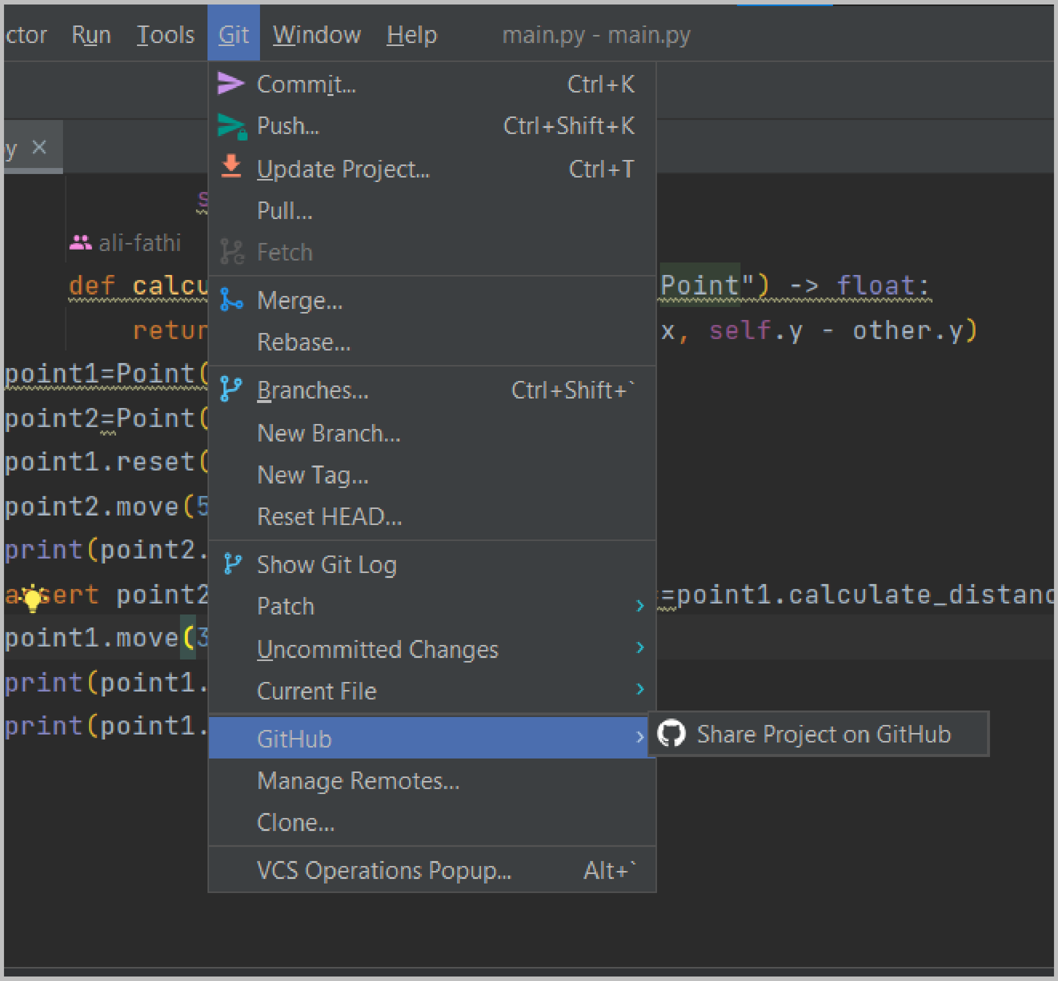
From the commit section, we write a message for our commit and then on the commit button:



```
first commit
```

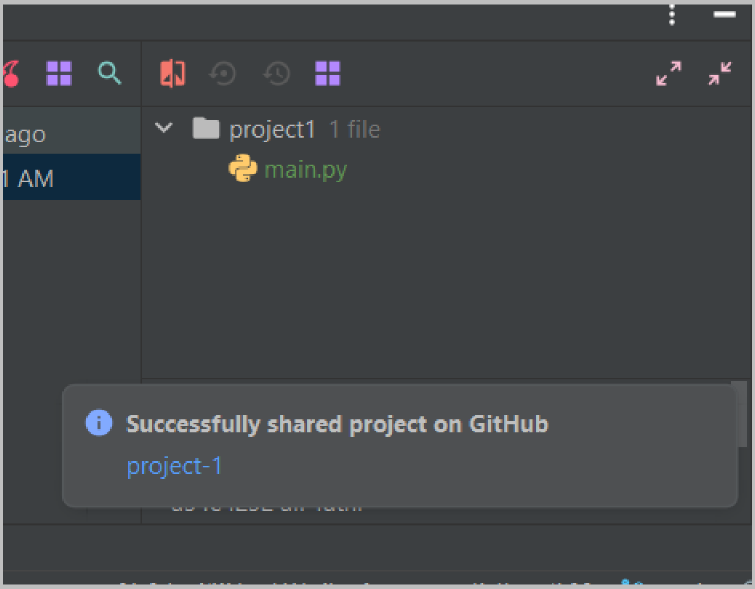
Well, we have committed our file

After creating a GitHub account in pycharm, from the GIT section, click on github and then on share project on github:



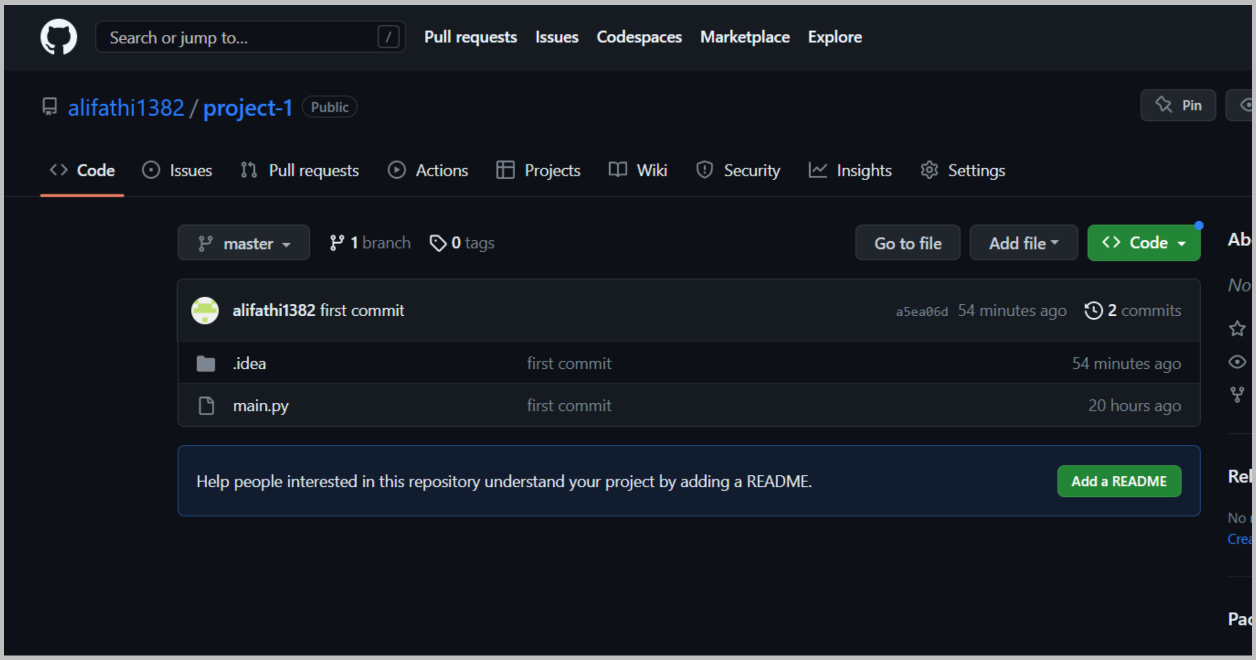
```
    def calcu                          Point") -> float:
        retur                          x, self.y - other.y)
point1=Point(
point2=Point(
point1.reset(
point2.move(5
print(point2.
assert point2                          =point1.calculate_distanc
point1.move(3
print(point1.
print(point1.
```

After writing the name of our repository, we will share it,



Successfully shared project on GitHub
project-1

Well, now we can see our code in GitHub:



alifathi1382 / project-1 Public

1 branch 0 tags

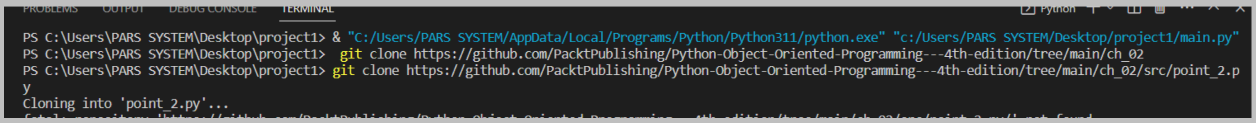
alifathi1382 first commit a5ea06d 54 minutes ago 2 commits

.idea	first commit	54 minutes ago
main.py	first commit	20 hours ago

Help people interested in this repository understand your project by adding a README.

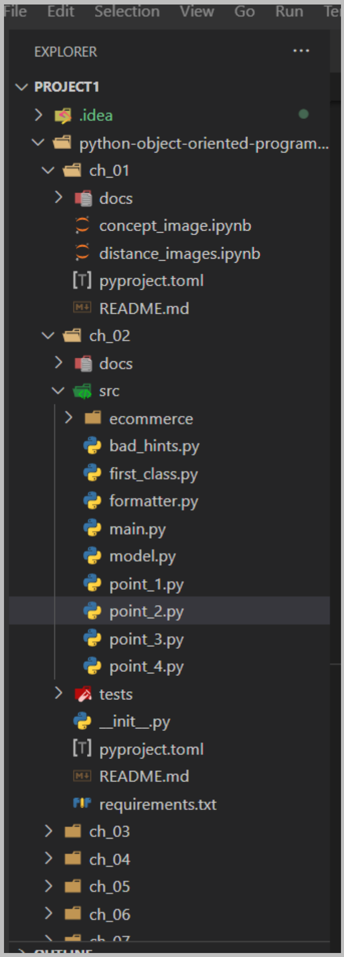
EX2:

We put the following code in our ide terminal and press enter:

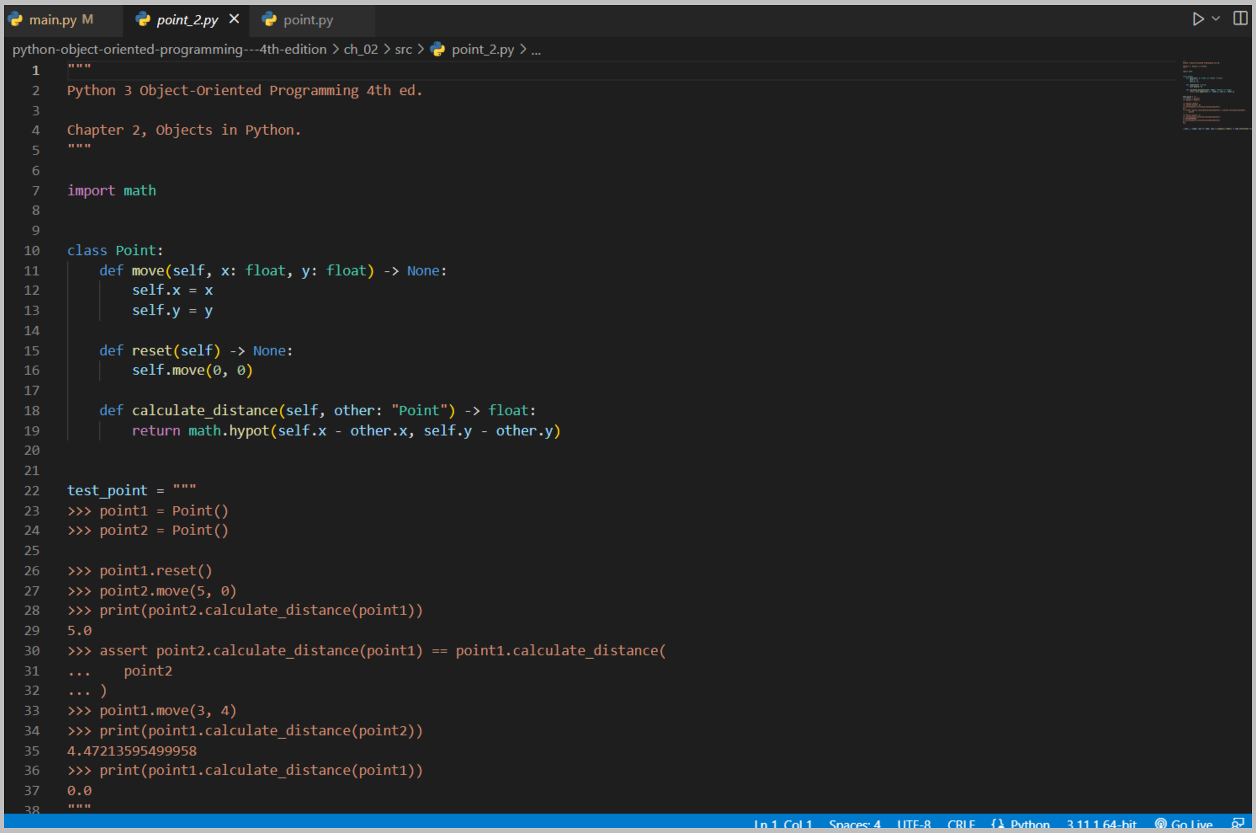


```
PS C:\Users\PARS SYSTEM\Desktop\project1> & "C:/Users/PARS SYSTEM/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/PARS SYSTEM/Desktop/project1/main.py"
PS C:\Users\PARS SYSTEM\Desktop\project1>  git clone https://github.com/PacktPublishing/Python-Object-Oriented-Programming---4th-edition/tree/main/ch_02
PS C:\Users\PARS SYSTEM\Desktop\project1> git clone https://github.com/PacktPublishing/Python-Object-Oriented-Programming---4th-edition/tree/main/ch_02/src/point_2.p
y
Cloning into 'point_2.py'...
fatal: repository 'https://github.com/PacktPublishing/Python-Object-Oriented-Programming---4th-edition/tree/main/ch_02/src/point_2.py/' not found
```

Now all the files are there



```
PROJECT1
  > .idea
  v python-object-oriented-program...
    v ch_01
      > docs
        concept_image.ipynb
        distance_images.ipynb
        pyproject.toml
        README.md
    v ch_02
      > docs
      v src
        > ecommerce
          bad_hints.py
          first_class.py
          formatter.py
          main.py
          model.py
          point_1.py
          point_2.py
          point_3.py
          point_4.py
      > tests
        __init__.py
        pyproject.toml
        README.md
        requirements.txt
    > ch_03
    > ch_04
    > ch_05
    > ch_06
    > ch_07
> OUTLINE
```



```python
"""
Python 3 Object-Oriented Programming 4th ed.

Chapter 2, Objects in Python.
"""

import math


class Point:
    def move(self, x: float, y: float) -> None:
        self.x = x
        self.y = y

    def reset(self) -> None:
        self.move(0, 0)

    def calculate_distance(self, other: "Point") -> float:
        return math.hypot(self.x - other.x, self.y - other.y)


test_point = """
>>> point1 = Point()
>>> point2 = Point()

>>> point1.reset()
>>> point2.move(5, 0)
>>> print(point2.calculate_distance(point1))
5.0
>>> assert point2.calculate_distance(point1) == point1.calculate_distance(
...     point2
... )
>>> point1.move(3, 4)
>>> print(point1.calculate_distance(point2))
4.47213595499958
>>> print(point1.calculate_distance(point1))
0.0
"""
```