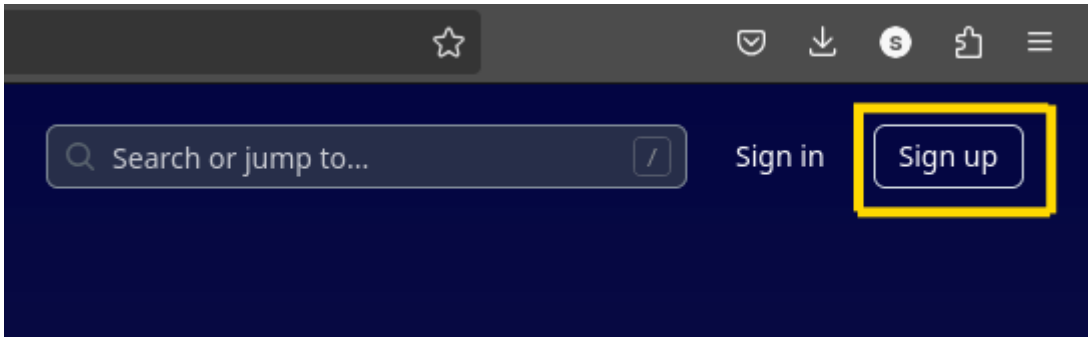
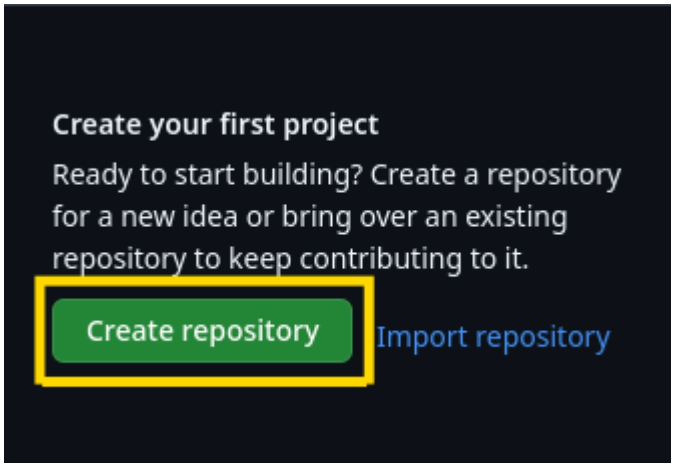
Guide to setup GitHub & VSCode

GitHub

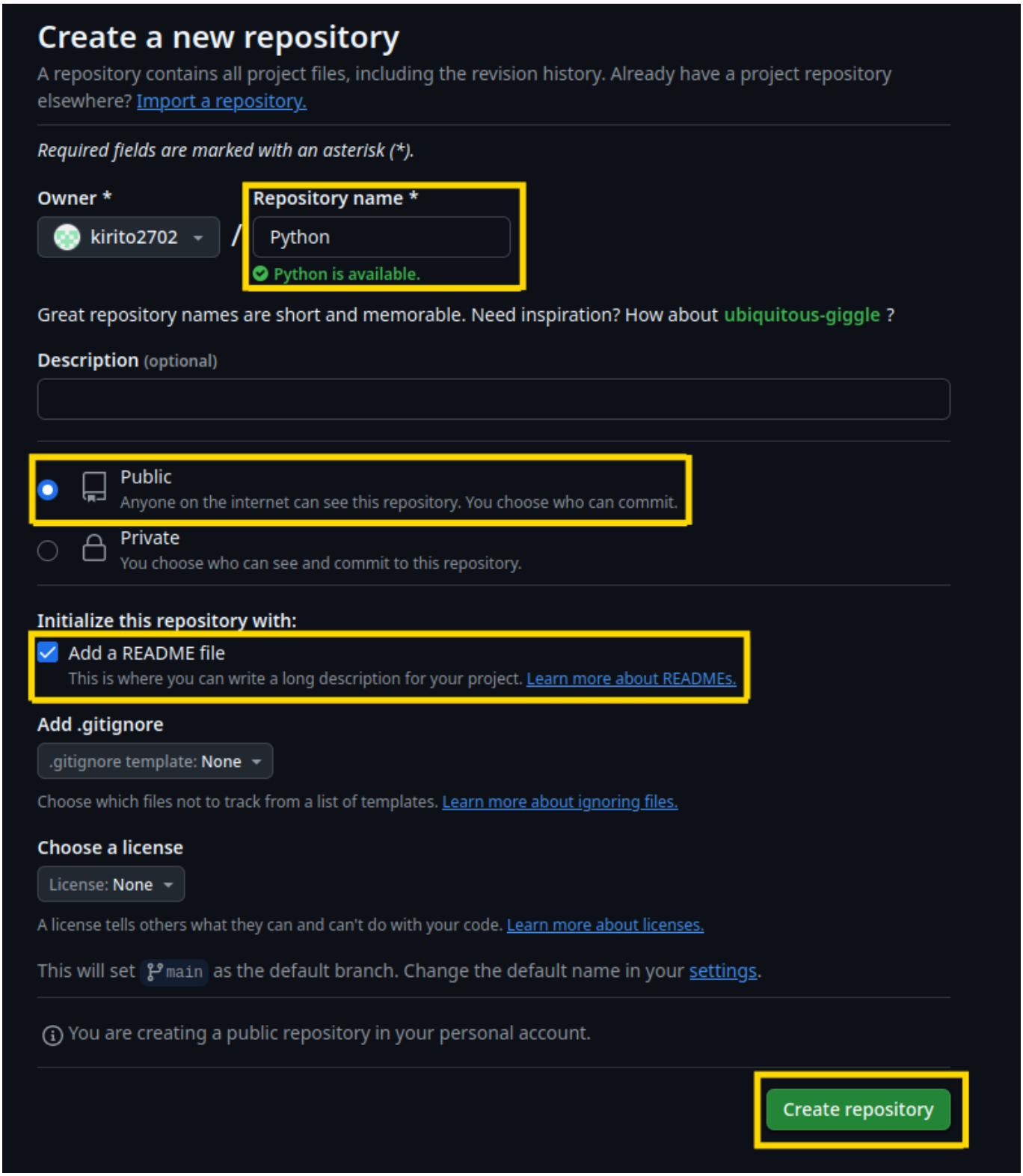
1. Open the GitHub website, `https://github.com/`, and create a account.



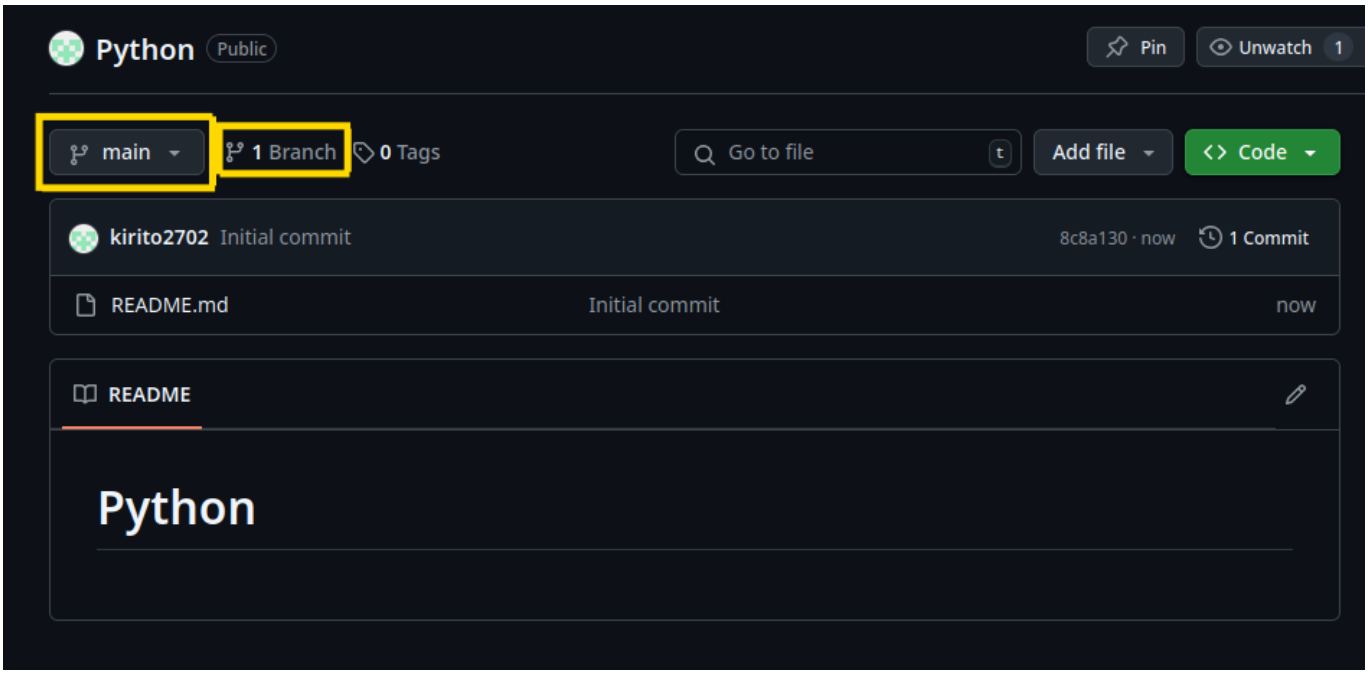
2. After creating an account, create a repository.



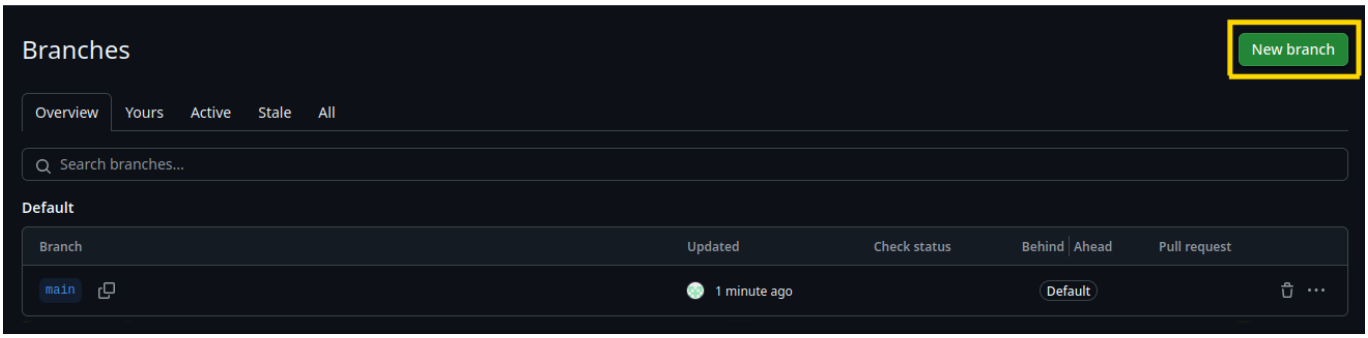
3. Give it a name and make it `Public`. Also, make sure `Add a README file` box is checked.



4. Notice that currently you are in the main branch. It is recommended that the development work is done on a seperate branch. To create a new branch, click `Branch`.

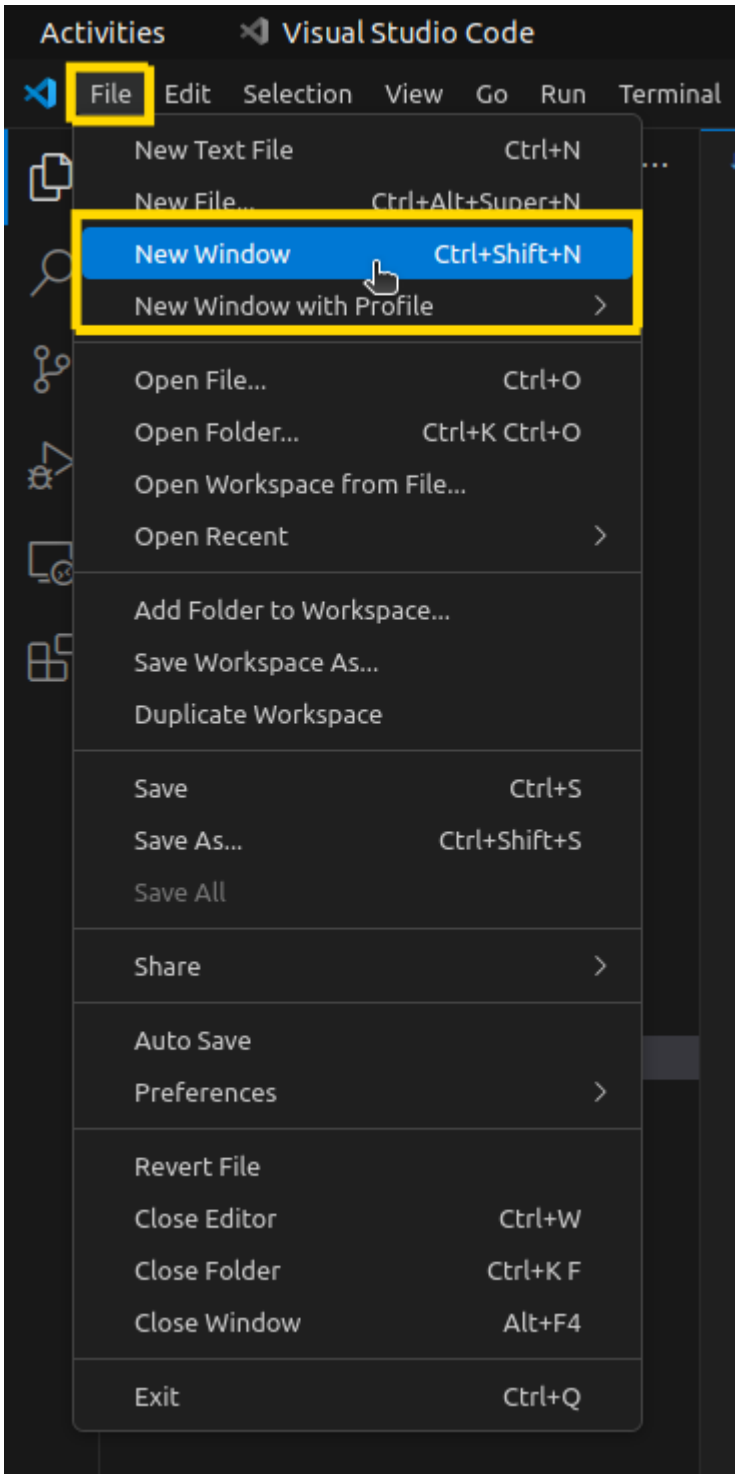


5. Click on the `New branch` button and give it a name. Generally, the developement branch is called `devel` but you can name it as per your liking.

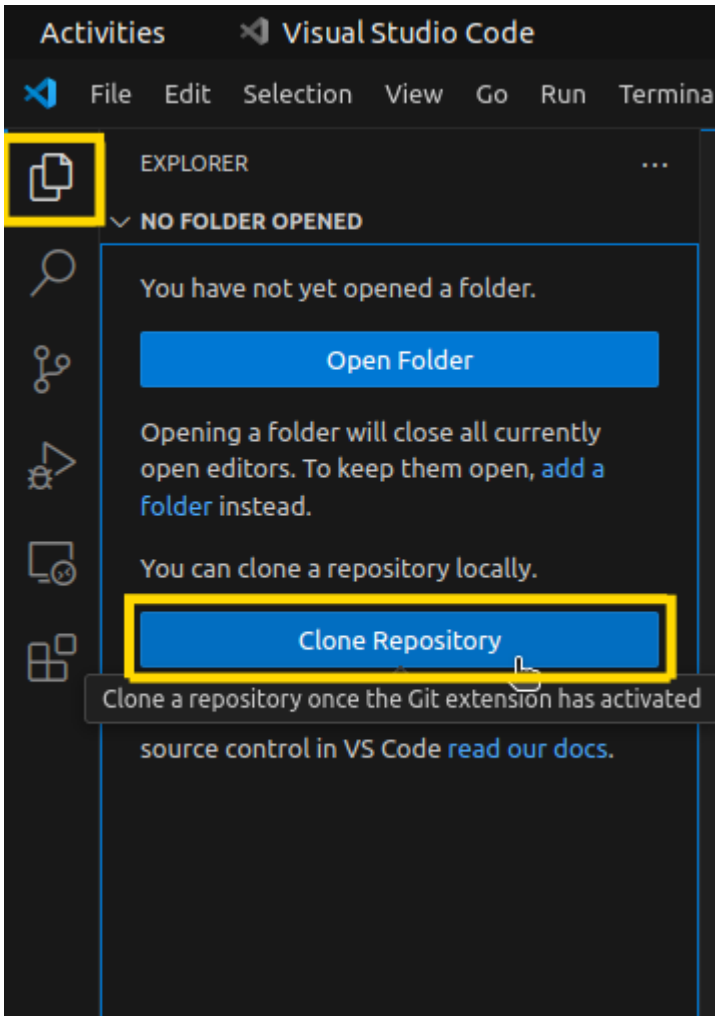


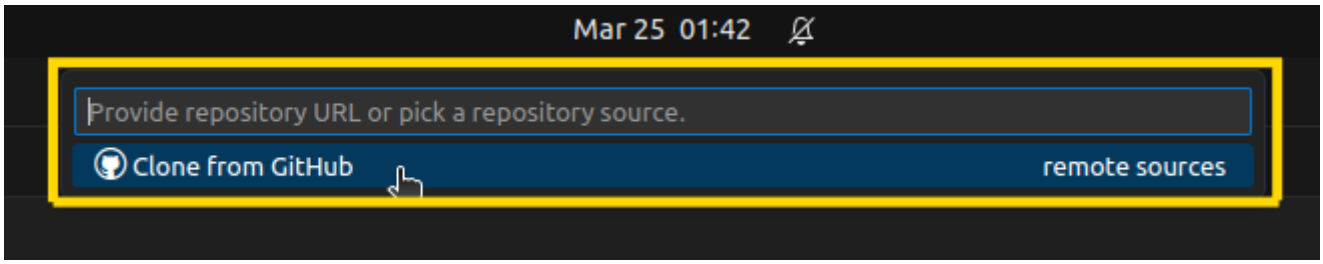
Virtual Studio Code

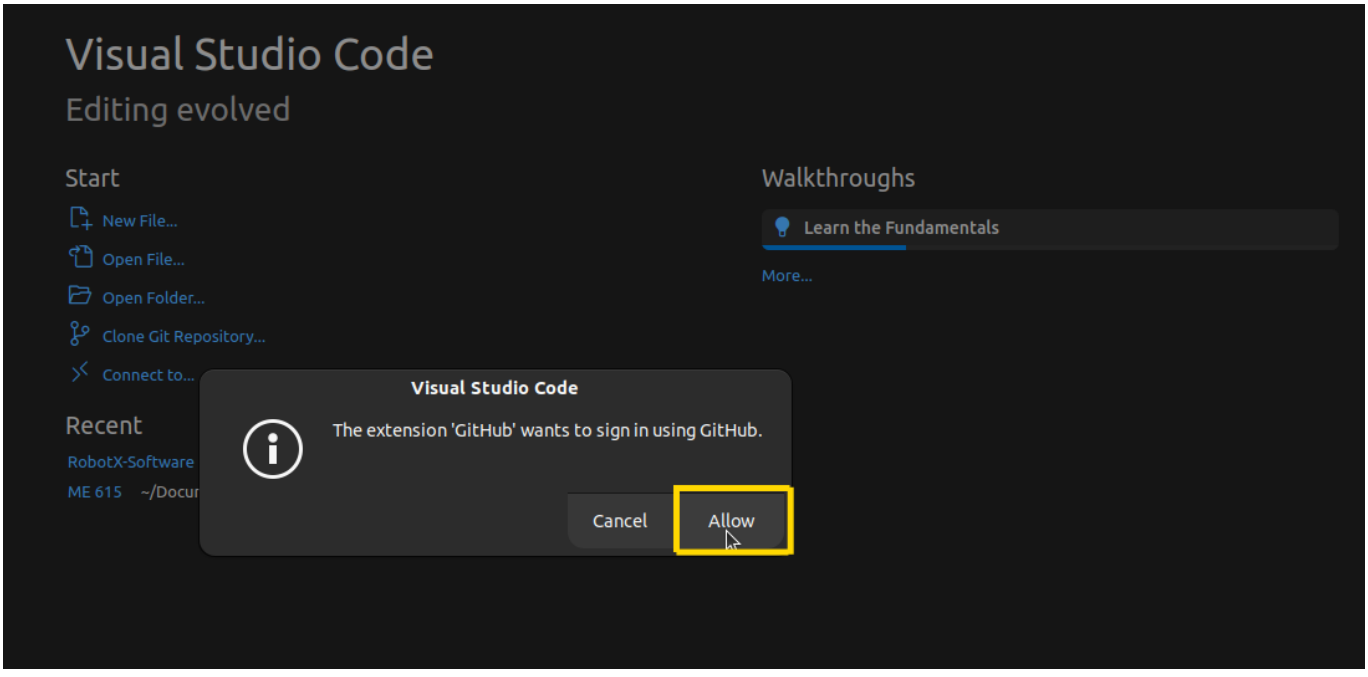
1. Open VsCode. I would recommend to open a new window and start fresh. Go to `File` and open `New window`.



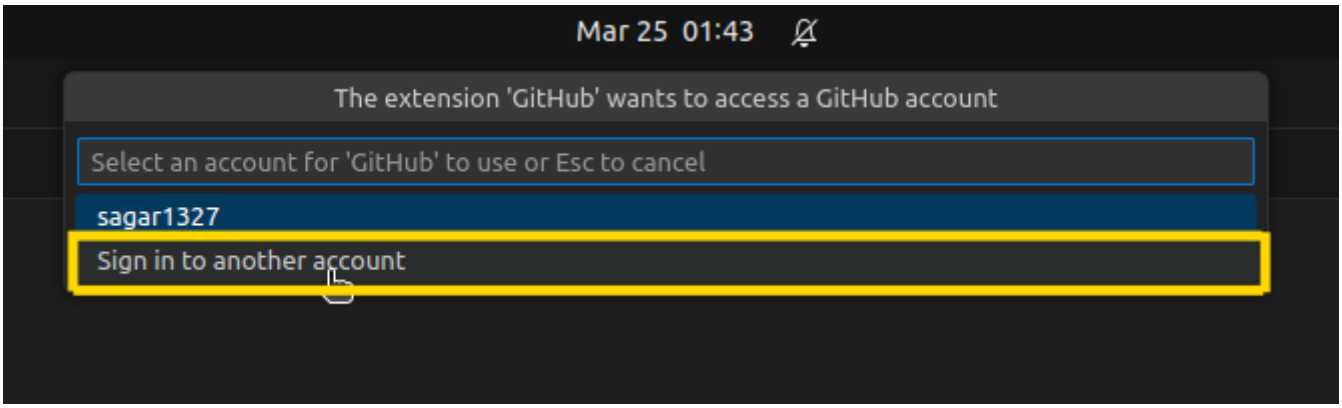
2. Open `Explorer` and Clone the repository.





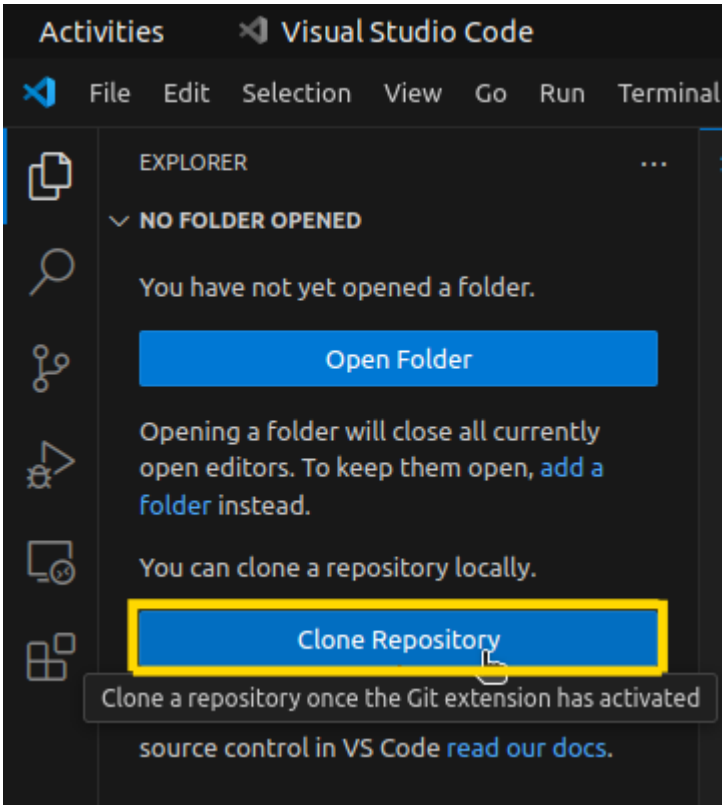


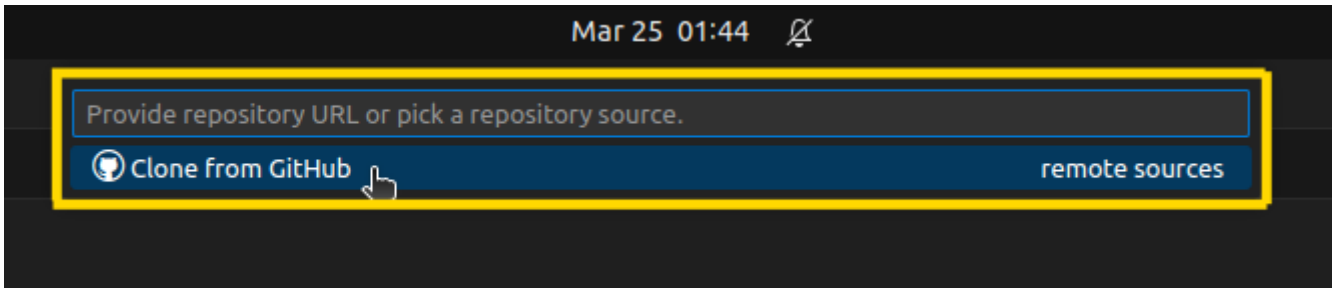
3. Sign in to your GitHub account.



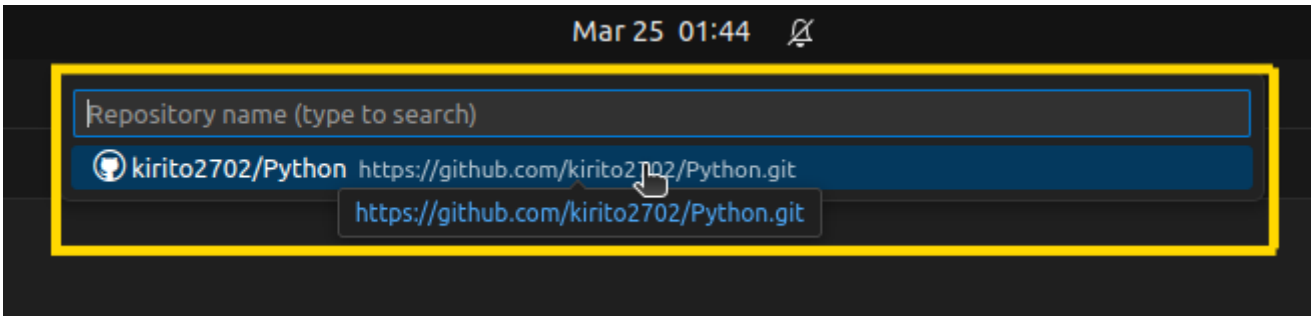
Note: I already have a github account, so I chose the `Sign in to another account` option.

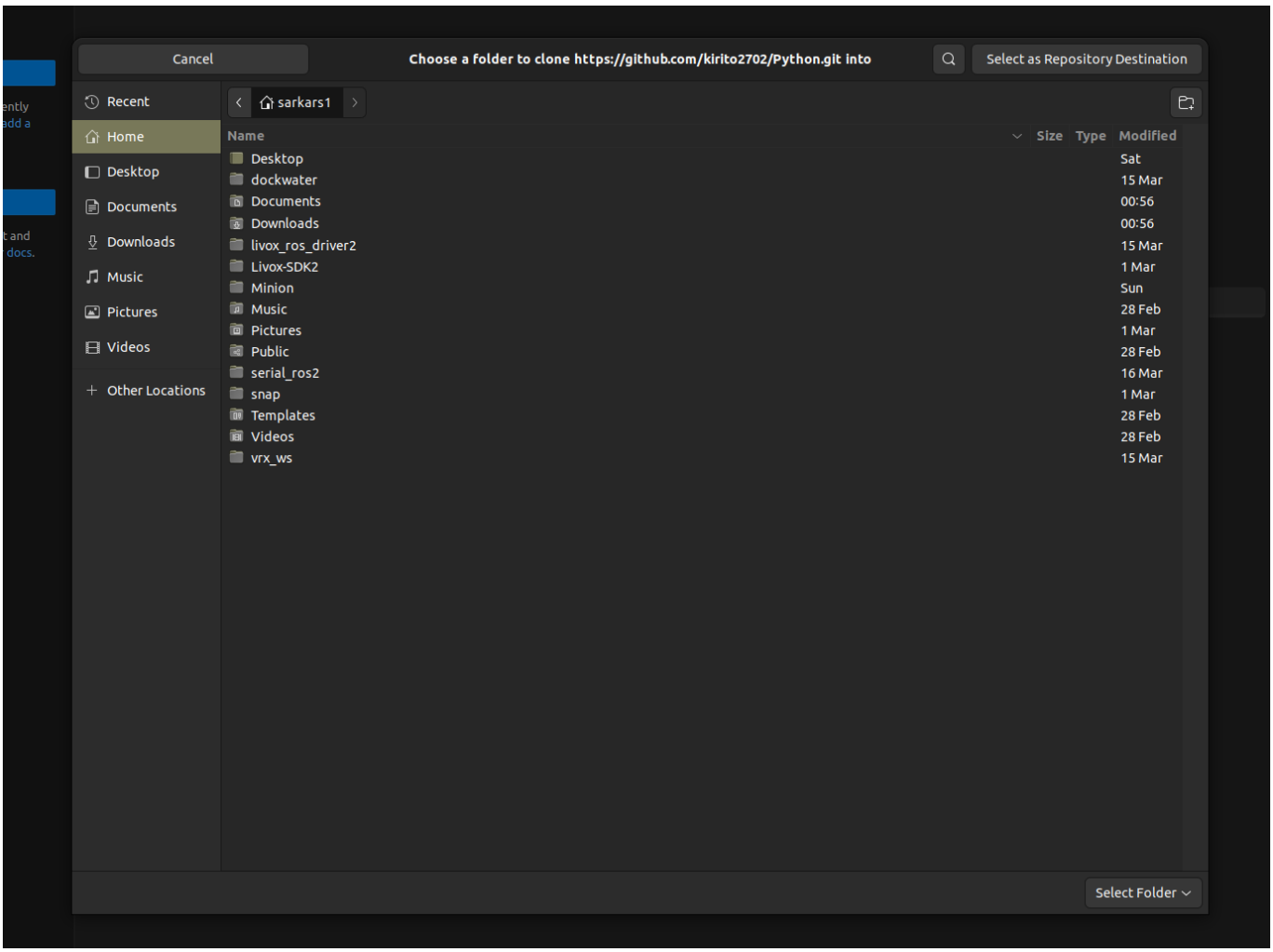
4. After signing in, the browser will redirect to the VSCode. Click the `Clone Repositiory` button again.

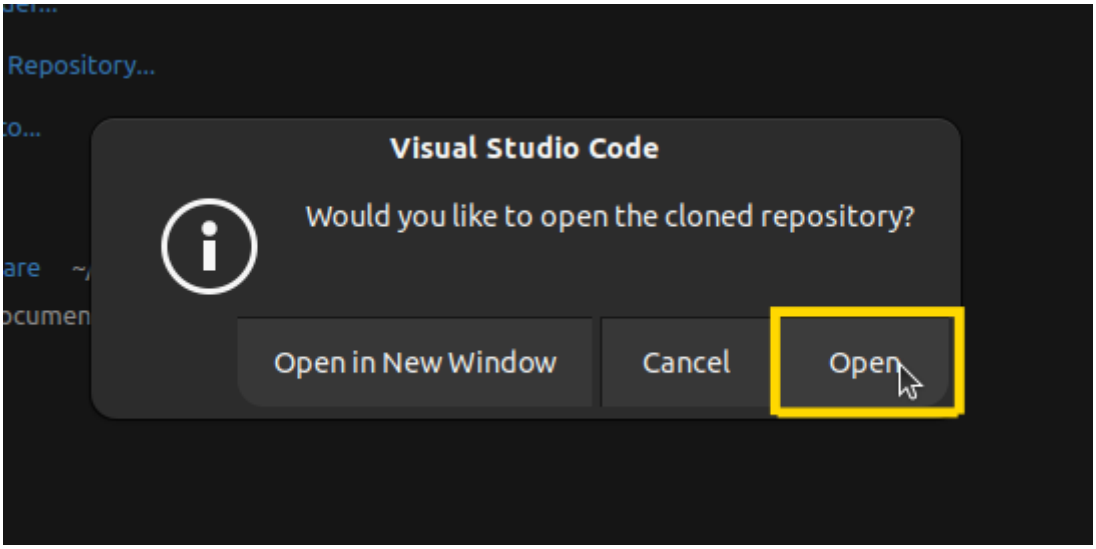




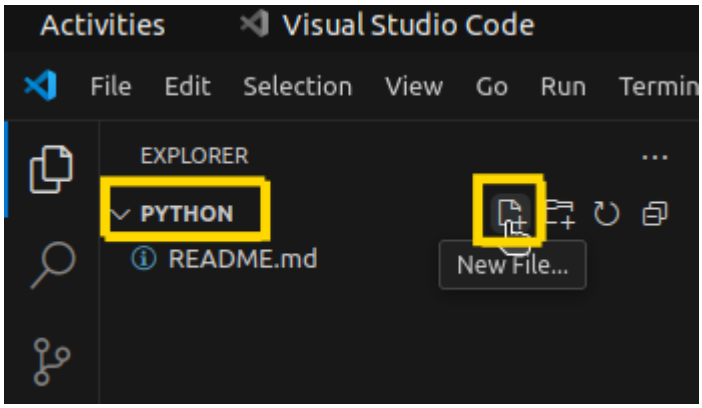
5. You should see the name of your repository, as `<your username>/<your repo name>`. Clone it in your favorable location. If you are using Ubuntu, I would recommend `Home` directory. Open the repo after cloning.

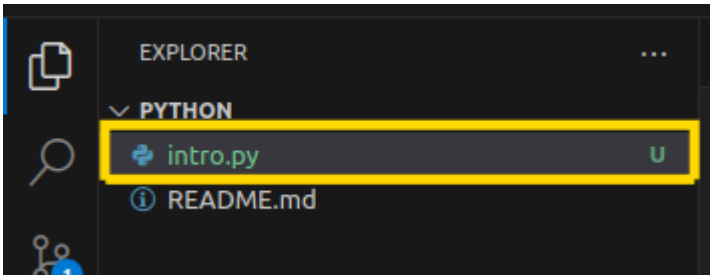






6. Now, lets create a python file. Add a file and name it `intro.py`. Open the `example.txt`, copy the code and paste it in your newly created python file.



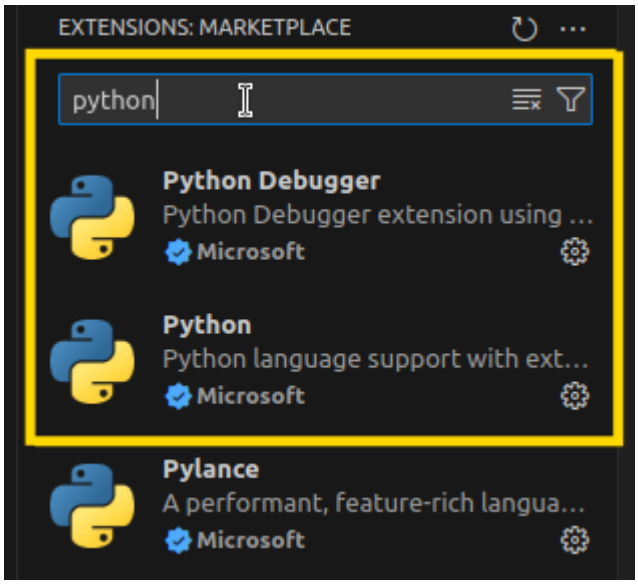


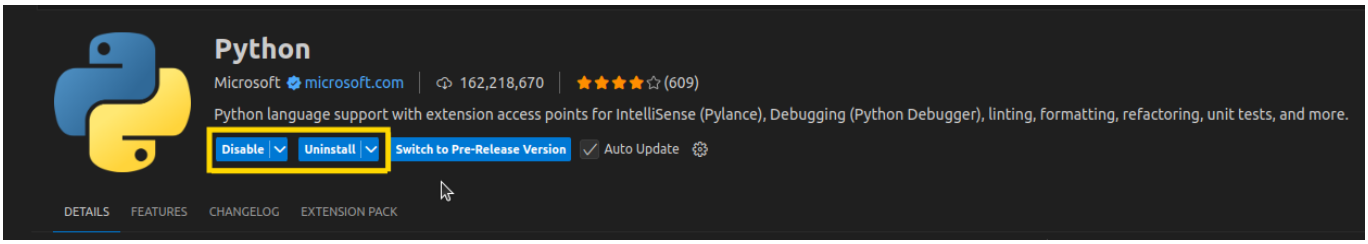
Welcome intro.py U

intro.py

```python
# 🎲 Number Guessing Game 🎯
import random

print("Welcome to the Number Guessing Game!")
print("I'm thinking of a number between 1 and 100...")

secret_number = random.randint(1, 100)
attempts = 0
max_attempts = 10

while attempts < max_attempts:
    guess = int(input("\n🤔 Your guess (1-100): "))
    attempts += 1

    if guess < secret_number:
        print("🔺 Go higher!")
    elif guess > secret_number:
        print("🔻 Go lower!")
    else:
        print(f"🎉 Correct! You guessed it in {attempts} tries!")
        break

    remaining = max_attempts - attempts
    print(f"Attempts left: {remaining}")

if attempts == max_attempts:
    print(f"\n💥 Game Over! The number was {secret_number}")

# Bonus: Calculate score based on performance
score = max(0, 100 - (attempts * 10))
print(f"\n🏆 Your final score: {score}/100")
```

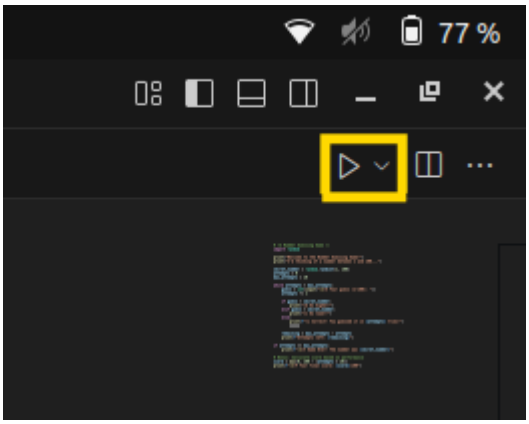
7. Open the `Extensions` tab and install `Python Extension` and `Debugger`.





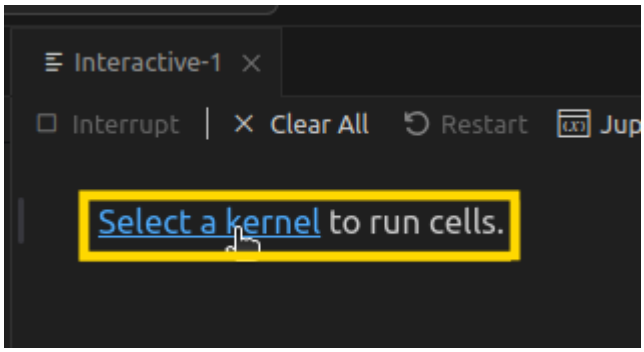
Note: I already have the extensions and debugger, so there is no `install` option.

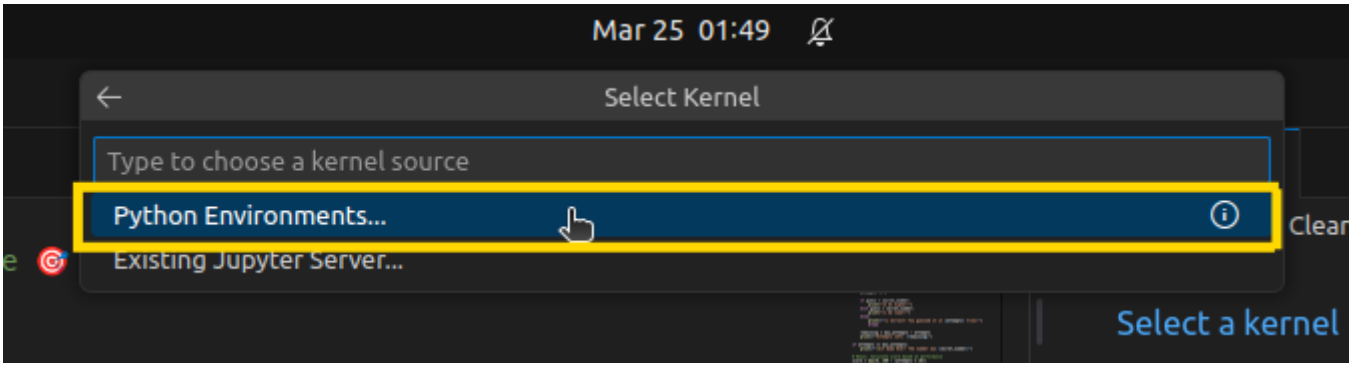
8. Go back to `Explorer` tab and `intro.py` file. At the top right corner, you will see the `Run` button.

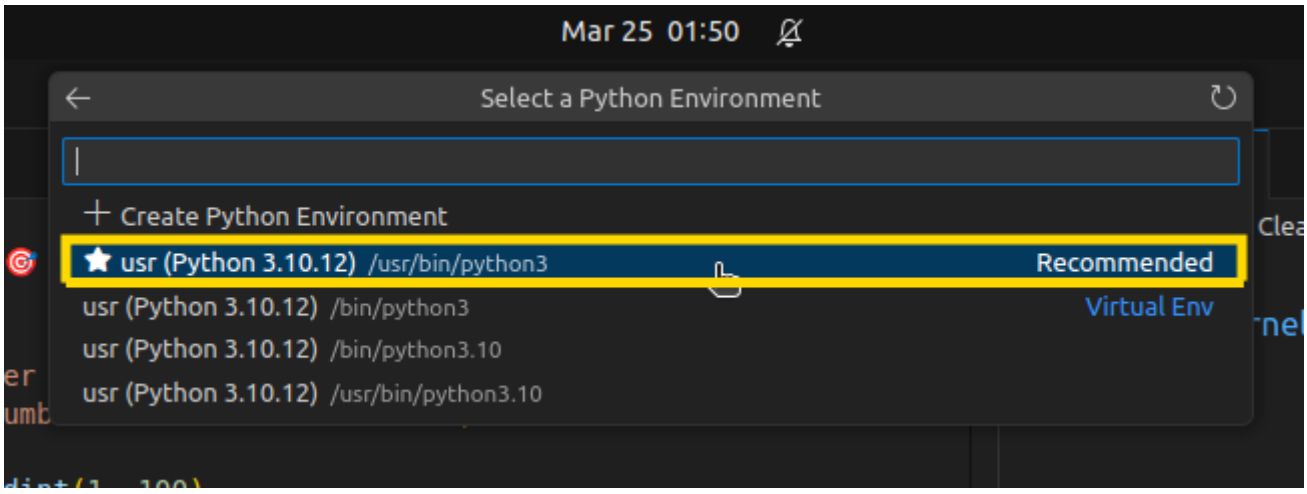


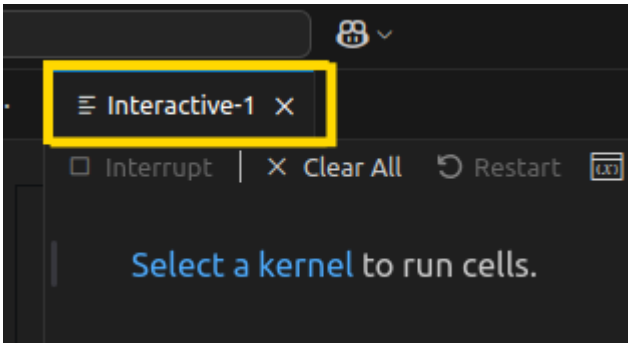
Note: Follow step 9 only if when trying to run the program it ask to select a kernel.

9. Click on `Select a Kernel`. Choose the kernel source and select the recommended `/usr/bin/python3` python environment. After that close the `Interactive` window.









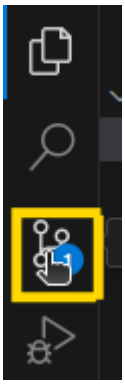
10. Run the program. This is a number game. It will output a score if you guess the correct number and based on how many trial it took you to guess the number.

```
17      elif guess > secret_number:
18          print("🔻 Go lower!")
19      else:
20          print(f"🎉 Correct! You guessed it in {attempts} tries!")
21          break
```

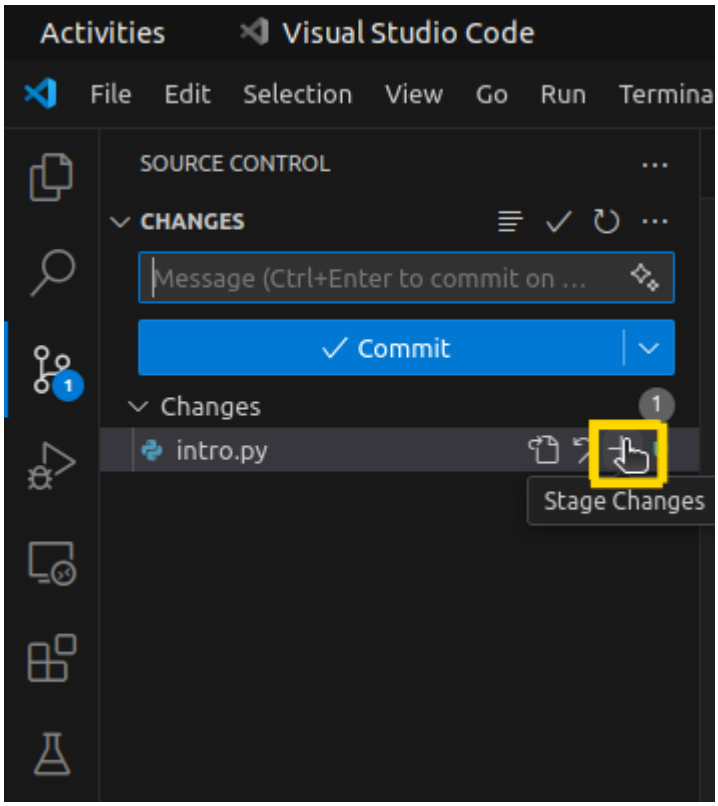
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER COMMENTS

```
/usr/bin/python3 /home/sarkars1/Documents/Python/src/Python/intro.py
sarkars1@ldb-gj3py74:~/Documents/Python/src/Python$ /usr/bin/python3 /home/sarkars1/Documents/Python/src/Python/intro.py
Welcome to the Number Guessing Game!
I'm thinking of a number between 1 and 100...

🤔 Your guess (1-100): 78
🔻 Go lower!
Attempts left: 9

🤔 Your guess (1-100): 50
🔻 Go lower!
Attempts left: 8

🤔 Your guess (1-100): 56
🔻 Go lower!
Attempts left: 7

🤔 Your guess (1-100): 65
🔻 Go lower!
Attempts left: 6

🤔 Your guess (1-100): 60
🔻 Go lower!
Attempts left: 5

🤔 Your guess (1-100): 59
🔻 Go lower!
Attempts left: 4

🤔 Your guess (1-100):
```

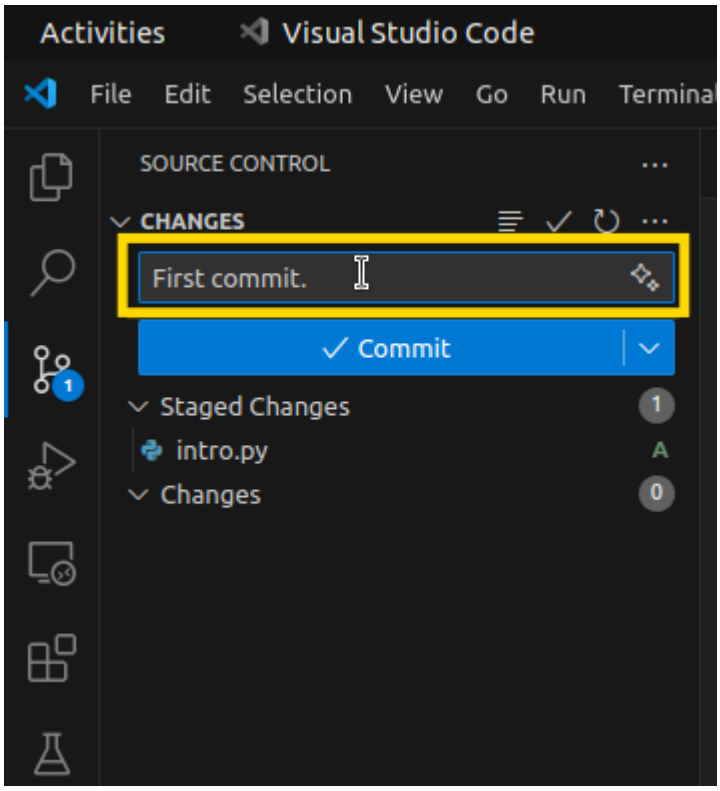
11. Now lets push the code to your repository. Open the `Source Control` tab.



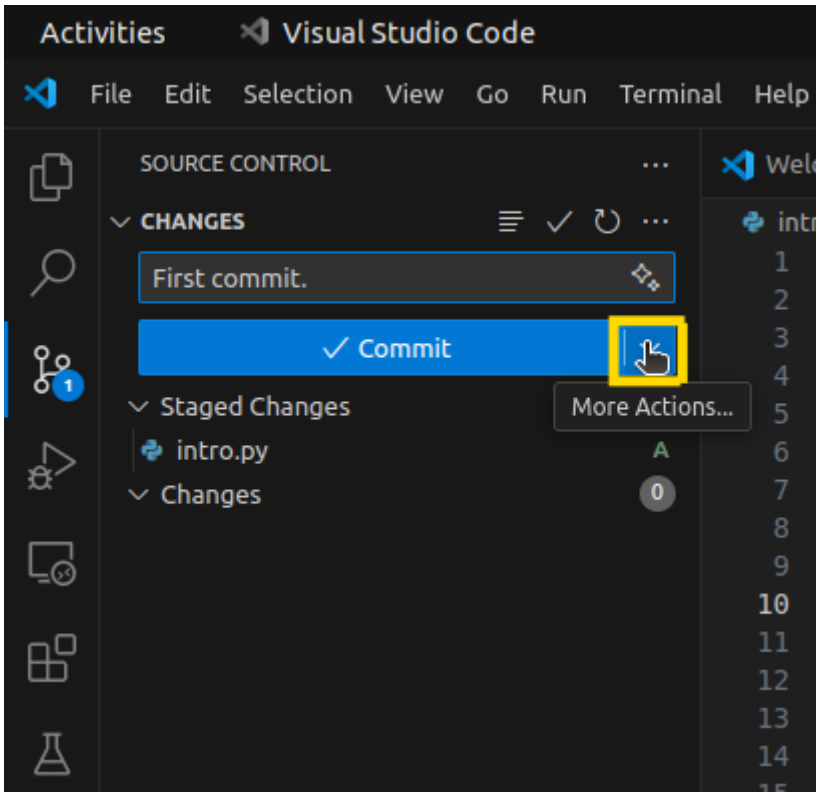
- First stage your changes.

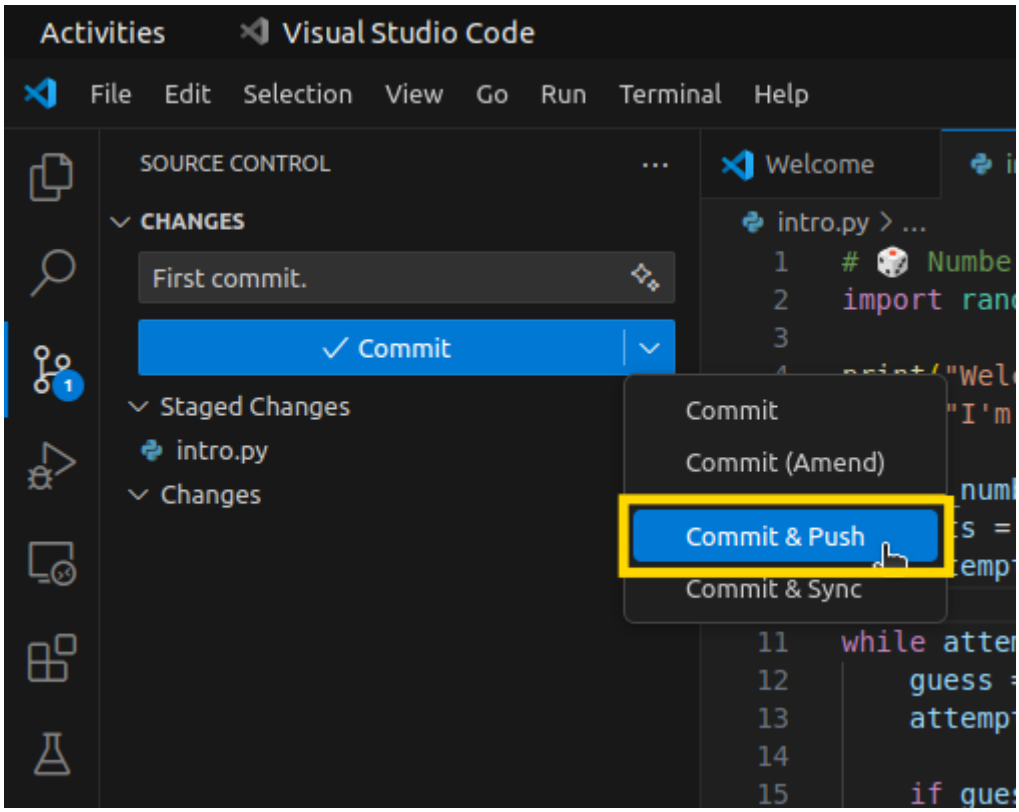


- Add a commit message.

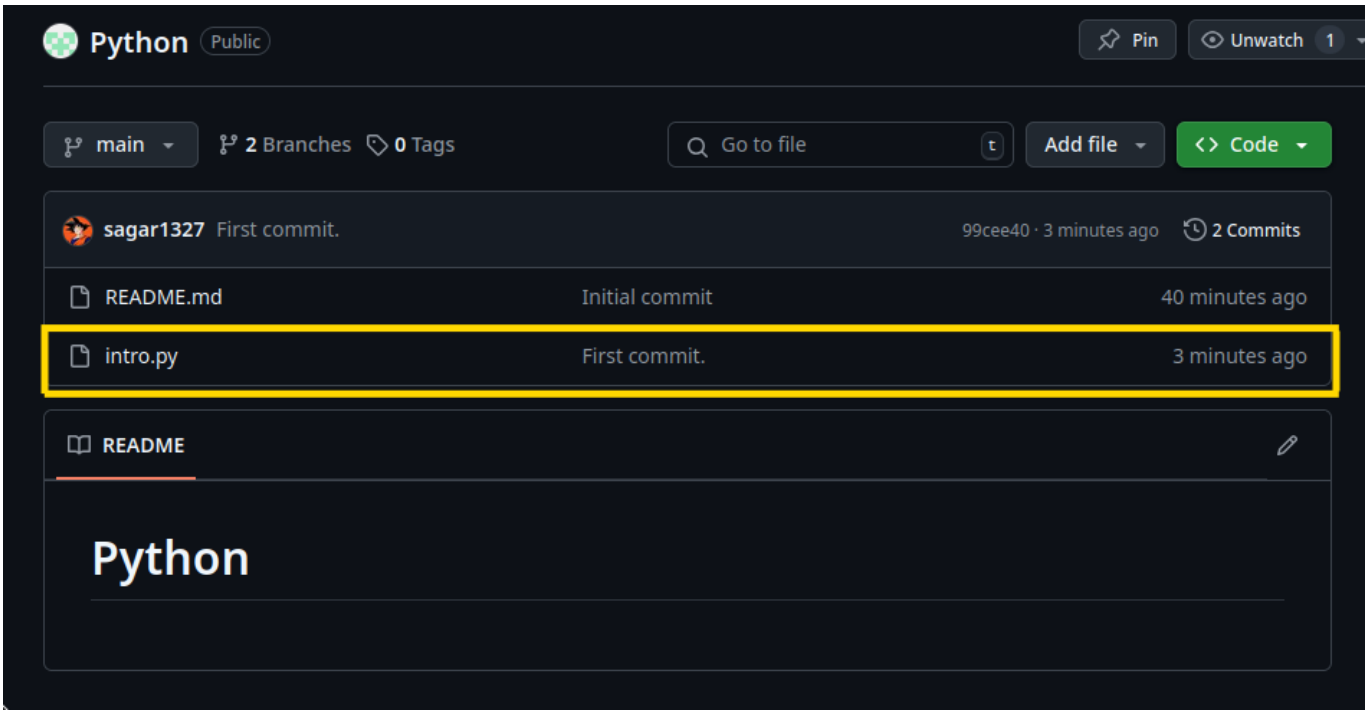


- Select `Commit & Push` option in `More Actions`.





12. Open your repo and check if the changes are pushed. You should see the newly created `intro.py` file.



CONGRATS!!, you successfully created a python file and pushed it to GitHub. Now you are PRO!!