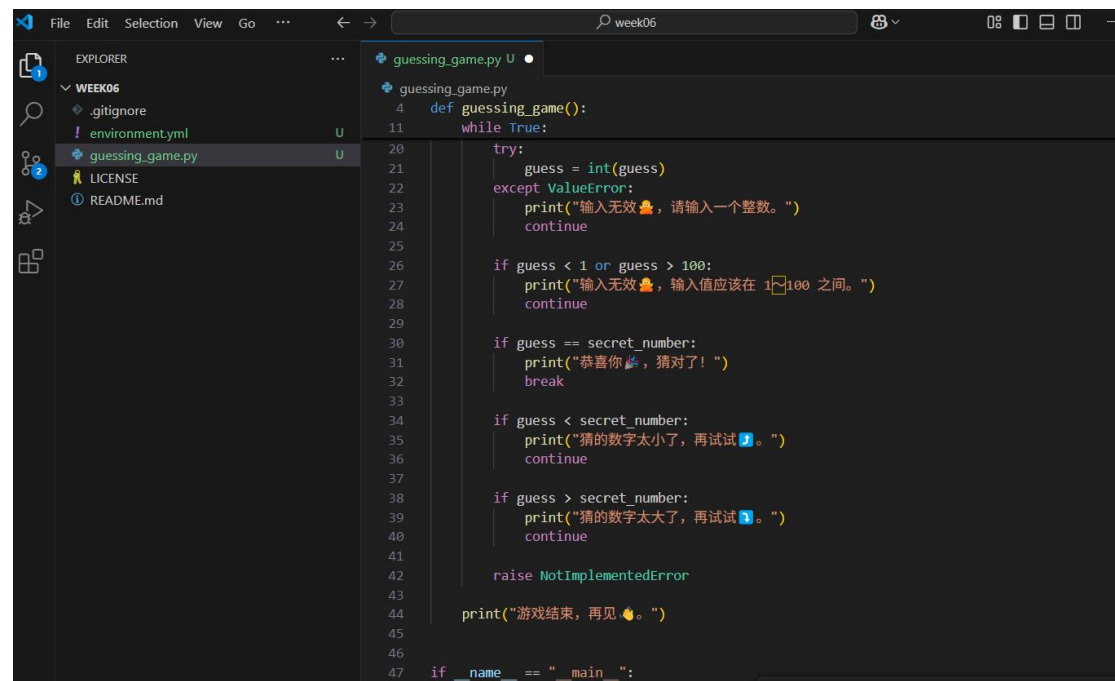


用 VS Code 打开项目目录，新建一个 environment.yml 文件，指定安装 Python 3.12，然后运行 conda env create 命令创建 Conda 环境

```
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ cat environment.yml
name:week06
channels:
-conda-forge
dependencies:
- python=3.12
- wat-inspector
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ conda env create
```

创建一个 guessing_game.py 文件，复制粘贴以下代码，运用 pdb 调试器理解其运行流程



```
guessing_game.py
4 def guessing_game():
11 while True:
20     try:
21         guess = int(guess)
22     except ValueError:
23         print("输入无效 🚫，请输入一个整数。")
24         continue
25
26     if guess < 1 or guess > 100:
27         print("输入无效 🚫，输入值应该在 1~100 之间。")
28         continue
29
30     if guess == secret_number:
31         print("恭喜你 🎉，猜对了！")
32         break
33
34     if guess < secret_number:
35         print("猜的数字太小了，再试试 🧐。")
36         continue
37
38     if guess > secret_number:
39         print("猜的数字太大了，再试试 🧐。")
40         continue
41
42     raise NotImplementedError
43
44 print("游戏结束，再见 👋。")
45
46
47 if __name__ == "__main__":
```

```
python -m pdb guessing_game.py
c:\users\huangna\repo\week06\guessing_game.py(1)<module>()
> import random
(Pdb) n
c:\users\huangna\repo\week06\guessing_game.py(4)<module>()
> def guessing_game():
(Pdb) l
1     import random
2
3
4 -> def guessing_game():
5     # 生成 1 到 100 之间的随机整数
6     secret_number = random.randint(1, 100)
7     n = 0
8
9     print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，
可以开始猜啦。")
10
11     while True:
(Pdb) true
*** NameError: name 'true' is not defined
```

```
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出): q
游戏结束，再见！
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ |
```

```
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ python -m pdb guessing_game.py
> c:\users\huangna\repo\week06\guessing_game.py(1)<module>()
-> import random
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(4)<module>()
-> def guessing_game():
(Pdb) l
> c:\users\huangna\repo\week06\guessing_game.py(48)<module>()
-> guessing_game()
(Pdb) s
--Call--
> c:\users\huangna\repo\week06\guessing_game.py(4)guessing_game()
-> def guessing_game():
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(6)guessing_game()
-> secret_number = random.randint(1, 100)
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(7)guessing_game()
-> n = 0
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(9)guessing_game()
-> print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
(Pdb)
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
```

```
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ python -m pdb guessing_game.py
> c:\users\huangna\repo\week06\guessing_game.py(1)<module>()
-> import random
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(4)<module>()
-> def guessing_game():
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(47)<module>()
-> if __name__ == "__main__":
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(48)<module>()
-> guessing_game()
(Pdb) s
--Call--
> c:\users\huangna\repo\week06\guessing_game.py(4)guessing_game()
-> def guessing_game():
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(6)guessing_game()
-> secret_number = random.randint(1, 100)
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(7)guessing_game()
-> n = 0
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(9)guessing_game()
-> print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
(Pdb)
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
> c:\users\huangna\repo\week06\guessing_game.py(11)guessing_game()
-> while True:
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(12)guessing_game()
-> n += 1
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(14)guessing_game()
-> guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出): ")
(Pdb)
(第 1 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出): 43a
> c:\users\huangna\repo\week06\guessing_game.py(15)guessing_game()
-> guess = guess.strip() # 去除多余空白字符
(Pdb)
> c:\users\huangna\repo\week06\guessing_game.py(17)guessing_game()
-> if guess == "q":
(Pdb) l
12         n += 1
13         # 获取玩家输入
14         guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者
输入 q 回车退出): ")
15         guess = guess.strip() # 去除多余空白字符
16
17     ->         if guess == "q":
18         break
19
20         try:
```

```

32         break
33
34         if guess < secret_number:
35             print("猜的数字太小了，再试试。")
36             continue
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(21)guessing_game()
-> guess = int(guess)
(Pdb) l
16
17         if guess == "q":
18             try:
19                 guess = int(guess)
20             except ValueError:
21                 print("输入无效，请输入一个整数。")
22                 continue
23
24         if guess < 1 or guess > 100:
25             print("输入无效，输入值应该在 1~100 之间。")
(Pdb) n
> c:\users\huangna\repo\week06\guessing_game.py(23)guessing_game()
-> print("输入无效，请输入一个整数。")
(Pdb) l
18         break
19
20         try:
21             guess = int(guess)
22         except ValueError:
23             print("输入无效，请输入一个整数。")
24             continue
25
26         if guess < 1 or guess > 100:
27             print("输入无效，输入值应该在 1~100 之间。")
28             continue
(Pdb)

```

创建一个 `flow_controls.py` 文件，让豆包 (或 DeepSeek 等任何大模型) 生成例子，尝试运行，体会理解以下 Python 流程控制语句

```

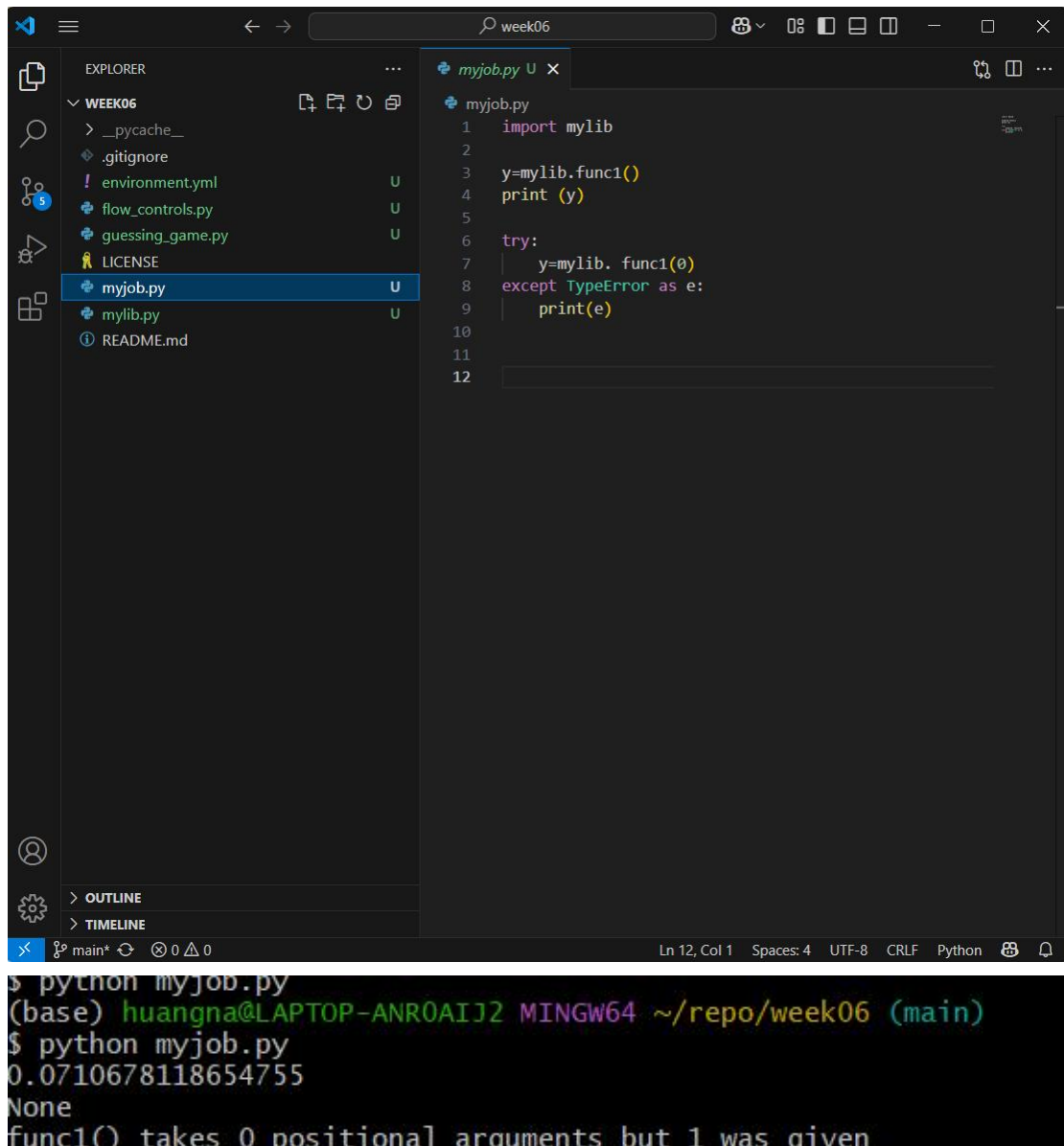
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
H
e
1
l
o
0
1
2
3
4
0
1
2
3
4
apple
banana
1
3
5
7
9
未找到 5
你已经成年了。
成绩等级: C
10 是偶数。

```

```
1 message = "Hello"
2 for char in message:
3     print(char)
4
5
6 for i in range(5):
7     print(i)
8
9 count = 0
10 while count < 5:
11     print(count)
12     count = count + 1
13
14 fruits = ['apple', 'banana', 'cherry', 'date', 'elderberry']
15 for fruit in fruits:
16     if fruit == 'cherry':
17         break
18     print(fruit)
19
20 numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
21 for num in numbers:
22     if num % 2 == 0:
23         continue
24     print(num)
25
26 numbers = [2, 4, 6, 8, 10]
27 search_number = 5
28 for num in numbers:
29     if num == search_number:
30         print(f"找到了 {search_number}")
31         break
32     else:
33         print(f"未找到 {search_number}")
34
35
36 age = 18
37 if age >= 18:
```

```
41
42 if score >= 90:
43     print("成绩等级: A")
44 elif score >= 80:
45     print("成绩等级: B")
46 elif score >= 70:
47     print("成绩等级: C")
48 elif score >= 60:
49     print("成绩等级: D")
50 else:
51     print("成绩等级: F")
52
53 number = 10
54 if number % 2 == 0:
55     print(f"{number} 是偶数。")
56 else:
57     print(f"{number} 是奇数。")
```

创建一个 `mylib.py` 模块 (module)，在里面定义以下函数，再创建一个 `myjob.py` 脚本 (script)，从 `mylib.py` 导入函数并尝试调用



The image shows a Visual Studio Code editor window with a file explorer on the left and a code editor on the right. The file explorer shows a project named 'WEEK06' with files: `__pycache__`, `.gitignore`, `environment.yml`, `flow_controls.py`, `guessing_game.py`, `LICENSE`, `myjob.py` (selected), `mylib.py`, and `README.md`. The code editor shows the content of `myjob.py`:

```
1 import mylib
2
3 y=mylib.func1()
4 print (y)
5
6 try:
7     y=mylib. func1(0)
8 except TypeError as e:
9     print(e)
10
11
12
```

Below the editor is a terminal window showing the execution of the script:

```
$ python myjob.py
(base) huangna@LAPTOP-ANR0AIJ2 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
```

把 mylib 模块转变为 软件包 (package) 安装进当前的 Conda 环境来使用

