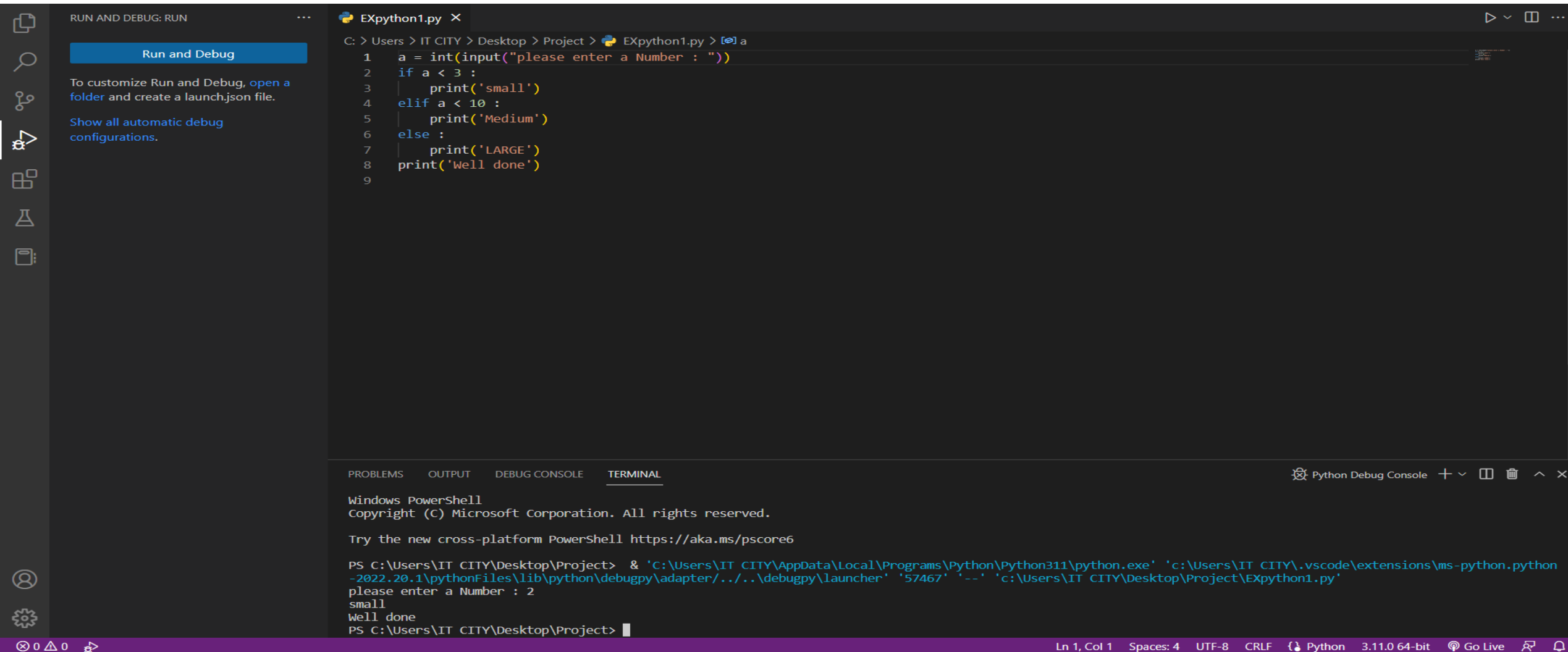


گرفتن ورودی از نوع اینتجر و شرط برای مقایسه



The image shows a Visual Studio Code editor window with a Python file named `EXpython1.py` open. The code is a simple program that takes an integer input and prints a message based on its value. The terminal at the bottom shows the execution of the script, which prompts the user to enter a number and then prints the result.

EXpython1.py

```
1 a = int(input("please enter a Number : "))
2 if a < 3 :
3     print('small')
4 elif a < 10 :
5     print('Medium')
6 else :
7     print('LARGE')
8 print('Well done')
9
```

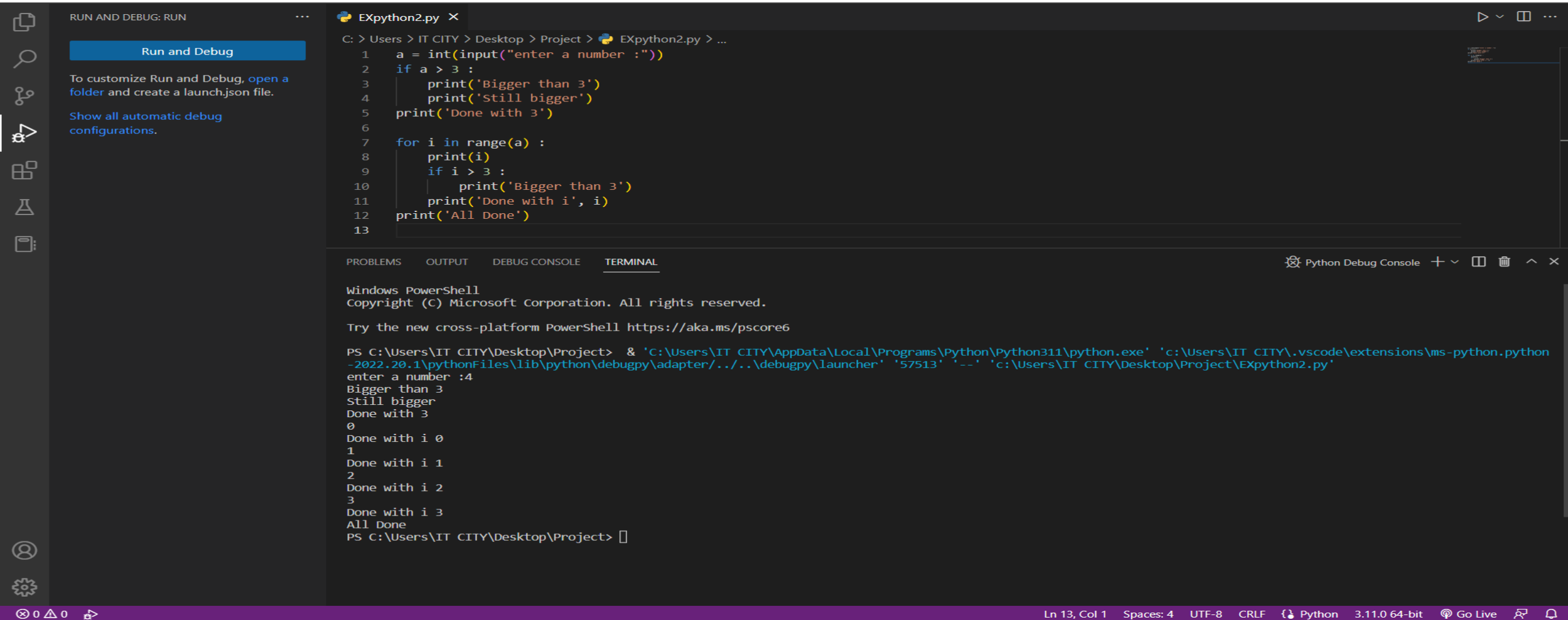
Terminal

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '57467' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython1.py'
please enter a Number : 2
small
Well done
PS C:\Users\IT CITY\Desktop\Project>
```

شرط برای مقایسه و استفاده از حلقه تکرار برای پرینت اعداد از 0 تا عدد انتخاب شده



The image shows a Visual Studio Code editor window with a Python file named `EXpython2.py` open. The file contains a script that prompts the user to enter a number, checks if it is greater than 3, and then prints a series of messages based on the input. The script is as follows:

```
1 a = int(input("enter a number :"))
2 if a > 3 :
3     print('Bigger than 3')
4     print('Still bigger')
5 print('Done with 3')
6
7 for i in range(a) :
8     print(i)
9     if i > 3 :
10        print('Bigger than 3')
11        print('Done with i', i)
12 print('All Done')
13
```

The bottom panel of the editor shows the `TERMINAL` tab, which displays the output of the script. The output is as follows:

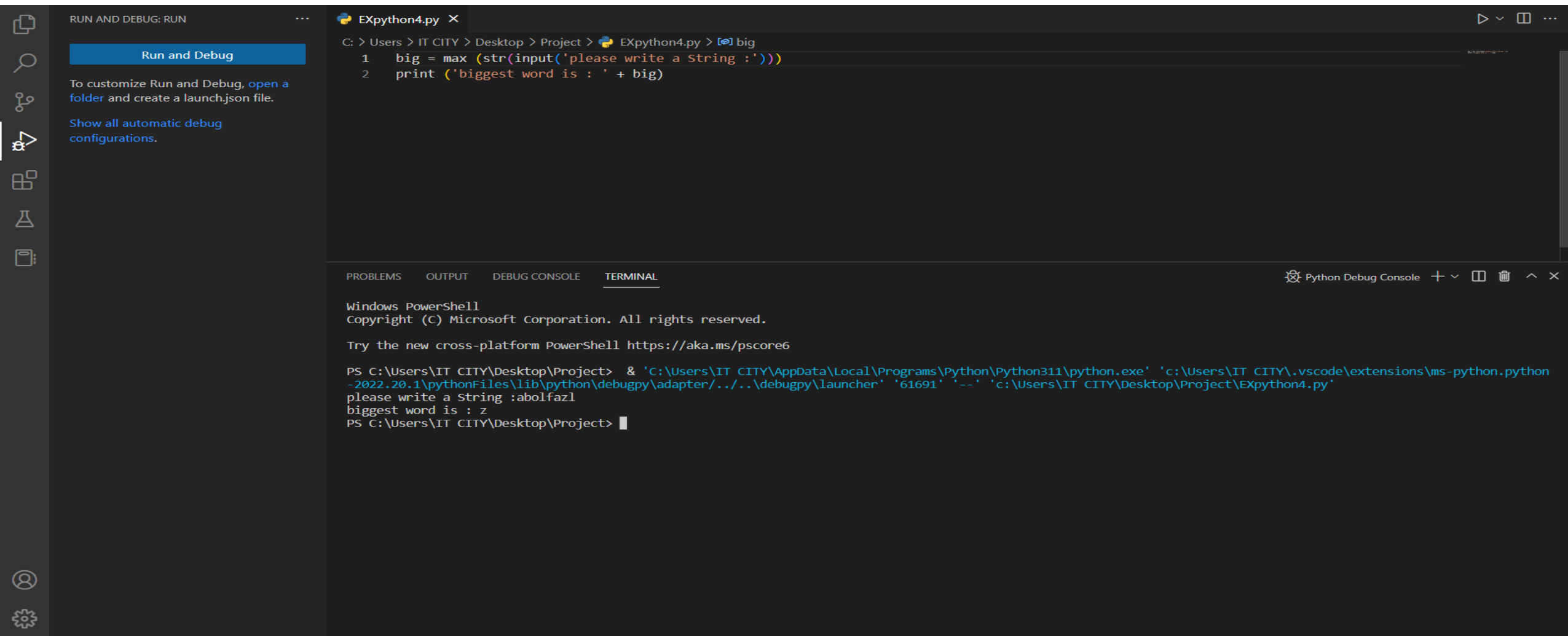
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '57513' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython2.py'
enter a number :4
Bigger than 3
Still bigger
Done with 3
0
Done with i 0
1
Done with i 1
2
Done with i 2
3
Done with i 3
All Done
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom of the editor shows the current line and column (Ln 13, Col 1), the number of spaces (Spaces: 4), the encoding (UTF-8), the line ending (CRLF), the Python version (Python 3.11.0 64-bit), and the Go Live status.

این قطعه کد برای معلوم کردن بزرگ ترین حرف یک کلمه است(بر اساس اعداد باینری)



The image shows the Visual Studio Code (VS Code) interface. On the left is the sidebar with icons for Explorer, Search, Source Control, Run and Debug, Extensions, Testing, and Settings. The main editor area is divided into two panes. The top pane shows a Python file named `EXpython4.py` with the following code:

```
C: > Users > IT CITY > Desktop > Project > EXpython4.py > [E] big
1  big = max (str(input('please write a String :')))
2  print ('biggest word is : ' + big)
```

The bottom pane is the `TERMINAL` tab, which shows the output of the script executed in a Windows PowerShell environment:

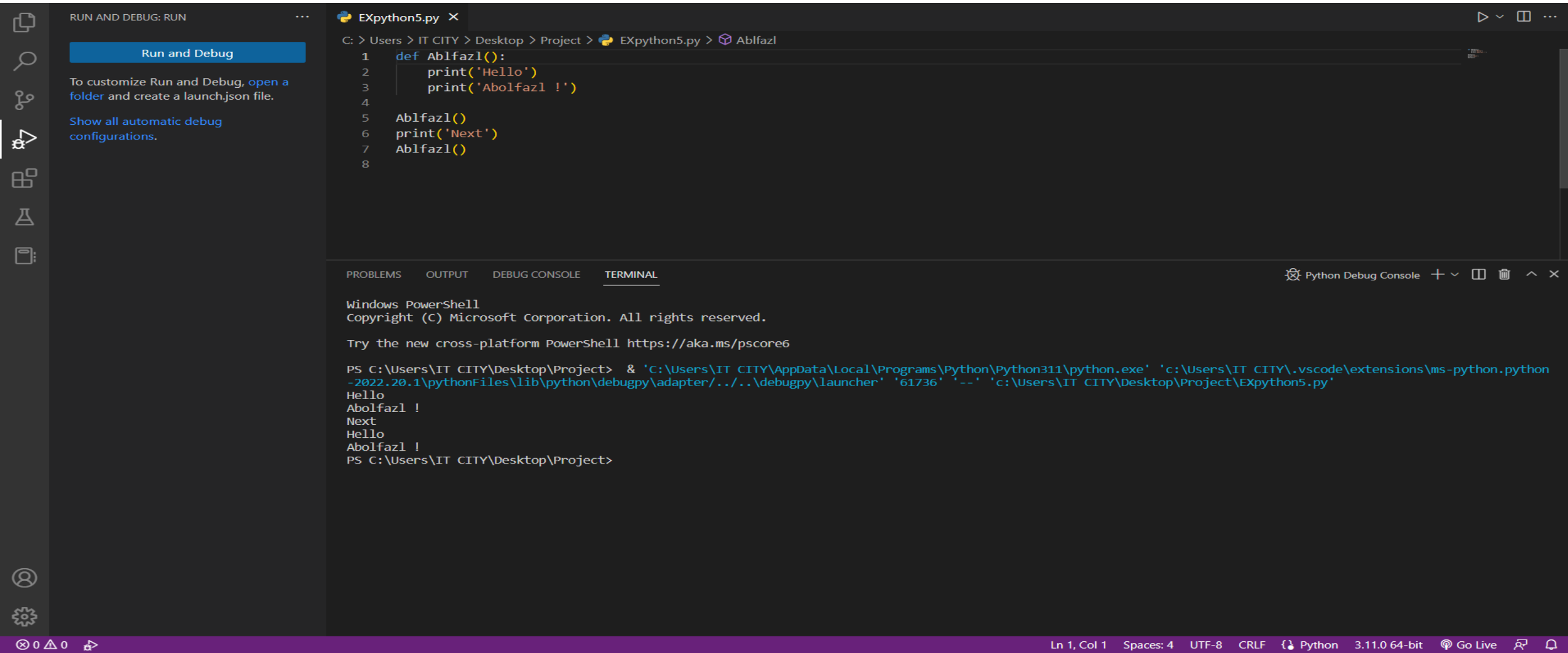
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '61691' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython4.py'
please write a String :abolfazl
biggest word is : z
PS C:\Users\IT CITY\Desktop\Project> █
```

The status bar at the bottom indicates the current file is at line 1, column 1, with 4 spaces, using UTF-8 encoding and CRLF line endings. It also shows the Python version as 3.11.0 64-bit and the Go Live extension.

این قطعه کد برای فراخوانی یک فانکشن (تابع) است



The image shows a screenshot of the Visual Studio Code (VS Code) interface. The editor window displays a Python file named `EXpython5.py` with the following code:

```
1 def Ablfazl():
2     print('Hello')
3     print('Abolfazl !')
4
5 Ablfazl()
6 print('Next')
7 Ablfazl()
8
```

The left sidebar shows the 'RUN AND DEBUG: RUN' panel with a 'Run and Debug' button. Below it, there is a message: 'To customize Run and Debug, open a folder and create a launch.json file. Show all automatic debug configurations.'

The bottom panel shows the 'TERMINAL' tab, which displays the output of the Python script execution in a Windows PowerShell environment:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '61736' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython5.py'
Hello
Abolfazl !
Next
Hello
Abolfazl !
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom indicates the current file is at line 1, column 1, with 4 spaces, UTF-8 encoding, CRLF line endings, and the Python 3.11.0 64-bit interpreter is selected. The 'Go Live' button is also visible.

این قطعه کد برای جمع دو اینتیجر یا استرنج است

The screenshot shows the Visual Studio Code (VS Code) interface. On the left is the Activity Bar with icons for Explorer, Search, Source Control, Run and Debug, Extensions, Testing, and Settings. The Run and Debug view is active, showing a sidebar with 'RUN AND DEBUG: RUN' and a 'Run and Debug' button. Below the button, it says: 'To customize Run and Debug, open a folder and create a launch.json file. Show all automatic debug configurations.'

The main editor area shows a file named 'EXpython7.py' with the following code:

```
1 #type
2 sum = 124 + 5342
3 print (sum)
4 # type with words :
5 y = 'thanks' + ' God'
6 print (y)
```

Below the editor is the TERMINAL panel, which is active. It shows the output of the Python script executed in a Windows PowerShell environment:

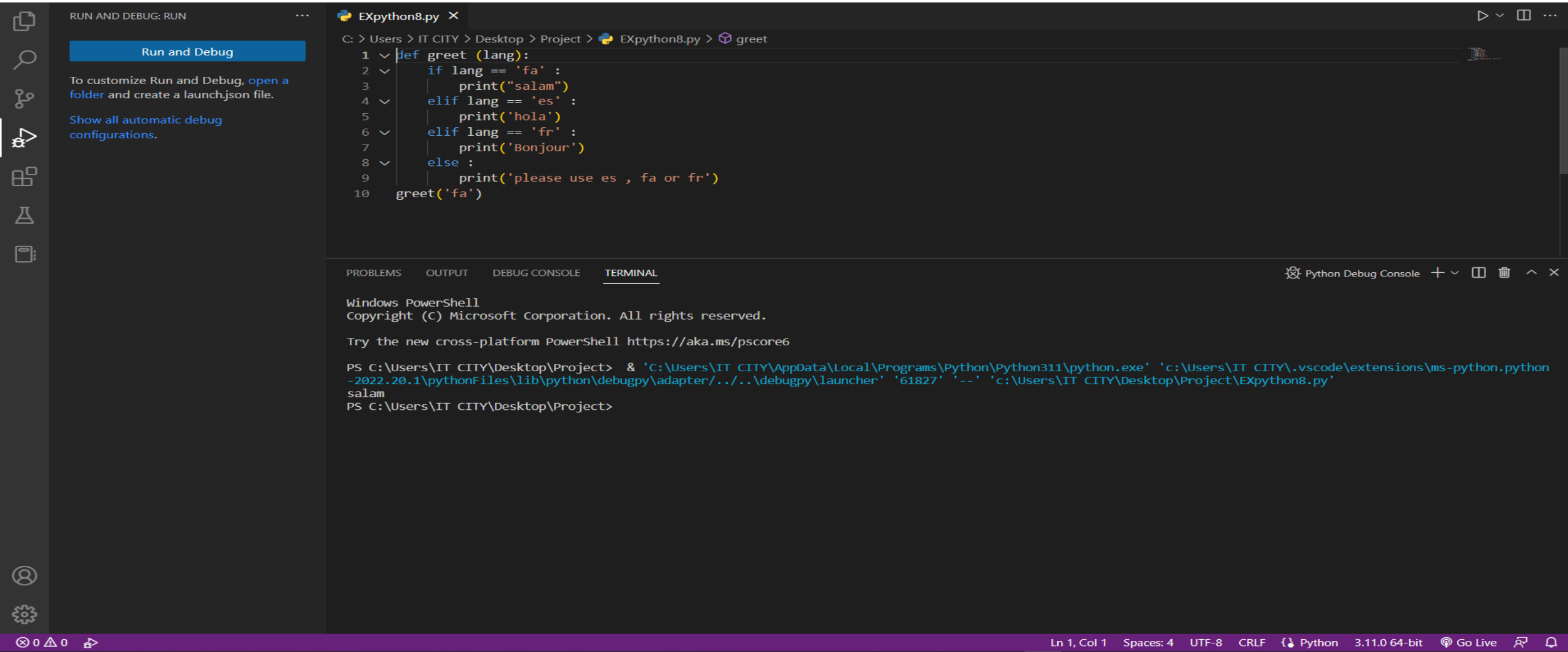
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '61796' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython7.py'
5466
thanks God
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom shows: 'Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.0 64-bit Go Live'.

فانکشن گریت برای سلام به زبان های مختلف



The image shows a screenshot of the Visual Studio Code (VS Code) interface. The editor window displays a Python file named `EXpython8.py` with the following code:

```
1 def greet (lang):
2     if lang == 'fa' :
3         print("salam")
4     elif lang == 'es' :
5         print('hola')
6     elif lang == 'fr' :
7         print('Bonjour')
8     else :
9         print('please use es , fa or fr')
10 greet('fa')
```

The left sidebar shows the "RUN AND DEBUG: RUN" panel with a "Run and Debug" button and instructions: "To customize Run and Debug, open a folder and create a launch.json file. Show all automatic debug configurations."

The bottom panel shows the "TERMINAL" output, which displays the execution of the Python script using the Python Debug Console:

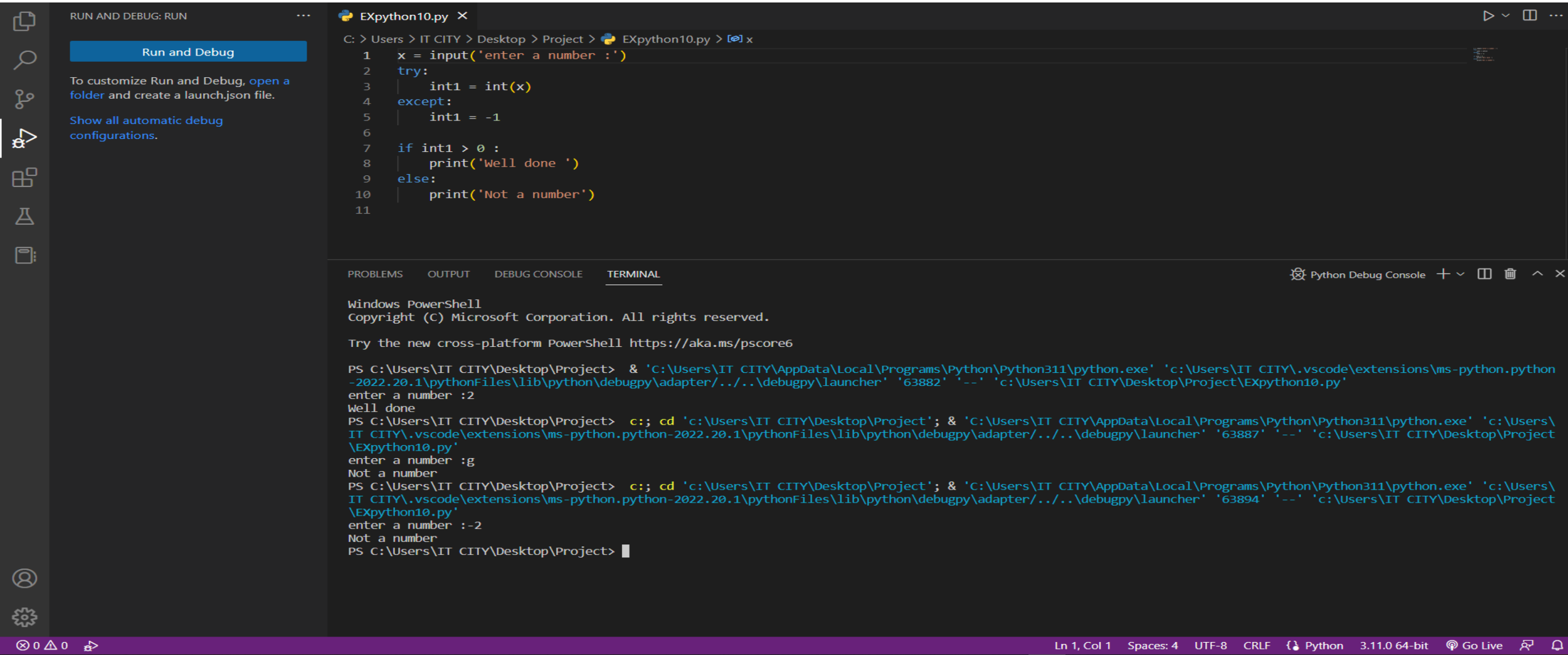
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '61827' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython8.py'
salam
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom indicates the current file is at Line 1, Column 1, with 4 spaces, UTF-8 encoding, CRLF line endings, Python 3.11.0 64-bit, and the Go Live extension is active.

این قطعه کد به طوری اجرا میشود که اگر شرط و ورودی با "ترای" همخوانی نداشته "اکسپت" اجرا میشود



The image shows a Visual Studio Code editor window with a Python file named `EXpython10.py` open. The code is a simple program that prompts the user to enter a number and checks if it is a valid integer. If it is, it prints "Well done "; otherwise, it prints "Not a number".

```
1 x = input('enter a number :')
2 try:
3     int1 = int(x)
4 except:
5     int1 = -1
6
7 if int1 > 0 :
8     print('Well done ')
9 else:
10    print('Not a number')
11
```

The terminal output shows the execution of the script. It prompts for input, and the user enters "2", resulting in "Well done ". Then, the user enters "g", resulting in "Not a number". Finally, the user enters "-2", resulting in "Not a number".

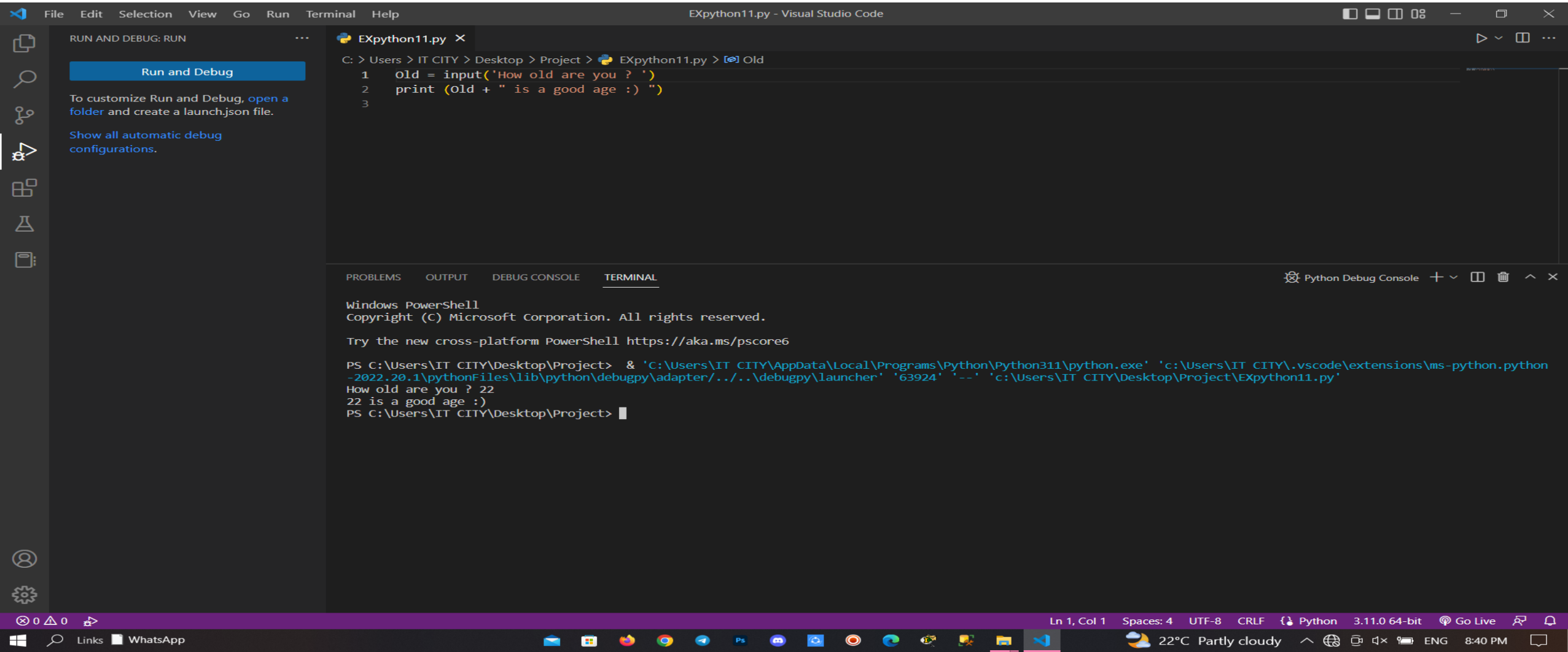
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '63882' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython10.py'
enter a number :2
Well done
PS C:\Users\IT CITY\Desktop\Project> c;; cd 'c:\Users\IT CITY\Desktop\Project'; & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '63887' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython10.py'
enter a number :g
Not a number
PS C:\Users\IT CITY\Desktop\Project> c;; cd 'c:\Users\IT CITY\Desktop\Project'; & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '63894' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython10.py'
enter a number :-2
Not a number
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom indicates the current file is at line 1, column 1, with 4 spaces, UTF-8 encoding, CRLF line endings, and is a Python 3.11.0 64-bit file. It also shows the "Go Live" button and a search icon.

در این قطعه کد سن شما گرفته میشود و در کنار یک متن به نمایش گذاشته میشود



The image shows a Visual Studio Code window with a Python file named `EXpython11.py` open. The file contains a simple script that prompts the user for their age and prints a message. The script is as follows:

```
1 Old = input('How old are you ? ')
2 print (Old + " is a good age :) ")
3
```

The `Run and Debug` sidebar on the left is visible, showing a button to `Run and Debug` and instructions to open a folder and create a `launch.json` file. The `TERMINAL` panel at the bottom shows the output of the script execution in a Windows PowerShell environment. The output is as follows:

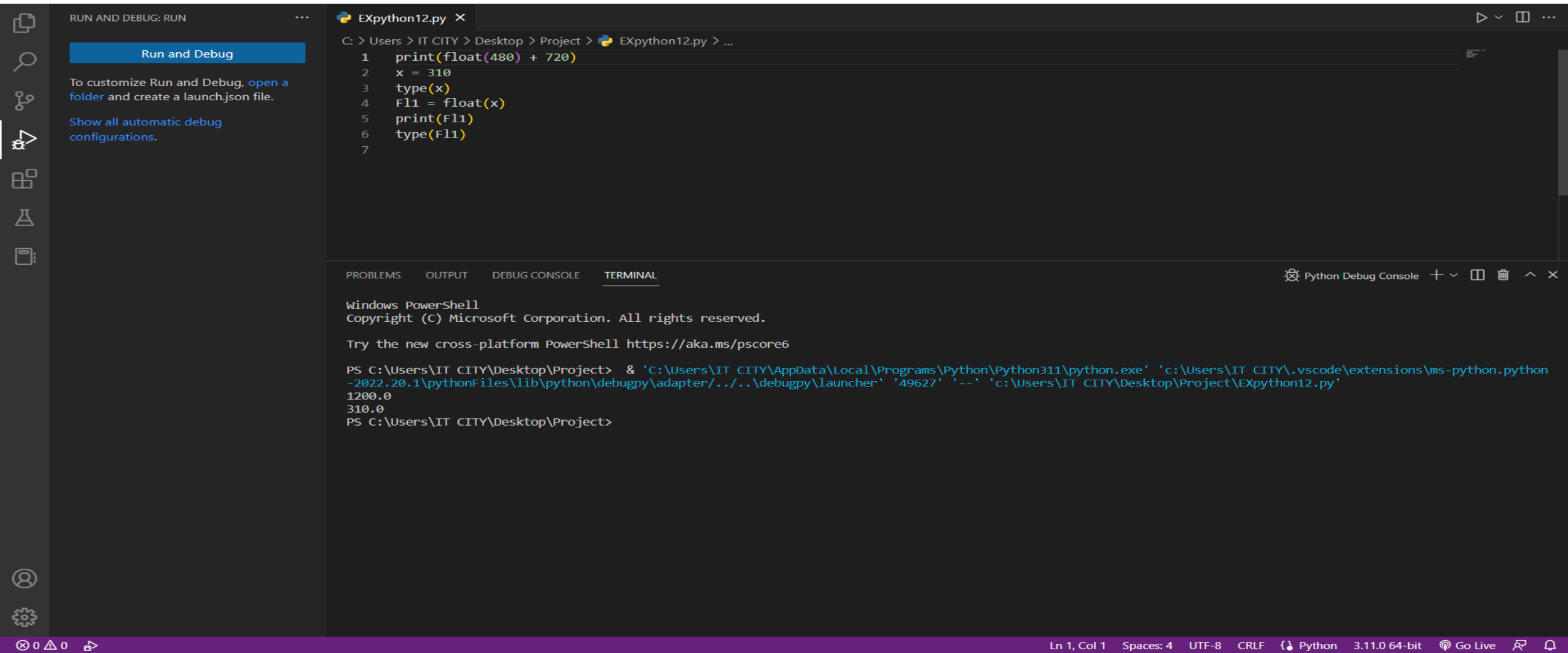
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '63924' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython11.py'
How old are you ? 22
22 is a good age :)
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom of the window shows the current line and column (Ln 1, Col 1), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), the Python version (3.11.0 64-bit), and the Go Live button. The system tray at the bottom right shows the temperature (22°C), weather (Partly cloudy), and the time (8:40 PM).

در این قطعه کد دو عدد باهم جمع میشود و حاصل آن در خروجی به صورت عدد اعشاری به نمایش در می آید و همچنین متغیر "ایکس" که در خروجی به صورت اعشاری چاپ شده است



The screenshot shows the Visual Studio Code interface. On the left is the sidebar with icons for Explorer, Search, Source Control, Run and Debug, Extensions, Testing, and Settings. The main editor area is divided into two panes. The top pane shows a Python file named `EXpython12.py` with the following code:

```
1 print(float(480) + 720)
2 x = 310
3 type(x)
4 Fl1 = float(x)
5 print(Fl1)
6 type(Fl1)
7
```

The bottom pane is the `TERMINAL` window, which shows the output of the Python script executed in a Windows PowerShell environment. The output is:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '49627' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython12.py'
1200.0
310.0
PS C:\Users\IT CITY\Desktop\Project>
```

The status bar at the bottom indicates the current file is at line 1, column 1, with 4 spaces, using UTF-8 encoding and CRLF line endings. It also shows the Python version as 3.11.0 64-bit and the Go Live button.

نحوه استفاده از عملگر ها در پایتون

Run and Debug

To customize Run and Debug, open a folder and create a launch.json file.

Show all automatic debug configurations.

EXpython13.py X

C: > Users > IT CITY > Desktop > Project > EXpython13.py > ...

```
1 'Expression tutorial Addition :'  
2 a= 9  
3 a= a + 3  
4 print (a)  
5 'Expression tutorial Multiplication :'  
6 b= 4  
7 b= b * 5  
8 print (b)  
9 'Expression tutorial Division :'  
10 c= 22  
11 c= c / 2  
12 print (c)  
13 'Expression tutorial Remainder :'  
14 d = 17  
15 d= d % 3  
16 print (d)  
17
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Python Debug Console

Windows PowerShell
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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS C:\Users\IT CITY\Desktop\Project> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-python.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '51673' '--' 'c:\Users\IT CITY\Desktop\Project\EXpython13.py'
12
20
11.0
2
PS C:\Users\IT CITY\Desktop\Project>

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.0 64-bit Go Live

در این قطعه کد نشان میدهد که نمیتوان یک استرنج و اینتیجر را باهم جمع کرد

```
C: > Users > IT CITY > Desktop > Python > EXpython8.py > ...
```

```
1  sval = '123'  
2  type(sval)  
3  print(sval + 1)
```

Exception has occurred: TypeError ×

can only concatenate str (not "int") to str

File "C:\Users\IT CITY\Desktop\Python\EXpython8.py", line 3, in
<module>

```
    print(sval + 1)
```

در این قطعه کد نشان میدهد که نمیتوان یک استرنج را در متغیری با تایپ اینتیجر قرار داد

```
1 ival = int(sval)
```

Exception has occurred: NameError ×

name 'sval' is not defined

File "C:\Users\IT CITY\Desktop\Python\EXpython8.py", line 1, in
<module>

```
    ival = int(sval)
```

```
2  type(ival)
```

```
3  print(ival + 1)
```

```
4  nsv = 'hello bob'
```

```
5  niv = int(nsv)
```

در این قطعه کد حقوق کارمند بر اساس ساعت کاری و اضافه کاری محاسبه میشود

```
C: > Users > IT CITY > Desktop > Python > Hours&Rate.py > interH
1  interH = input('Hours :')
2  interR = input('Rate :')
3  hour = int(interH)
4  rate = int(interR)
5
6  if hour > 40 :
7      times = float(hour) - 40
8  else :
9      times = 0
10
11  pay1 = 0.5 * float(rate) * times
12  pay2 = float(hour) * float(rate) + pay1
13  print(pay2)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

All done
PS C:\Users\IT CITY> & "C:/Users/IT CITY/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/IT CITY/Desktop/Python/EXpython5.py"
Medium
All done
PS C:\Users\IT CITY> & "C:/Users/IT CITY/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/IT CITY/Desktop/Python/EXpython6.py"
First -1
Second 123
PS C:\Users\IT CITY> & "C:/Users/IT CITY/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/IT CITY/Desktop/Python/Hours&Rate.py"
Enter a number:& "C:/Users/IT CITY/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/IT CITY/Desktop/Python/Hours&Rate.py"
Not a number
PS C:\Users\IT CITY> & "C:/Users/IT CITY/AppData/Local/Programs/Python/Python311/python.exe" "c:/Users/IT CITY/Desktop/Python/Hours&Rate.py"
Hours :66
Rate :10
790.0
PS C:\Users\IT CITY>

Python Deb...
Python

در این قطعه کد نحوه محاسبه حقوق کارمند از طریق کلاس را نشان میدهد

```
Class_Rate.py X
C: > Users > IT CITY > Desktop > New folder > Python > Class_Rate.py > salary

1 class salary:
2     def __init__(self, Hours, Rate):
3         self.hours = Hours
4         self.rate = Rate
5
6     def myfunc(self):
7         if Hours < 40:
8             money = Rate * Hours
9         else:
10            overtime = Hours - 40
11            money = (Rate * 40.0) + (1.5 * Rate * overtime)
12            print('salary : ',money)
13
14    inth = input("enter Hours : ")
15    intr = input("enter Rate : ")
16    Hours = int(inth)
17    Rate = int(intr)
18    salarys = salary(Hours, Rate)
19    salarys.myfunc()

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\IT CITY\Desktop\New folder\Python> & 'C:\Users\IT CITY\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\IT CITY\.vscode\extensions\ms-pyt
hon.python-2022.20.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '60866' '--' 'c:\Users\IT CITY\Desktop\New folder\Python\Class_Rate.py'
enter Hours : 100
enter Rate : 250000
salary : 32500000.0
PS C:\Users\IT CITY\Desktop\New folder\Python>
```

یک کلاس برای نشان دادن ویژگی های یک خودرو

Class_car.py 4, U X

C:\> Users > IT CITY > Desktop > Python > Class_car.py > ...

```
1 class car :
2     def __init__ (speed,fuel,color,wheel):
3         self.speed = speed
4         self.fuel = fuel
5         self.color = color
6         self.wheel = wheel
7 car = car (200,'benzin','black',4)
8
9 def car_class(self):
10     if self.speed <=120:
11         print('sorat ziyad')
12     else:
13         print('sorat monaseb')
14 car_class(car)
```