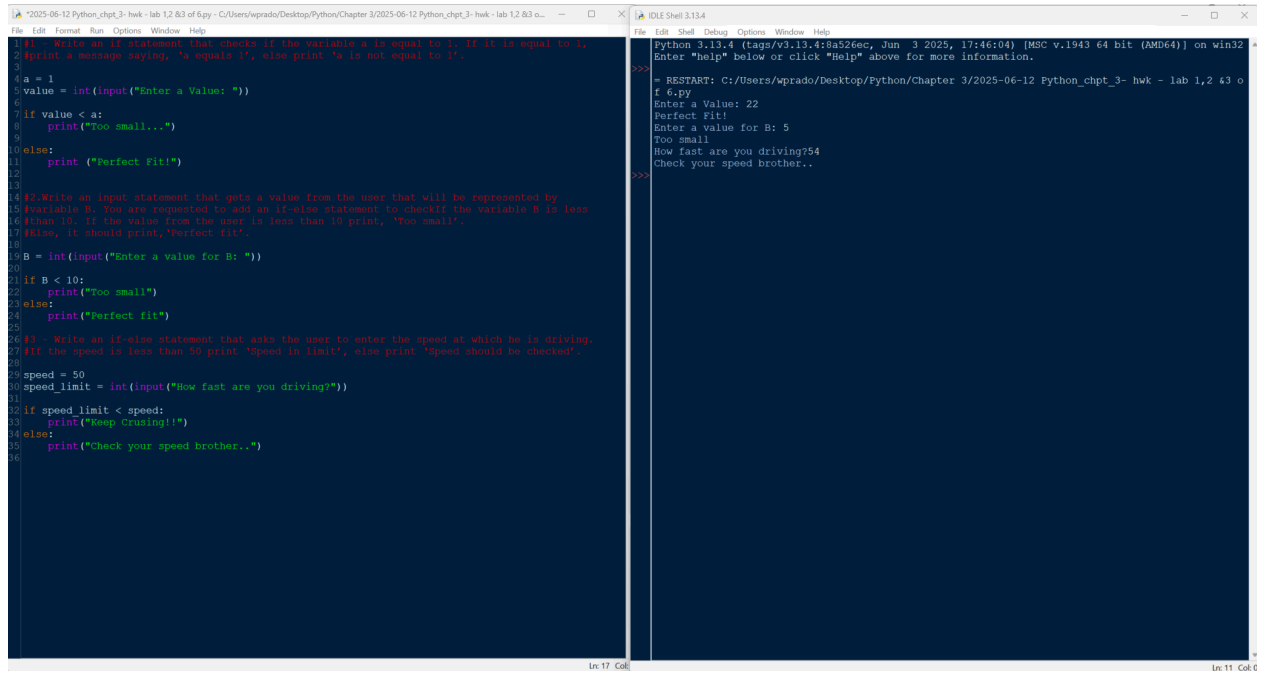


Chapter 3 - Homework and Bonus

Chapter 3 - HWK - #1, #2 & #3 of 6



```
1 #1 - Write an if statement that checks if the variable a is equal to 1. If it is equal to 1,  
2 #print a message saying, 'a equals 1', else print 'a is not equal to 1'.  
3  
4 a = 1  
5 value = int(input("Enter a Value: "))  
6  
7 if value < a:  
8     print("Too small...")  
9  
10 else:  
11     print("Perfect Fit!")  
12  
13  
14 #2. Write an input statement that gets a value from the user that will be represented by  
15 #variable B. You are requested to add an if-else statement to check if the variable B is less  
16 #than 10. If the value from the user is less than 10 print, 'Too small'.  
17 #false, it should print, 'Perfect fit'.  
18  
19 B = int(input("Enter a value for B: "))  
20  
21  
22 if B < 10:  
23     print("Too small")  
24 else:  
25     print("Perfect fit")  
26  
27  
28 #3 - Write an if-else statement that asks the user to enter the speed at which he is driving.  
29 #If the speed is less than 50 print 'Speed is limit', else print 'Speed should be checked'.  
30  
31 speed = 50  
32 speed_limit = int(input("How fast are you driving?"))  
33  
34 if speed_limit < speed:  
35     print("Keep Crusing!!")  
36 else:  
37     print("Check your speed brother..")  
38
```

```
>>>  
Python 3.13.4 (tags/v3.13.4:8a526ec, Jun 3 2025, 17:46:04) [MSC v.1943 64 bit (AMD64)] on win32  
Enter "help" below or click "Help" above for more information.  
  
= RESTART: C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-12 Python_chpt_3- hwk - lab 1,2 &3 o  
f 6.py  
Enter a Value: 22  
Perfect Fit!  
Enter a value for B: 5  
Too small  
How fast are you driving?54  
Check your speed brother..  
>>>
```

Chapter 3 - HWK 4, 5 & 6 of 6

```
2025-06-12 Python_chpt3_hwk - lab 4,5,6 of 6.py - C:\Users\wprado\Desktop\Python\Chapter 3\2025-06-12 Python...
File Edit Format Run Options Window Help
1 #HWK number 1
2
3 # age <= 1  INFANT
4 # age >1 and age < 13  CHILD
5 #age >= 13 and age <20  TEENAGER
6 #age >= 20  ADULT
7
8 age = int(input("What is your age?"))
9
10 if age <= 1:
11     print("You are an infant...")
12 elif age > 1 and age < 13:
13     print("You are a child...")
14
15 elif age > 13 and age < 20:
16     print("You are a teenager...")
17 else:
18     print("You are a cybersecurity expert!!!")
19
20
21 #5 - Create a variable called points and assign the number 5 to it. Write an if-
22 #that determines whether the points variable is outside the range of 9 to 51. If
23 #variable's value is outside this range it should display "Invalid points." Other
24 #should display "Valid points".
25 Points = 5
26 Variable = int(input("Enter a whole number: "))
27
28 if (Variable < 9 or Variable > 51) and (Variable != Points):
29     print("Invalid points.")
30
31 else:
32     print("Invalid Points")
33
34 #6 - Write a program that assigns a number to a variable. Write an if-else state
35 #determines whether the number is outside the range of 9 to 51. If the number's
36 #outside this range it should display "Number is not valid". Otherwise, it should
37 # "Number is valid".
38
39 number = int(input("Type a number: "))
40 if (number < 9 or number > 51):
41     print("Your number is outside the range")
42 else:
43     print("Your number is inside the range")
44
45
46
47
48
Ln: 1 Col: 0

Python 3.13.4 (tags/v3.13.4:8a526ec, Jun  3 2025, 17:46:04) [MSC v.1943 64 bit (
AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
= RESTART: C:\Users\wprado\Desktop\Python\Chapter 3\2025-06-12 Python_chpt_3- hw
k - lab 4,5,6 of 6.py
What is your age?31
You are a cybersecurity expert!!!
Enter a whole number: 20
Invalid Points
Type a number: 2
Your number is outside the range
>>>
```

Bonus #1 of 3

```
2025-06-13 - HWK - cookie recipe.py - C:\Users\wprado\Desktop\Python\Chapter 3\2025-06-13 - HWK - cookie rec...
File Edit Format Run Options Window Help
1 # A cookie recipe calls for the following ingredients:
2 # 1.5 cups of sugar
3 # 1 cup of butter
4 # 2.75 cups of flour
5 # The recipe produces 48 cookies with this amount of the ingredients.
6 # Write a program that ask the user how many cookies he or she wants to make,
7 # and then display the number of cups of each ingredient need for the specified
8
9 sugarunits = 1.5 / 48
10 butterunits = 1 / 48
11 flourunits = 2.75 / 48
12
13 cookies = int(input("How many cookies do you want? "))
14 print("You need the following:")
15 print(round(cookies * sugarunits, 2), 'cups of sugar')
16 print(round(cookies * butterunits, 2), 'cups of butter')
17 print(round(cookies * flourunits, 2), 'cups of flour')
18
Ln: 1 Col: 0

Python 3.13.4 (tags/v3.13.4:8a526ec, Jun  3 2025, 17:46:04) [MSC v.1943 64 bit (
AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
= RESTART: C:\Users\wprado\Desktop\Python\Chapter 3\2025-06-13 - HWK - cookie re
cipe.py
How many cookies do you want? 25
You need the following:
0.78 cups of sugar
0.52 cups of butter
1.43 cups of flour
>>>
```

Bonus #2 of 3

```
2025-06-13 - Bonus - #2 - Discount.py - C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-13 - Bonus - #2 - Dis...
File Edit Format Run Options Window Help
1 #A software company sells a package that retails for $99.
2 #Quantity discounts are given according to the following table:
3
4 #Quantity Discount
5 # 10-19 10%
6 # 20-49 20%
7 # 50-99 30%
8 # 100 or more 40%
9
10 #Write a program that asks the user to enter the number of packages purchased.
11 #The program should then display the amount of the discount (if any) and the tot
12 #the purchase after the discount.
13
14 package = 99
15
16 #QD = 10-19 10%
17 #QD = 20-49 20%
18 #QD = 50-99 30%
19 #QD = 100 or more 40%
20
21 number_packages = int(input("Enter the number of packages purchased", ))
22
23 if number_packages >= 100:
24     discount_rate = .40
25 elif number_packages >= 50:
26     discount_rate = .30
27 elif number_packages >= 20:
28     discount_rate = .20
29 elif number_packages >= 10:
30     discount_rate = .10
31 else:
32     discount_rate = 0.0
33
34 #Total price before discount
35 total_price = package * number_packages
36
37 #Discount amount
38 discount_amount = total_price * number_packages
39
40 #Total price after discount
41 total_after_discount = total_price - discount_amount
42
43 #Final result
44 print(f"Discount amount: ${discount_amount:.2f}")
45 print(f"Total amount after discount: ${total_after_discount:.2f}")
46
Ln: 26 Col: 2

Python 3.13.4 (tags/v3.13.4:8a526ec, Jun 3 2025, 17:46:04) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
= RESTART: C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-13 - Bonus - #2 - Discount.py
Enter the number of packages purchased: 115
Discount amount: $1309275.00
Total amount after discount: $-1297890.00
>>>
```

Bonus #3 of 3

```
2025-06-13 - HWK - Fast Freight Shipping.py - C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-13 - HWK - Fa...
File Edit Format Run Options Window Help
1 #Bonus Chapter 3
2
3 #The Fast Freight Shipping company charges the following rate:
4 # weight of package rate per pound.
5 # 2 pounds or less 1.50
6
7 #Over 2 pounds but not more than 6 pounds $3.00
8 #Over 6 pounds but not more than 10 pounds $4.00
9 #Over 10 pounds $4.75
10
11 #Write a program that asks the user to enter the weight of a package
12 #and then display the shipping charges.
13
14 WeightofPkg = float(input("What's the weight of package?: "))
15 if WeightofPkg <= 2:
16     print("Your package will cost $", round(1.50 * WeightofPkg,))
17 elif WeightofPkg > 2 and WeightofPkg < 6:
18     print("Your package will cost $", round(3.00 * WeightofPkg,))
19 elif WeightofPkg > 6 and WeightofPkg <= 10:
20     print("Your package will cost $", round(4.00 * WeightofPkg,))
21 else:
22     print("Your package will cost $", round(4.75 * WeightofPkg,))
23
Ln: 16 Col: 0

Python 3.13.4 (tags/v3.13.4:8a526ec, Jun 3 2025, 17:46:04) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
= RESTART: C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-13 - HWK - Fast Freight Shipping.py
What's the weight of package?: 25
Your package will cost $ (118.75, 2)
>>>
= RESTART: C:/Users/wprado/Desktop/Python/Chapter 3/2025-06-13 - HWK - Fast Freight Shipping.py
What's the weight of package?: 115
Your package will cost $ (546.25,)
>>>
```