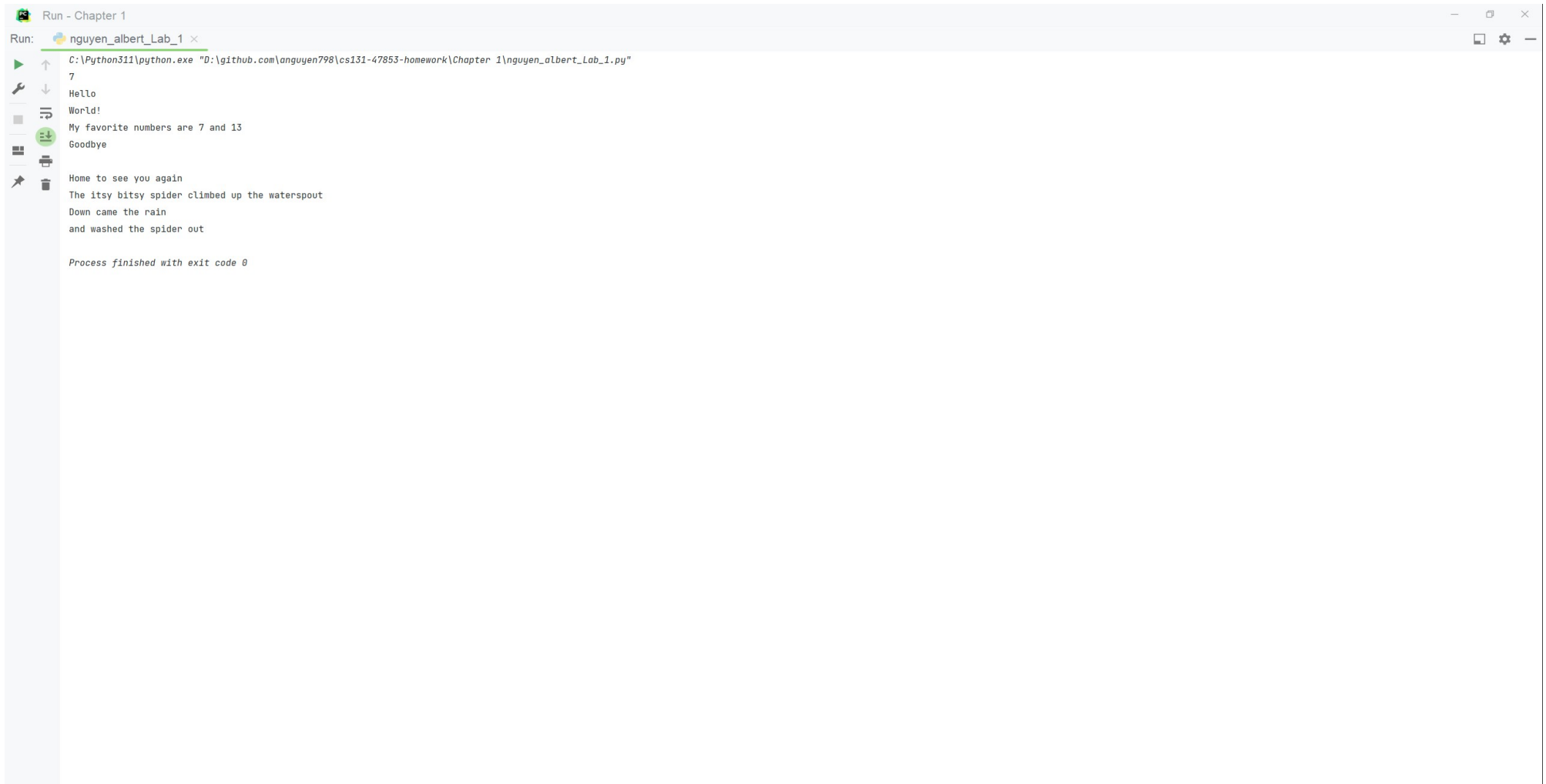


```
Chapter 1 > nguyen_albert_Lab_1.py

nguyen_albert_Lab_1.py x

1  # -----
2  # Lab 1a
3  """Implement the following program in your IDE."""
4  ##
5  # Sample program that demonstrates the print function
6  #
7
8  # Prints 7
9  print(3 + 4)
10
11 # Prints "Hello World!" in two lines.
12 print("Hello")
13 print("World!")
14
15 # Prints multiple values with a single print function call
16 print("My favorite numbers are", 3 + 4, "and", 3 + 10)
17
18 # Prints three lines of text with a blank line.
19 print("Goodbye")
20 print()
21 print("Home to see you again")
22 # -----
23 # Lab 1b
24 '''Implement the code then fix the errors (2 syntax, 1 logical) so that the program produces the following output:'''
25 print("The itsy bitsy spider climbed up the waterspout")
26 print("Down came the rain")
27 print("and washed the spider out")
28
29 # -----
```

A&B_Code _



The screenshot shows a terminal window titled "Run - Chapter 1" with a tab for "nguyen_albert_Lab_1". The command executed is "C:\Python311\python.exe "D:\github.com\anguyen798\cs131-47853-homework\Chapter 1\nguyen_albert_Lab_1.py"". The output consists of several lines of text: "7", "Hello", "World!", "My favorite numbers are 7 and 13", "Goodbye", "Home to see you again", "The itsy bitsy spider climbed up the waterspout", "Down came the rain", "and washed the spider out", and finally "Process finished with exit code 0".

```
Run - Chapter 1
Run: nguyen_albert_Lab_1
C:\Python311\python.exe "D:\github.com\anguyen798\cs131-47853-homework\Chapter 1\nguyen_albert_Lab_1.py"
7
Hello
World!
My favorite numbers are 7 and 13
Goodbye
Home to see you again
The itsy bitsy spider climbed up the waterspout
Down came the rain
and washed the spider out

Process finished with exit code 0
```

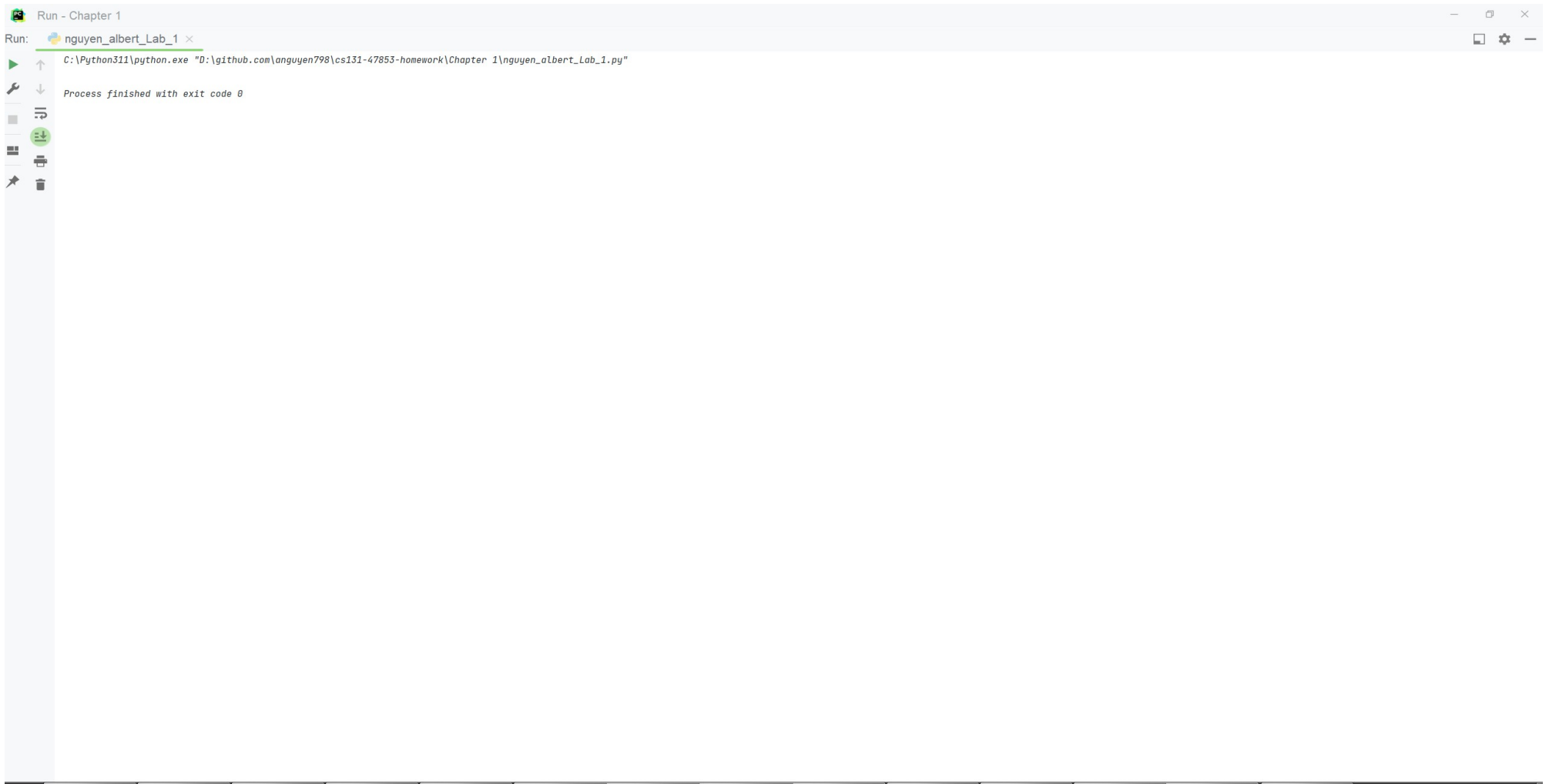
A&B_Console

```
Chapter 1 > nguyen_albert_Lab_1.py

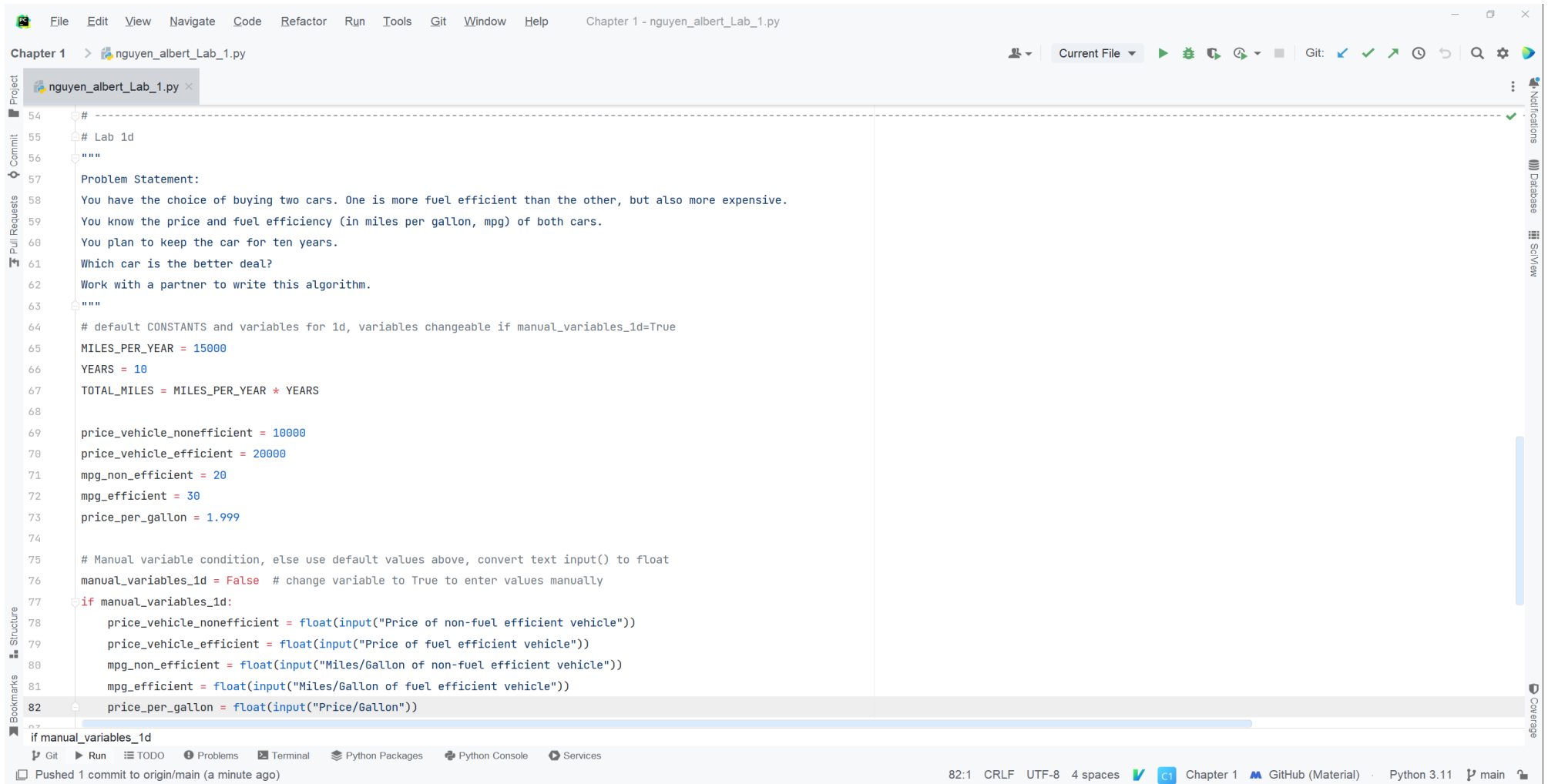
nguyen_albert_Lab_1.py x

29 # -----
30 # Lab 1c
31 """
32 Write an algorithm that finds and prints the largest number from among 15 non-negative numbers entered by the user.
33 Rearrange the following lines to produce the algorithm that accomplished this task.
34 """
35
36 """
37 Repeat 15 times:
38 If userNum > largestNum:
39 Prompt user for next number
40 largestNum = 0
41 largestNum = userNum
42 Print largestNum
43 userNum = Input number from user
44 """
45 # Rearranged:
46 """
47 largestNum = 0
48 userNum = Input number from user
49 If userNum > largestNum:
50 largestNum = userNum
51 Print largestNum
52 Prompt user for next number
53 """
54 # -----
55 # Lab 1d
56 """
57 Problem Statement:
58 """
```

C_Code



C_Console



The screenshot shows a code editor window with a menu bar (File, Edit, View, Navigate, Code, Refactor, Run, Tools, Git, Window, Help) and a toolbar with icons for running, debugging, and other actions. The editor displays a Python file named `nguyen_albert_Lab_1.py`. The code is a script for calculating the value of a car based on fuel efficiency and price. It includes a problem statement, default constants, and a function to calculate the value based on user input or default values.

```
54 # -----
55 # Lab 1d
56 """
57 Problem Statement:
58 You have the choice of buying two cars. One is more fuel efficient than the other, but also more expensive.
59 You know the price and fuel efficiency (in miles per gallon, mpg) of both cars.
60 You plan to keep the car for ten years.
61 Which car is the better deal?
62 Work with a partner to write this algorithm.
63 """
64 # default CONSTANTS and variables for 1d, variables changeable if manual_variables_1d=True
65 MILES_PER_YEAR = 15000
66 YEARS = 10
67 TOTAL_MILES = MILES_PER_YEAR * YEARS
68
69 price_vehicle_nonefficient = 10000
70 price_vehicle_efficient = 20000
71 mpg_non_efficient = 20
72 mpg_efficient = 30
73 price_per_gallon = 1.999
74
75 # Manual variable condition, else use default values above, convert text input() to float
76 manual_variables_1d = False # change variable to True to enter values manually
77 if manual_variables_1d:
78     price_vehicle_nonefficient = float(input("Price of non-fuel efficient vehicle"))
79     price_vehicle_efficient = float(input("Price of fuel efficient vehicle"))
80     mpg_non_efficient = float(input("Miles/Gallon of non-fuel efficient vehicle"))
81     mpg_efficient = float(input("Miles/Gallon of fuel efficient vehicle"))
82     price_per_gallon = float(input("Price/Gallon"))
83
84 if manual_variables_1d:
```

The status bar at the bottom shows the current line is 82:1, with CRLF line endings, UTF-8 encoding, and 4 spaces for indentation. It also indicates the file is Chapter 1, using the GitHub (Material) theme, with Python 3.11 installed. The main branch is selected.

D_Code_p.1

Structure
Bookmarks

```
83
84 # Assign and print price of vehicles
85 priceNotFuelEfficient = price_vehicle_nonefficient + (TOTAL_MILES / mpg_non_efficient) * price_per_gallon
86 priceFuelEfficient = price_vehicle_efficient + (TOTAL_MILES / mpg_efficient) * price_per_gallon
87 # priceNotFuelEfficient = priceFuelEfficient # Scenario where the prices for vehicles are equal
88 print("The price of a non fuel efficient vehicle is $", f'{priceNotFuelEfficient:,.2f}.')
89 print("The price of a fuel efficient vehicle is $", f'{priceFuelEfficient:,.2f}.')
90
91 # Print which vehicle is better deal
92 if priceNotFuelEfficient > priceFuelEfficient:
93     print("The fuel efficient vehicle is the better deal than the non fuel efficient vehicle.")
94 elif priceNotFuelEfficient < priceFuelEfficient:
95     print("The non fuel efficient vehicle is the better deal than the fuel efficient vehicle.")
96 else:
97     print("The fuel efficient vehicle and non fuel efficient vehicle value are equal at this mpg and purchase price")
98
```

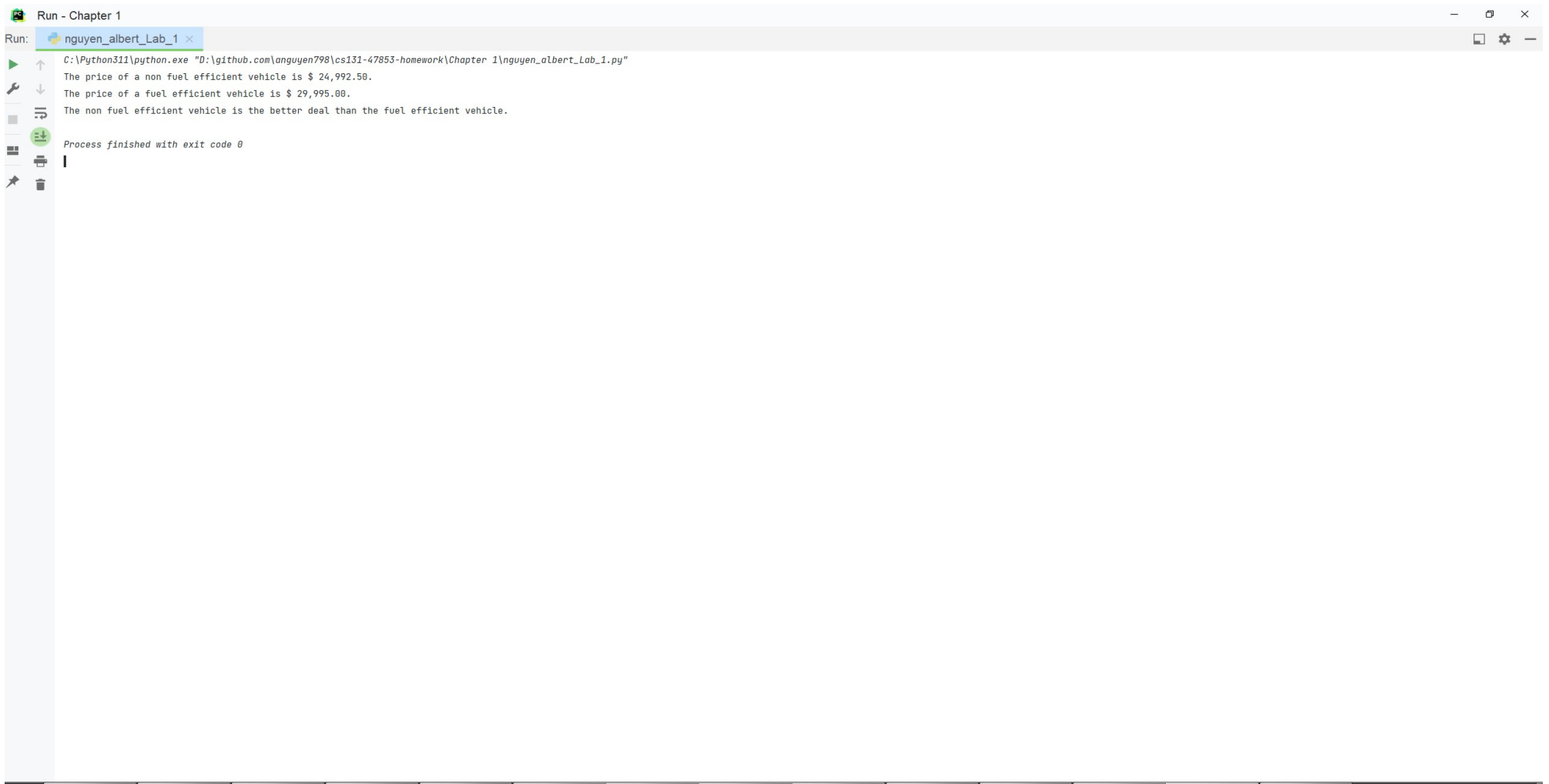
Git Run TODO Problems Terminal Python Packages Python Console Services

Pushed 1 commit to origin/main (2 minutes ago)

98:1 CRLF UTF-8 4 spaces Chapter 1 GitHub (Material) Python 3.11 main

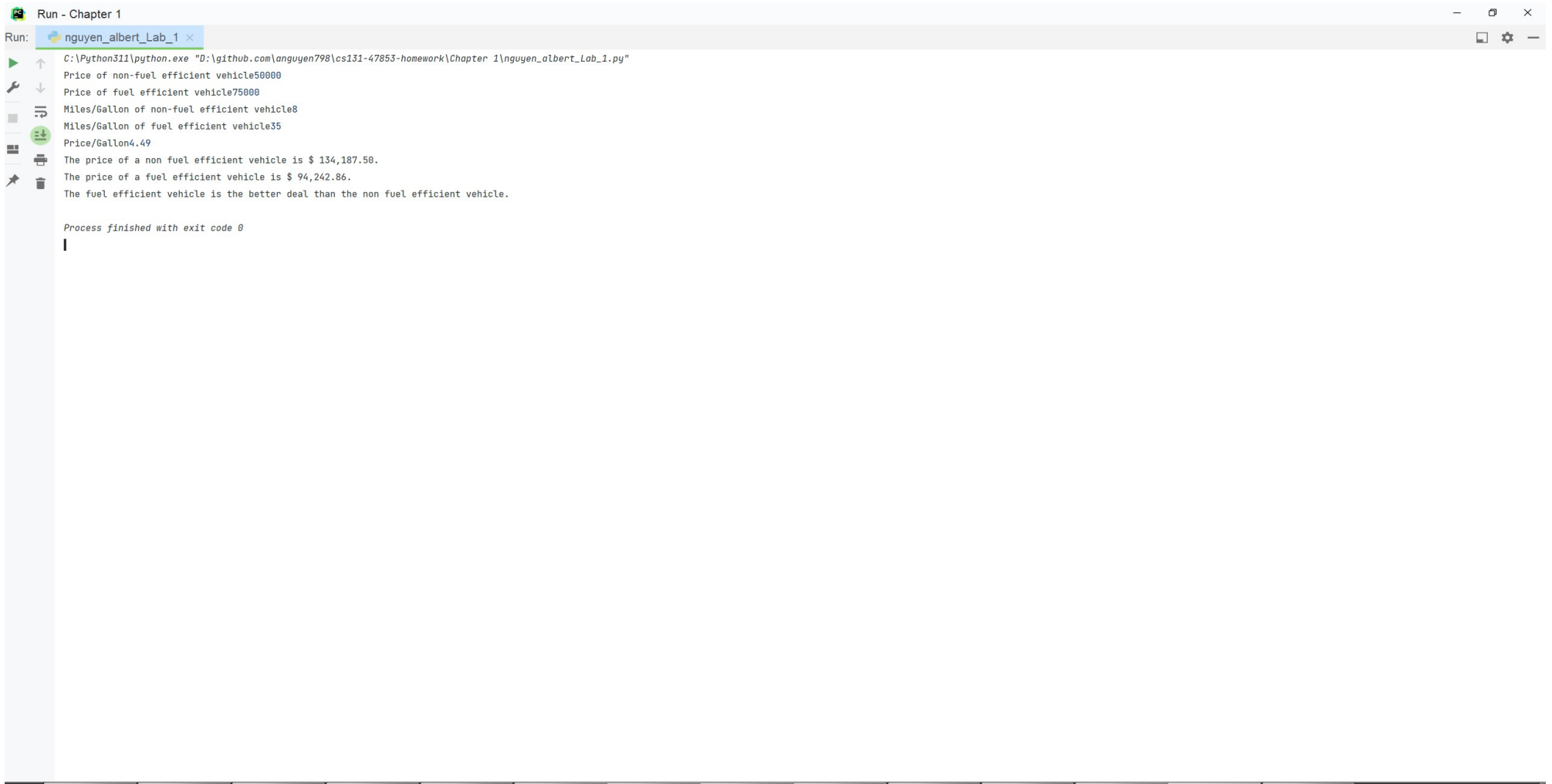
Coverage

D_Code_p.2



```
Run - Chapter 1
Run: nguyen_albert_Lab_1 x
C:\Python311\python.exe "D:\github.com\anguyen798\cs131-47853-homework\Chapter 1\nguyen_albert_Lab_1.py"
The price of a non fuel efficient vehicle is $ 24,992.50.
The price of a fuel efficient vehicle is $ 29,995.00.
The non fuel efficient vehicle is the better deal than the fuel efficient vehicle.
Process finished with exit code 0
```

D_Console1



```
Run - Chapter 1
Run: nguyen_albert_Lab_1 x
C:\Python311\python.exe "D:\github.com\anguyen798\cs131-47853-homework\Chapter 1\nguyen_albert_Lab_1.py"
Price of non-fuel efficient vehicle50000
Price of fuel efficient vehicle75000
Miles/Gallon of non-fuel efficient vehicle8
Miles/Gallon of fuel efficient vehicle35
Price/Gallon4.49
The price of a non fuel efficient vehicle is $ 134,187.50.
The price of a fuel efficient vehicle is $ 94,242.86.
The fuel efficient vehicle is the better deal than the non fuel efficient vehicle.

Process finished with exit code 0
|
```

D_Console2