

1. Program Description

This program is to practice input conversion, output formatting, and if statement

The program will ask the user to enter gas tank capacity, mileage, and gas price, then calculate the cost of gas per 100 miles, and maximum running distance with a full tank of gas.

2. Program Source

File name: car_efficiency

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Lab2.py - Lab2.py
from datetime import datetime
# Program Name: car_efficiency
# Program Description
# This program is to practice converting input value to a number, and print it in a certain format
# It will ask user to enter gas tank capacity, mileage, and gas price
# Then calculate the cost and maximum running distance with full tank of gas
#
# @Author: Ziwen Li
# @Date:10/10/21
#

name = "CNET-142: Ziwen Li"
labName = "Lab 2: Car Mileage"
time = datetime.now()
currentTime = time.strftime("%Y-%m-%d %H:%M:%S")

print(name, "-", labName)
print(currentTime)

capacity = float(input("Enter the capacity of the car's gas tank (in gallons) : "))
miles_per_gallon = int(input("Enter car's miles per gallon : "))
price = float(input("Enter price per gallon : "))
cost = 100 / miles_per_gallon * price
distance = capacity * miles_per_gallon

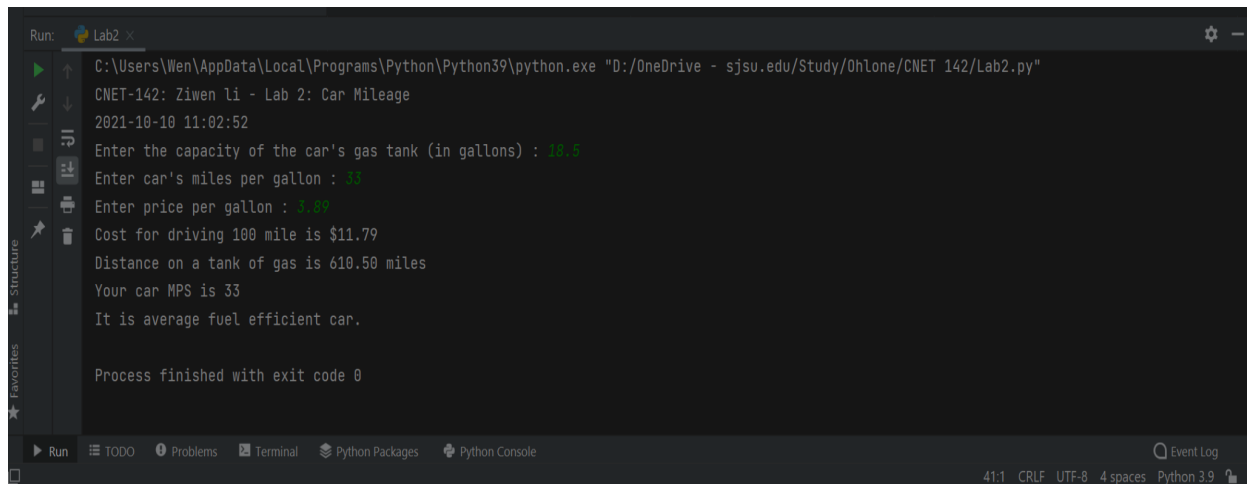
print('Cost for driving 100 mile is $', format(cost, '.2f'), sep='')

print('Distance on a tank of gas is', format(distance, '.2f'), 'miles')

print('Your car MPS is', miles_per_gallon)

if miles_per_gallon < 30:
    print("It is not fuel efficient car.")
elif 30 <= miles_per_gallon < 40:
    print("It is average fuel efficient car.")
elif 40 <= miles_per_gallon < 50:
    print("It is fuel efficient car")
else:
    print("It is very fuel efficient car")
```

3.Program Output



```
Run: Lab2 x
C:\Users\Wen\AppData\Local\Programs\Python\Python39\python.exe "D:/OneDrive - sjssu.edu/Study/Ohlone/CNET 142/Lab2.py"
CNET-142: Ziwen li - Lab 2: Car Mileage
2021-10-10 11:02:52
Enter the capacity of the car's gas tank (in gallons) : 18.5
Enter car's miles per gallon : 33
Enter price per gallon : 3.89
Cost for driving 100 mile is $11.79
Distance on a tank of gas is 610.50 miles
Your car MPS is 33
It is average fuel efficient car.

Process finished with exit code 0
```



```
Run: Lab2 x
C:\Users\Wen\AppData\Local\Programs\Python\Python39\python.exe "D:/OneDrive - sjssu.edu/Study/Ohlone/CNET 142/Lab2.py"
CNET-142: Ziwen li - Lab 2: Car Mileage
2021-10-10 11:03:29
Enter the capacity of the car's gas tank (in gallons) : 18.5
Enter car's miles per gallon : 45
Enter price per gallon : 3.89
Cost for driving 100 mile is $8.64
Distance on a tank of gas is 832.50 miles
Your car MPS is 45
It is fuel efficient car

Process finished with exit code 0
|
```



```
Run: Lab2 x
C:\Users\Wen\AppData\Local\Programs\Python\Python39\python.exe "D:/OneDrive - sjssu.edu/Study/Ohlone/CNET 142/Lab2.py"
CNET-142: Ziwen li - Lab 2: Car Mileage
2021-10-10 11:03:52
Enter the capacity of the car's gas tank (in gallons) : 18.5
Enter car's miles per gallon : 60
Enter price per gallon : 3.89
Cost for driving 100 mile is $6.48
Distance on a tank of gas is 1,110.00 miles
Your car MPS is 60
It is very fuel efficient car

Process finished with exit code 0
```