

FileEditSelectionViewGoRunTerminalHelp

EXPLORER

UNTITLED (WORKSPACE)

Advanced Computer Programmi...

imm

Week 2

Week 3

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Week 6

Lab

lab1.py

lab3.py

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lab6.py

lab7.py

lab8.py

lab9.py

tempCodeRunnerFile.py

AdvComPro_Week06.pdf

lab2.py

late.txt

main.py

text.txt

python_assignment_week0...

Triv

Python for Data Science, AI & De...

OUTLINE

TIMELINE

lab1.pylab3.pylab4.pylab5.pylab7.pylab8.pylab9.py

Advanced Computer Programming > Week 6 > Lab > lab3.py > Car > _init_ > make

1class Car:

2def __init__(self, make, model):

3self.make = make

4self.model = model

5

6def start_engine(self):

7try:

8if self.make == "Unknown":

9raise ValueError("Cannot start the engine of an unknown make.")

10print("Engine started.")

11except ValueError as e:

12print(f"Error: {e}")

13

14

15car1 = Car("Toyota", "Corolla")

16car1.start_engine()

17

18car2 = Car("Unknown", "ModelX")

19car2.start_engine()

20

PROBLEMS

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GIT LENS

COMMENTS

Code - Advanced Computer Programming

arkar@MSI MINGW64 /d/Desktop mashup/Robotics&AI Engineering/Year 2/First Semester/Advanced Computer Programming

\$ python -u "d:\Desktop mashup\Robotics&AI Engineering\Year 2\First Semester\Advanced Computer Programming\Week 6\Lab\lab3.py"

Engine started.

Error: Cannot start the engine of an unknown make.

arkar@MSI MINGW64 /d/Desktop mashup/Robotics&AI Engineering/Year 2/First Semester/Advanced Computer Programming

\$

2 selections

Spaces: 4

UTF-8

CRLF

Python

3.12.5 64-bit (Microsoft Store)

Go Live

Prettier

2:49 PM

8/9/2024

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Untitled (Workspace)

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OUTLINE

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lab1.pylab3.pylab4.pyXlab5.pylab7.pylab8.pylab9.py

Advanced Computer Programming > Week 6 > Lab > lab4.py > Car > _init_ > fuel_level

1class Car:

15

16 def check_fuel(self):

17 if self.fuel_level < 5:

18 raise ValueError("Fuel level is too low!")

19

20 def drive(self, distance):

21 self.fuel_level -= distance

22 self.check_fuel()

23 print(f"Drove {distance} miles. Fuel level: {self.fuel_level}")

24

25

26 my_car = Car("Toyota", "Corolla", 2022, 10)

27

28 try:

29 my_car.drive(3)

30 my_car.drive(4)

31 my_car.drive(3)

32 except ValueError as e:

33 print(e)

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Code - Advanced Computer Programming

arkar@MSI MINGW64 /d/Desktop mashup/Robotics&AI Engineering/Year 2/First Semester/Advanced Computer Programming

\$ python -u "d:\Desktop mashup\Robotics&AI Engineering\Year 2\First Semester\Advanced Computer Programming\Week 6\Lab\lab4.py"

Drove 3 miles. Fuel level: 7

Fuel level is too low!

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Ln 2, Col 53

Spaces: 4

UTF-8

CRLF

Python

3.12.5 64-bit (Microsoft Store)

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Prettier

main*

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Live Share

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Reconnect to Discord

2:49 PM

8/9/2024

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car.py

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Week05_LabAssignment_Htet...

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Advanced Computer Programming > Week 6 > Lab > write_color_file.py > ...

1

with open("color.txt", "w") as file:

2

file.write("red")

3

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Code - Advanced Computer Programming

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arkan@MSI MINGW64 /d/Desktop mashup/Robotics&AI Engineering/Year 2/First Semester/Advanced Computer Programming

\$ python -u "d:\Desktop mashup\Robotics&AI Engineering\Year 2\First Semester\Advanced Computer Programming\Week 6\Lab\write_color_file.py"

arkan@MSI MINGW64 /d/Desktop mashup/Robotics&AI Engineering/Year 2/First Semester/Advanced Computer Programming

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Ln 3, Col 1

Spaces: 4

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Python

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main*

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The image shows a Visual Studio Code editor window with a Python file named 'lab8.py' open. The file contains a 'Car' class with a 'read_color_from_file' method. The method uses a try-except block to handle file-related errors. The code is as follows:

```
class Car:
    def read_color_from_file(self, file_path):
        try:
            with open(file_path, "r") as file:
                content = file.read().strip()
            if not content:
                raise ValueError("The file is empty.")
            self.color = content
            print(f"Car color read from file: {self.color}")
        except FileNotFoundError:
            print(f"Error: The file at {file_path} was not found.")
        except ValueError as ve:
            print(ve)
        except Exception as e:
            print(f"An unexpected error occurred: {e}")

my_car = Car("Toyota", "Corolla", 2022, 10, 40)

print("Testing with the correct file path:")
mv car.read_color_from_file("color.txt")
```

The terminal output shows the execution of the script. It first tests with the correct file path 'color.txt' and prints 'Car color read from file: red'. Then it tests with an incorrect file path 'nonexistent_file.txt' and prints 'Error: The file at nonexistent_file.txt was not found.'. Finally, it tests with an empty file 'empty_color.txt' and prints 'The file is empty.'. The Explorer sidebar on the left shows the project structure, including folders for 'Week 2' through 'Week 6' and a 'Lab' folder containing various Python files. The bottom status bar shows the current file is 'main*' and the editor is using Python 3.12.5 64-bit (Microsoft Store). The system tray at the bottom right shows the time as 3:05 PM on 8/9/2024.

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Advanced Computer Programming > Week 6 > Lab > lab9.py > Car > check_fuel

10 class Car:

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print(f"An unexpected error occurred: {e}")

def diagnostics(self):

print(f"Car diagnostics:")

print(f"Make: {self.make}")

print(f"Model: {self.model}")

print(f"Year: {self.year}")

print(f"Fuel Level: {self.fuel_level}")

print(f"Speed: {self.speed}")

print(f"Color: {self.color}")

my_car = Car("Toyota", "Corolla", 2022, 10, 40)

my_car.read_color_from_file("color.txt")

print("Starting diagnostics...")

while True:

my_car.diagnostics()

time.sleep(1)

PROBLEMS

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Code

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Speed: 40

Color: red

Car diagnostics:

Make: Toyota

Model: Corolla

Year: 2022

Fuel Level: 10

Speed: 40

Color: red

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Spaces: 4

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Python

3.12.5 64-bit (Microsoft Store)

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OUTLINE

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lab3.pylab4.pylab5.pywrite_color_file.pycolor.txtlab7.pylab8.pylab9.py**lab10.py**

Advanced Computer Programming > Week 6 > Lab > lab10.py > Car

11class Car:

64def diagnostics(self):

68print(+Model: {self.model})

69print(f"Year: {self.year}")

70print(f"Fuel Level: {self.fuel_level}")

71print(f"Speed: {self.speed}")

72print(f"Color: {self.color}")

73time.sleep(1)

74

75

76my_car = Car("Toyota", "Corolla", 2022, 10, 60)

77

78my_car.read_color_from_file("color.txt")

79

80diagnostics_thread = threading.Thread(target=my_car.diagnostics)

81diagnostics_thread.start()

82

83driving_thread = threading.Thread(target=my_car.drive)

84driving_thread.start()

85

86diagnostics_thread.join()

87driving_thread.join()

88

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Code - Advanced Computer Programming

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Driving... Speed: 60 km/h

Fuel level is too low! Stopping the car.

Ln 32, Col 1

Spaces: 4

UTF-8

CRLF

Python

3.12.5 64-bit (Microsoft Store)

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Prettier

3:16 PM

8/9/2024