



Department of Computer Science and Engineering PES

University, Bangalore, India

Python for Computational Problem Solving (UE24CS151A)

Problem Statement: Level-2 (Orange)

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Date: 13th Dec, 2024

Dept. of CSE, PESU

Timing: 1:45 PM to 4:00 PM

Problem: Café Data Analysis

Perform agriculture data analysis and find

1. Load the data from the CSV using GUI
2. Search for a item
3. Display the item with the order details
4. Provide the rating for the restaurant in the scale 1-5

Dataset: Café Management System (cafe.csv)

Item	Price
Coffee	3
Tea	2.5
Sandwich	5
Cake	4
Chocolate	10
French Fries	20
Muffins	15
French Toast	25
Sprite	10
Coca Cola	10
Shawarma	30
Chicken Burger	25

Methodology:

Load the Dataset - Load the dataset from a file into a GUI.

Data Exploration - Explore the dataset and perform operations on the various fields through GUI.

Detailed Analysis - Make sure you know the significance of each column and a row in a given dataset and access it through GUI widgets.

Implementation:

Language: Python 3.10 or above.

- Use data structures such as lists, sets and dict to store and organize the data.
- Use callbacks, generators, decorators, closures
- Use/write appropriate functions - Specific to Data structures and also user-defined functions for each functionality.
- Make use of operators, loops and conditionals

- Using tkinter package and necessary modules

Expected output for all sub-problems:

Menu

Item	Price
Coffee	3
Tea	2.5
Sandwich	5
Cake	4

Select Item:

Quantity:

Order Summary

Tea: 1 x \$2.5 = \$2.50

Total Items: 1

Total Cost: \$2.50

Total: \$2.50

Menu

Item	Price
Coffee	3
Tea	2.5
Sandwich	5
Cake	4

Select Item:

Quantity:

Order Summary

Tea: 1 x \$2.5 = \$2.50

Coffee: 4 x \$3.0 = \$12.00

Total Items: 5

Total Cost: \$14.50

Total: \$14.50

Thank You

Thank you for your feedback!

Menu

Item	Price
Coffee	3
Tea	2.5
Sandwich	5
Cake	4

Select Item:

Quantity:

Order Summary

Tea: 1 x \$2.5 = \$2.50

Coffee: 4 x \$3.0 = \$12.00

Sandwich: 2 x \$5.0 = \$10.00

Total Items: 7

Total Cost: \$24.50

Total: \$24.50

Checkout

Thank you for your order!

Submission Mode:

Link is shared by Faculty member for set of students in each venue. Choose the correct section you belong to in the current semester.

-END-