Assessment 3 Information

Subject Code:	TEC102
Subject Name:	Fundamentals of Programming
Assessment Title:	Assignment
Assessment Type:	Individual
Word Count:	1000 Words (+/-10%)
Weighting:	40 %
Total Marks:	40
Submission:	Via MyKBS
Due Date:	Week 13

Your Task

This assessment is to be completed individually. In this assessment, using the skills and knowledge gained from TEC102 subject, you are to create a Python 3 program that can automate the restaurant's data analysis. Specifically, your program should be able to read data from a file and perform various operations to extract meaningful insights from the data.

Assessment Description

You are a junior software developer working for a local business that specialises in providing customised software solutions to its clients. The company has recently won a contract from a local restaurant to create an application that can automate their data analysis. The restaurant wants to understand their customers' preferences better, optimise their menus, and improve customer satisfaction.

You are required to use the Python 3 language to create a program that reads data from a file and performs the following tasks:

1. Display the data in a table (or table-like) format.
2. Calculate the average rating for each menu item.
3. Calculate the total sales for each day of the week.
4. Determine the most popular menu item based on customer ratings.

Please see the next page for an example to generate sample data. You will have to modify this code to add ratings, number of items sales per week, customer ratings for each item, and any other information you may require achieving the above tasks.

This assessment aims to achieve the following subject learning outcomes:

LO1	Interpret simple program specifications.
LO4	Use an integrated development environment to develop, debug and test a solution written in a programming language.
LO5	Use a programming language to read and write data to a persistent storage.

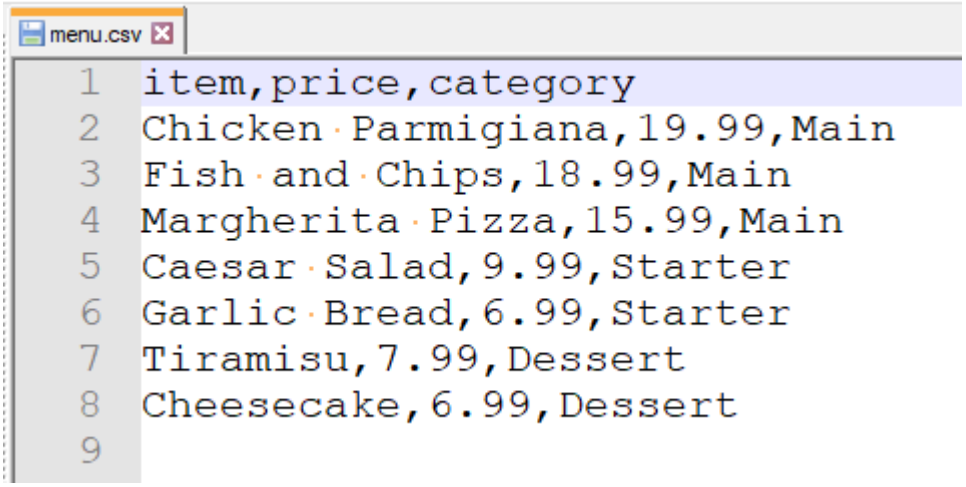
Example to generate sample data

Sample Python 3 code to create sample data for restaurant:

```
# Import the required module
import csv

# Define the field names
fields = ['item', 'price', 'category']

# Define the data rows
rows = [
    ['Chicken Parmigiana', 19.99, 'Main'],
    ['Fish and Chips', 18.99, 'Main'],
    ['Margherita Pizza', 15.99, 'Main'],
    ['Caesar Salad', 9.99, 'Starter'],
    ['Garlic Bread', 6.99, 'Starter'],
    ['Tiramisu', 7.99, 'Dessert'],
    ['Cheesecake', 6.99, 'Dessert'],
]

# Create a CSV file and write the data rows
with open('menu.csv', 'w', newline='') as csvfile:
    writer = csv.writer(csvfile)
    writer.writerow(fields)
    writer.writerows(rows)
```

This code creates a CSV file named **menu.csv** with sample data for a restaurant menu, including the item name, price, and category. You can modify the data or add more fields as needed.

If the code is executed properly, your **menu.csv** file should contain the following data:



Assessment Instructions

Assessment instructions for this assessment:

1. You are to use the Python programming language to create a program that meets the requirements listed above.
2. You must ensure that your program is well-structured, readable, and documented.
3. You must use functions and modules to organise your code.
4. You must use comments to explain your code and document your thought processes.
5. You are to submit your code in a single Python file.
6. Your submission must include a brief report that explains your code and thought processes.
7. Submit your Python 3 program code and brief report to the designated submission platform by the due date.
8. Please refer to the assessment marking guide to assist you in completing all the assessment criteria.

Important Study Information

Academic Integrity and Conduct Policy

https://www.kbs.edu.au/admissions/forms-and-policies

KBS values academic integrity. All students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Academic Integrity and Conduct Policy.

Please read the policy to learn the answers to these questions:

- What is academic integrity and misconduct?
- What are the penalties for academic misconduct?
- How can I appeal my grade?

Late submission of assignments (within the Assessment Policy)

https://www.kbs.edu.au/admissions/forms-and-policies

Number of days late	Penalty
1* - 9 days	5% per day for each calendar day late deducted from the total marks available.
10 - 14 days	50% deducted from the total marks available.
After 14 days	Assignments submitted more than 14 calendar days after the due date will not be accepted and the student will receive a mark of zero for the assignment(s) unless special consideration, reasonable adjustment or an alternative factor related to compassionate circumstances is approved and applied.

**Assignments submitted at any stage within the first 24 hours after the deadline will be considered to be one day late and therefore subject to the associated penalty.*

Length Limits for Assessments

Penalties may be applied for assessment submissions that exceed prescribed limits.

Study Assistance

Students may seek study assistance from their local Academic Learning Advisor or refer to the resources on the MyKBS Academic Success Centre page. Further details can be accessed at https://elearning.kbs.edu.au/course/view.php?id=1481

Generative AI Traffic Lights

Please see the level of Generative AI that this assessment is Level 2 has been designed to accept:

Traffic Light	Amount of Generative Artificial Intelligence (GenerativeAI) usage	Evidence Required	This assessment (✓)
Level 1	**Prohibited:** **No GenerativeAI allowed** This assessment showcases your individual knowledge, skills and/or personal experiences in the absence of Generative AI support.	The use of generative AI is **prohibited** for this assessment and may potentially result in penalties for academic misconduct, including but not limited to a mark of zero for the assessment.	
Level 2	**Optional:** **You may use GenerativeAI for research and content generation that is appropriately referenced.** ***See assessment instructions for details*** This assessment allows you to engage with Generative AI as a means of expanding your understanding, creativity, and idea generation in the research phase of your assessment and to produce content that enhances your assessment. I.e., images. **You do not have to use it.**	The use of GenAI is **optional** for this assessment. Your collaboration with GenerativeAI **must be clearly referenced** just as you would reference any other resource type used. **Click on the link below to learn how to reference GenerativeAI.** **https://library.kaplan.edu.au/referencing-other-sources/referencing-other-sources-generative-ai** In addition, you **must** include an appendix that documents your GenerativeAI collaboration including all prompts and responses used for the assessment. Unapproved use of generative AI as per assessment details during the content generation parts of your assessment may potentially result in penalties for academic misconduct, including but not limited to a mark of zero for the assessment. Ensure you follow the specific assessment instructions in the section above.	✓
Level 3	**Compulsory:** **You must use GenerativeAI to complete your assessment** ***See assessment instruction for details*** This assessment fully integrates Generative AI, allowing you to harness the technology's full potential in collaboration with your own expertise. Always check your assessment instructions carefully as there may still be limitations on what constitutes acceptable use, and these may be specific to each assessment.	You will be **taught how** to use generative AI and assessed on its use. Your collaboration with GenerativeAI **must be clearly referenced** just as you would reference any other resource type used. **Click on the link below to learn how to reference GenerativeAI.** **https://library.kaplan.edu.au/referencing-other-sources/referencing-other-sources-generative-ai** In addition, you **must** include an appendix that documents your GenerativeAI collaboration including all prompts and responses used for the assessment. Unapproved use of generative AI as per assessment details during the content generation parts of your assessment may potentially result in penalties for academic misconduct, including but not limited to a mark of zero for the assessment. Ensure you follow the specific assessment instructions in the section above.	

Assessment Marking Guide

Marking Criteria _____| 40 marks	F (Fail) 0 – 49%	P (Pass) 50 – 64%	C (Credit) 65 – 74%	D (Distinction) 75 – 84%	HD (High Distinction) 85 – 100%
Program Correctness **_____| 15 marks**	The program does not function correctly or meet any of the specified requirements.	The program meets some of the specified requirements but has errors or does not function as expected.	The program meets all of the specified requirements but may have minor errors.	The program meets all of the specified requirements and functions correctly.	The program exceeds the specified requirements and functions exceptionally well.
Program Structure and Readability **_____| 5 marks**	The program is poorly structured, difficult to read, and not well documented.	The program is reasonably well structured, readable, and documented.	The program is well structured, readable, and documented.	The program is very well structured, readable, and documented.	The program is extremely well structured, readable, and documented.
Use of Functions and Modules **_____| 5 marks**	Functions and modules are not used.	Functions and modules are used, but they do not improve the program structure or readability.	Functions and modules are used, and they improve the program structure and readability.	Functions and modules are used effectively, and they improve the program structure, readability, and maintainability.	Functions and modules are used exceptionally well, and they improve the program structure, readability, maintainability, and extensibility.
Use of Comments **_____| 5 marks**	Little to no comments are used.	Comments are used sparingly and do not provide useful information.	Comments are used to explain some parts of the code.	Comments are used effectively to explain the code and thought processes.	Comments are used exceptionally well to explain the code and thought processes.
Report Quality **_____| 10 marks**	The report is missing or of poor quality.	The report is present, but it is poorly written and lacks detail.	The report is well written and provides some detail about the code and thought processes.	The report is very well written and provides good detail about the code and thought processes.	The report is extremely well written and provides exceptional detail about the code and thought processes.
Feedback and grades will be released via MyKBS					