Venue _____

Student Number |__|__|__|__|__|__|__|__|

Family Name _____

First Name _____

Curtin University

School of Management

EXTENDED LEARNING PORTFOLIO

Semester 1 2022

ISYS2001 Introduction to Business Programming

This is an OPEN BOOK examination

For Examiner Use Only

Q	Mark
1	
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Total _____

Examination Duration 2-4 hours

Total Marks 100

Instructions to Students:

This take-home exam is an open book assessment. You can also use other textbooks or resources on the web in completing the exam. But remember, **this is an exam, so all work must be your own**. You may not communicate with anyone other than the instructor in regards to this exam. Please contact the instructor if you have any questions regarding any of the problems on the exam.

This take-home exam contains **FOUR** questions. Answer **ALL** questions. **DO NOT** discuss your answers to these questions with other students.

Create a **PRIVATE GITHUB REPOSITORY** containing your answers to the questions. When finished download the zip file of the GitHub repository and submit via the Blackboard link. The word document for Q4 must be submitted via the TurnitIn link via Blackboard.

Question 1

Design and implement an application that helps tourists visiting Australia by converting American dollars or Japanese Yen to Australian dollars. The program should allow the user to enter a currency and value and then display its value in AUD.

- The current rate of exchange for USD to AUD is: 1 USD = 1.38 AUD.
- The current rate of exchange for YEN to AUD is: 1 YEN = 0.010 AUD.

Your design should demonstrate the first four steps of the development methodology used in ISYS2001. You can write your design in a Word document, PDF or a notebook.

Implement your design as a Colab Notebook. Your implementation should follow best practices and demonstrate the methodology's last two steps.

Save the design and implementation in your GitHub repository.

[40 Marks]

Question 2.

Write a program the reads in elp_*sales.csv* and calculates the maximum, minimum and average profit for each country in the Australia and Oceania region. For each country in the Australia and Oceania region plot their total profit. *(Hint: read the CSV into a Pandas dataframe, create a new dataframe for the region, and use the new dataframe for the calculations and plot).* Save the program as a Colab Notebook in your GitHub repository.

[30 Marks]

Question 3.

The notebook *elp_number_guess.ipynb* is a game that selects a mystery number, and the player enters their initial guess. Players receive feedback on whether their guess is greater than or less than the mystery number. If the player cannot guess the secret number within ten tries, print out a message that they are out of guesses and display the number.

The notebook is not working. It contains errors and does not follow industry best practices. Look at the output cell for an example of the correct output for a player winning the game. Fix the mistakes and apply industry best practices. Save the program as a Colab Notebook in your GitHub repository.

[20 Marks]

Question 4.

Write a report reflecting on the lectures, workshops, and assessments for this unit, and discuss whether we achieved the unit's learning outcomes. As an appendix to the report, please include a copy of the body of all your weekly journals in a Word document. Submit the word document via the Turnitin link on Blackboard.

[10 Marks]

END OF EXTENDED LEARNING PORTFOLIO