**Currency Converter Coursework Report**

1. Introduction

a. What is your application?

The currency converter application is a simple tool designed to convert currencies based on real-time exchange rates. It allows users to convert an amount from one currency to another, save the conversion results to a CSV file, and load data from a CSV file.

b. How to run the program?

To run the program, you need to have Python installed on your system along with the required libraries. You can run the program by executing the currency\_converter.py file using the Python interpreter.

c. How to use the program?

Upon launching the program, you'll see a GUI with dropdown menus to select the source and target currencies, an entry field to input the amount, and buttons to convert, save, and load conversions.

Choose the source and target currencies from the dropdown menus.

Enter the amount you want to convert into the entry field.

Click the "Convert" button to get the converted amount displayed.

Optionally, you can save the conversion result to a CSV file by clicking the "Save" button or load data from a CSV file using the "Load" button.

2. Body/Analysis

a. Explain how the program covers functional requirements

The program covers the following functional requirements:

Conversion: Users can convert currencies by selecting the source and target currencies, entering an amount, and clicking the "Convert" button. The program fetches real-time exchange rates using the forex\_python library and performs the conversion.

Save to CSV: Users can save conversion results to a CSV file by clicking the "Save" button. The program writes the conversion details to the file.

Load from CSV: Users can load conversion data from a CSV file by clicking the "Load" button. The program reads the data from the file and populates the GUI accordingly.

3. Results and Summary

Results

Successfully implemented currency conversion functionality.

Challenges faced during implementation:

Handling exceptions for invalid input and errors in fetching exchange rates.

Ensuring proper CSV file handling for saving and loading data.

Conclusions

This coursework has achieved the goal of developing a functional currency converter application. The program allows users to convert currencies easily, save conversion results for future reference, and load data from external files. Future prospects of the program include:

Adding more features such as historical exchange rate lookup.

Improving the user interface for better usability.

Enhancing error handling and validation for input data.

4. Optional: Resources, references list

Tkinter Documentation

forex-python Documentation

Python CSV Documentation