**CT4021 Introduction to Programming Fundamentals**

**Assignment 001**

Technical Report

for the Expense Management Program

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**Course**: Computer and Cyber Security

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# Introduction

# Design

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ref.** | **Scope** | **Expected Results** | **Actual Results** | **Fixes** |
| 001 | Program start | Main menu brought up | As expected | N/A |
| 002 | Insert sum function into various dB columns | Sum of all incomes added to total column  Code: respond to incorrect input | Numpy float could not be concatenated as integer | Dataframe value had to be converted to string first |
| 003 | Update expenses   1. Correct credentials entered | Expense values can be edited and saved, calculations performed for over/under budget  Code: match valid credentials, redirect to target URL | Values undefined | Sql execute query had to be above calculation logic |

# Testing

# Appendix 2 - User Manual

# References

Check exists

<https://stackoverflow.com/questions/43246384/pythonsqlite3-if-statement-to-see-if-value-is-in-database>

SQLite db

<https://www.sqlitetutorial.net/sqlite-python/creating-database/>

<https://www.sqlitetutorial.net/sqlite-python/?fbclid=IwAR1D-QLVuo6-sUxtf8IaqLqEtTvOKNKsvfdq739s6dWdxcLm5OFvRWuUlp8>

Dictionary

<https://www.w3schools.com/python/python_dictionaries.asp>

Pandas print table

<https://stackoverflow.com/questions/37051516/printing-a-properly-formatted-sqlite-table-in-python>

XlsxWriter

<https://xlsxwriter.readthedocs.io/example_pandas_multiple.html>

<https://stackoverflow.com/questions/32957441/putting-many-python-pandas-dataframes-to-one-excel-worksheet>