

Gary's Pawn and Gun DOS System Replacement

This document is intended for detailing of the system design and implementation of software requested by Gary's Pawn and Gun to replace a previously used system for calculating end of day reports.

Development Team

Adeline Buxton

Connor Moody

Josh Moore

John Thomas

Overview


Summary

A system designed to function as previously established software, the replacement retrieves previously calculated information on the final cash on hand stored, then outputs a calculation based on inputted information based off things like sales made, layaways, and other information involved. The System is intended to somewhat imitate the display of the program being replaced as to not confuse previous users having to adjust to the new program. Effort was made to separate the information that the user needs to input from the information be output to help the user read information from the file.

Functionality of System

The DOS System replacement is intended to replace the client’s legacy system -a decades-old system developed in the DOS framework running on ill-maintained hardware. The system functions by having the user inputting several values and outputting several values for the user to reference: **Total Registers sales, Layaway Tax, Total Tax Collected, beginning and ending Cash on Hand (CoH), and Over or Short values.** These values are then saved onto a note file for future reference by the client within the folder the system runs from. Each time the program is opened, it references the most previously created file made this way and uses its **Ending CoH** as the new file’s **Beginning CoH**.

Old system versus the new system



Input		Output	
Sales	0.00	Beginning COH	0.00
Layaways	0.00	Total Register Sales	0.00
Pawn Fees	0.00	Layaway Tax	0.00
Pawn Redeem	0.00	Total Tax Collected	0.00
Wholesale / Gift Card	0.00	Ending COH	0.00
Register Tax	0.00	Over or Short	0.00
Layaways Including Tax	0.00		
Total COH	0.00		
Purchase	0.00		
New Pawns	0.00		
Bank Deposits	0.00		
Cash PD Out Supplies	0.00		
Freight & Postage	0.00		
Yard & Pest Control	0.00		
Gift Card Redeemed	0.00		
Misc	0.00		

Save & Exit

Timeline of Development

Development of the system took place over two segments of the year 2022 during the spring and fall semesters of classes at Mississippi State University.

Spring Semester

January

- Established team and become acquainted with each other
- Organized meeting times and began meetings with client

February

- Observed original system
- established requirements of the project
- tested functionality of original system
- planned possible approaches for creating copies of original source code for reverse engineering

March

- attempted at pulling source code off the DOS system, proved futile
- began research on software for developing a replacement to the original system
- planned deadlines for system deadline and implementation for following semester

April

- finalized plan for system development
- established initial language and libraries to be used for system development
- organized schedules for future meetings to continue construction of system

Fall Semester

August

- Development of system began
- Updated schedules and segmented out sprints for system development
- assigned tasks for development of system

September

- development of system's functions and backend began
- development of system's Graphic User Interface (GUI) began
- finished development of the system's backend software

October

- encountered roadblocks with previously established GUI software
- altered original library usage for GUI development
- bypassed roadblocks with GUI, back on track for finalizing development at the beginning of next month

November

- Finalized system development
- began live testing and implementation
- finish installation and final testing at Gary's Pawn and Gun

December

- final troubleshooting

System Information

Source Code	https://github.com/mcm1053/garyspython
System Dependencies	PySimpleGUI, Pandas, tk, Pyinstaller
System Intended for use on:	Windows 10 and future versions

Installation

To Install the system, follow these instructions:

1. Go to the link noted in "Source Code" under System Information further in this document.
2. Click the 'Code' button once github has opened, and select 'Download Zip'
3. Once downloaded, unzip the file.
4. Open the folder, 'garyspython-main', and open the 'dist' folder.
5. Run the application file named 'main' to begin the program.

(*Note:* the Beginning COH will be empty for your first file. put any necessary values in the program and save and exit, then a new text file with the current date will appear. Open this file, and you may edit the ending cash on hand to what is required for your next file.)

Known Errors

Error Message: Unhandled Exception in Script

Error Description:

Failed to execute script 'main' due to unhandled exception: name 'bcoh' is not defined.'

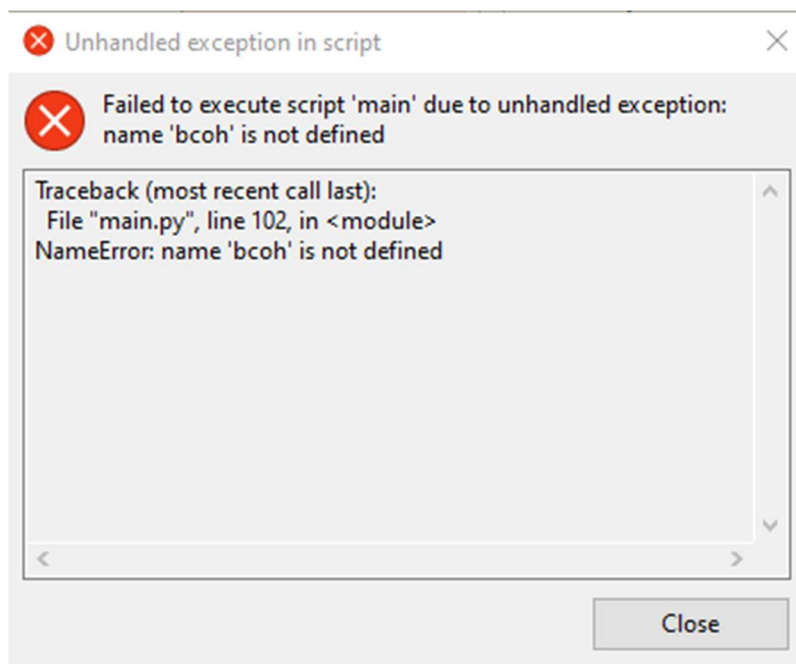
Error Cause:

saving and exiting without creating any changes in the program. This occurs do to an input (such as the tab key being pressed) being required for the beginning cash on hand from the previous day to load into the current running of the program.

Error Solution:

Before saving and exiting, press tab to cycle in the new information for beginning cash on hand.

Error Display:



Error Message: ERROR Key Error

Error Description:

File "PySimpleGUI\PySimpleGUI.py" line 20908 in _error_popup_with_traceback

Problem finding your key Status

Error Cause:

inputting a key input outside of a number, notifying the user that the value could not be used in the math of the program.

Error Solution:

Press close, then delete the inputted key.

Error Display:

