

Project Report

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Project : HW4 - Customers

Problem Statement

The goal of the programming assignment is to create a GUI n-tiered design that handles customers and addresses. The inputs are the button presses in the GUI application and all text boxes in the GUI application. The outputs are whether the user enter something wrong in the text boxes and displaying a customer with their address. I must make sure all the information in the text boxes is correct.

Design

I feel my code is easy to understand. I use csv so I can get data from a csv and put data in a csv file. I use os.path to make sure my csv files exist. I use sqlite3 to connect and use a sqlite database. I use abc because some of my classes are abstract and some of my methods are abstract. I use contextlib to close my database. As I look over my code, I realize some of my methods could have been static. SO next time I will try my best to determine if a method deserves to be static. Overall, I feel I approached the problem correctly.

Testing

Case 1 will test for an update, delete, add, first, last, previous customer, and next customer button. All button presses should fail and give a prompt to the user. There are no normal inputs, all are special inputs.

Case 2 will test for import and export button presses. All button presses should be successful. There are no special inputs, only two normal inputs.

Case 3 will update customer information. Use the first customer button and the next button to get to customer id 2. On customer id 2, New first name is Oswaldo and new last name is FLOREs. Press update to update the customer.

Test Case 1 – Showing the six others failing will be redundant.

The screenshot shows the 'Customer Form' application window. It contains several input fields: Customer ID, First Name, Last Name, Address ID, Street, City, State, ZIP, and Phone Number. Below these fields are buttons for 'Update', 'First Customer', 'Last Customer', 'Add', 'Delete', 'Previous', 'Next', 'Import', and 'Export'. An 'Error' dialog box is open in the foreground, displaying a red 'X' icon and the message 'No customer found'. The 'OK' button in the error dialog is highlighted with a blue border.

Test Case 2 – Import is pressed first then export.

The screenshot shows a dialog box titled 'Added' with a blue information icon. The message inside reads 'Customer and Address was Added'. The 'OK' button is highlighted with a blue border.

<- Import is pressed.

The screenshot shows the 'Customer Form' application window. The 'Import' button is highlighted with a blue border. To the right of the application window, a file explorer window is open, showing the contents of the 'export.csv' file. The file contains the following data:

Customer ID	First Name	Last Name	Address ID	Street	City	State	ZIP	Phone Number
222	MARRY	HOMES	222	NORTH PARK	SPRING	NE	23141	5432167890
222	LARRY	HOMES	222	NORTH PARK	SPRING	NE	23141	8765904321
231	SUSAN	BERRY	231	SPRING VALLEY	LOSS	KT	32465	5647890222

Test Case 3 –

Customer ID	<input type="text" value="2"/>
First Name	<input type="text" value="Oswaldo"/>
Last Name	<input type="text" value="FLORES"/>

Customer Form

Customer ID

First Name

Last Name

Address ID

Street

City

State

ZIP

Phone Number

First Customer

Last Customer

Add

Delete

Previous

Next

Import

Export

Update

i

Update Successfully

OK

Conclusion

The overall result of the assignment is to determine when to use a csv database or a sqlite database. The programming project is a success. Overall, I would try to use more static methods when needed. As I look back at my database module, I realize I could have combined some of my methods. For example, `get_customer` and `get_address(es)` could have been in the same method. I was overthinking too much in this assignment.