

IT PAT

Phase 4: Testing Documentation

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4.2.1 Evaluation

Improvements

Areas of work that have met the minimum requirements but can be improved upon for better functionality. Improvingly already sufficient work.

Validation

The current validation measures are adequate and provide necessary error messages when required. However, I intend to enhance validation for specific fields to ensure logical consistency in the database. Additionally, a presence check, which was not implemented in previous versions of the PAT, will be incorporated. Additionally, the range check should be adjusted for improved functionality.

Consistency

To maintain uniformity, all repetitive messages, particularly validation error messages, should follow a consistent format. For example, all error messages should start with "Invalid Data Entry" followed by the specific reason. Currently, there are inconsistencies that need to be addressed.

Code Formatting

Certain methods contain disorganized and scattered code, making it difficult to understand upon review. Improved formatting will enhance clarity and comprehension.

Comments

Presently, comments are minimal, especially in more complex methods. These methods should be thoroughly documented with comments to facilitate easier review for both myself and the evaluator.

Implementation of a User Table Screen and related functions in the application
The Users Table is currently predefined by the organization and cannot be changed in any way through the application itself. Although it is not required currently, it may be wise to implement this in the future to improve data control and add functionality.

4.2.2 Functional Testing

Test 1: 2024/02/05 - 20:57 - Whyet Badri

SplashScreen Functions

Play loading GIF	No	Yes
Loading bar progresses until completion		\boxtimes
Percentage in label increases with loading bar until completion		\boxtimes
 Automatically navigates to LoginFrame upon completion 		\boxtimes

LoginFrame functions:

Enter username	No	Yes
Enter password		\boxtimes
 Show and hide password 		\boxtimes
Verify username and password		\boxtimes
 Display error messages if incorrect details methods 		\boxtimes
 Navigate to WelcomeFrame to welcome user if correct 		\boxtimes
Navigate to HelpFrame		\boxtimes
View relevant help text file		\boxtimes
Print relevant help text file		\boxtimes
 Play help video 		\boxtimes
Navigate to Logout Frame		\boxtimes

$\underline{\mathsf{WelcomeFrame}}$

Display welcome message	No	Yes
Display the user's name and surname		\boxtimes
• Close		\boxtimes
 Navigate to MainMenuFrame 		\boxtimes

MainMenuFrame functions:

Navigate to EventsTable	No	Yes
Navigate to PatronsTable		\boxtimes
Navigate to VisitsTable		\boxtimes
Navigate to Reports Frame		\boxtimes
Navigate to Help Screen		\boxtimes
 View the relevant text file 		\boxtimes
 Print the relevant text file 		\boxtimes
 Play help video 		\boxtimes
Navigate back to LoginFrame		\boxtimes

EventTable functions:

View records	No	Yes
Navigate through table records using first, previous, next, last buttons		\boxtimes
Search records using radio buttons and search text field		\boxtimes
Add Events		\boxtimes
 Auto set next primary key (EventID) 	\boxtimes	
Edit Events		\bowtie
Delete Events		\boxtimes
Navigate to Help Screen		\bowtie
View relevant text file		\boxtimes
 Print relevant text file 		\boxtimes
 Play help video 		\boxtimes
Navigate back to Main Menu		\boxtimes

<u>PatronsTable functions:</u>

View records	No	Yes
Navigate through table records using first, previous, next, last buttons		\boxtimes
Search records using radio buttons and search text field		\boxtimes
Add Patrons		\boxtimes
Auto set next primary key (PatronID)		\boxtimes
Edit Patrons	\boxtimes	
Delete Patrons		\boxtimes
Navigate to Help Screen		\boxtimes
View relevant text file		\boxtimes
Print relevant text file		\bowtie
 Play help video 		\boxtimes
Navigate back to Main Menu		\boxtimes

VisitsTable functions:

View records	No	Yes
Navigate through table records using first, previous, next, last buttons		\boxtimes
Search records using radio buttons and search text field		\boxtimes
Add Visits		\boxtimes
 Auto set next primary key (VisitNo) 		\boxtimes
Edit Visits		\boxtimes
Delete Visits		\boxtimes
Navigate to Help Screen		\boxtimes
View relevant text file		\boxtimes
Print relevant text file		\boxtimes

 Play help video 	\boxtimes
Navigate back to Main Menu	\boxtimes

ReportsFrame functions:

reports rame	teports/rume rumetions.				
	pender : Returns the patron that has spend the most overall	No	Yes		
across all	time at the casino.	110	103		
o Dis	play on text area		\boxtimes		
Most Visition across all	ts: The patron that had made the most visits to the casino time.		\boxtimes		
o Dis	play on text area		\boxtimes		
Patron ca	rd types: Lists the number of patrons per each card type.		\boxtimes		
o Dis	play on text area		\boxtimes		
o Dis	play pie chart		\boxtimes		
Gender: L	ists the number of male and female patrons		\boxtimes		
o Dis	play on text area		\boxtimes		
o Dis	play pie chart		\boxtimes		
	cations: Returns the number of events at each location. Also event and its location.		\boxtimes		
o Dis	play on text area		\boxtimes		
o Dis	play pie chart		\boxtimes		
High-Cap	acity Events: returns the number of events that more than				
•	ons capacity and those that have less than 1000 patrons	\boxtimes			
capacity. <i>I</i> event.	Also lists each event as a high capacity or low-capacity				
o Dis	play on text area	\boxtimes			
o Dis	play pie chart	\boxtimes			
Clear text	area of all text		\boxtimes		
Navigate t	o HelpFrame		\boxtimes		
o Vie	w relevant text file		\boxtimes		
o Prir	nt relevant text file		\boxtimes		
o Pla	y help video		\boxtimes		
Navigate k	pack to MainMenuFrame		\boxtimes		
<u> </u>			<u> </u>		

<u>LogoutFrame:</u>

•	Display logout confirmation message	No	Yes	1
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•	Exit application	\boxtimes
•	Navigate back to LoginFrame	\boxtimes

HelpFrame:

Display relevant help text file depending on the frame the called the HelpFrame	No	Yes
 Display in the text area 		\boxtimes
Print relevant help text file		\boxtimes
Play the relevant help video		\boxtimes

Comment from checker – Whyet Badri

Program functions as intended, the only features not fully done are the auto-setting of the primary key and edit fucntion in the PatronsTable. Additionally, the SQL for High Capacity Events wasn't completed.

Result

Program functions as intended, minor quality of life fixed and minor sql needs to be added

Test 2: 2024/07/11 - 01:57 - Sahil Mungroo

SplashScreen Functions

Play loading GIF	No	Yes
Loading bar progresses until completion		\boxtimes
Percentage in label increases with loading bar until completion		\boxtimes
 Automatically navigates to LoginFrame upon completion 		\boxtimes

LoginFrame functions:

Enter username	No	Yes
Enter password		\boxtimes
○ Show and hide password		\boxtimes
Verify username and password		\boxtimes
 Display error messages if incorrect details methods 		\boxtimes
 Navigate to WelcomeFrame to welcome user if correct 		\boxtimes
Navigate to HelpFrame		\boxtimes
View relevant help text file		\boxtimes
Print relevant help text file		\boxtimes
 Play help video 		\boxtimes
Navigate to Logout Frame		\boxtimes

WelcomeFrame

Display welcome message	No	Yes
Display the user's name and surname		\boxtimes
• Close		\boxtimes
 Navigate to MainMenuFrame 		\boxtimes

MainMenuFrame functions:

Navigate to EventsTable	No	Yes
Navigate to PatronsTable		\boxtimes
Navigate to VisitsTable		\boxtimes
Navigate to Reports Frame		\boxtimes
Navigate to Help Screen		\boxtimes
 View the relevant text file 		\boxtimes
Print the relevant text file		\boxtimes
 Play help video 		\boxtimes
Navigate back to LoginFrame		\boxtimes

EventTable functions:

View records	No	Yes
Navigate through table records using first, previous, next, last buttons		\boxtimes
Search records using radio buttons and search text field		\boxtimes
Add Events		\boxtimes
 Auto set next primary key (EventID) 		\bowtie
Edit Events		\boxtimes
Delete Events		\boxtimes
Navigate to Help Screen		\boxtimes
View relevant text file		\boxtimes
 Print relevant text file 		\bowtie
 Play help video 		\boxtimes
Navigate back to Main Menu		\boxtimes

<u>PatronsTable functions:</u>

View records	No	Yes
Navigate through table records using first, previous, next, last buttons		\boxtimes
Search records using radio buttons and search text field		\boxtimes
Add Patrons		\boxtimes
Auto set next primary key (PatronID)		\boxtimes
Edit Patrons		\boxtimes
Delete Patrons		\boxtimes
Navigate to Help Screen		\boxtimes
View relevant text file		\boxtimes
Print relevant text file		\bowtie
 Play help video 		\boxtimes
Navigate back to Main Menu		\boxtimes

VisitsTable functions:

•	View records	No	Yes
•	Navigate through table records using first, previous, next, last buttons		\boxtimes
•	Search records using radio buttons and search text field		\boxtimes
•	Add Visits		\boxtimes
	 Auto set next primary key (VisitNo) 		\boxtimes
•	Edit Visits		\boxtimes
•	Delete Visits		\boxtimes
•	Navigate to Help Screen		\boxtimes
	View relevant text file		\boxtimes
	 Print relevant text file 		\boxtimes

 Play help video 	\boxtimes
Navigate back to Main Menu	\boxtimes

ReportsFrame functions:

<u> </u>	portsi rame ranetions.		
•	Highest Spender : Returns the patron that has spend the most overall	No	Yes
	across all time at the casino.	110	
	Display on text area		\boxtimes
•	Most Visits : The patron that had made the most visits to the casino across all time.		\boxtimes
	o Display on text area		\boxtimes
•	Patron card types: Lists the number of patrons per each card type.		\boxtimes
	o Display on text area		\boxtimes
	o Display pie chart		\boxtimes
•	Gender: Lists the number of male and female patrons		\boxtimes
	o Display on text area		\boxtimes
	o Display pie chart		\boxtimes
•	Event Locations : Returns the number of events at each location. Also		\boxtimes
	lists each event and its location.		
	Display on text area		
	Display pie chart		\boxtimes
•	High-Capacity Events : returns the number of events that more than		
	1000 patrons capacity and those that have less than 1000 patrons		
	capacity. Also lists each event as a high capacity or low-capacity		
	event.		
	o Display on text area		\boxtimes
	o Display pie chart		\boxtimes
•	Clear text area of all text		\boxtimes
•	Navigate to HelpFrame		\boxtimes
	View relevant text file		\boxtimes
	Print relevant text file		\boxtimes
	 Play help video 		\boxtimes
•	Navigate back to MainMenuFrame		\boxtimes
		l	1

<u>LogoutFrame:</u>

Ī	Display logout confirmation message	No	Yes
	1 7 0		

•	Exit application	\boxtimes
•	Navigate back to LoginFrame	\boxtimes

HelpFrame:

Display relevant help text file depending on the frame the called the HelpFrame	No	Yes
 Display in the text area 		\boxtimes
Print relevant help text file		\boxtimes
Play the relevant help video		\boxtimes

Comment from checker – Sahil Mungroo

Program functions as intended, I was not able to find any errors.

Result

Program functions as intended, no errors

4.2.3 Test Plan and Results for TWO input variables

<u>VisitsTable variable – AmountSpent</u>

Testing the AmountSpent variable which is entered when logging a visit. It indicates how much a patron has spent during the visit.

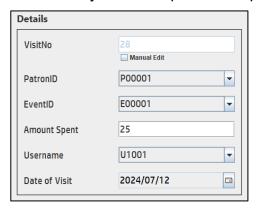
Expected input format: positive double value, max 1 000 000 and minimum 00.01

Expected input example: 250.00

Standard Data Test Cases: Accepted as valid

Input: 25

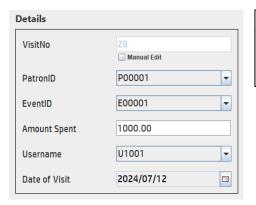
Results: System accepts 25 and proceeds without error.





Input: 1000.00

Results: System accepts 1000.00 and proceeds without error.

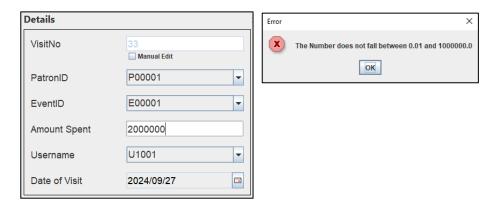




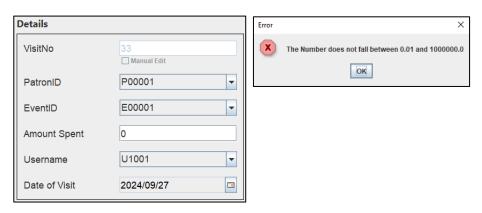
Extreme Data Test Cases: Accepted as valid

Input: 2000000

Results: System displays an error message indicating that the AmountSpent must be between 00.01 and 1000000



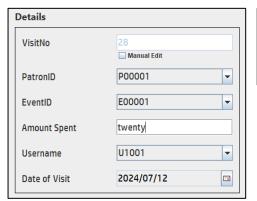
Input: 0 **Results:** System displays an error message indicating that the AmountSpent must be between 00.01 and 1000000



Abnormal Data Test Cases: Rejected with error message

Input: "twenty"

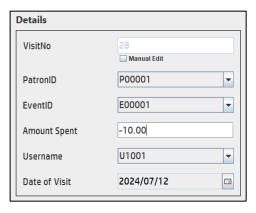
Results: System displays an error message indicating that the AmountSpent must be a positive double value





Input: -10.00

Results: System displays an error message indicating the AmountSpent must be a positive double value





Summary

Entry must be a positive double value

All validation functions as expected. Only correct data is validated. Appropriate error messages are displayed where necessary.

PatronsTable variable - PatronID

Testing the PatronID variable which is entered when adding a new patron to the database. It is the primary key of the PatronsTable and needs to be entered in a specific format.

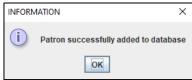
Expected input format: The character "P" followed by 5 number

Expected input example: P00001

Standard Data Test Cases: Accepted as valid Input: P00002 (Previous value is P00001)

Results: System accepts 25.00 and proceeds without error.

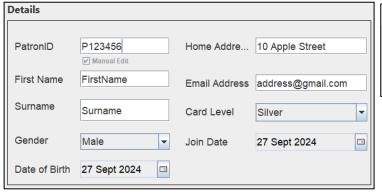




Extreme Data Test Cases: Accepted as valid

Input: P123456 - 7 characters in length

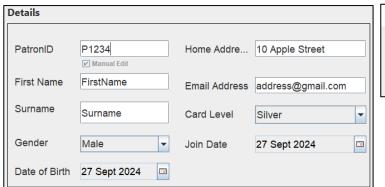
Results: System displays an error saying that PatronID should be 6 characters in length





Input: P1234 - 5 characters in length

Results: System displays an error saying that PatronID should be 6 characters in length





Abnormal Data Test Cases: Rejected with error message

Input: P0001

Results: System displays an error message indicating that the entry should be 6 characters in length





Input: 000001

Results: System displays an error message indicating that the entry must begin with the letter "P"





Summary

Entry must be 6 characters in length and begin with the letter "P"

All validation functions as expected. Only correct data is validated. Appropriate error messages are displayed where necessary.