

[Personal Finance] Functional Test Plan				
Objectives	Test Case ID	Test Case Description	Test Data	Expected Results
Initialize Chart of Accounts	1	Valid file format	{filename}.csv	Accounts from the file are loaded into the system.
	2	Invalid file format	{filename}.txt	System displays invalid file error message.
	3	Empty file	-	System displays invalid file error message.
	4	Missing value in Account_ID	Account_ID: , Name: Account1, Category: Income, Balance: 0	System displays error for missing values in a row.
	5	Missing value in Name	Account_ID: 1001, Name: , Category: Income, Balance: 0	System displays error for missing values in a row.
	6	Missing value in Category	Account_ID: 1001, Name: Account1, Category: , Balance: 0	System displays error for missing values in a row.
	7	Missing value in Balance	Account_ID: 1001, Name: Account1, Category: Income, Balance:	System displays error for missing values in a row.
	8	Wrong account ID for Income, Expense, Asset, Liability	Account_ID: 1001, Name: Account1, Category: Expense, Balance: 0	System displays error for invalid account ID for column "Expense".
	9	Alphabetic characters in account id	Account_ID: abc, Name: Account1, Category: Income, Balance: 0	System displays error for invalid account ID.
	10	Duplicate account IDs	Account_ID: 1001, Name: Account1, Category: Income, Balance: 0 Account_ID: 1001, Name: Duplicate, Category: Income, Balance: 0	System displays error for duplicate account IDs.
	11	Negative balance account	Account_ID: 1001, Name: Account1, Category: Income, Balance: -1	System displays error for negative balance.
	12	Alphabetic characters in account balance	Account_ID: 1001, Name: Account1, Category: Income, Balance: abc	System displays error for invalid account balance.
	13	Invalid Column Name	ID: 1001, Name: Account1, Type: Income, Amount: 0	System displays error for invalid column.
Add Transaction	14	Add transaction with valid input	Source: "Account 1", Destination: "Account 2", Amount: 100.00, Date / time: "2024-10-18", Description: "Payment"	System adds the transaction and updates the balances of both accounts.
	15	Add transaction with same account	Source: "Account 1", Destination: "Account 1", Amount: 100.00, Date / time: "2024-10-18", Description: "Payment"	System displays "You can't add transaction between the same account" error message.
	16	Add transaction with negative amount	Source: "Account 1", Destination: "Account 2", Amount: -100.00, Date / time: "2024-10-18", Description: "Payment"	System displays "Transaction can't be negative" error message.
	17	Add transaction with invalid date	Source: "Account 1", Destination: "Account 2", Amount: 100.00, Date / time: "2024-13-18", Description: "Payment"	System display "Please input a valid data" error message.
	18	Add transaction with blank source account	Source: "", Destination: "Account 2", Amount: -100.00, Date: "2024-10-18", Description: "Payment"	System display "Please input a valid data" error message.
	19	Add transaction with blank destination account	Source: "Account 1", Destination: "", Amount: 100.00, Date: "2024-10-18", Description: "Payment"	System display "Please input a valid data" error message.

Delete Transaction	20	Valid transaction that can be deleted	Transaction ID: 1001	System deletes the Transaction
	21	Transaction ID that does not exist that can't be deleted	Transaction ID: 15	System display "Transaction ID does not exist" error message.
	22	Transaction ID in incorrect format to be deleted	Transaction ID: abc	System display "Invalid Transaction ID" error message.
	23	Blank Transaction ID to be deleted	Transaction ID:	System display "Invalid Transaction ID" error message.
Show transaction	24	Show lists of transaction for valid account	Account: Account1, Start Date Range: "2024-10-14", End Date Range: "2024-10-21"	A display of a list of all transaction, arrange by date for the account.
	25	Show lists of transaction for invalid account	Account: Invalid Name	System display "Invalid account" error message.
	26	Show lists of transaction with start date being after end date	Account: Account1, Start Date Range: "2024-10-21", End Date Range: "2024-10-14"	System display "Invalid date" error message.
	27	Show lists of transaction with invalid date	Account: Account1, Start Date Range: "2024-10-24", End Date Range: "2024-13-31"	System display "Invalid date" error message.
Search for transaction	28	Search by invalid date	Date "2004-10-24"	Message "Transaction not found"
	29	Search by valid date	Date "2005-05-20"	Pop up all list of transaction that is assign to that date
	30	Search by valid id	Destination account: 1234	Pop up all list that have destination account of that id, arrange by date
	31	Search by invalid id	Destination account: 9876	Message "Transaction not found"
	32	Search by invalid format	Destination account: abc	System display "Invalid transaction format" error message.
	33	Search with blank id	Destination account:	System display "Invalid transaction format" error message.
Add Account	34	Verify that all input data is correct format	valid account type format, valid account name format, valid account ID format , valid amount format	Add account to the database.
(account type validation)	35	input account type is valid format	"Income", "Expense", "Asset", "Liability" / income, expense, asset, liability / INCOME, EXPENSE, ASSET, LIABILITY	system continue to ask next input
	36	account type is not valid format	Account type: xpense	system gives error, and ask user to reinput account type
	37	Verify that account type is empty	Account type:	system gives error, and ask user to reinput account type
(name validation)	38	input name is vaild format	Account name: KrungSri Saving Account, Account name: KrungSri Saving Account2	system continue to ask next input
	39	input name is empty	Account name:	system gives error, and ask user to reinput account name
(amount validation)	40	input amount is vaild format (amount is number)	Amount: 3000, Amount: 200.50	Add account to the database.
	41	input amount is not number	Amount: 300a, Amount: abc	system gives error, and ask user to reinput amount

	42	input amount is negative	Amount: -3000	system gives error, and ask user to reinput amount
	43	input amount is empty	Amount:	system gives error, and ask user to reinput amount
Delete Account	44	Verify that account ID is exist	Exist ID: 1001, input ID: 1001	Delete account from database
(ID validation)	45	Account ID is not exist	Exist ID: 1001, input ID: 2001	system gives error, and ask user to reinput account ID
	46	input ID is not number	Account ID: u001, Account ID: *ergxry	system gives error, and ask user to reinput account ID
	47	input ID is empty	Account ID:	system gives error, and ask user to reinput account ID
Show Account Balance	48	Verify that user input the valid option and input existing ID	input option: "all account", input option: "select account"	Show account balance based on user options.
(option validation)	49	user input "all account" option	input option: "all account"	Show all account balance
	50	user input "select account" option	input option: "select account"	System ask user for their account ID
	51	user input invalid option	input option: "account1, all"	system gives error, and ask user to reinput option
(ID validation)	52	user choose "select account" option and input existing ID	input option: "select account", Exist ID: 1001, input ID: 1001	Show selected account balance
	53	user choose "select account" option and input non existing ID	input option: "select account", Exist ID: 1001, input ID: 2001	system gives error, and ask user to reinput account ID
	54	user enter invalid ID format	input option: "select account", Exist ID: 1001, input ID: abc	system gives error, and ask user to reinput account ID
Creating Budget	55	Valid budget	Budget Name: "Monthly Expenses", Amount: 1000.00	Budget is created and stored in the database.
	56	Budget with negative amount	Budget Name: "Monthly Expenses", Amount: -1000.00	System displays "invalid budget amount" error message.
	57	Budget with alphabet in amount	Budget Name: "Monthly Expenses", Amount: abcd	System displays "invalid budget amount" error message.
	58	Budget name that already exist	Budget Name: "Monthly Expenses", Amount: 1000.00 Budget Name: "Monthly Expenses", Amount: 1500.00	System displays "Budget name already exist!" error message.
	59	Budget with blank name	Budget Name: "", Amount: 1000.00	System displays "Invalid budget name!" error message.
Modify Budget	60	Modify existing budget	Budget Name: "Monthly Expenses", New Amount: 1500.00	Budget is modify and stored in the database.
	61	Modify non-existing budget	Budget Name: "Utilities", New Amount: 1000.00	System displays "Budget does not already exist!" error message.
	62	Modify budget balance with negative amount	Budget Name: "Monthly Expenses", Amount: -1000.00	System displays "Invalid budget amount!" error message.
	63	Modify budget balance with alphabet amount	Budget Name: "Monthly Expenses", Amount: abcd	System displays "Invalid budget amount!" error message.

	64	Modify budget balance with empty amount	Budget Name: "Monthly Expenses", Amount:	System displays "Invalid budget amount!" error message.
	65	Modify budget to use blank name	New Budget Name: ""	System displays "Invalid budget name!" error message.
Delete Budget	66	Delete existing budget	Budget Name: "Monthly Expenses"	Budget is deleted from the database.
	67	Delete non-existing budget	Budget Name: "Entertainment"	System displays "Budget category 'Utilities' doesn't exist!" error message.
	68	Confirm deletion of budget	Budget Name: "Monthly Expenses", Confirm: "y"	Confirmation message: "Budget for 'Monthly Expenses' has been deleted."
	69	Cancel deletion of budget	Budget Name: "Monthly Expenses", Confirm: "n"	Message: "Budget deletion cancelled."