

Test Plan and Execution

Personal Finance Tracker v2.0 | 4COSC006C[PRO] | Coursework Part B

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CONTENT

TESTING.....	2
Summary.....	5

TESTING

Case No.	Function	Test Case	Input	Expected outcome	Actual outcome	Status	Image
01	load_transation()	Run the program with "finance.json" file with data within.	Run program	Program runs successfully.	Program runs successfully.	Pass.	Figure 1
02		Run the program without "finance.json" file	Run program	Display "*** File not found! New file has been created.***" and run successfully.	"*** File not found! New file has been created.***" Program runs successfully.	Pass	Figure 2
03		Run program with "finance.json" without data in file.	Run program	Program runs successfully.	Program runs successfully	Pass	Figure 1
04	Read_bulk_transaction_from_file()	Run the program with "finance.txt" file with data within.	Run program	Program runs successfully.	Program runs successfully.	Pass	Figure 1
05		Run the program without "finance.txt" file	Run program	Display "*** File not found! New file has been created.***" and run successfully.	"*** File not found! New file has been created.***" Program runs successfully.	Pass	Figure 2
06		Run program with "finance.json" without data in file.	Run program	Program runs successfully.	Program runs successfully.	Pass	Figure 1
07	Main_menu()	Enter "1" in the menu selection.	1	Asks user to "Enter Category: "	Enter category:	Pass	Figure 3
08	add_transaction()	Enter "Salary" to category.	Salary	Asks user to "Enter Amount:"	Enter Amount:	Pass	Figure 4
09		Enter String to amount	ABC	Display "Invalid Input" Ask user to "Enter Amount: "	Invalid Input! Enter Amount:	Pass	Figure 5

10		Enter zero	0	Display “Enter amount higher than zero.” Ask user to “Enter Amount: “	Enter amount higher than zero. Enter Amount:	Pass	Figure 6
11		Enter Negative value	-1	Display “Enter amount higher than zero.” Ask user to “Enter Amount: “	Enter amount higher than zero. Enter Amount:	Pass	Figure 7
12		Enter valid value	500000	Asks user to “Enter type of transaction”	Enter type of transaction(Income{I} or Expense{E}):	Pass	Figure 8
13		Enter a number	123	Display “Invalid input” Asks user to “Enter type of transaction”	Invalid Input! Enter type of transaction(Income{I} or Expense{E}):	Pass	Figure 9
14		Enter Invalid input	ABC	Display “Invalid input” Asks user to “Enter type of transaction”	Invalid Input! Enter type of transaction(Income{I} or Expense{E}):	Pass	Figure 10
15		Enter valid input	Income	Asks user to “Enter >>> Year:”	Enter >>> Year:	Pass	Figure 11
16		Enter String value	ABC	Display “Enter a number!” Asks user to “Year:”	Enter a number! Year:	Pass	Figure 12
17		Enter an invalid year	14	Display “Invalid Year! Please re-enter.” Asks user to “Year:”	Invalid Year! Please re-enter. Year:	Pass	Figure 13
18		Enter Valid year	2024	Asks user to enter “Month:”	Month:	Pass	Figure 14
19		Enter a String value	ABC	Display “Enter a number!” Asks user “Month:”	Enter a number! Month:	Pass	Figure 15
20		Enter Invalid Month	22	Display “Invalid Month! Please re-enter.” Asks “Month:”	Invalid Month! Please re-enter. Month:	Pass	Figure 16
21		Enter valid month	04	Asks “Day:”	Day:	Pass	Figure 17
22		Enter String	ABC	Display “Enter a number!” Asks user “Day:”	Enter a number! Day:	Pass	Figure 18
23		Enter negative number	-1	Display “Invalid day! Please re-enter.”	Invalid day! Please re-enter.	Pass	Figure 19

				Asks "Day:"	Day:		
24		Enter invalid day	33	Display "Invalid day! Please re-enter." Asks "Day:"	Invalid day! Please re-enter. Day:	Pass	Figure 20
25		Enter valid day	14	Display "Transaction added successfully!" <<<Press enter to continue>>>	Transaction added successfully! <<<Press enter to continue>>>	Pass	Figure 21
26		Press Enter	Enter	Display main menu	Main menu	Pass	Figure 22
27	main_menu()	Enter two	2	view transactions	View transactions	Pass	Figure 23
28	view_transactions()	Press Enter	Enter	Display main menu	Main menu	Pass	Figure 22
29	main_menu()	Enter three	3	view transactions Ask "Enter the category of the transaction you would like to update:"	view transactions Enter the category of the transaction you would like to update:	Pass	Figure 24
30	update_transaction()	Enter invalid category	Groceries	Display "Groceries category does not exits. Enter valid category!" Asks "Enter the category of the transaction you would like to update:"	Groceries category does not exits. Enter valid category! Enter the category of the transaction you would like to update:	Pass	Figure 25
31		Enter valid Category	Bills	Asks "Enter the ID of the transaction you would like to update:"	Enter the ID of the transaction you would like to update:	Pass	Figure 26
32		Enter Invalid ID	2	Display "Transaction ID of that value does not exist! Please Input a Valid ID."	Transaction ID of that value does not exist! Please Input a Valid ID.	Pass	Figure 27
33		Enter String	ABC	Display "Invalid Input!"	Invalid Input!	Pass	Figure 28
34		Enter valid ID	1	Asks "Enter Amount:" Asks "Date"	Enter amount: 500 Enter >>> Year: 2024 Month: 04 Day: 15	Pass	Figure 29
delete_transaction() is similar. Without updating It deletes							
35	main_menu()/display_summary()	Enter five	5	Shows summary	Shows Summary	Pass	Figure 30

36	main_menu()	Enter six	6	Display Instructions	Display Instructions	Pass	Figure 31
37		Enter valid format	Enter valid format	No Errors	No Errors	Pass	Figure 32
38		Enter negative number	-500	No Errors. Transaction does not get added.	No Errors. Transaction does not get added.	Pass	Figure 32
39		Enter Invalid type	ABC	Display "Type(abc) on line 1 is not valid. Transaction not added!"	Type(abc) on line 1 is not valid. Transaction not added!	Pass	Figure 33
40		Enter Invalid date	2024-30-42	Display "Date(2024-30-42) on line 1 is not valid. Transaction not added!"	Date(2024-30-42) on line 1 is not valid. Transaction not added!	Pass	Figure 34

Summary

- Total Tests: 40
- Tests Passed: 40
- Tests Failed: 0

❖ No errors were found in the code while testing.

Images

```
Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice:
```

Figure 1

```
*** File not found!. New file has been created.***

Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice: |
```

Figure 2

```
Enter your choice: 1  
  
Enter category:
```

Figure 3

```
Enter category: Salary  
Enter amount:
```

Figure 4

```
Enter amount: ABC  
  
Invalid Input!  
  
Enter amount:
```

Figure 5

```
Enter amount: 0  
  
Enter amount higher than zero.
```

Figure 6

```
Enter amount: -1  
  
Enter amount higher than zero.  
  
Enter amount: |
```

Figure 7

```
Enter amount: 500000  
Enter type of transaction(Income{I} or Expense{E}):
```

Figure 8


```
Invalid Input!  
Enter type of transaction(Income{I} or Expense{E}):
```

Figure 9

```
Enter type of transaction(Income{I} or Expense{E}): ABC  
Invalid Input!
```

Figure 10

```
Enter type of transaction(Income{I} or Expense{E}): Income  
Enter >>> Year:
```

Figure 11

```
Enter >>> Year: ABC  
  
Enter a number!  
  
Year: 14
```

Figure 12

```
Year: 14  
Invalid Year! Please re-enter.
```

Figure 13

```
Year: 2024  
Month:
```

Figure 14

```
Month: ABC  
Enter a number!
```

Figure 15

```
Month: 22  
Invalid Month! Please re-enter.  
Month:
```

Figure 16

```
Month: 04  
Day: |
```

Figure 17

```
Month: 04  
Day: ABC  
Enter a number!  
Day:
```

Figure 18

```
Day: -1  
Invalid day! Please re-enter.  
Day:
```

Figure 19

```
Day: 33  
Invalid day! Please re-enter.  
Day:
```

Figure 20

```
Day: 14

Transaction added successfully!

<<<Press enter to continue>>>
```

Figure 21

```
<<<Press enter to continue>>>

Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice:
```

Figure 22

```
Enter your choice: 2

Category: Bills

>>> Transaction ID: (1) <<<
    Amount: 1000.0,
    Date: 2024-05-05.

Category: Salary

>>> Transaction ID: (1) <<<
    Amount: 500000.0,
    Date: 2024-05-05.

>>> Transaction ID: (2) <<<
    Amount: 500000.0,
    Date: 2024-04-14.

<<<Press enter to continue>>>
```

Figure 23

```
Enter your choice: 3

Category: Bills

>>> Transaction ID: (1) <<<
      Amount: 1000.0,
      Date: 2024-05-05.

Category: Salary

>>> Transaction ID: (1) <<<
      Amount: 500000.0,
      Date: 2024-05-05.

>>> Transaction ID: (2) <<<
      Amount: 500000.0,
      Date: 2024-04-14.

<<<Press enter to continue>>>
```

Figure 24

```
Enter the category of the transaction you would like to update: Groceries
Groceries category does not exists. Enter valid category!
```

Figure 25

```
Enter the category of the transaction you would like to update: Bills
Enter the ID of the transaction you would like to update:
```

Figure 26

```
Enter the ID of the transaction you would like to update: 2
Transaction ID of that value does not exist! Please Input a Valid ID.
```

Figure 27

```
Enter the ID of the transaction you would like to update: ABC
Invalid Input
```

Figure 28

```
Enter the ID of the transaction you would like to update: 1
Enter amount: 500
Enter >>> Year: 2024
          Month: 04
          Day: 15

Transaction updated successfully!

<<<Press enter to continue>>>
```

Figure 29

```
Enter your choice: 5

Your total income is 1000000.0/=
Your total expense is 500.0/=
Your net income is 999500.0/=

<<<Press enter to continue.>>>
```

Figure 30

```
Enter your choice: 6

1. Open "finance.txt" and add transactiona to it.
   Each transaction should be one line each.
   Format: Category, Amount, Type(income/expense), date(YYYY-MM-DD)

2. Save "finance.txt"

<<<Press enter after saving to load transactions>>>
```

Figure 31

```
<<<Press enter after saving to load transactions>>>

Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice: |
```

Figure 32

```
Type(abc) on line 1 is not valid. Transaction not added!

Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice:
```

Figure 33

```
Date(2024-30-42) on line 1 is not valid. Transaction not added!

Personal Finance Tracker
=====

1. Add Transaction
2. View Transactions
3. Update Transaction
4. Delete Transaction
5. Display Summary
6. Load bulk transactions
7. Exit
Enter your choice:
```

Figure 34