How to Run the Programs (Linux Scripts)

1. Running from Command Line:

Navigate to the directory containing the script using the terminal. Then, execute the script by typing:

./script_name.sh

Replace "script_name.sh" with the actual filename of the script. Ensure the script file has execute permissions (chmod +x script_name.sh) before running it.

2. Automated Scripts:

Each script serves a specific purpose. Here's how to use them:

- check_tests.sh: This script is used to perform test validation. You can execute it similarly as described above.

- output_test.sh: This script tests the output of your program. Execute it following the same steps as mentioned earlier.

- run_tests.sh: This script is the main script that manages the testing process. Execute it to initiate the automated testing process.

- transaction_file_test.sh: This script handles transaction files for testing. Execute it if it's necessary for your testing process.

Ensure all scripts are in a directory accessible from the terminal, and they have the necessary permissions to execute. Review the results after completion.

First run "run_tests.sh" which will automatically run "output_test.sh" and "transaction_file_test.sh", then finally run "check_tests.sh" to validate the tests.

3. Running the Front-End program:

Navigate to "src". Then, execute the script by typing:

./distribution-system ../data/currentaccounts.txt ../data/availablegames.txt ../data/gamescollection.txt ../data/dailytransactions.txt

Failure Table

FIRST RUN

Name (Test ID)	Description	Expected Output	Actual Output	Reason / Why?
TC25	Test admin login with valid credentials, create a user with a valid username and sell-standard privileges.	00_admin_____ _____AA_0000 00.00	01_fullstd_____ _____BS_000000 .00 00_admin_____ _____AA_0000 00.00	Unexpected transaction entries. Discrepancies between expected and actual transactions were recorded during testing, indicating potential issues with transaction processing logic or data integrity.
TC26	Test admin login with valid credentials, attempt to delete a non-existing user.	00_admin_____ _____AA_0000 00.00	02_valid_____ _____FS_00000 0.00 00_admin_____ _____AA_0000 00.00	Unexpected transaction entries. Discrepancies between expected and actual transactions were recorded during testing, indicating potential issues with transaction processing logic or data integrity.
TC29	Test non-standard-buy user login	Login successful.	Login successful.	Mismatch in error message format.

	with valid credentials, attempt to sell an invalid game name.	Invalid game name length. Maximum length is 25 characters.	Game name: invalid_game_n ameeeeeeeeeel nvalid game name length. Maximum length is 25 characters.	Failures occurred due to mismatches between expected and actual outputs, including error message formats and success message consistency.
TC30	Test non-standard-buy user login with valid credentials, attempt to sell a game with an existing name.	Login successful. A game with the same name already exists. Please choose a unique name.	Login successful. Game name: existinggameA game with the same name already exists. Please choose a unique name.	Incorrect game name error formatting. Failures attributed to errors in the formatting of game names, impacting output consistency.
TC31	Test non -standard-buy user login with valid credentials, attempt to sell a game with an invalid price.	Login successful. Invalid price. The price must be between $0.01 and $999.99.	Login successful. Game name: validgamenameI nvalid price. The price must be less than $1000.	Invalid price error message incorrect. Failures due to inaccuracies in the error message for invalid prices, affecting output consistency.
TC32	Test non-standard-buy user login with valid credentials, sell a game with a valid name and price.	Login successful. Game listed for sale.	Login successful. Game name: validgamename Game listed for sale.	Success message format issue. Failures occurred due to issues with the

				format of success messages, impacting output consistency.
TC38	Test admin login with valid credentials, attempt a refund with an invalid buyer username.	00_admin_____AA_000000.00	05_____0000 00.00 00_admin_____AA_000000.00	Missing transaction record. Expected transactions weren't logged, signaling issues with the recording mechanism. Verify accuracy and address impediments.
TC39	Test admin login with valid credentials, attempt a refund with a valid buyer and invalid seller username.	00_admin_____AA_000000.00	05_____0000 00.00 00_admin_____AA_000000.00	Missing transaction entry. Indicates an absence of expected transaction entries in the system, suggesting potential issues with the recording mechanism. Verify accuracy and address any impediments.
TC40	Test admin login with valid credentials, attempt a refund with a valid buyer and seller	00_admin_____AA_000000.00	05_____0000 00.00 00_admin_____AA_0000	Transaction not recorded as expected. Expected

	but invalid credit amount.		00.00	transaction not logged, signaling potential recording issues. Verify accuracy and address impediments.
TC47	Test admin login with valid credentials, list items in an empty store.	Login successful. Store is empty.	Login successful. Available Games:	Incorrect empty store message. Failure attributed to an incorrect empty store message, indicating a problem with how the system reports its state. Verify the accuracy of the message content for resolution.
TC50	Test admin logs in successfully, followed by an unauthorized access attempt	Login successful. User unauthorized	Login successful. User Information:	User authorization error. Failure due to errors in user authorization, suggesting issues with how the system handles user permissions. Verify and correct user authorization checks for resolution.

SECOND RUN

Name (Test ID)	Description	Expected Output	Actual Output	Reason / Why?
TC29	Test non-standard-buy user login with valid credentials, attempt to sell an invalid game name.	Login successful. Invalid game name length. Maximum length is 25 characters.	Login successful. Game name: invalid_game_n ameeeeeeeeeeI nvalid game name length. Maximum length is 25 characters.	Mismatch in error message format. Failures occurred due to mismatches between expected and actual outputs, including error message formats and success message consistency.
TC30	Test non-standard-buy user login with valid credentials, attempt to sell a game with an existing name.	Login successful. A game with the same name already exists. Please choose a unique name.	Login successful. Game name: existinggameA game with the same name already exists. Please choose a unique name.	Incorrect game name error formatting. Failures attributed to errors in the formatting of game names, impacting output consistency.
TC38	Test admin login with valid credentials, attempt a refund with an invalid buyer username.	00_admin_____ _____AA_0000 00.00	05_____ _____ _____0000 00.00 00_admin_____ _____AA_0000 00.00	Missing transaction record. Expected transactions weren't logged, signaling issues with the recording mechanism.

				Verify accuracy and address impediments.
TC39	Test admin login with valid credentials, attempt a refund with a valid buyer and invalid seller username.	00_admin_____ _____AA_0000 00.00	05_____ _____ _____0000 00.00 00_admin_____ _____AA_0000 00.00	Missing transaction entry. Indicates an absence of expected transaction entries in the system, suggesting potential issues with the recording mechanism. Verify accuracy and address any impediments.
TC40	Test admin login with valid credentials, attempt a refund with a valid buyer and seller but invalid credit amount.	00_admin_____ _____AA_0000 00.00	05_____ _____ _____0000 00.00 00_admin_____ _____AA_0000 00.00	Transaction not recorded as expected. Expected transaction not logged, signaling potential recording issues. Verify accuracy and address impediments.
TC47	Test admin login with valid credentials, list items in an empty store.	Login successful. Store is empty.	Login successful. Available Games:	Incorrect empty store message. Failure attributed to an incorrect empty store message,

				indicating a problem with how the system reports its state. Verify the accuracy of the message content for resolution.

THIRD RUN

Name (Test ID)	Description	Expected Output	Actual Output	Reason / Why?
N/A	N/A	N/A	N/A	N/A

No Issues Found

List Of Code (Diagram)

Directory Tree Diagram:

📁 **data**
```
├── 📄 availablegames.txt
├── 📄 currentaccounts.txt
├── 📄 dailytransactions.txt
└── 📄 gamescollection.txt
```

📁 **src**
```
├── 📄 AuthManager.h
├── 📄 CreditUpdater.h
├── 📄 DailyTransactionWriter.h
├── 📄 distribution-system
├── 📄 distribution-system.exe
├── 📄 filenames
├── 📄 filenames.txt
├── 📄 FileReader.h
├── 📄 FileWriter.h
├── 📄 Game.h
├── 📄 GameManager.h
├── 📄 GameUpdater.h
├── 📄 general.h
├── 📄 main.cpp
├── 📄 SharedData.h
├── 📄 TransactionHandler.h
├── 📄 User.h
├── 📄 UserManager.h
└── 📄 UserUpdater.h
```

📁 **testing**
```
│
├── 📁 actual_outputs
│   ├── 📄 TC01.atf
│   ├── 📄 …
│   ├── 📄 TC55.atf
│   ├── 📄 TC01.out
│   ├── 📄 …
│   └── 📄 TC55.out
│
```

```
├── 📂 expected_outputs
│       ├── 📄 TC01.etf
│       ├── 📄 ...
│       ├── 📄 TC55.etf
│       ├── 📄 TC01.out
│       ├── 📄 ...
│       └── 📄 TC55.out
├── 📂 inputs
│       ├── 📄 TC01.inp
│       ├── 📄 ...
│       └── 📄 TC55.inp
│
├── 📂 scripts
│       ├── 📄 check_tests.sh
│       ├── 📄 output_test.sh
│       ├── 📄 run_tests.sh
│       └── 📄 transaction_file_test.sh
│
└── 📂 test_data
        ├── 📄 availablegames_test.txt
        ├── 📄 availablegames_test_empty.txt
        ├── 📄 currentaccounts_test.txt
        ├── 📄 dailytransaction_test.txt
        └── 📄 gamescollection_test.txt
```