

Manual Tests and Results

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1 MANUAL TESTING

1.1 TC 1 MAIN MENU TESTING

Precondition to all tests: The main menu should be showing. To reach the main menu, simply launch the game and the main menu should be showing.

TC1.1 Main menu – play game (movies)

Use cases tested: UC1

- ☐ Select “New Game”
- ☐ Select “Movies” on the Category selection screen
- ☐ The game screen should now be displayed

Comments:

TC1.2 Main menu – play game (tv shows)

Use cases tested: UC2

- ☐ Select “New Game”
- ☐ Select “TV Series on the Category selection screen
- ☐ The game screen should now be displayed

Comments:

TC1.3 Main menu – quit game

Use cases tested: UC1

- ☐ Select “Quit Game”
- ☐ The confirmation window should be displayed
- ☐ Select “Yes”
- ☐ The confirmation window and application should be closed.

Comments:

TC1.4 Main menu – quit game, no confirmation

Use cases tested: UC1

- ☐ Select "Quit Game"
- ☐ The confirmation window should be displayed.
- ☐ Select "No"
- ☐ The confirmation window should be closed and the application should still be running with the main menu showing.

Comments:

1.2 TC 2 PLAY GAME TESTING

Precondition to all tests: the category selection window should be showing. To reach the category selection window, launch the game and then select "New Game."

TC2.1 Play game – check phrase is in selected category (movies)

Use cases tested: UC2

Precondition: have the movieNames.txt file from the resources folder available to view

- ☐ On the category selection screen, select "Movies"
- ☐ While on the play game screen, hold ALT + CTRL and press the spacebar to open the set phrase window.
- ☐ The text field will display the phrase of the current game.
- ☐ Check movieNames.txt. The phrase should be listed in the file.

Comments:

TC2.2 Play game – check phrase is in selected category (tv series)

Use cases tested: UC2

Precondition: have the tvNames.txt file from the resources folder available to view

- ☐ On the category selection screen, select "TV Shows"
- ☐ While on the play game screen, hold ALT + CTRL and press the spacebar to open the set phrase window.
- ☐ The text field will display the phrase of the current game.
- ☐ Check tvNames.txt. The phrase should be listed in the file.

Comments:

TC2.3 Play game – check button functionality

Use cases tested: UC2

Precondition: select the "Movies" category to reach the game screen

- ☐ While on the game screen, hold ALT + CTRL and press spacebar to open the set phrase window.
- ☐ Replace the text in the field of the set phrase window with the string "abcdefghijklmnopqrstuvwxyz" and click "set phrase"
- ☐ The displayed phrase should have 26 blank spaces
- ☐ Click on each alphabet button. Each click should reveal the selected letter in the phrase and disable the button.
- ☐ Once every button has been clicked, the game over screen should be displayed

Comments:

TC2.4 Play game – win

Use cases tested: UC2

Precondition: select the "Movies" category to reach the game screen

- ☐ While on the game screen, access the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Remember the phrase and close the set phrase window.
- ☐ Click each of the letters that are in the phrase from the set phrase window.
- ☐ The game over screen should be displayed and it should say "You Win!" at the top.

Comments:

TC2.5 Play game – lose

Use cases tested: UC2

Precondition: select the "Movies" category to reach the game screen

- ☐ While on the game screen, access the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Type the string "Test Phrase" in the text field and click "set phrase"
- ☐ Click the following letter buttons: b,c,d,f,g,i, and j.
- ☐ The game over screen should be displayed and it should say "Game Over You Lose" at the top.

Comments:

1.3 TC 3 WIN GAME SCREEN

Precondition to all tests: start from the category selection screen. The category selection screen can be reached from the main menu by selecting "New Game." Have the movieNames.txt and tvNames.txt files from the resources folder open.

TC3.1 Win game – new category – movies (chose TV Shows)

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "TV Shows"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "tvNames.txt" the phrase should be listed in the file.

Comments:

TC3.2 Win game – new category – movies (chose Movies)

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "Movies"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "movieNames.txt" the phrase should be listed in the file.

Comments:

TC3.3 Win game – new category – TV Shows (chose Movies)

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "TV Shows" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "Movies"

- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "movieNames.txt" the phrase should be listed in the file.

Comments:

TC3.4 Win game – new category – TV Shows (chose TV shows)

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "TV Shows" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "TV Shows"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "tvNames.txt" the phrase should be listed in the file.

Comments:

TC3.5 Win game – same category – Movies

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Category Again."
- ☐ The game screen should be showing.
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "movieNames.txt" the phrase should be listed in the file.

Comments:

TC3.6 Win game – same category – TV Shows

Use cases tested: UC2, UC3

Preconditions: The game scene should be reached by selecting "TV Shows" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Play Category Again."

- ☐ The game screen should be showing.
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "tvNames.txt" the phrase should be listed in the file.

Comments:

TC3.7 Win game – quit game

Use cases tested: UC3

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Quit Game."
- ☐ A new window should open asking for confirmation.
- ☐ Select "Yes"
- ☐ The confirmation window and the application window should be closed.

Comments:

TC3.8 Win game – quit game, no confirmation

Use cases tested: UC3

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the win screen by holding ALT + CTRL and pressing 'W'.
- ☐ The win screen should be showing.
- ☐ Select "Quit Game."
- ☐ A new window should open asking for confirmation.
- ☐ Select "No"
- ☐ The confirmation window should be closed and the application window should be showing the win screen.

Comments:

1.4 TC 4 – LOSE GAME SCREEN

Precondition to all tests: start from the category selection screen. The category selection screen can be reached from the main menu by selecting "New Game."

TC4.1 Lose game – new category – movies (chose TV Shows)

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing 'L'.
- ☐ The lose screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "TV Shows"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "tvNames.txt" the phrase should be listed in the file.

Comments:

TC4.2 Lose game – new category – movies (chose Movies)

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting "Movies" from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing 'L'.
- ☐ The lose screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "Movies"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "movieNames.txt" the phrase should be listed in the file.

Comments:

TC4.3 Lose game – new category – TV Shows (chose Movies)

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting "TV Shows" from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing 'L'.
- ☐ The lose screen should be showing.
- ☐ Select "Play Again."
- ☐ The category selection screen should be showing.
- ☐ Select "Movies"
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check "movieNames.txt" the phrase should be listed in the file.

Comments:

TC4.4 Lose game – new category – TV Shows (chose TV shows)

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting “TV Shows” from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing ‘L’.
- ☐ The lose screen should be showing.
- ☐ Select “Play Again.”
- ☐ The category selection screen should be showing.
- ☐ Select “TV Shows”
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check “tvNames.txt” the phrase should be listed in the file.

Comments:

TC4.5 Lose game – same category – Movies

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting “Movies” from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing ‘L’.
- ☐ The lose screen should be showing.
- ☐ Select “Play Category Again.”
- ☐ The game screen should be showing.
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check “movieNames.txt” the phrase should be listed in the file.

Comments:

TC4.6 Lose game – same category – TV Shows

Use cases tested: UC2, UC4

Preconditions: The game scene should be reached by selecting “TV Shows” from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing ‘L’.
- ☐ The lose screen should be showing.
- ☐ Select “Play Category Again.”
- ☐ The game screen should be showing.
- ☐ From the game screen, open the set phrase window by holding ALT + CTRL and pressing spacebar.
- ☐ Check “tvNames.txt” the phrase should be listed in the file.

Comments:

TC4.7 Lose game – quit game

Use cases tested: UC4

Preconditions: The game scene should be reached by selecting “Movies” from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing ‘L’.
- ☐ The lose screen should be showing.
- ☐ Select “Quit Game.”
- ☐ A new window should open asking for confirmation.
- ☐ Select “Yes”
- ☐ The confirmation window and the application window should be closed.

Comments:

TC4.8 Lose game – quit game, no confirmation

Use cases tested: UC4

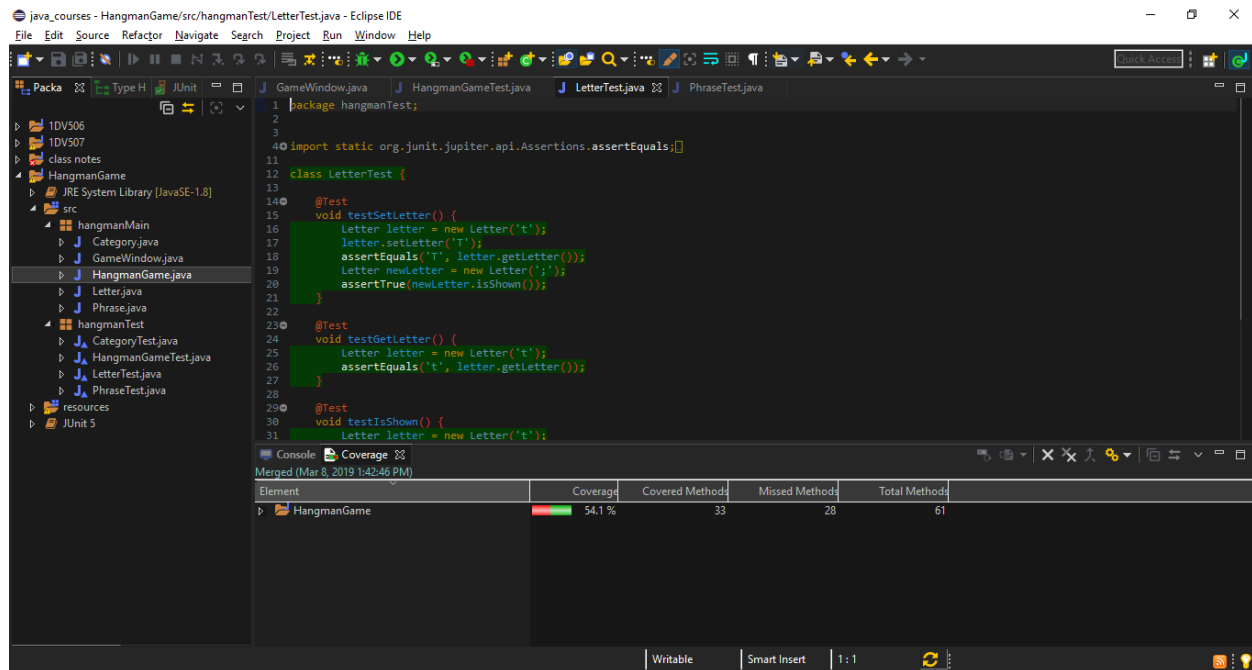
Preconditions: The game scene should be reached by selecting “Movies” from the category screen.

- ☐ From the game scene, reach the lose screen by holding ALT + CTRL and pressing ‘L’.
- ☐ The lose screen should be showing.
- ☐ Select “Quit Game.”
- ☐ A new window should open asking for confirmation.
- ☐ Select “No”
- ☐ The confirmation window should be closed and the application window should be showing the win screen.

Comments:

2 AUTOMATED TESTING

JUnit 5 was used for the automated tests. I originally planned to use TestFX to test my GUI but I decided against it. (See reflection for details).



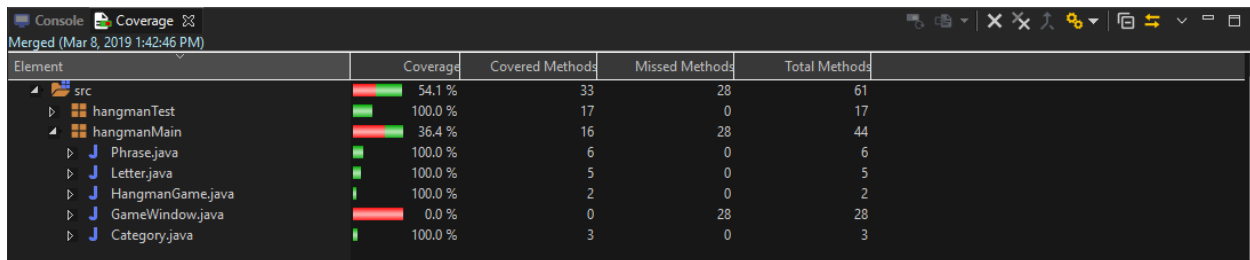
3 TEST RESULTS

3.1 MANUAL TEST COVERAGE

TEST	UC1	UC2	UC3	UC4
TC1.1	1/OK	0	0	0
TC1.2	1/OK	0	0	0
TC1.3	1/OK	0	0	0
TC1.4	1/OK	0	0	0
TC2.1	0	1/OK	0	0
TC2.2	0	1/OK	0	0
TC2.3	0	1/OK	0	0
TC2.4	0	1/OK	0	0
TC2.5	0	1/OK	0	0
TC3.1	0	1/OK	1/OK	0
TC3.2	0	1/OK	1/OK	0
TC3.3	0	1/OK	1/OK	0
TC3.4	0	1/OK	1/OK	0
TC3.5	0	1/OK	1/OK	0
TC3.6	0	1/OK	1/OK	0
TC3.7	0	0	1/OK	0
TC3.8	0	0	1/OK	0
TC4.1	0	1/OK	0	1/OK
TC4.2	0	1/OK	0	1/OK
TC4.3	0	1/OK	0	1/OK
TC4.4	0	1/OK	0	1/OK

TC4.5	0	1/OK	0	1/OK
TC4.6	0	1/OK	0	1/OK
TC4.7	0	0	0	1/OK
TC4.8	0	0	0	1/OK
COVERAGE AND SUCCESS	4/OK	17/OK	8/OK	8/OK

3.2 AUTOMATED TEST COVERAGE



Element	Coverage	Covered Methods	Missed Methods	Total Methods
src	54.1 %	33	28	61
hangmanTest	100.0 %	17	0	17
hangmanMain	36.4 %	16	28	44
Phrase.java	100.0 %	6	0	6
Letter.java	100.0 %	5	0	5
HangmanGame.java	100.0 %	2	0	2
GameWindow.java	0.0 %	0	28	28
Category.java	100.0 %	3	0	3

4 REFLECTION

This theme taught me a lot about making code testable. I think I did a pretty good job of writing testable code, but I have no way to write automated tests for my GUI. I planned on researching and learning how to implement GUI testing with a library called TestFX which is why I gave myself so much time to write automated tests. After around 4 hours spent trying to get the library imported correctly and messing around with Maven and Gradle (my attempts kept breaking my application), I had to delete all my local files and back up my project from my repository which was missing the Category.java class as this was a recent change. Once I had my project complete again, I decided to just write automated tests for every class besides the GameWindow class.