Group 13: Poker Junkies Testing and Inspection Report

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Project Description

1 Project Overview

Poker Junkies is an interactive simulator of Texas-Hold Em style poker game. The games can range from multiplayer mode, to single player against AI opponents depending on the user's preference. The game has a simplistic styling with a simple interface so that it is usable for people of all ages. The game has a beginner mode for people just starting and a pro mode for people who are ready for real competition. The game must be able to store user information, such as wins and money. The game should be able to process player and AI moves instantly. All cards dealings must be random, just like in real life poker.

2 Project Domain

This project is meant for an online platform for users of all skill levels. Users can use this software to play for fun or to practice for real life poker games and tournaments. All currency is virtual so users have no tie into the game. Since most online poker games have a large market share where users pay in with real money, our software will entice new users and old users looking to practice or improve their game without any consequences. Using the software, users will get better and increase their odds of winning in real life scenarios.

3 Relationship to Other Documents

This document refers to the design document for Poker Junkies and the Testing and Inspection Template as referenced. In these documents you will find the definitions and any tables of relevant information to the project.

4 Testing

To test this software, each member of the team submits a significant portion of their code to be tested and reviewed by the rest. Each member of the group tests 3 submitted code sections, every members but their own. Each member also develops unit tests and tests a section of provided code. Each member of the team tested another's code, not their own.

5 Items to be Tested

The items to be tested were:

1. Correctly displayed hand results.
2. Correctly evaluating hands and determining the strongest hand.
3. Correctly adding or subtracting funds from users pot.

4. User stats are updated and stored correctly

6 Test Specifications

ID#1 - Hand Results

Description: Display the results of the hand, images and type.

Items covered by this test: This tests will make sure that the user's hand shows up correctly.

Test Procedures: There must be an input of card values given in the test. There can not be an empty hand, the hand must be filled with valid card suits and values.

Input Specification: There must be an input of card values given in the test. There can not be an empty hand, the hand must be filled with valid card suits and values.

Output Specifications: The output must reprint the type of cards that were in the hand and the correct images that correspond to the cards in the hand.

Pass/Fail Criteria: The tests accept when the images and card values match. If they do not match, then they will fail.

ID#2 - Hand Evaluator

Description: Evaluate the users and AIs hand

Items covered by this test: This test will evaluate the cards in the player's hand and determine the rank of the hand.

Input Specification: There must be given input for a hand full of cards. All cards must be valid and and hand must be full.

Output Specifications: The output should be what cards it was given and the rank of the hand.

Pass/Fail Criteria: The tests passes if the hand rank is correct compared to the cards it was given. If not, the test will fail.

ID#3 - Pot Size Changes

Description: Add or subtract funds from the pot

Items covered by this test: This test will make sure the pot increase and decreases based on the type of play.

Input Specification: The input must be given a number and whether or not it should increase or decrease the pot total.

Output Specifications: The output should reflect the changes given on the pot size. This must be correctly updated and store as the new pot size variable.

Pass/Fail Criteria: The tests passes if the pot size changes correctly and correctly displays and maintains the results. It fails if it does not reflect these changes or incorrectly reflects these changes.

ID#4 - User Stat Changes

Description: After each game, the users global stats will change and be stored correctly.

Items covered by this test: This test will make sure the user stats update and correctly change after each game. Theses changes must be successfully stored.

Input Specification: The input must be a value for each stat to make sure these stats change.

Output Specifications: The output should print the users updated stats.

Pass/Fail Criteria: The tests passes if each corresponding stats correctly change and gets update each time.

7 Test Results

ID#1 - Hand Results

Staff conducting tests: Chance Potter, Urja Soni, Jolekha Begum

Expected Results: Given an 8 of diamonds the image should be an 8 of diamonds and the value of said card is 8 with the correct suit

Actual Results: Each card given displayed the right image with the right class values.

Test Status: Pass

ID#2 - Hand Evaluator

Staff conducting tests: Urja Soni, Jolekha Begum, Kena Patel

Expected Results: Given full hand of cards the output is the correct rank of the hand.

Actual Results: Given a full hand of cards the output successfully determined the proper rank of the given hand.

Test Status: Pass

ID#3 - Pot Size Changes

Staff conducting tests: Chance Potter, Urja Soni, Kena Patel

Expected Results: The value of the pot size should be increased/decreased after each player making a move, and based on whether that player bet money or won the round.

Actual Results: Given the first round of the game, the user bet 100 for their turn, and that amount was taken out from their account and added onto the total pot size..

Test Status: Pass

ID#4 - User Stat Changes

Staff conducting tests: Chance Potter, Jolekha Begum, Kena Patel

Expected Results: Given a win, or a royal flush, and the money won, the users stats should be correctly updated and should reflect their overall progress.

Actual Results: Given different values of the results of the round, the user information was correctly updated and changed.

Test Status: Pass

8 Regression Testing

As most of the game changes, throughout each version, we constantly tested that the value and images were correctly responding to each other. Otherwise this would have been a very big negative impact on the user experience. Also with each change and addition, we made sure the hand evaluator was working correctly and not messing up along the way.

II Inspection

1 Items to be Inspected

1. Displaying cards
2. Evaluating hands
3. Updating pot size
4. Updating stats

2 Inspection Procedures

The work was done outside of meetings half the time and during meetings the other half. All of the results of the testing and inspection were discussed in person in the meetings. We also discussed what else needs to be tested and done before discussion of the next meeting. Most of the tests and inspections were done outside of meeting time.

3 Inspection Results

1. Displaying Cards: Inspected by Urja, Chance, and Jolekha. The tests for this was to make sure the value given had the correct card image attached to it and that the image was size correctly and proportionally. The first initial results show the cards being slightly smaller ten desired, however this was fixed and successfully tested later.
2. Evaluating User Hand: Inspected by Urja, kena, Jolekha. The tests for this was to evaluate what hand rank the user had. Given the full set of cards, the test would make sure the output of the rank was what it should be. The tests worked well and come out with the correct results.
3. Update Pot Size: Inspected by Chance, Kena, and Urja. After each player choice, the pot size must increase depending on what the users do in the game. This test made sure when given multiple values, the pot size changed. After each round, it was tested that the winner got the value of the pot and the pot size changed back to zero.
4. Updating Stats: Inspected by Chance, Kena, Jolekha. This tests makes sure that after every round of game the users stats are changed by the correct values. The tests were successfully and the user data was successfully stored and changed as required.

III Recommendations and Conclusions

Each of the four items listed above were tested by three members of the group by conducting multiple tests to make sure that part of the application works the same way no matter how many times you test them. This was important because we want to make sure that the system does not crash or cause any problems after given number of trials.

After these four tests, other parts of this application should also be tested out for enough time so the entire application is most likely to work in any given situations.

Once all parts of the code from the application has been tested, the next step is to modify the game and add more features that were not implemented at the time the inspection was done. Some of the new features that could be included are:

1. Add animation while the cards are being displayed.
2. Add sound effect that goes along with animations mentioned above.

IV Project Issues

1 Open Issues

We had planned to have two separate version of the game where we were going to let the user pick their level of experience in the game, and based on that they were supposed to get paired with the AI agents that will also work have similar level. We were also planning on having a multiplayer game where upto 8 people can play games with each other online. In addition, our plan was to have animations for the cards when they are being shuffled and being given to the players. Lastly, the winning screen more interesting instead of just showing a message that says which player has won the game.

2 Waiting Room

Some of the ideas that were not implemented in the current release are:

1. Add an interactive help feature for the ease the players.
2. Making the game available online and letting the users play with other players instead of just the AI.
3. Have some kind of rewards when a player wins game.

Adding interactive help feature for the user could be very helpful to attract more users to play our game. This will allow them to get help when they are stuck on the game or if they need some kind of help. This will not only help them get a better understanding of poker, but it will also make them better player over the time.

Making the game available to play online with other users could be one of the biggest attention getter for the users. This feature was not implemented by the release; however, allowing the users play with other players online guarantees that they are given equal chance to play with a human who does not have the advantage of winning all the time because they are not an AI. This will also get the players motivated and encourage them to be more competitive.

Another feature that should be implemented should enable the player to earn rewards as they win the game. The online version of the game will have a scoreboard that will display the ranks of each player based on how many games they have won so far, which will constantly get updated within time. Depending on their ranks, each player will earn rewards that they can use in the game in future.

3 Project Retrospective

Making the game available online for multiple players was tough for two reasons. One being not having enough time to implement the feature on this release. Another being the group members didn't have experience working with having application available on net and keeping track of each players' scores.

One thing that should be done in future to help students improve, they should get a feedback on what they lost their points on and what needs to be improvised after the first demo with the TA. This time, our group only received our grades, but we weren't able to receive any feedbacks from the TAs. There should be a set rubric that shows on what criterias each project is being evaluated, and should be returned to each group before the final demo.

The use of icescrum was useful to keep track of the tasks each member of the group of a member is supposed to work on. However, some of the features were hard, and it didn't allow the group members to communicate with each other with ease. Although, the weekly meetings were mainly for the development project, we found it useful for the coding project as well. It allowed us to communicate with other group member, and look at each member's progress on each sprints.

V References / Bibliography

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