1 Introduction

1.1 Purpose

The purpose of this document is two-fold. On one side, this document is valuable to the client as it provides a readable list of the qualities their product will have. This is vital as, should something important be missing, it can be addressed. It provides the client a good sense of exactly how long their project is going to take to create as well as easily accessible milestones to see how their project is progressing.

It is also helpful for team members to create such a document as it ensures all requirements have been considered and have been written in a way that makes them testable. It is a prioritized list of all requirements and desire-ments in the project which creates an efficient manner with which to develop code during construction. Therefore, the Traceability Matrix is useful both to the client and software development team.

1.2 Document References

2 Traceability Table

2.1 Requirements List

2.2 Aspects List

2.3 Traceability Matrix

See Attached.

Table 1: Requirements List

Requirement Number	Section Number	SRS Description
R1	2.2.1	Program's GUI must be headed by title text indicating the game being played
R2	2.3	Program's GUI must contain a standardized menu bar situated at the top of the GUI.
R3	2.3.1	Program's menu must include a button to create a drop-down File menu.
R4	2.3.2	Program's File Button menu must include a button to start a new game.
R5	2.3.3	Program's File Button menu must include a button to view the user's game play statistics. The Statistics Button dialog must show the number of wins, losses, the largest win, and the greatest lost.
R6	2.3.4	Program's File Button menu must include a button to exit the program.
R7	2.3.5	Program's menu must include a button to seek help.
R8	2.3.6	Program's Help button must display information about the software. The information must include the software version number. The information may include the software version number.
R9	2.4	Program must access and display many visual resources, to include Windows graphics packages and external image files to represent objects in-game.
R10	2.4.1	Must include an image to represent the back of a playing card (i.e., face-down). The image must not show the value or suit of the card.
R11	2.4.2	Must include an image to represent the front of a playing card (i.e., face-up). This graphic must display the suit and value of the card
R12	2.4.3	Must include an image to represent more than one card in a stack or deck.
R13	2.4.5	Must include an image to represent the background of the game window
R14	2.4.6	Must include an actively-updated text field in which the user's current funds will be displayed. This display must include a label saying: Funds:
R15	2.4.7	Must include an actively-updated text field in which the user's Name is displayed.
R16	2.4.8	Must include a button for the user to indicate their wish to Hit.
R17	2.4.9	Must include a button for the user to Split.
R18	2.4.10	Must include a button for the user to Stand.
R19	2.4.11	Must include a betting box.
R20	2.5.1.1	Must display a pop-up window or splash screen when the game ends. It must display a message telling the user that they have won or lost.
R21	2.5.1.2	Must display a pop-up window or splash screen when the game ends. It must prompt the user to play again.
R22	2.6.1	Program must initialize all buttons to be inactive.
R23	2.6.1.1	Instance variables (money and bet, etc.) are initialized to their specific default values.
R24	2.6.2.1	The screen must appear without any cards dealt.
R25	2.6.2.2	The player's name and total starting funds ($500.00) must be displayed. Buttons must remain inactive.
R26	2.6.3	Program must prompt the user for their user name, and display it on the GUI.
R27	2.7.1	A new card must appear in the players hand when the Hit Button is pressed
R28	2.7.2	The hit button must be available whenever the game is in progress
R29	2.7.3	A check for a bust must be performed when the Hit Button is pressed
R30	2.8.1	The split button must not be available if it is not the first turn
R31	2.8.2	The split button must only be available if the user has two of the same card.
R32	2.8.3	The split button must allow the player to play each card as a separate game.
R33	2.8.4	The split button must not be available if the user's money is less than their current bet
R34	2.8.5	The split button may cause one of the users cards to minimize
R35	2.8.6	The split button must display the second bet outside the betting box

Table 2: Aspects List

Aspect Number	Aspect Name	Aspect Description
A1	Card Display	Pertains to all sections of the project involved with allowing images of cards appear in our user interface
A2	Splash Windows	Pertains to all sections of the project involved with allowing pop-up or splash windows to appear in our user interface
A3	Menu Bar	Pertains to all parts of the project related to allowing a menu bar appear in the topmost part of our user interface
A4	Menu Items	Pertains to all parts of the project related to the items in the menu bar (see A3)
A5	Buttons	Relates to the graphical needs of all buttons in the Blackjack user interface
A6	Funds Display	Relates to all graphical needs of the user interface that involve displaying the user's available funds.
A7	Name Display	Relates to all graphical needs of the user interface that involve displaying the user's name
A8	Betting Box	Relates to all graphical needs of the user interface that involve displaying the betting box (where the user may see what they placed as a bet at any given time).
A9	Background	Relates to all graphical needs of the user interface that involve displaying the background of the user interface
A10	Other	Relates to other aspects of the user interface. While too trivial to receive their own column, they are marked in this section to show that they will be addressed.
A11	Rendering GUI	Pertains to all times when the source code must interface with the user interface
A12	New Game Functionality	Relates to all source code that is involved with starting a new game
A13	Quit Functionality	Relates to all source code that is involved with quitting a game
A14	Reset Functionality	Relates to all source code that is involved with resetting a game
A15	Help Functionality	Relates to all source code that is involved with receiving help during a game
A16	Betting Functionality	Relates to all source code that is involved with betting
A17	Saving Game Specific Data	Relates to source code that is involved with saving data from a specific round of Blackjack. This includes but is not limited to which cards are in play, the total value of the player and dealer's hands, etc. This information is saved for the course of a hand, but if the user starts a new game, it is lost
A18	Saving Iteration Specific Data	Relates to source code that is involved with keeping track of certain pieces of data that must not be reset at the start of a new hand of Blackjack. This includes but is not limited to saving the number of wins and losses, the greatest win and loss of money, which cards have been played, etc. This information is saved over many hands of blackjack, but is not retained when the user quits and re-opens Blackjack.
A19	Saving Program Specific Data	Relates to source code that is involved with keeping track of certain pieces of data that must not be reset ever. This includes but is not limited to the name of the game, the developer team name, the name of the team members, cookie recipe, etc.
A20	Button Handling	Relates to all source code involved with acting in a certain way when a button is pressed.
A21	Card Handling	Relates to all source code involved with card objects. This includes but is not limited to functions like keeping track of which cards are in play, calculating their total value, ensuring they are not re-incorporated back into the deck until shuffle, shuffling, etc
A22	Blackjack Test	Relates to all source code involved with determining if there is a Blackjack in play.
A23	Bust Test	Relates to all source code involved with determining if there either player's hand has exceeded the value of 21.
A24	Hit Functionality	Relates to all source code involved with performing the actions of a Hit.
A25	Split Functionality	Relates to all source code involved with performing the actions of a Split.
A26	Stand Functionality	Relates to all source code involved with performing the actions of a Stand.
A27	Win Loss Comparison	Relates to all source code involved with comparing the user and the dealer's scores to determine