Event Driven Operations Document
(CSci 151 - Event Driven Programming Final Project)

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Project Name: Blackjack Game

Executive Summary:
Blackjack is an exciting card game that any player is sure to enjoy. This Blackjack Game project is just a simple blackjack game that is good for those who never played blackjack before as this can be a way to learn the game. This is also a great pastime for those who have a lot of free time. With no real money at risk, you can play this classic casino game just for fun!

Gameplay:
The main objective of the game is to beat the dealer and win more coins to be in the top 5 highest coins in the hall of fame. First you need to register to get your free 1000 coins and login into the game to play. Place your bet and deal your first two cards. You can "Hit" for another card and get your score close to 21 as you can without going bust (score is greater than 21). Win many games to collect more coins to be in the hall of fame.

Game Mechanics:
- The player must bet first before dealing cards.
- Player can "Hit" for another card to make the score closer to 21 without going bust.
- If the player busted, the dealer automatically wins.
- If the player doesn't want to hit for another card, player can directly evaluate and show the result.
- The score that is closer or equal to 21 wins.
- If a player's first two cards are an ace and a "ten-card" (a picture card or 10), giving a count of 21 in two cards, this is a natural or "blackjack."
- If the dealer has a blackjack, the player automatically loses.
- If both dealer and player have the same score, the game will be a tie meaning no one wins.
- Every time the player loses, player's bet will be ducted from the player's remaining coins.
- Otherwise, if the player wins, the bet will be added to the player's coins.
- If the player run's out of coins, 1000 coins will automatically add to the player's coins.

Forms:

Form Name	Description
Form1	Form that serves as landing page or dashboard of the game. Players can login to the game on this form.
Form2	Form that serves as the registration form for the players to register.
Form3	Form that is used as the playing interface of the game.
Form4	Form that displays the top 5 players with the highest coins.

Controls:

Control Name	Control Type	Form Owner
unameLabel	Label	Form1
pwordLabel	Label	Form1
usernameTxt	Textbox	Form1
passwordTxt	Textbox	Form1
NewBTN	Button	Form1
PlayBTN	Button	Form1

HallBTN	Button	Form1
ExitBTN	Button	Form1
blackjackLogoPanel	Panel	Form1
labelUname	Label	Form2
labelPass	Label	Form2
usernameTxt	Textbox	Form2
passwordTxt	Textbox	Form2
RegisterBtn	Button	Form2
panelHeaderLogo	Panel	Form3
panelRightLogo	Panel	Form3
panelCoinLogo	Panel	Form3
panelBG	Panel	Form3
tblTop	Panel	Form3
dCard1	Panel	Form3
dCard2	Panel	Form3
dCard3	Panel	Form3
dCard4	Panel	Form3
dCard5	Panel	Form3
pCard1	Panel	Form3
pCard2	Panel	Form3
pCard3	Panel	Form3
pCard4	Panel	Form3
pCard5	Panel	Form3
dealerName	Label	Form3
playerLabel	Label	Form3
betLbl	Label	Form3
betLabel	Label	Form3
resultLabel	Label	Form3
coinLbl	Label	Form3
betBtnLabel	Label	Form3
coinsLabel	Textbox	Form3
button1	Button	Form3
button2	Button	Form3
button3	Button	Form3
button4	Button	Form3
dealBtn	Button	Form3
hitBtn	Button	Form3
evaluateBtn	Button	Form3
newGameBtn	Button	Form3
panelHeader	Panel	Form4
labelRank	Label	Form4
labelUsername	Label	Form4
labelCoins	Label	Form4
rank1	Label	Form4
rank2	Label	Form4
rank3	Label	Form4
rank4	Label	Form4
rank5	Label	Form4
userR1	Label	Form4
userR2	Label	Form4
userR3	Label	Form4
userR4	Label	Form4
userR5	Label	Form4
coinsR1	Label	Form4
coinsR2	Label	Form4
coinsR3	Label	Form4
coinsR4	Label	Form4
coinsR5	Label	Form4

Events:

	Event Name	**Control Owner**	**Control Event**	**Description**
1.	NewBTN_Click	NewBTN	Click	When clicked, creates a new Form2 object and displays Form2 where users can register.
2.	PlayBTN_Click	PlayBTN	Click	When clicked, will check user's credentials if it exists, correct and complete. It also updates the data in the CurrentPlayer.txt file.
3.	HallBTN_Click	HallBTN	Click	When clicked, will create a new instance of Form4 object and displays the Form4 or the hall of fame form which contains the top 5 players with the highest coins.
4.	ExitBTN_Click	ExitBTN	Click	When clicked it will exit the application.
5.	RegisterBtn_Click	RegisterBtn	Click	When clicked, it will save the inputted data in the form unto the PlayerList.txt file and then will create personalized player file which contains the players data and credentials.
6.	button1_Click	button1	Click	When clicked, it checks if the bet didn't exceed the players remaining coins, and the bet limit of 1000. If not, then it will add 10, 50, 100, or 500 in the total bet.
7.	button2_Click	button2	Click	
8.	button3_Click	button3	Click	
9.	button4_Click	button4	Click	
10.	dealBtn_Click	dealBtn	Click	When clicked, it checks first if there are enough cards in the deck. If not, it will create a new instance of the deck. Then it deals two cards for the dealer and the player and displays it in their respective panels. If the players hand busts, it will automatically evaluate the game.
11.	hitBtn_Click	hitBtn	Click	When clicked, it checks if the number of cards in players hand doesn't exceed the limit of 5 cards. If not, then it will draw another card for the player and display it in the respective panel.
12.	evaluateBtn_Click	evaluateBtn	Click	When clicked, it calls the evaluate() function which evaluates who wins the round.
13.	newGameBtn_Click	newGameBtn	Click	When clicked, it resets the instances or data of the previous round for the next round.