# **CardGames Use Case Scenarios**

# **Change Account Settings**

- 1. User clicks on the the "Change account settings" button
- 1.1 ManageAccountGUIController is displayed
- 1.1.1 If user selects "change password"
- 1.1.1.1 ManageAccountGUIController displays form to change password
- 1.1.2 else if user selects "change name"
- 1.1.2.1 ManageAccountGUIController displays form to change name
- 1.1.3 else if user selects "change email"
- 1.1.3.1 ManageAccountGUIController displays form to change email
- 1.2 User fills out specific form
- 1.2.1 ManageAccountGUIController passes users information to database manager
- 1.2.2 DBMgr returns specific user
- 1.2.3 DBMgr changes user's information
- 1.2.4 ManageAccountGUIController creates confirmation message
- 1.2.5 ManageAccountGUIController displays confirmation message

### **Text Chat**

- 1 Table GUI displays text chat form
- 1.1 User types message into chat text box and hits send
- 1.1.1 Table GUI receives message
- 1.1.2 Table GUI sends message to ChatClient
- 1.1.3 ChatClient sends message to ChatServer
- 1.1.4 ChatServer sends message to ChatServerImpl
- 1.1.5 ChatServerImpl sends message to each player's Table GUI
- 1.1.6 Table GUI displays message to each user on table

## Register

- 1 User clicks on Login/Register button
- 1.1 user fills out registration form
- 1.2 Account controller validates form information
- 1.3 If information is valid
- 1.3.1 Account controller sends information to database manager
- 1.3.2 Database manager checks to see if user already exists
- 1.3.2.1 If user exists
- 1.3.2.1.1 Account controller creates error message
- 1.3.2.1.2 Register GUI displays error message
- 1.3.2.2 else
- 1.3.2.2.1 Database Manager adds new user
- 1.3.2.2.2 Account controller creates confirmation message
- 1.3.2.2.3 Register GUI displays confirmation message

### Login

- 1 User Clicks on the login/register button
- 1.1 user fills out login form
- 1.1.1 Account controller validates form information
- 1.1.1.1 If information is valid
- 1.1.1.1.1 Account controller sends information to database manager
- 1.1.1.1.2 Database manager attempts to find user in the database
- 1.1.1.1.2.1 If user is found
- 1.1.1.1.2.1.1 Database manager sends user's information back to Account controller
- 1.1.1.1.2.1.2 Account controller validates that password is correct
- 1.1.1.1.2.1.2.1 If password is correct
- 1.1.1.1.2.1.2.1.1 Account controller creates session for user
- 1.1.1.1.2.1.2.1.2 Account controller reroutes user to home page
- 1.1.1.2.1.2.2 else if password is incorrect
- 1.1.1.1.2.1.2.1 Account controller creates error message
- 1.1.1.1.2.1.2.2 Login GUI displays error message
- 1.1.1.1.2.2 else if user isn't found
- 1.1.1.1.2.2.1 Account controller creates error message
- 1.1.1.1.2.2.2 Login GUI displays error message
- 1.1.1.1 else if form information isn't valid
- 1.1.1.1.1 Account controller creates error message
- 1.1.1.1.2 Login GUI displays error message

# Logout

- 1 User clicks logout button
- 1.1 Account controller finds session id
- 1.2 Account controller stops session
- 1.3 Account controller creates logout message
- 1.4 Account controller reroutes to logout page
- 1.5 Logout GUI displays logout message

#### **View User Statistics**

- 1. User clicks on a player's username
- 2.1 Card Game System GUI sends request to account controller
- 2.2. Account controller passes username to DBManager for retrieval
- 2.3 DBManager searches for user's information, u, sends requested statistics back to Card Game System GUI
- 2.4 Card Game System displays the user's statistics on the user's profile page and takes the user to the profile page.
- 3. User reads statistics and profile information.

### Join a Card Game

1. User clicks on the card game they wish to play

- 2. Card Game System GUI takes them to a list of available tables for the selected card game
- 3.1 Player clicks Join Table on the table they wish to play at.
- 3.2 Card Game System GUI sends request to join table to the specified game's controller.
- 3.2.1 If the table is full
- 3.2.1.1 Card Game System GUI displays "Table is Full, cannot join table".
- 3.2.2 Else,
- 3.2.2.1 Game controller accepts user information from Card Game System GUI and lets the user join the table
- 4. The Game controller seats the user
- 5. The Card Game System GUI displays the table the user has successfully joined.

### Playing a Texas Hold 'em Hand

- 0.1. Holdem controller calls on HoldemDealer object hd to start a new hand
- 0.1.1 hd uses a Deck d to deal cards to a list of Players, players
- 0.2 Holdem Controller retrieves information from hd about players, and passes hand information to GUI
- 1. User completes Use Case "Poker Betting Action"
- 2. Holdem controller checks if betting is complete
- 2.1 If betting isn't complete
- 2.1.1 Continue processing betting actions
- 2.2 Else
- 2.2.1 If there is more than one player remaining
- 2.2.1.1Controller calls to hd to deal flop, and receives cards dealt
- 2.2.1.2 GUI displays cards to the user
- 2.2.2 Else
- 2.2.2.1 Award the pot to the remaining player
- 3. User completes UC Poker Betting Action
- 3. Holdem controller checks if betting is complete
- 3.1 If betting isn't complete
- 3.1.1 Continue processing betting actions
- 3.2 Else
- 3.2.1 If there is more than one player remaining
- 3.2.1.1Controller calls to hd to deal turn, and receives cards dealt
- 3.2.1.2 GUI displays cards to the user
- 3.2.2 Else
- 3.2.2.1 Award the pot to the remaining player
- 4. User completes UC Poker Betting Action
- 5. Holdem controller checks if betting is complete
- 5.1 If betting isn't complete
- 5.1.1 Continue processing betting actions
- 5.2 Else
- 5.2.1 If there is more than one player remaining
- 5.2.1.1Controller calls to hd to deal river, and receives cards dealt
- 5.2.1.2 GUI displays cards to the user
- 5.2.2 Else

- 5.2.2.1 Award the pot to the remaining player
- 6. User completes UC Poker Betting Action
- 7. Holdem controller checks if betting is complete
- 7.1 If betting isn't complete
- 7.1.1 Continue processing betting actions
- 7.2 Else
- 7.2.1 If there is more than one player remaining
- 7.2.1.1Controller calls to hd to find the winning hand
- 7.2.1.2 hd calls to HoldemWinChecker wc to find the winning hand
- 7.2.1.3 hd receives winning hand, and calls to bh to award the pot to the winining player
- 7.2.1.4 GUI displays hands in showdown and displays winning player
- 7.2.2 Else
- 7.2.2.1 Award the pot to the remaining player
- 8. Holdem controller passes list of Players to DBMgr and updates statistics

# Poker Betting Action (For any type of poker)

- 1 User chooses action in GUI
- 2.1 GUI sends action to game controller
- 2.1.1 Controller sends action to poker Dealer object for game, d
- 2.1.2 d passes action to PokerBettingHelper bh
- 2.1.3 bh processes action and adjusts the chips of Player, p
- 3. Game controller calls retrieves updated chip count of p through d

### **Starting a Euchre Hand**

- 1. Euchre controller calls on EuchreDealer object ed to start a new hand
- 1.1 ed uses Deck d to deal cards to players
- 1.3 ed returns dealt card information to controller
- 1.4 GUI retrieves and displays player hands
- 1.5 GUI displays potential trump card in the middle of the table
- 2.1 GUI retrieves current dealer from controller
- 2.2 GUI asks provides options to first player on the left of the dealer.
- 3. User either calls trump or passes to next player