**Use Case UC1: Register User**

**Scope:** Chad game application

**Level:** User account

**Primary Actor:** Person.

**Stakeholders and Interests:**

* Person: Wants to add themselves as a user to the system so they can play games

**Preconditions:** Person must have an email that has not already been used in another registration

**Success Guarantee:**

* The person has an account as a registered user and may login to the system using their email and password. The system will remember the account even if the system is shut down or crashes.

**Main Success scenario:**

1. Person enters a valid email that is not used by another user
2. Person enters a nickname that has not been used by another user
3. Person enters a password to secure their account
4. A user account is created for the person

**Extensions:**

4a. An invalid email was entered, the person is notified of the issue and the system resets to step 1

4b. The entered email is already being used, the person is notified and offered the options to recover the account currently using the entered email or to return to step 1

4c. The entered nickname is already in use, the person is asked to enter a different nickname

**Special Requirements:**

**Technology and Data variations List:** none.

**Frequency of Occurrence:** Account creation happens once per user.

**Miscellaneous:** If user selects to allow the app to save data to their device the login process is automatic, otherwise they must do so manually.

**Use Case UC2: Login User**

**Scope:** Chad game application

**Level:** User account

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: Wants to log in to the system

**Preconditions:** User must have completed Register User use case

**Success Guarantee:**

* The user is logged in and may access system features other then login

**Main Success scenario:**

1. User enters the email linked to their account
2. User enters the password set for the account
3. The system preforms the login operation for the user

**Extensions:**

3a. The email entered was not correct, the system will notify the user and ask them to login again

3b. The password entered is incorrect, the system will notify the user and ask them to login again

3c. The system is currently down, the user is notified and asked to try again later

**Special Requirements:**

**Technology and Data variations List:** none.

**Frequency of Occurrence:** Often

**Miscellaneous:** Find out how this interacts with the google authentication system we are using

**Use Case UC3: Create Game**

**Scope:** Chad game application

**Level:** User games

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: can start and play games with other users

**Preconditions:** Login User must be completed

**Success Guarantee:**

* A new game is created and the user will be a player of that game

**Main Success scenario:**

1. A user requests the system makes a new game
2. The game is created and the requesting user is added as the first player of the game

**Extensions:**

2a. The game creation system is currently off line, the user is notified and asked to try again later

**Special Requirements:**

* The user will be the first player to be able to make a move in this game

**Technology and Data variations List:**

**Frequency of Occurrence:** Very often

**Miscellaneous:**

**Use Case UC4: Invite Users to Created Game**

**Scope:** Chad game application

**Level:** User games

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: wants to allow other users to join their games

**Preconditions: T**he user has at least one game where they are the only player

**Success Guarantee:**

* An invitation is presented to all invitees on the invitation list and they may then Accept Invitation

**Main Success scenario:**

1. The user selects a game where they are the only player
2. The user selects one or more users to become the second player in the game
3. Once satisfied with the invitation list the user requests the invitations to be sent
4. The system sends an invitation to all users on the list

**Extensions:**

4a. The invitation system is down, the user is notified and asked to repeat the invitation later

**Special Requirements:**

**Technology and Data variations List:**

**Frequency of Occurrence:** Very often

**Miscellaneous:**

**User Case UC5: Accept Invitation**

**Scope:** Chad game application

**Level:** User games

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: wants to accept or reject the invitation to the game. If accepting the invitation the user wishes to join and play the game they are being invited to.

**Preconditions:** The user must have received an invitation to a created game

**Success Guarantee:**

* The user is added as a player in the game and may make moves after inviting user has played

**Main Success scenario:**

1. The user accepts the invitation
2. The user is assigned as the second player of the game
3. The game is started and moves may be made
4. The inviting user is notified that the invitation has been accepted
5. Both the user and the inviting user are marked as actively playing a game

**Extensions:**

1a. The user rejects the invitation and will no longer be able to join the game

1b. The user preforms not action on the invitation for greater then the timeout period, the invitation is removed and the user will no longer be able to join the game

2a. The game already has a second player, the user is notified and will no longer be able to join the game

2b. The game system is down, the user will be notified and asked attempt to join the game later

**Special Requirements:**

**Technology and Data variations List:**

**Frequency of Occurrence:** Very often

**Miscellaneous:**

**Use Case UC6: Access User Games**

**Scope:** Chad game application.

**Level:** User games

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: must be able to access games he/she is part of. The user must be able to save and make progress.

**Preconditions:** Login User is completed, user must have at least one active game

**Success Guarantee:**

* The user may make moves in the game they accessed

**Main Success scenario:**

1. User selects a game from the list of active (unfinished, non-abandoned) games
2. User is marked as actively playing the game
3. User reenters the game and may make moves if it is their turn

**Extensions:**

2a. The game system is down, the user is notified and asked to try again later

**Special Requirements:**

**Technology and Data Variations List:**

**Frequency of Occurrence:** Often

**Miscellaneous:**

**Use Case UC7: Leave game**

**Scope:** Chad game application.

**Level:** User games

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: wants to leave a game in progress but be able to rejoin and make progress later

**Preconditions:** User has completed Login User and is actively playing a game

**Success Guarantee:**

* User is no longer playing the game but may reenter the game with at most one move being made in the meantime

**Main Success scenario:**

1. User requests to leave the game
2. User is marked as not actively playing the game
3. When it is the users turn the game will not progress until the user completes Access User Games for the game

**Extensions:**

3a. The user does not complete Access User Games for greater then the timeout period, the game is marked as abandoned and may not be accessed

**Special Requirements:**

**Technology and Data Variations List:**

**Frequency of Occurrence:** Often

**Use Case UC8: Surrender game**

**Scope:** Chad game application.

**Level:** User “goal”.

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: wants to end a game and does not want to continue the game at a later date

**Preconditions:** User has completed Login User and is actively playing a game

**Success Guarantee:**

* User is no longer playing the game and the game is removed from their active games list

**Main Success scenario:**

1. The user requests to end the game
2. The user is notified the game will appear on their record as a loss and the opponent is notified the game will appear as a win.
3. The game is closed and both players are returned to their home screen
4. The game is marked as finished on both the user and the opponents list of games

**Extensions:**

3a. The accounts system is down, the players are returned to the login screen

**Special Requirements:**

**Technology and Data Variations List:**

**Frequency of Occurrence:** Often

**Miscellaneous:**

**Use Case UC9: Un-register User**

**Scope:** Chad game application.

**Level:** User account

**Primary Actor:** User

**Stakeholders and Interests:**

* User: wants to remove their account from the system

**Preconditions:** user has completed Login User

**Success Guarantee:**

* The users account is removed from the system and the user must complete Register User before they can use the system again

**Main Success scenario:**

1. The user requests to un-register from the system
2. The user is logged out of the system
3. The system marks all the games in the users active games list as abandoned in the opposing players games list
4. The system deletes the account

**Extensions:**

2a. The system is down, the user is asked to try again later

**Special Requirements:**

**Technology and Data Variations List:**

**Frequency of Occurrence:** Occasional

**Miscellaneous:**

**Use Case UC10: View User Profile**

**Scope:** Chad game application.

**Level:** User account

**Primary Actor:** User.

**Stakeholders and Interests:**

* User: wishes to view the profile of a user in the system. The profile they wish to view may be their own

**Preconditions:** user has completed Login User

**Success Guarantee:**

* The user is show the requested profile

**Main Success scenario:**

1. The user requests to view a profile for a user in the system
2. That users nickname and games history are retrieved
3. The nickname and record of games played will be shown to the user
4. Each game record will show the users that played the game, the start and end date and time plus the result of the game

**Extensions:**

2a. The user does not exist in the system, the user is notified and is returned to step 1

2b. The games record for the requested profile is corrupted or the games record system is down. The user is shown any non-corrupted data and is notified that an error occurred in retrieving the requested profile

**Special Requirements:**

**Technology and Data Variations List:**

**Frequency of Occurrence:** Often

**Miscellaneous:**

**Use Case UC11: Make Move**

**Scope:** Chad game application

**Level:** User games

**Primary Actor:** User

**Stakeholders and Interests:**

* User: wants to make a move in a game they are actively playing

**Preconditions:** User must have completed Login User and be actively playing a game

**Success Guarantee:**

* The game is updated with the users selected move and it is now the opponents turn

**Main Success Scenario:**

1. The user selects a piece they wish to move
2. The valid moves for that piece are shown
3. The user selects a move from the set of moves shown

**Extensions:**

1a. It is the opponents turn, the user is instructed to wait for the opponents move before making their own

2a. The piece selected by the user has no valid moves, the user is notified and is returned to step 1

3a. The move selected ends the game

1. The game result is determined
2. Both players are notified that the game is over and shown the result
3. The game is marked as finished and both players games records are updated accordingly
4. Both players are returned to their home page

**Special Requirements:**

* If the game system crashes at any time the turn is not progressed and the current game state is preserved

**Technology and Data Variations List:**

**Frequency of Occurrence:** Very often

**Miscellaneous:**