# Test Case Documentation : U.I.

Test Case Documentation : U.I.	1
Game Play	2
Feature: Login	2
Feature: Initial Game State	3
Feature: Preflop	5
Feature: Flop	7
Feature: Turn	8
Feature: River	9
Feature: Showdown	11
Feature: New hand	11
Feature: Game Completion	12
Game Actions	13
Feature: Bet	13
Feature: Fold	14
Feature: Raise	15
Feature: Check	16
Feature: Call	16
Game Objects	17
Feature: Cards	17
Feature: Stacks	18
Feature: Minimum Bet	18

## Game Play

## Feature: Login

Scenario	Preconditions	Action	Result	Pass
User attempts to log in with valid username	User types valid username into username input box.	User clicks enter or presses enter on keyboard	User should be brought to a game screen where a game has started.	Y
User attempts to log in with no user name	- User has typed not typed a username into input box.	User clicks enter or presses enter on keyboard	A modal screen should appear informing the user that they have submitted an invalid username and prevent them from logging in.	Y
User attempts to log in with a username that is already logged in.	- User types valid user name that is already logged in to the web app.	User clicks enter or presses enter on keyboard	A modal screen should appear informing the user that they have submitted a username that is already logged in and prevent them from logging in.	Y
User attempts to log in with a user name with ':' or ';' in it	- User types user name containing the colon or semicolon character	User clicks enter or presses enter on keyboard	A modal screen should appear informing the user that they have submitted a username that is invalid and prevent them from logging in.	

#### Feature: Initial Game State

Scenario	Preconditions	Action	Result	Pass
A player should have the dealer button	- User should be succesfully logged in User is on the main game screen	N/A	One of either the A.I. player or the user should have dealer button.	Y
Players should have equal initial stack sizes	<ul><li>User should be succesfully logged in.</li><li>User is on the main game screen</li></ul>	N/A	Both the A.I player and the user must have the same number of chips in each of their stacks.	Y
User should be able to see their cards	- User should be succesfully logged in User is on the main game screen	N/A	The user should be able to see their cards clearly. The user should also only be able to see the back of the A.I.'s cards.	Y
User should not be able to see any board cards	- User should be succesfully logged in User is on the main game screen	N/A	The user should not be able to see any board/community cards.	Y
User bet options when user has the dealer button	- User should be succesfully logged in User is on the main game screen - User has the dealer button - User bet options have been enabled	N/A	The user should be given the option to: - Raise - Bet - Fold	
User bet options	- User should be succesfully logged in User is on the main game screen - User bet options	User waits for a few seconds	User bet options should be clickable and look enabled.	

User bet options when A.I. has dealer button	should be unclickable and look disabled  - User should be succesfully logged in User is on the main game screen - User has the dealer button - User bet options have been enabled	N/A	The user should be given the option to: - Raise - Bet - Fold
Blinds have been correctly placed when the user has the dealer button	- User should be succesfully logged in User is on the main game screen - User has the dealer button	N/A	The user should have placed half of the the big blind as contribution to the pot. The A.I should have placed all of the big blind as their contribution to the pot. The pot should be made up of the total contributions by both players
Blinds have been correctly placed when the A.I has the dealer button	- User should be succesfully logged in User is on the main game screen - A.I. has the dealer button	N/A	The AI should have placed half of the the big blind as contribution to the pot. The user should have placed all of the big blind as their contribution to the pot. The pot should be made up of the total contributions by both players

Feature: Preflop

Pre conditions for all Preflop scenarios: User should be succesfully logged in.User is on the main game screen

Scenario	Preconditions	Action	Result	Pass
No community cards at any point of pre flop stage			No community cards should appear at any point at this stage regardless action take by user	
User bet options when user has dealer button	- User has the dealer button - User bet options have been enabled	N/A	The user should be given the option to: - Raise - Bet - Fold	
User has dealer button and carries out first action of hand - call	- User has dealer button - User has enough chips to call	User clicks action 'Call'	The pot should be correctly calculated to account for the 'called' contribution towards the pot. The A.I should carry out one of the following actions: - Call - Raise - Fold	
User has dealer button and carries out first action of hand - fold	- User has dealer button	User clicks action 'Fold'	The pot should be added to the A.I. chip stack. A new hand should be dealt out.	
User has dealer button and carries out first action of hand - raise	- User has dealer button - User has enough chips to raise	User inputs amount to raise by and clicks action 'Raise'	The raise contribution should be added to the user contribution and to the total pot. The A.I should carry out one of the following actions: - Call	

			- Raise - Fold
A.I has dealer button and carries out first action of hand - call	- A.I. has dealer button - A.I. has enough chips to call	A.I. carries out action 'Call'	The amount to call by should be added to the AI contribution and the total pot. The user should be given the option to - Bet - Check - Fold
A.I has dealer button and carries out first action of hand - raise	- A.I has dealer button - A.I has enough to chips to raise	A.I. carries out action 'Raise'	The amount raised, plus the amount needed to call the bet should be added to A.I. contribution and to the total pot. The user should be given the option to  - Call - Raise - Fold
A.I has dealer button and carries out first action of hand - fold	- User has dealer button	A.I carries out action to 'Fold'	The pot should be added to the user chip stack. A new hand should be dealt out.
Al checks, followed by User checks	The previous Al action is Check	The user checks	The hand should move on to the flop stage
User checks, followed by AI checking	The previous user action is Check	The AI checks	The hand should move to the flop stage
User raises, follwed by Al calling	The previous user action is raise	The AI calls	The hand should move to the flop stage
Al raises, followed by user calling	The previous user action is raise	The AI call	The hand should move to the flop stage

User bets, followed by AI checking	The previous user action is bet	The AI calls	The hand should move to the flop stage	
Al bets, followed by Al calls	The previous user action is bet	The AI calls	The hand should move to the flop stage	

Feature: Flop

Precondition - Preflop completed

Scenario	Preconditions	Action	Result	Pass
Community cards			Should be three three community cards visible to the user	
User has the dealer button, no action completed	User has dealer button		User has option to - Check - Bet - Raise	
A.I has dealer button, no action completed	A.I. has dealer button		User does not have the option to carry out any action until A.I carries out one of following actions:  - Check - Bet - Raise	
Al checks, followed by User checks	The previous AI action is Check	The user checks	The hand should move on to the turn stage	
User checks, followed by AI checking	The previous user action is Check	The Al checks	The hand should move to the turn stage	
User raises, follwed by Al calling	The previous user action is raise	The Al calls	The hand should move to the turn stage	

Al raises, followed by user calling	The previous user action is raise	The AI call	The hand should move to the turn stage	
User bets, followed by Al checking	The previous user action is bet	The Al calls	The hand should move to the turn stage	
Al bets, followed by Al calls	The previous user action is bet	The Al calls	The hand should move to the turn stage	
A.I carries out action - fold		A.I carries out action to 'Fold'	The pot should be added to the user chip stack. A new hand should be dealt out.	
User carries out action - fold		User carries out action to 'Fold'	The pot should be added to the A.I. chip stack. A new hand should be dealt out.	

**Feature**: Turn Precondition:

- Flop completed

Scenario	Preconditions	Action	Result	Pass
Community cards			Should be four community cards visible to the user	
User has the dealer button, no action completed	User has dealer button		User has option to - Check - Bet - Raise	
A.I has dealer button, no action completed	A.I. has dealer button		User does not have the option to carry out any action until A.I carries out one of following actions:	

			- Check - Bet - Raise
Al checks, followed by User checks	The previous Al action is Check	The user checks	The hand should move on to the river stage.
User checks, followed by Al checking	The previous user action is Check	The AI checks	The hand should move to the river stage.
User raises, follwed by Al calling	The previous user action is raise	The AI calls	The hand should move to the river stage.
Al raises, followed by user calling	The previous user action is raise	The Al call	The hand should move to the river stage.
User bets, followed by Al checking	The previous user action is bet	The Al calls	The hand should move to the river stage.
Al bets, followed by Al calls	The previous user action is bet	The Al calls	The hand should move to the river stage.
A.I carries out action - fold		A.I carries out action to 'Fold'	The pot should be added to the user chip stack. A new hand should be dealt out.
User carries out action - fold		User carries out action to 'Fold'	The pot should be added to the A.I. chip stack. A new hand should be dealt out.

Feature: River Precondition:

- Turn completed

Scenario	Preconditions	Action	Result	Pass
Community cards			Should be fivecommunity cards visible to the user	
User has the dealer button, no action completed	User has dealer button		User has option to - Check - Bet - Raise	
A.I has dealer button, no action completed	A.I. has dealer button		User does not have the option to carry out any action until A.I carries out one of following actions:  - Check - Bet - Raise	
Al checks, followed by User checks	The previous Al action is Check	The user checks	The hand should move on to the showdown stage.	
User checks, followed by Al checking	The previous user action is Check	The AI checks	The hand should move to the showdown stage.	
User raises, follwed by Al calling	The previous user action is raise	The AI calls	The hand should move to the showdown stage.	
Al raises, followed by user calling	The previous user action is raise	The AI call	The hand should move to the showdown stage.	
User bets, followed by Al checking	The previous user action is bet	The AI calls	The hand should move to the showdown stage.	
Al bets, followed by Al calls	The previous user action is bet	The AI calls	The hand should move to the showdown stage.	
A.I carries out action - fold		A.I carries out action to 'Fold'	The pot should be added to the user	

		chip stack. A new hand should be dealt out.	
User carries out action - fold	User carries out action to 'Fold'	The pot should be added to the A.I. chip stack. A new hand should be dealt out.	

Feature: Showdown

Precondition:

- River stage completed

Scenario	Preconditions	Action	Result	Pass
User has better hand rank than AI at showdown (per rules of poker hand ranking)			The pot should be added to the User chip stack. Contributions and the pot should be reset to 0. A new hand should be dealt out.	
A.I. has better hand rank than user (as per rules of poker hand ranking)			The pot should be added to the AI chip stack. Contributions and the pot should be reset to 0. A new hand should be dealt out	

Feature: New hand

Scenario	Preconditions	Action	Result	Pass
User should not be able to see any board cards		New hand dealt	The user should not be able to see any board/community	Y

			cards.
The A.I should have the dealer button	In the previous hand, the user had the dealer button	New hand dealt	The A.I should have the dealer button for this hand
The user should have the dealer button	In the previous hand, the A.I. had the dealer button	New hand dealt	The user should have the dealer button for this hand
Blinds have been correctly placed when the user has the dealer button	- User has the dealer button	New hand dealt	The user should have placed half of the the big blind as contribution to the pot. The A.I should have placed all of the big blind as their contribution to the pot. The pot should be made up of the total contributions by both players
Blinds have been correctly placed when the A.I has the dealer button	- User should be succesfully logged in User is on the main game screen - A.I. has the dealer button	New hand dealt	The AI should have placed half of the the big blind as contribution to the pot. The user should have placed all of the big blind as their contribution to the pot. The pot should be made up of the total contributions by both players

Feature: Game Completion

Scenario Preconditions	Action	Result	Pass
------------------------	--------	--------	------

User does not have enough chips to place a big blind in a hand	User does not have chips to place a big blind in a new hand	New hand	Message appears informing user that they have lost, button inviting player to play a new game is shown	
A.I does not have enough chips to place a big blind in a new hand	A.I. does not have enough chips to place a big blind in a new hand	New hand	Message appears congratulating player on their win, button inviting player to play a new game is shown	

### Game Actions

Feature: Bet

Scenario	Preconditions	Action	Result	Pass
User chooses to bet	User has option to bet	- User types amount greater than/equal the minimum bet and less than/equal their own chip stack - User clicks option to bet	Amount is added to both user contribution and the total pot A.I. turn to carry out an action(call, fold or raise).	
A.I chooses to bet	A.I has option to bet A.I has enough chips to bet.	A.I carries out action to bet.	Amount that the Al has bet by is added to Al contribution and also to the total pot.	
User chooses to bet - not enough chips	User has option to bet User has less chips than minimum bet	- User types amount greater than/equal the minimum bet and less than/equal their own chip	A modal appears to the user informing them that they must bet a valid amount - between the minimum bet and	

		stack - User clicks option to bet	their chip stack size.	
User chooses to bet - amount over their stack size	User has option to bet	- User types amount greater to their own chip stack - User clicks option to bet	A modal appears to the user informing them that they must bet a valid amount - between the minimum bet and their chip stack size.	
User chooses to bet - amount below minimum	User has option to bet	- User types amount below the minimum bet - User clicks option to bet	A modal appears to the user informing them that they must bet a valid amount - between the minimum bet and their chip stack size.	
User chooses to bet - invalid number	User has option to bet	- User types an amount that can not be parsed as a positive integer e.g) "test", "-400", "forty" - User clicks option to bet	A modal screen appears to the user informing them that: 'The amount you have entered is not a valid integer. Please enter valid value.'	

Feature: Fold

Scenario	Preconditions	Action	Result	Pass
User chooses to fold	User has the option to fold	User clicks on 'fold option'	The pot should be added to the A.I. chip stack. Contributions and the pot should be reset to 0. A new hand should be dealt out.	
A.I. chooses to	A.I. has the option	User clicks on	The pot should be	

fold	to fold	'fold' option	added to the user chip stack. Contributions and the pot should be reset to 0. A new hand should be dealt out.	
------	---------	---------------	---	--

Feature: Raise

Scenario	Preconditions	Action	Result	Pass
User chooses to raise	User has option to raise User has enough chips to both call and raise a bet.	- User types amount into raise by input greater than/equal the minimum bet and less than/equal their own chip stack - User clicks option to raise	Both the amount to call by and amount to raise by is added to both user contribution and the total pot A.I. turn to carry out an action(call, fold or raise).	
A.I chooses to raise	A.I has option to raise A.I has enough chips to both call and raise a bet.	A.I carries out action to raise.	Amount that the AI has raise by is added to AI contribution and also to the total pot. User turn to carry out action (call, fold, or raise)	
User chooses to raise- not enough chips	User has option to raise User has raise chips than minimum bet	- User types amount greater than/equal the minimum bet and less than/equal their own chip stack - User clicks option to raise	A modal appears to the user informing them that they must bet a valid amount - between the minimum bet and their chip stack size.	
User chooses to raise - amount over their stack size	User has option to raise	- User types amount greater to their own chip stack	A modal appears to the user informing them that they must bet a valid amount -	

		- User clicks option to raise	between the minimum bet and their chip stack size.	
User chooses to raise- amount below minimum	User has option to raise	- User types amount below the minimum bet - User clicks option to raise	A modal appears to the user informing them that they must bet a valid amount - between the minimum bet and their chip stack size.	
User chooses to raise - invalid number	User has option to raise	- User types an amount that can not be parsed as a positive integer e.g) "testraise", "-400", "forty" - User clicks option to raise	A modal screen appears to the user informing them that:  'The amount you have entered is not a valid integer. Please enter valid value.'	

Feature: Check

Scenario	Preconditions	Action	Result	Pass
User chooses to check	User has option to check	- User clicks option to check	No contribution is added to either user contribution or the total pot A.I. turn to carry out an action.	
A.I. chooses to check	A.I. has option to check	A.I. carries out option to check	No contribution is added to either A.I. contribution or the total pot User turn to carry out action	

Feature: Call

nditions Action Result P	Action	Preconditions	Scenario
--------------------------	--------	---------------	----------

User chooses to call	User has option to call User has enough to chips to call	- User clicks option to call	The amount called is the contribution is added to both user contribution and the total pot A.I. turn to carry out an action.	
A.I. chooses to call	A.I. has option to check A.I has enough chips to call	A.I. carries out option to call	The amount called is the contribution is added to both user contribution and the total pot User turn to carry out action	
User chooses to call - not enough chips	User has option to call User does not have enough to chips to call	- User clicks option to call	The game ends with winner being: - A.I	
A.I. chooses to call - not enough chips	A.I. has option to call A.I has not enough chips to call	A.I. carries out option to call	The game ends with winner being: - User	

# Game Objects

Feature: Cards

Scenario	Preconditions	Action	Result	Pass
Valid Card - value			Valid card should one value of the following: - 2,3,4,5,6,7,8, 9,10,J,Q,K,A	
Valid Card - suit			Valid card should have one suit of one of the following: - Hearts, Spades,	

		Clubs, Diamonds	
Valid Cards in a hand		No two cards equivalent in both suit and value may appear in one hand.	

Feature: Stacks

Scenario	Preconditions	Action	Result	Pass
Valid Stack			Stack should never have a negative value. (always >= 0)	

Feature: Minimum Bet

Scenario	Preconditions	Action	Result	Pass
Minimum should increase every 'X' hands		'X' hands played	The minimum bet should double	
The number of hands should decrease for every hand that passes, apart from '0 hands left' case		A hand is played	The number of hands left until the min. bet doubles should decrement by one.	
When there are 0 hands left, the number of hands should then go back to a higher number(e.g.	1 hand left until minimum bet doubles	A hand is played	The number should reset to a higher number.	

1 10/15/20\		
10/13/20)		
,		