

## Object classes

<b>Class name:</b> Card	
<b>Description:</b> Represents a card with number value and suit	
Responsibility	Collaborators
<ul style="list-style-type: none"><li>- Generate new card</li><li>- Compare itself to other cards</li></ul>	Deck Hand Hand sub-classes (High Card, Pair,...) CardUtility CardState Suit

<b>Class name:</b> Player	
<b>Description:</b> Represents the player in the game	
Responsibility	Collaborators
<ul style="list-style-type: none"><li>- Generate best hand</li><li>- Bet money to the Pot</li><li>- Flip cards</li></ul>	Hand Card Game CardUtility PlayerState

<b>Class name:</b> Pot	
<b>Description:</b> Represents the pot	
Responsibility	Collaborators
<ul style="list-style-type: none"><li>- get players' cash</li></ul>	Player Game

<b>Class name:</b> Game	
<b>Description:</b> Control and operate the game	
Responsibility	Collaborators
<ul style="list-style-type: none"><li>+ Create new game</li><li>+ Deal cards to the table and the players</li><li>+ Check each players bet</li><li>+ Find players who have the winning hands</li><li>+ Show cards on Flop, Turn, River, Showdown</li><li>+ Calculate pot money and give to winning players</li></ul>	Player Card Deck Poker Controller Pot GameState



<b>Class name:</b> Hand	
<b>Description:</b> Represents the Hand	
<b>Responsibility</b>	<b>Collaborators</b>
<ul style="list-style-type: none"> <li>- Represents the Hand that player has</li> <li>- Compare itself to other hands</li> </ul>	Player Game CardUtility Hand

<b>Class name:</b> Client	
<b>Description:</b> Control the MainView	
<b>Responsibility</b>	<b>Collaborators</b>
<ul style="list-style-type: none"> <li>- Get the information about users' action.</li> <li>- Send the information to the server</li> </ul>	PokerMain Main View

<b>Class name:</b> Server	
<b>Description:</b> Control the model and connect it to the view	
<b>Responsibility</b>	<b>Collaborators</b>
<ul style="list-style-type: none"> <li>- Get and process action from the player</li> <li>- Update model and send view information to client</li> </ul>	Client Game

<b>Class name:</b> PokerMain	
<b>Description:</b> Runs the game	
<b>Responsibility</b>	<b>Collaborators</b>
<ul style="list-style-type: none"> <li>- Ask the user on how they join the game</li> <li>- Runs the game</li> </ul>	Server Game

<b>Class name:</b> MainView	
<b>Description:</b> Show the GUI	
<b>Responsibility</b>	<b>Collaborators</b>
<ul style="list-style-type: none"> <li>- Show the view for the user</li> </ul>	Client

## Hand sub-classes

<b>Class name:</b> HighCard	
<b>Description:</b> Represents a HighCard hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create HighCard hand - Compare itself to other HighCard hands	Hand Card Utility

<b>Class name:</b> Pair	
<b>Description:</b> Represents a Pair hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create Pair hand - Compare itself to other Pair hands	Hand Card Utility

<b>Class name:</b> TwoPair	
<b>Description:</b> Represents a TwoPair hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create TwoPair hand - Compare itself to otherTwoPair hands	Hand Card Utility

<b>Class name:</b> ThreeOfAKind	
<b>Description:</b> Represents a Three Of A Kind hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create ThreeOfAKind hand - Compare itself to other ThreeOfAKind hands	Hand Card Utility

<b>Class name:</b> Straight	
<b>Description:</b> Represents a Straight hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create Straight hand - Compare itself to other Straight hands	Hand Card Utility

<b>Class name:</b> Flush	
<b>Description:</b> Represents a Flush hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create Flush hand - Compare itself to other Flush hands	Hand Card Utility

<b>Class name:</b> FullHouse	
<b>Description:</b> Represents a FullHouse hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create FullHouse hand - Compare itself to other Full House hands	Hand Card Utility

<b>Class name:</b> FourOfAKind	
<b>Description:</b> Represents a high card hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create FourOfAKind - Compare itself to other FourOfAKind hands	Hand Card Utility

<b>Class name:</b> StraightFlush	
<b>Description:</b> Represents a StraightFlush hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create StraightFlush hand - Compare itself to other StraightFlush hands	Hand Card Utility

<b>Class name:</b> RoyalFlush	
<b>Description:</b> Represents a high card hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Create RoyalFlush hands - Compare itself to other RoyalFlush hands	Hand Card Utility

## Enumeration classes

<b>Class name:</b> CardState	
<b>Description:</b> Represents two states of the card	
Responsibility	Collaborators
+Represents two card states: <ul style="list-style-type: none"><li>• FACE_UP</li><li>• FACE_DOWN</li></ul>	Card

<b>Class name:</b> Suit	
<b>Description:</b> Represents two states of the card	
Responsibility	Collaborators
+Represents two card states: <ul style="list-style-type: none"><li>• DIAMOND</li><li>• SPADE</li><li>• HEART</li><li>• CLUB</li></ul>	Card

<b>Class name:</b> PlayerState	
<b>Description:</b> Represents three states of players	
Responsibility	Collaborators
+Represents two card states: <ul style="list-style-type: none"><li>• FOLDED</li><li>• PLAYING</li><li>• ALL_IN</li></ul>	Player

<b>Class name:</b> Game State	
<b>Description:</b> Represents three states of players	
Responsibility	Collaborators
+Represents two card states: <ul style="list-style-type: none"><li>• NEW_GAME</li><li>• FLOP</li><li>• TURN</li><li>• RIVER</li><li>• SHOWDOWN</li><li>• COMPLETE</li></ul>	Game

## Utility classes

<b>Class name:</b> CardUtility <<EmpUtility>>	
<b>Description:</b> Generate different kinds of Hand and check different kind of Hand	
<b>Responsibility</b>	<b>Collaborators</b>
- Generate the best Hand object based on the given 5 cards.	Hand Hand sub-classes (High Card, Pair,...) Card