Poker Game

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A single player Jack or better game that can be run normally or with networks.

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1 CLASS: MAIN

The main method instantiate Channel, GameMaster, and ConsoleClient as PokerClient. It then creates a new thread and runs the Client on it. Afterwards it calls sleep on the main thread before calling the run method of GameMaster. Since the first event is coming from Client, the main thread is put to sleep for one second so that the secondary thread, which is running the client, can send information into the queue.

2 POKERCLIENT

The PokerClient's run method is executed first. It sends a new GameStartEvent to the queue and waits for the GameMaster to process the request and send the necessary information back into the queue where the PokerClient can access it. This is repeated over and over again for the corresponding events needed to play the game.

3 GAMEMASTER

The GameMaster waits for the client to make a request, it then processes the request before sending the necessary information back.

4 XMLNODE

The convertXMLNode method in the PaytableReader class takes the argument node and creates a list of all that node's children. It then parses over the list, adding the information from the XML to the hashmap by calling the addPayout method in Paytable which takes a payout object created by convertXMLNode in the PayoutReader whenever the current node is the element node. The PayoutReader's convertXMLNode takes in a node, retrieves the content and return a payout object.

5 NETWORKING

When the server class is run, it creates a thread pool of 100 instances of ServerConnections that are waiting to be assigned a task. Whenever a client connects to the socket opened by the server, the server assigns the client an available thread to handle any the passing of information. The client uses ObjectStreams to send serialized objects, which are the events it is requesting in order to play the game, to the server. The server takes the serialized object, casts it back to the appropriate class, processes it, and sends the necessary information back to the client as a serialized object. This process is repeated over and over again in the

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appropriate order to play the game. If all 100 threads are not available, the server class populates the thread pool with 10 more threads.

6 CHANGES MADE

Added a method called deckSize which returns an integer value that represents the number of cards remaining in the deck to the interface deck. The reason this was added was whenever there weren't enough cards in the deck to deal a new hand, it would reuse the previous hand. By having a check that checks if the deck size is less then five, this was circumvented by instantiated a new dealer whenever the check was true.

Made ConsoleClient implement runnable so that a new thread could run it.

Serialized the classes; Cards, DealEvent, RankEvent, RedrawEvent, CardApapter, GameStartEvent, GameState, PokerCard, PokerHand, PokerPlayer, PokerRank, and RequestRankEvent

7 RUNNING INSTRUCTIONS

7.1 Network

In the terminal, change the directory to wherever the project is saved and navigate into the second poker folder. From there type, java Main.server, to start the server. In another terminal, type, java GUI.client, to start the client.

7.2 Without Network

Change directory to where the project is saved and from the second poker folder type, java Main.Main.