Dhruv Sharma

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Section G

Mentor: Brandon Takao

Project Proposal

**Project: Teen Patti (3-card Poker)**

Teen Patti is a card game widely popular in India, and in casinos it’s called 3-card Poker. The game is based on a betting-based gameplay. My project will create a user interface, that will allow a player to play teen patti with other players. For this I will use the sockets module. I will also implement AI, so that the game can be played single player, or alongside a computer. The game is dependent on variations, without which the game becomes monotonous. And so once, the basic gameplay of standard teen patti is implemented, I will also add variations to it.

The Game:

* Card game, 1 deck, multiplayer
* Based on betting
* 3 cards (called a hand), best hand wins, or win if everyone else packs (folds)
* No flop or common cards.
* Bet increases only in doubles, for example If I bet $10, the next person can either bet $10, or min/max $20, nothing else is allowed.
* Option of playing blind, so you don't see your cards, and you bet half the amount a seen player bets. (+EV in specific variations of the game, and sometimes if the hand began with a lot of people, and only 1 remains). Also responsible for causing some sick moments in the game.
* Variations, often with Jokers, or Busts.
  + Joker: A card that can become any other card. Copies of cards are possible, in the same hand with jokers.
  + Bust: A card or set of cards that result in the hand having 0 value.

**Structural and Algorithmic Plan**

For my project I will use a class of playing cards, that will have static methods of operations that can be called on a deck of cards. And there will be an animation running. Sockets are used to send messages, most likely actions performed by other players in the game. The toughest part of the project will be implementing the AI, which I will use the Monte Carlo method for. Before that however, the toughest part would be to implement the socket functionality, as so many actions performed by players are dependent on other players.

I aim to be done with the basic gameplay involving sockets by TP2. That would be my MVP. Then I will work on making the graphics better, and adding different variations to the game. And an AI.