**Top Trumps Java Code**

**Game Order:**

* **Menu – (1) see stats (2) play game**
* **Deal all user/cpu cards from main deck between players**
* **Start round 1**
* **select next user/cpu cards from their own decks**
* **begin round (print statement)**
* **display user card to user**
* **display # of cards in user’s deck**
* **if player’s turn to choose, display category choices**
* **else if cpu’s choice, use a method**
* **compare current cards for all players**
* **if winner: display winner name, winning card, & allocate win to stats**
* **if draw, add all current round cards to common pile**
* **run an isGameWon method to check if game is over (if only 1 player has cards left)**
* **if a player has lost (0 cards left) & game is not over yet, display “X has lost” & continue game**
* **Start round 2**
* **select next user/cpu cards from their own decks**
* **begin round (print statement)**
* **display user card to user**
* **display # of cards in user’s deck**
* **if draw, continue with last category chooser**
* **if winner, move to next category chooser**
* **if player’s turn to choose, display category choices**
* **else if cpu’s choice, use a method**
* **compare current cards for all players**
* **if winner: display winner name, winning card, & allocate win to stats**
* **if draw, add all current round cards to common pile**
* **run an isGameWon method to check if game is over (if only 1 player has cards left)**
* **if a player has lost (0 cards left) & game is not over yet, display “X has lost” & continue game**
* **End of Game**
* **Once isGameWon = true, end game (print statement)**
* **Display winner’s name**
* **Display game scores (USER = 7 // AI\_1 = 29 // AI\_2 = 15 …)**
* **Menu**

**Methods (Game Logic)**

­ \* dealCards - start of game, give all players cards from the main deck

\* printRound - start of each round, print "Round x! Players have drawn their cards."

\* displayCurrentCard - show stats from current card to user

\* displayCardsLeft - show remaining cards in user's deck

\* displayCategoryChoices – for human player, list of 5 categories

\* cpuChooseCategory - find highest number on cpu card & pick that category

\* compareAllCards - find which player(s) have highest num in chosen category

\* printRoundWinner - "player X has won this round" & display winning card

\* roundDraw - adds all current cards to common pile

\* isGameWon - true if only 1 player has cards left

\* displayLost - print statement for a player with 0 cards left

\* displayGameWinner - end of game, print game winner

\* displayGameStats - end of game, print rounds won by each player

**Methods (Statistics)**

* trackCards – check # of cards each player has at end of each round. If any have 0, they have lost. (linked to displayLost method)
* roundsWon – keep a count of each round won by each player for stats

**Methods (Get Resources)**

* getCardInfo – retrieve card stats (Height = 5, Strength = 7 …) and load into card objects
* getAllGameStats – retrieve stats on all previous games

**Classes**

* Card object holds stats in an array
* Game object holds game methods

**Template Game Classes:**

|  |  |
| --- | --- |
| **categoryList**  **currentAIs**  **currentPlayer**  **drawCards**  **game**  **gameStats**  **getLosers**  **humanPlayer**  **isGameOver** | **playerlost**  **processRound**  **roundSelectedCategory**  **roundStatus**  **roundWinner**  **selectCategory**  **startGame**  **stats**  **trySelectCategory** |