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1 package club.westcs.BlackjackCeciliaB;
2
3 import java.util.ArrayList;
4 import java.util.Scanner;
5
6 public class StrippedGameLogic {
7     //Attributes
8     /**
9         * String
10        *     playerName
11        * Objects
12        *     Deck
13        *     Chips
14        *     Scanner
15        *     ArrayLists (2)
16        *         playerHand<StrippedCard>
17        *         dealerHand<StrippedCard>
18        */
19     /**
20      * A string of playerName
21      * A deck
22      * A currency
23      * A Scanner
24      * Two ArrayLists for each hand(playerHand and dealerHand)
25      */
26     private String playerName;
27     private StrippedDeck deck;
28     private StrippedCurrency currency;
29     private Scanner scan;
30     private ArrayList<StrippedCard> playerHand;
31     private ArrayList<StrippedCard> dealerHand;
32
33
34
35     //Constructor
36     //Regular constructor stuff

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37-  /**
38   * New Scanner
39   * get the player's name
40   * make a new deck
41   * make a new currency
42   * make a new ArrayList for each hand
43   * Run the game
44   */
45-  public StrippedGameLogic() {
46      scan = new Scanner(System.in);
47      setName();
48      deck = new StrippedDeck();
49      currency = new StrippedCurrency();
50      playerHand = new ArrayList<>();
51      dealerHand = new ArrayList<>();
52      runGame();
53  }
54
55      //Methods
56
57-  /**
58   * #1 setName()
59   * #2 runGame()
60   *     like the pet live method
61   *     while the player has currency
62   *         call the game logic methods (deal, printHands, bet, hitStay, dealerTurn, determineWinner, resetHands/deck
63   * #3 dealStrippedCard(ArrayList<StrippedCard> hand)
64   *     if the hand is empty add two StrippedCards
65   *     otherwise add one StrippedCard
66   * #4 printHand(AL<StrippedCard> hand, boolean firstStrippedCard)
67   *     for every StrippedCard in the hand
68   *         if the firstStrippedCard is true
69   *             print the StrippedCard's toString()
70   *         else
71   *             print mystery StrippedCard
72   *             set firstStrippedCard to true
73   * #5 totalHand(AL<StrippedCard> hand)
74   *     need an int for the total

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75     *         need a boolean for the ace
76     *         for every StrippedCard in the hand
77     *         add the numValue to the total
78     *         if the StrippedCard is an ace
79     *         set the bool to true
80     *         if the bool is true and the total is less than 12
81     *         add 10 to the total
82     *         return the total
83     * #6 hitStay()
84     *         while the playerTotal is < 21
85     *         ask if the player wants to hit or stay
86     *         if they hit give the playerHand a StrippedCard
87     *         else break
88     * #7 dealerTurn()
89     *         while the dealertotal is less than 17
90     *         add a StrippedCard to the dealerhand
91     * #8 determineWinner()
92     *         -Decides who wins and calls currency methods
93     *         --check if the player and dealer have tied or both gone bust (over 21) (T)
94     *         --check if the player has gone bust (L)
95     *         --Check if the dealer has gone bust or if the playerhandTotal > dealerHandTotal (W)
96     *         --else (L)
97     * #9 resetHands()
98     *         - clear the playerhand and dealerhand
99     *         - reset the deck
100    * #10 create the currency class stuff
101    * #11 resetGame()
102    *         - like the resetPet method
103    *         -if the player is out of currency
104    *         -ask if they want to play again
105    *         -if yes reset the currency
106    *         -else end the game
107    */
108
109    /**
110     * Ask what is your name
111     * save and name the scanner scan
112     * @return the player's name

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113     */
114
115     public String setName() {
116         System.out.println("What is your name?");
117         playerName = scan.nextLine();
118         return playerName;
119     }
120
121     /**
122      * give the player their money
123      * have them bet their money
124      * @while the player has money
125      * deal them a card
126      * print what they have in their hand and drew
127      * hit or stay
128      * dealer's turn
129      * print what the player drew
130      * print the hand
131      * print what the dealer has
132      * print what the dealer drew
133      * determine the winner
134      * reset the hand and deck
135      * reset the game and ask if they want to play again
136      * shuffle the deck
137      * reset the deck
138     */
139
140     public void runGame() {
141         this.currency.getPlayerCurrency();
142         this.currency.bet();
143         while(this.currency.playerCurrency > 0) {
144             dealStrippedCard(playerHand);
145             printHand(playerHand,true);
146             hitStay();
147             dealerTurn();
148             System.out.println(this.playerName + " has:");
149             printHand(playerHand,true);
150             System.out.println("The dealer has: ");

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151         printHand(dealerHand,true);
152         determineWinner();
153         resetHand();
154         resetGame();
155         shuffling();
156     }
157     this.deck.resetDeck();
158
159 }
160
161 /**
162  * Mr young's code for shuffling
163  * all i know is that it does it correctly and has a try catch
164  */
165
166 private void shuffling() {
167     String drama = "Shuffling";
168     for(int i = 0; i < 4; i++) {
169         drama += ".";
170         System.out.println(drama);
171         try {
172             Thread.sleep(1000);
173         } catch (InterruptedException e) {
174             e.printStackTrace();
175         }
176     }
177
178 }
179
180 /**
181  * @if the hand is empty
182  * add two cards
183  * @param hand
184  * @else
185  * give one card
186  */
187
188 public void dealStrippedCard(ArrayList<StrippedCard> hand) {

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189         if(hand.isEmpty()) {
190             hand.add(this.deck.deal());
191             hand.add(this.deck.deal());
192         }
193         else {
194             hand.add(this.deck.deal());
195         }
196     }
197 }
198
199 /**
200  * prints the hand
201  * @param hand
202  * @param firstStrippedCard
203  * if the dealer has drawn their first card it is labeled as the first card
204  */
205
206 public void printHand(ArrayList<StrippedCard> hand, boolean firstStrippedCard) {
207
208     for(StrippedCard c: hand) {
209         if(firstStrippedCard) {
210             System.out.println(c.toString());
211         }
212         else{
213             System.out.println("Hidden StrippedCard");
214             firstStrippedCard = true;
215         }
216     }
217 }
218
219
220 /**
221  * the ace is by default false
222  * if the player has an ace and their total is less that 10 then the ace 10
223  * adds the card value to the total
224  * @param hand
225  * @return the total
226  */

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227
228 public int totalHand(ArrayList<StrippedCard> hand) {
229     int total = 0;
230     boolean ace = false;
231     for(StrippedCard c: hand) {
232
233         total += c.getNumValue();
234         if(c.getNumValue() == 1)
235             ace = true;
236     }
237     if (ace && total < 12){
238
239         total += 10;
240     }
241     return total;
242 }
243
244 /**
245  * @while the player has less then 21
246  * ask if they want to hit or stay
247  * save the answer
248  * @if the answer says hit
249  * deals 1 card
250  * prints what they drew
251  * @else it breaks the method as they have a bust
252  */
253
254 public void hitStay() {
255     while(totalHand(playerHand) < 21) {
256         System.out.println("Do you want to hit or to stay?");
257         String answer = scan.nextLine().toLowerCase();
258         if(answer.equals("hit")) {
259             dealStrippedCard(playerHand);
260             System.out.println("You drew: ");
261             System.out.println("    " + playerHand.get(playerHand.size()-1).toString());
262         }
263         else {
264             break;

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265     }
266 }
267 }
268
269 /**
270  * @while the dealer has less then 17 as its total
271  * it adds 1 card
272  */
273
274 public void dealerTurn() {
275     while(totalHand(dealerHand) < 17) {
276         dealerHand.add(this.deck.deal());
277     }
278 }
279
280 /**
281  * @if the dealer and the player both have 21
282  * they tie
283  * resets the game so there can be tie breaker
284  * @else if the player has gone over 21
285  * player automatically loses
286  * @else if the dealer has gone over 21 or the player has more points then the dealer
287  * then the player wins
288  * @else the player loses
289  */
290
291 public void determineWinner() {
292     if(totalHand(playerHand) > 21 && totalHand(dealerHand) > 21) {
293         System.out.println("You and the dealer have a bust and have tied");
294         System.out.println("Starting another game as a tie breaker.");
295         this.deck.resetDeck();
296         resetHand();
297         resetGame();
298     }
299     else if(totalHand(playerHand) > 21) {
300         System.out.println("You have a bust and therefore has lost.");
301         this.currency.lose();
302     }

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303         else if(totalHand(dealerHand) > 21 || totalHand(playerHand) > totalHand(dealerHand)) {
304             System.out.println("You have won!");
305             this.currency.win();
306         }
307         else {
308             System.out.println("You have lost.");
309             this.currency.lose();
310         }
311     }
312
313     /**
314      * clears the player hand
315      * clears the dealer hand
316      * resets the deck
317      */
318
319     public void resetHand() {
320         playerHand.clear();
321         dealerHand.clear();
322         this.deck.resetDeck();
323     }
324
325     /**
326      * asks if you want to play again
327      * saves the answer
328      * @if the answer is yes
329      * resets the hand
330      * resets the currency
331      * run the game again
332      * @else
333      * thanks them for playing
334      * terminates
335      */
336
337     public void resetGame() {
338         System.out.println("Do you want to play again?");
339         String answer = scan.nextLine().toLowerCase();
340         if(answer.equals("yes")) {
341             resetHand();
342             this.currency.resetCurrency();
343             runGame();
344         }
345         else {
346             System.out.println("Thanks for playing!");
347             System.exit(0);
348         }
349     }
350
351 }
352

```