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1  package versions;
2
3  import java.util.ArrayList;
4  import java.util.List;
5
6  import cardManagement.Card;
7  import cardManagement.Player;
8
9  public class War {
10
11     private static List<Card> cardsToWin = new ArrayList<Card>();
12
13     public String beginWar2Players(Player ply1, Player ply2, int version){
14         cardsToWin.clear();
15         System.out.println("***WAR***");
16
17         while(ply1.handSize() != 0 && ply2.handSize() != 0) {
18             if(ply1.handSize() < 2) {
19                 return "GameOver1";
20             }
21             if(ply2.handSize() < 2) {
22                 return "GameOver2";
23             }
24             Card ply1Card, ply2Card, ply1Prize, ply2Prize;
25             ply1Card = ply1.playFromHand();
26             ply2Card = ply2.playFromHand();
27             ply1Prize = ply1.playFromHand();
28             ply2Prize = ply2.playFromHand();
29             System.out.println("Player " + ply1.playerNum + " plays " + ply1Card.toString());
30             System.out.println("Player " + ply2.playerNum + " plays " + ply2Card.toString());
31             cardsToWin.add(ply2Prize);
32             cardsToWin.add(ply1Prize);
33             cardsToWin.add(ply2Card);
34             cardsToWin.add(ply1Card);
35             if(ply1Card.getValue() > ply2Card.getValue()) {
36                 if(version == 1) {
37                     ply1.addAllCardsToHand(cardsToWin);
38                 } else {
39                     ply1.addAllCardsToPoints(cardsToWin);
40                 }
41                 return "ply1win";
42             } else if (ply1Card.getValue() < ply2Card.getValue()) {
43                 if(version == 1) {
44                     ply2.addAllCardsToHand(cardsToWin);
45                 } else {
46                     ply2.addAllCardsToPoints(cardsToWin);
47                 }
48                 return "ply2win";
49             } else if (ply1Card.getValue() == ply2Card.getValue()) {
50                 //do nothing and repeat
51             }
52         }
53     }
54     return "GameOver";
55 }
56 public String beginWar3Players(Player ply1, Player ply2, Player ply3){
57     cardsToWin.clear();
58     System.out.println("***WAR***");
59     String outcome;
60     while(ply1.handSize() != 0 && ply2.handSize() != 0 && ply3.handSize() != 0) {
61         if(ply1.handSize() < 2) {
62             beginWar2Players(ply2, ply3, 2);
63             return "GameOverPlayer1";
64         }
65         if(ply2.handSize() < 2) {
66             beginWar2Players(ply1, ply3, 2);
67             return "GameOverPlayer2";
68         }
69         if(ply3.handSize() < 2) {
70             beginWar2Players(ply1, ply2, 2);
71             return "GameOverPlayer3";
72         }
73         Card ply1Card, ply2Card, ply3Card, ply1Prize, ply2Prize, ply3Prize;
74         ply1Card = ply1.playFromHand();
75         ply2Card = ply2.playFromHand();
76         ply3Card = ply3.playFromHand();
77         ply1Prize = ply1.playFromHand();
78         ply2Prize = ply2.playFromHand();
79         ply3Prize = ply3.playFromHand();
80         System.out.println("Player 1 plays " + ply1Card.toString());
81         System.out.println("Player 2 plays " + ply2Card.toString());
82         System.out.println("Player 3 plays " + ply3Card.toString());
83         int player1Value = ply1Card.getValue();
84         int player2Value = ply2Card.getValue();
85         int player3Value = ply3Card.getValue();
86         cardsToWin.add(ply2Prize);
87         cardsToWin.add(ply1Prize);
88         cardsToWin.add(ply3Prize);
89         cardsToWin.add(ply3Card);
90         cardsToWin.add(ply2Card);

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91     cardsToWin.add(ply1Card);
92     if(player1Value > player2Value && player1Value > player3Value) {
93         ply1.addAllCardsToPoints(cardsToWin);
94         return "player1win";
95     } else if (player2Value > player1Value && player2Value > player3Value) {
96         ply2.addAllCardsToPoints(cardsToWin);
97         return "player2win";
98     } else if (player3Value > player1Value && player3Value > player2Value) {
99         ply3.addAllCardsToPoints(cardsToWin);
100        return "player3win";
101    } else if (player1Value == player2Value && player1Value == player3Value) {
102        //Do nothing if all three are equal
103    } else if (player1Value == player2Value && player1Value > player3Value) {
104        System.out.println("***WAR** - Player 1 vs Player 2");
105        outcome = beginWar2Players(ply1, ply2, 2);
106        if(outcome == "ply1win"){
107            ply1.addAllCardsToPoints(cardsToWin);
108            System.out.println("Player 1 wins the round");
109        } else {
110            ply2.addAllCardsToPoints(cardsToWin);
111            System.out.println("Player 2 wins the round");
112        }
113        return "playerVSplayer";
114    } else if (player1Value == player3Value && player1Value > player2Value) {
115        System.out.println("***WAR** - Player 1 vs Player 3");
116        outcome = beginWar2Players(ply1, ply3, 2);
117        if(outcome == "ply1win"){
118            ply1.addAllCardsToPoints(cardsToWin);
119            System.out.println("Player 1 wins the round");
120        } else {
121            ply3.addAllCardsToPoints(cardsToWin);
122            System.out.println("Player 3 wins the round");
123        }
124        return "playerVSplayer";
125    } else if (player3Value == player2Value && player3Value > player1Value) {
126        System.out.println("***WAR** - Player 3 vs Player 2");
127        outcome = beginWar2Players(ply3, ply2, 2);
128        if(outcome == "ply1win"){
129            ply3.addAllCardsToPoints(cardsToWin);
130            System.out.println("Player 3 wins the round");
131        } else {
132            ply2.addAllCardsToPoints(cardsToWin);
133            System.out.println("Player 2 wins the round");
134        }
135        return "playerVSplayer";
136    }
137
138    }
139    return "GameOver";
140 }
141
142 }

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