

```

import java.io.IOException;
import java.util.Scanner;

public class TargetCards extends Setup {

    // Sets up the number of cards on the board
    private static final int size = 52;

    // Sets up the ranks of the cards
    private static final String[] ranks = {"ace", "2", "3", "4", "5", "6",
        "7", "8", "9", "10", "jack", "queen", "king"};

    // Sets up the suits of the cards
    private static final String[] suits = {"spades", "hearts", "diamonds",
        "clubs"};

    // Sets up the point values of the cards
    private static final int[] values = {11, 2, 3, 4, 5, 6, 7, 8, 9, 10,
        10, 10, 10};

    //using super constructor to create the deck and start the game
    public TargetCards() {
        super(size, ranks, suits, values);
    }

    //here is the main code used to actually play the game
    public static void PlayGame() throws IOException {
        Scanner scan = new Scanner(System.in);
        int TargetValue = 51;
        TargetCards tc = new TargetCards();

        System.out.println("*****");
        System.out.println("*** TARGET CARDS ***");
        System.out.println("*****");

        System.out.print("Enter first players name: ");
        String Player1 = scan.nextLine();
        System.out.print("Enter second players name: ");
        String Player2 = scan.nextLine();
        int round = 1;
        int p1GameScore = 0;
        int p2GameScore = 0;
        while (round <= 4) {
            tc.deck.shuffle();
            if (round % 2 == 0) {
                System.out.println("---- Game " + round + " of 4 ----");
                System.out.println(Player1 + " has first guess");
                System.out.println(Player1 + " how many cards: ");
                int planswer = scan.nextInt();
                System.out.println(Player2 + " how many cards: ");
                int p2answer = scan.nextInt();
                System.out.println(Player1 + " >>>>");
                int p1handValue = 0;
                for (int i = 0; i < planswer; i++) {
                    Card cardDealt = tc.deck.deal();
                    p1handValue = p1handValue + cardDealt.cardValue;
                    System.out.println(cardDealt);
                }
                int player1score = 0;
            }
        }
    }
}

```

```

        if (p1handValue > TargetValue) {
            p1handValue = 51;
            player1score = 51;
        }
        else if (p1handValue == TargetValue){
            p1handValue = 0;
        }
        else {
            player1score = TargetValue - p1handValue;
        }
        System.out.println();
        System.out.println("HAND VALUE: " + p1handValue);
        p1GameScore = p1GameScore + player1score;
        System.out.println(Player2 + " >>>>");
        int p2handValue = 0;
        for (int i = planswer; i < planswer + p2answer; i++) {
            Card cardDealt = tc.deck.deal();
            p2handValue = p2handValue + cardDealt.cardValue;
            System.out.println(cardDealt);
        }
        int player2score = 0;
        if (p2handValue > TargetValue) {
            p2handValue = 51;
            player2score = 51;
        }
        else if (p2handValue == TargetValue){
            p2handValue = 0;
        }
        else {
            player2score = TargetValue - p2handValue;
        }
        System.out.println();
        System.out.println("HAND VALUE: " + p2handValue);
        p2GameScore = p2GameScore + player2score;
        System.out.println("This game " + Player1 + " scores " +
player1score + ", " + Player2 + " scores " + player2score);
        if (player1score < player2score) {
            System.out.println(Player1 + " is the winner");
        } else
            System.out.println(Player2 + " is the winner");
    } else {
        System.out.println("---- Game " + round + " of 4 ----");
        System.out.println(Player2 + " has first guess");
        System.out.println(Player2 + " how many cards: ");
        int p2answer = scan.nextInt();
        System.out.println(Player1 + " how many cards: ");
        int planswer = scan.nextInt();
        System.out.println(Player2 + " >>>>");
        int p2handValue = 0;
        for (int i = 0; i < p2answer; i++) {
            Card cardDealt = tc.deck.deal();
            p2handValue = p2handValue + cardDealt.cardValue;
            System.out.println(cardDealt);
        }
        int player2score = 0;
        if (p2handValue > TargetValue) {
            p2handValue = 51;
            player2score = 51;
        }
        else if (p2handValue == TargetValue){
            p2handValue = 0;

```

```

    }
    else {
        player2score = TargetValue - p2handValue;
    }
    System.out.println();
    System.out.println("HAND VALUE: " + p2handValue);
    p2GameScore = p2GameScore + player2score;
    System.out.println(Player1 + " >>>>");
    int plhandValue = 0;
    for (int i = p2answer; i < p2answer + planswer; i++) {
        Card cardDealt = tc.deck.deal();
        plhandValue = plhandValue + cardDealt.cardValue;
        System.out.println(cardDealt);
    }
    int player1score = 0;
    if (plhandValue > TargetValue) {
        plhandValue = 51;
        player1score = 51;
    }
    else if (plhandValue == TargetValue){
        plhandValue = 0;
    }
    else {
        player1score = TargetValue - plhandValue;
    }
    System.out.println();
    System.out.println("HAND VALUE: " + plhandValue);
    p1GameScore = p1GameScore + player1score;
    System.out.println("This game " + Player2 + " scores " +
player2score + ", " + Player1 + " scores " + player1score);
    if (player1score < player2score) {
        System.out.println(Player1 + " is the winner");
    } else
        System.out.println(Player2 + " is the winner");
    }
    round++;
}
System.out.println("*** FINAL SCORE ***");
System.out.println(Player1 + " has " + p1GameScore + " points ");
HighScore.AddScores(Player1 + "\t" + p1GameScore);
System.out.println(Player2 + " has " + p2GameScore + " points ");
HighScore.AddScores(Player2 + "\t" + p2GameScore);
if (p1GameScore < p2GameScore) {
    System.out.println(Player1 + " wins!");
}
else
    System.out.println(Player2 + " wins!");
}
}

```