

This is a mercy rule used in Madden, NCAA football and basketball games. If either player gains a lead of 21 or more points the game is ended with the player leading declared the winner. The rule was created to allow people with downs the chance to get on the sticks faster. It also prevents embarrassing blow outs.

21 point rule is the Madden Mercy rule

```
import java.util.*;
```

```
import java.util.Scanner;//We import two library from outside the code.
```

```
public class 21point{//this code named 21point.
```

```
    static int count=52; //the count represents the number of cards remaining in the deck
```

```
    public static int rand(int high){
        return (int) (high*Math.random()+1);
    }
```

```
    public static void shuffle(String[] the_deck, int switches){
        String temp;
        int a; int b;
        for(int i=0; i<switches; i++){
            a = rand(52);
            b = rand(52);
            temp = the_deck[a-1];
            the_deck[a-1] = the_deck[b-1];
            the_deck[b-1] = temp;//this code is when you are switching two elements.we need to provide
            temporary space for one of the elements to be    and then change their places.
        }
    }
```

```
    public static String deal(String[] the_deck){
        count=count-1;
        return the_deck[count];}
}
```

```
    public static int aces(String the_card){
        if(the_card.charAt(0)=='A'){
            return 1;}
        else{
            return 0;}
    }
```

```
    public static int aces(String[] the_hand){
        int sum=0;
        for(int i=0; i<the_hand.length;i++){
            sum = sum + aces(the_hand[i]);
        }
        return sum;
    }
```

```
    public static int aces(ArrayList the_hand){
        int sum=0;
        for(int i=0; i<the_hand.size();i++){
            sum = sum + aces(the_hand.get(i).toString());
        }
    }
```

```

    }
    return sum;
}

public static int value(String the_card){
    char first = the_card.charAt(0);
    if (first=='1'|first=='J'|first=='Q'|first=='K'){
        return 10;
    }
    else if(first=='A'){
        return 11;}
    else{
        return Character.getNumericValue(first);
    }
}

public static int value(String[] the_hand){
    int sum=0;
    for(int i=0; i<the_hand.length;i++){
        sum = sum + value(the_hand[i]);
    }
    return sum;
}

public static int value(ArrayList the_hand){
    int sum=0;
    int num_aces=aces(the_hand);
    for(int i=0; i<the_hand.size();i++){
        sum = sum + value(the_hand.get(i).toString());
    }
    while(num_aces>0 && sum>21){
        sum=sum-10;
        num_aces=num_aces-1;
    }
    return sum;//When the value of Ace is change to one.
}

```

```

public static void main(String[] args){

    Scanner scan = new Scanner(System.in);

    String[] deck = new String[52];
    String[] suit = new String[4];
    int[] card = new int[13];

    for (int i=0; i<card.length; i++){
        card[i]=i+1;}
    String cardName;
    suit[0] = "Clubs";
    suit[1] = "Diamonds";
    suit[2] = "Hearts" ;

```

```

suit[3] = "Spades";

for(int i=0; i<4; i++){
    for(int j=0; j<13; j++){
        if(j==0){cardName="Ace";}
        else if(j==10){cardName="Jack";}
        else if(j==11){cardName="Queen";}
        else if(j==12){cardName="King";}
        else {cardName=Integer.toString(card[j]);}
        deck[ 13*i+j ]= cardName + "_" +suit[i];
    }
}
/*
    for(int i=0; i<52; i++){
        System.out.println(deck[i]);
    }

shuffle(deck, 1000);

System.out.println("SHUFFLED");

for(int i=0; i<52; i++){
    System.out.println(deck[i]);
}

System.out.println("DEAL");
*/
//String[] delt = new String[2];
//delt[0]=deal(deck);
//delt[1]=deal(deck);

// System.out.println(delt[0] + " and " + delt[1] + " and " + count + " cards remaining.");
shuffle(deck, 1000);

String say;
boolean state=true;

ArrayList hand = new ArrayList();
ArrayList dealer_hand = new ArrayList();
dealer_hand.add( deal(deck) );
dealer_hand.add( deal(deck) );
hand.add( deal(deck) );

while(state){

hand.add( deal(deck) );

System.out.println("Dealer showing: " + dealer_hand.get(1));
System.out.println("Contents of hand: " + hand);
System.out.println("Your score is: " + value(hand));

if(value(hand)>21){

```

```

        System.out.println("BUST!!!!");
        break;
    }

    System.out.println( "hit[H] or stand[S]?");
    say=scan.nextLine();
    if(say.equals("H")){state=true;}
    else {state=false;}
}

while( value(dealer_hand)<17 ){
    dealer_hand.add( deal(deck) );
}

System.out.println("Dealer has: " + dealer_hand);
System.out.println("Dealer score is: " + value(dealer_hand));

if( (value(hand)>value(dealer_hand) && value(hand)<22) | (value(dealer_hand) > 21) ){
    System.out.println( "YOU WIN !!!!");
}
else{System.out.println( "YOU LOSE. BOO !!!!");}

// System.out.println(hand.get(0) + " and " + hand.get(1) + " and " + count + " cards remaining.");

// hand.add( deal(deck) );

// System.out.println(value(hand));
}
}

```

Blackjack, also known as 21point, is the most widely played casino banking game in the world. Blackjack is a comparing card game between a player and dealer, meaning players compete against the dealer but not against other players. It is played with one or more decks of 52 cards. The object of the game is to beat the dealer in one of the following ways:

- Get 21 points on the player's first two cards (called a blackjack), without a dealer blackjack;
- Reach a final score higher than the dealer without exceeding 21; or
- Let the dealer draw additional cards until his or her hand exceeds 21.

The player or players are dealt a two-card hand and add together the value of their cards. Face cards (kings, queens, and jacks) are counted as ten points. A player and the dealer can count an ace as 1 point or 11 points. All other cards are counted as the numeric value shown on the card. After receiving their first two cards, players have the option of getting a "hit", or taking an additional card. In a given round, the player or the dealer wins by having a score of 21 or by having the higher score that is less than 21. Scoring higher than 21 results in a loss. A player may win by having any final score equal to or less than 21 if the dealer busts. If a player holds an ace valued as 11, the hand is called "soft",

meaning that the player cannot go bust by taking an additional card; 11 plus the value of any other card will always be less than or equal to 21. Otherwise, the hand is "hard".

The dealer must hit until the cards total 17 or more points. (At many tables the dealer also hits on a "soft" 17, i.e. a hand containing an ace and one or more other cards totaling six.) Players win by not busting and having a total higher than the dealer's. The dealer loses by busting or having a lesser hand than the player who has not busted. If the player and dealer have the same total, this is called a "push", and the player typically does not win or lose money on that hand.

Blackjack has many rule variations. Since the 1960s, blackjack has been a high-profile target of advantage players, particularly card counters, who track the profile of cards that have been dealt and adapt their wagers and playing strategies accordingly.

Blackjack has inspired other casino games, including Spanish 21 and pontoon. The recreational British card game of black jack is a shedding-type game and unrelated to the subject of this article