

на основе программы из классной работы
сделать игру блек-джек оно же 21
(правила игры есть в интернете)

играете вы против казино(комп)

сначала вы берете карты пока не скажете стоп
потом комп берет карты

потом решается кто победил

```
1  import random
2
3
4  1 usage
5  def create_deck():
6      suits = ['♠', '♥', '♦', '♣']
7      ranks = ['2', '3', '4', '5', '6', '7', '8', '9', '10', 'J', 'Q', 'K', 'A']
8      deck = [(rank, suit) for suit in suits for rank in ranks]
9      random.shuffle(deck)
10     return deck
11
12  3 usages
13  def deal_card(deck, hand):
14      card = deck.pop() # Удаляем из колоды
15      hand.append(card) # Добавляем в руку
16
17  5 usages
18  def calculate_hand_value(hand):
19      values = {
20          '2': 2, '3': 3, '4': 4, '5': 5, '6': 6, '7': 7, '8': 8, '9': 9, '10': 10, 'J': 10, 'Q': 10,
21          'K': 10, 'A': 11
22      }
23      total = sum(values[card[0]] for card in hand)
24      aces = sum(card[0] == 'A' for card in hand)
25      while total > 21 and aces > 0:
```

```
22     total = sum(values[card[0]] for card in hand)
23     aces = sum(card[0] == 'A' for card in hand)
24     while total > 21 and aces > 0:
25         total -= 10
26         aces -= 1
27     return total
28
29  4 usages
30  def print_hand(hand, conseal_first_card=False): # Выводит на экран карты игрока
31      if conseal_first_card:
32          cards = ['?', hand[1][0]]
33      else:
34          cards = [card[0] for card in hand]
35      print(' '.join(cards))
36
37  1 usage
38  def play_game():
39      deck = create_deck() # Включаем функцию
40      player_hand = [] # Создаём пустой массив игрока
41      dealer_hand = [] # Создаём пустой массив компьютера
42
43      for _ in range(2):
44          deal_card(deck, player_hand)
45          deal_card(deck, dealer_hand)
```

```

47 game_over = False
48 print(f"Your cards: {player_hand}\nDealer's cards: {dealer_hand}")
49 while not game_over:
50     print('Your cards: ')
51     print_hand(player_hand)
52     print(f'Total sum of your cards: {calculate_hand_value(player_hand)}')
53
54     print("Dealer's cards:")
55     print_hand(dealer_hand, conceal_first_card=True)
56
57     player_score = calculate_hand_value(player_hand)
58     dealer_score = calculate_hand_value(dealer_hand)
59
60     if player_score == 21 and len(player_hand) == 2:
61         print('Black Jack! You Win!!!')
62         game_over = True
63     elif dealer_score == 21 and len(dealer_hand) == 2:
64         print('Black Jack! Dealer Win!!!')
65         game_over = True
66     elif player_score > 21:
67         print("Too much! You Lost...")
68         game_over = True
69     elif dealer_score > 21:

```

```

68         game_over = True
69     elif dealer_score > 21:
70         print("The dealer's overdrawn. You Win!")
71         game_over = True
72     else:
73         user_choice = input("Would you like to get another card? Enter 'yes' or 'no': ")
74         if user_choice.lower() == 'yes':
75             deal_card(deck, player_hand)
76         else:
77             game_over = True
78     print("Your cards: ")
79     print_hand(player_hand)
80     print(f"The sum of your cards: {calculate_hand_value(player_hand)}")
81
82     print("Dealer's cards: ")
83     print_hand(dealer_hand)
84     print(f"The sum of your cards: {calculate_hand_value(player_hand)}")
85
86     if (21 >= player_score > dealer_score) or (dealer_score > 21 >= player_score):
87         print("You win!")
88     elif player_score == dealer_score:
89         print("Tie")
90     else:
91         print('Dealer win!')
92
93
94 play_game()

```

```
Your cards: [('4', '♥'), ('10', '♠')]
Dealer's cards: [('3', '♠'), ('8', '♦')]
Your cards:
4 10
Total sum of your cards: 14
Dealer's cards:
? 8
Would you like to get another card? Enter 'yes' or 'no': yes
Your cards:
4 10 9
Total sum of your cards: 23
Dealer's cards:
? 8
Too much! You Lost...
Your cards:
4 10 9
The sum of your cards: 23
Dealer's cards:
3 8
The sum of your cards: 23
Dealer win!

Process finished with exit code 0
```