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In [3]: import random
         class Card:
            def init _(self, rank, suit):
                self.rank = rank
                 self.suit = suit
            def str (self):
                return f"{self.rank} of {self.suit}"
         class Deck:
            def init (self):
                ranks = ['2', '3', '4', '5', '6', '7', '8', '9', '10', 'J', 'Q', 'K', 'A']
                suits = ['Hearts', 'Diamonds', 'Clubs', 'Spades']
                self.cards = [Card(rank, suit) for rank in ranks for suit in suits]
            def shuffle(self):
                random.shuffle(self.cards)
            def draw(self, index):
                return self.cards.pop(index)
         class Player:
            def init (self, name):
                self.name = name
                 self.hand = []
            def draw(self, deck, index):
                card = deck.draw(index)
                self.hand.append(card)
                 return card
            def show hand(self):
                for i, card in enumerate(self.hand):
                    print(f"{i + 1}. {card}")
            def discard(self, index):
                 return self.hand.pop(index)
            def check_win(self):
                ranks_count = {}
```

Rummy

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for card in self.hand:
            if card.rank in ranks count:
                ranks count[card.rank] += 1
            else:
                ranks count[card.rank] = 1
        if any(count >= 3 for count in ranks count.values()):
            return True
        suits = [card.suit for card in self.hand]
        for suit in suits:
            for rank in ['2', '3', '4', '5', '6', '7', '8', '9', '10']:
               if suits.count(suit) >= 3 and all(Card(rank, suit) in self.hand for rank in [str(int(rank)+i) for i in range(3)])
                    return True
       for suit in ['Hearts', 'Diamonds', 'Clubs', 'Spades']:
            if suits.count(suit) >= 3:
                return True
        return False
deck = Deck()
deck.shuffle()
player1 = Player("Player 1")
player2 = Player("Player 2")
for in range(6):
   player1.draw(deck, 0)
   player2.draw(deck, 0)
print("Player 1's hand:")
player1.show_hand()
print("\nPlayer 2's hand:")
player2.show hand()
while True:
   print("\nPlayer 1's turn:")
   draw index = int(input("Choose a card index from the deck (1-6): ")) - 1
   player1.draw(deck, draw index)
   print(f"Player 1 draws: {player1.hand[-1]}")
```

```
discard index = int(input("Choose a card index to discard (1-6): ")) - 1
discarded card = player1.discard(discard index)
print(f"Player 1 discards: {discarded card}")
if player1.check win():
    print("Player 1 wins!")
    break
print("\nPlayer 2's turn:")
draw index = int(input("Choose a card index from the deck (1-5): ")) - 1
player2.draw(deck, draw index)
print(f"Player 2 draws: {player2.hand[-1]}")
discard index = int(input("Choose a card index to discard (1-6): ")) - 1
discarded card = player2.discard(discard index)
print(f"Player 2 discards: {discarded card}")
if player2.check win():
    print("Player 2 wins!")
    break
input("Press Enter to continue...")
print("\nPlayer 1's hand:")
player1.show hand()
print("\nPlayer 2's hand:")
player2.show hand()
```

```
Player 1's hand:
        1. 2 of Clubs
        2. A of Spades
        3. 4 of Hearts
        4. 7 of Clubs
        5. A of Diamonds
        6. 3 of Diamonds
        Player 2's hand:
        1. 8 of Clubs
        2. O of Hearts
        3. 5 of Diamonds
        4. 5 of Spades
        5. J of Hearts
        6. 2 of Diamonds
        Player 1's turn:
        Choose a card index from the deck (1-6): 3
        Player 1 draws: 7 of Hearts
        Choose a card index to discard (1-6): 2
        Player 1 discards: A of Spades
        Player 2's turn:
        Choose a card index from the deck (1-5): 4
        Player 2 draws: 8 of Hearts
        Choose a card index to discard (1-6): 4
        Player 2 discards: 5 of Spades
        Player 2 wins!
In [ ]:
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