

Python Socket Server and Client

Blackjack Card Game

Main Code

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*250Blackjack.py - C:\Users\Owmer\Downloads\250Blackjack.py (3.11.5)*
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import socket
import random

HOST = "localhost"
PORT = 5000
ADDRESS = (HOST,PORT)
server = socket.socket()
server.bind(ADDRESS)
server.listen()

player = True
dealer = True

while True:
    print("waiting for connection...")
    (client,address)=server.accept()

    client.send("welcome".encode())
    client.send("lets begin after i deal chose to either be hit or stand ","Press enter to continue").encode()
    while True:
        message = client.recv(1024).decode()
        if not message:
            print("disconnection")
            client.close()
            break

        #deck or cards and the hands
deck = [2,3,4,5,6,7,8,9,10,'J','Q','K','A']
playerCards = []
dealerCards = []

#dealing the hands
def dealCard(turn):
    card = random.choice(deck)
    turn.append(card)
    deck.remove(card)
    client.send(card.encode())

#total value of hands
def total(turn):
    total = 0
    face = ['J','Q','K']
    for card in turn:
        if card in range(1,11):
            total += card
        elif card in face:
            total += 10
        else:
            if total > 11:
                total += 1
            else:
                total += 11
    return total

client.send(total.encode())

#winner
def revealDealerCards():
    if len(dealerCards) == 2:
        return dealerCards[0]
    elif len(dealerCards) > 2:
        return dealerCards[0], dealerCards[1]

client.send(dealerCards.encode())

#end/restart
for i in range (2):
    dealCard(dealerCards)
    dealCard (playerCards)

while player or dealer:
    print(f"Dealer had {revealDealerCards()} and Unknown")
    print(f"You have {playerCards} which equals {total(playerCards)}")
    if player:
        standOrHit = input("S: Stand\F: Hit\n")
        if total(dealerCards) > 17:
            dealer = False
        else:
            dealCard(dealerCards)
            if standOrHit == "S":
                player = False
```

```
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while player or dealer:
    print(f"Dealer had {revealDealerCards()} and Unknown")
    print(f"You have {playerCards} which equals {total(playerCards)}")
    if player:
        standOrHit = input("S: Stand\H: Hit")
        if total(dealerCards) > 17:
            dealer = False
        else:
            dealCard(dealerCards)
            if standOrHit == "S":
                player = False
            else:
                dealCard(playerCards)
            if total(playerCards) >= 21:
                break
            elif total(dealerCards) >= 21:
                break

if total(playerCards) == 21:
    final1=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final1.encode())
    print("You Win!")
elif total(dealerCards) == 21:
    final2=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final2.encode())
    print("Dealer wins")


elif total(playerCards) > 21:
    final3=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final3.encode())
    print("Your to high Dealer wins")
elif total(dealerCards) > 21:
    final4=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final4.encode())
    print("Dealer to high you win")
elif 21 - total(dealerCards) < 21 - total(playerCards):
    final5=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final5.encode())
    print("Dealer wins")
elif 21 - total(dealerCards) > 21 - total(playerCards):
    final6=f"\nYou have {playerCards} for a total of {total(playerCards)} and the dealer has {dealerCards} for a total of {total(dealerCards)}"
    client.send(final6.encode())
    print("You win")

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```

```
S.py - C:\Users\Owner\AppData\Local\Programs\Python\Python311\S.py (3.11.5)
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from socket import *
HOST="localhost"
PORT=5000
ADDRESS=(HOST,PORT)
server=socket(AF_INET,SOCK_STREAM)
server.bind(ADDRESS)
server.listen(5)
while True:
    print("waiting for connection...")
    (client,address)=server.accept()
    print("...connecting from: ",address )
    client.send("Welcome to the server ".encode())
    client.close()
```

Server

 C.py - C:\Users\Owner\AppData\Local\Programs\Python\Python311\C.py (3.11.5)

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```
import socket
HOST="localhost"
PORT=5000
ADDRESS=(HOST,PORT)
client=socket.socket()
client.connect(ADDRESS)
print(client.recv(1024).decode())
client.close()
```

Client