

Question 1: Bank ATM Application with TCP Server/Client and Multi-threading.

```
import socket, threading

accounts = {
    "reem": 1000,
    "nabel": 1500
}

def handle_client(client_socket, client_address):
    print("Accepted connection from {}".format(client_address))
    client_socket.sendall(b"Welcome to the Bank ATM. Please enter your account name: ")
    account_name = client_socket.recv(1024).decode().strip()
    if account_name not in accounts:
        client_socket.sendall(b"Account not found. Connection closed.")
        client_socket.close()
        return
    client_socket.sendall("Hello, {}. Please enter your PIN: ".format(account_name).encode())
    pin = client_socket.recv(1024).decode().strip()
    while True:
        client_socket.sendall(b"Available operations:\n1. Check Balance\n2. Deposit\n3. Withdraw\n4. Exit\nEnter your choice: ")
        choice = client_socket.recv(1024).decode().strip()
        if choice == "1":
            client_socket.sendall("Your current balance is: {}".format(accounts[account_name]).encode())
        elif choice == "2":
            amount = float(client_socket.recv(1024).decode().strip())
            accounts[account_name] += amount
            client_socket.sendall("Deposit successful. Your updated balance is: {}".format(accounts[account_name]).encode())
```

```
        elif choice == "3":
            amount = float(client_socket.recv(1024).decode().strip())
            if amount > accounts[account_name]:
                client_socket.sendall(b"Insufficient funds.")
            else:
                accounts[account_name] -= amount
                client_socket.sendall("Withdrawal successful. Your updated balance is: {}".format(accounts[account_name]).encode())
        elif choice == "4":
            break
    print("Closing connection with {}".format(client_address))
    client_socket.close()

server = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
server.bind(("0.0.0.0", 4444))
server.listen(5)
print("Server listening on port 0.0.0.0")

while True:
    client_socket, client_address = server.accept()
    client_thread = threading.Thread(target=handle_client, args=(client_socket, client_address))
    client_thread.start()
```

```
import socket
client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
client.connect(("127.0.0.1", 4444))
response = client.recv(1024).decode()
print(response)
account_name = input()
client.sendall(account_name.encode())
response = client.recv(1024).decode()
print(response)
pin = input()
client.sendall(pin.encode())
while True:
    response = client.recv(1024).decode()
    print(response)
    choice = input()
    client.sendall(choice.encode())
    if choice == "4":
        break
    if choice in ["2", "3"]:
        amount = input("Enter amount: ")
        client.sendall(amount.encode())

    operation_result = client.recv(1024).decode()
    print(operation_result)
client.close()
```

Question 2: Simple Website Project with Python Flask Framework (you have choice to use Django or any Other Deferent Useful Python Project “from provide Project Links”)

```
from flask import Flask, render_template

app = Flask(__name__)

@app.route('/')
def home():
    return render_template('index.html')

@app.route('/info')
def about():
    return render_template('about.html')

@app.route('/login')
def login():
    return render_template('login.html')

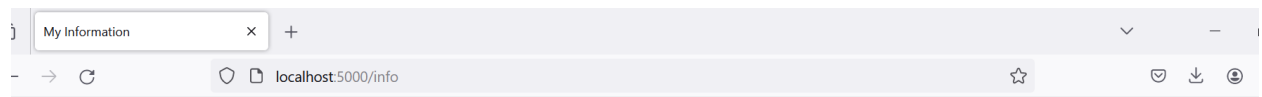
if __name__ == '__main__':
    app.run(debug=True)
```



Communications Web Page

Hello from my home web page

Name	Number
ريم حسن العلي	2224
نبيل محمد شداد	2222



My Contact Information

Name	Number
ريم حسن العلي	2224
نبيل محمد شذاد	2222s
