

HOSTEL HELP DESK

DESCRIPTION

The hostel help desk system functions in such a way that the hostellers can put forth their queries which will be answered by their fellowmates. They can order their T-shirts. They can see both veg and non veg menus.

ENTITIES INVOLVED

Hostellers-They can ask help for any doubts. They can order the T-shirts. They can see the Hostel day menu.

FUNCTIONS USED:

Interface:

frame()-Used as a geometry master for other widgets

button()-used to attach function or a method to a button

pack()-Manages widgets in blocks before placing them in parent widget

label()-Used to display text or image and it is just a view

entry()-Used to accept single line text from user

To display multiple windows at the same time we used `popen()` in os module.

DataBase used-Sqlite3

`db.connect()`-to connect to database

`db.commit()`-to save the performed actions in the database

Socket Programming:

`socket()`-It creates an end point for network connection.

`bind()`-Attaching to an IP and Port

`listen()`-Wait for connection

`accept()`-Accept new connection from new clients trying to connect to the server

`connect()`-Called by the client to connect to the server port

`send()`-used to send the message

`recv()`-used to receive the message.

TOOLS USED:

Pthon3

SQLite3

tkinter

ALGORITHM:

Server.py

1. accept_incoming_connections() //function to accept client request
 - 1.1. Repeat //Loop to accept client
 - 1.1.1. client,client_address←SERVER.accept()
 - 1.1.2. print(The user is connected)
 - 1.1.3. client.send(You are connected)
 - 1.1.4. addresses[client]←client_address //storing corresponding client address in dictionary with client name as key
 - 1.1.5. Thread(handle_client) //connect and disconnect client
2. Handle_client(client)
 - 2.1. name←client.name
 - 2.2. client.send(welcome)
 - 2.3. msg←user joined the chat
 - 2.4. broadcast(msg) //it will send to all clients
 - 2.5. clients[client]←name //to store name of the client in dictionary
 - 2.6. Repeat //Receive the message send by client
 - 2.6.1. msg←client.recv
 - 2.6.2. if (msg!=quit)
 - 2.6.2.1. broadcast(msg)
 - 2.6.3. else
 - 2.6.3.1. client.send(quit)
 - 2.6.3.2. client.close()
 - 2.6.3.3. del clients[client] //client name and address will be deleted
 - 2.6.3.4. broadcast(the user left the chat)
 - 2.6.3.5. break
3. broadcast(msg)

- 3.1. for sock in clients:
 - 3.1.1. sock.send(msg)
4. clients ← {} // to store client name
5. addresses ← {} //to store client address
6. host ← ' '
7. port ← 3300
8. bufsiz ← 1024
9. addr ← (host,port)
10. SERVER ← socket(AF_INET,SOCK_STREAM)
11. SERVER.bind(addr)
12. SERVER.listen(5)
13. Print(waiting for connection)

Client.py

1. Client_socket ← socket(AF_INET,SOCK_STREAM)
2. Receive()
 - 2.1. repeat
 - 2.1.1. try:
 - 2.1.2. msg=client_socket.recv(msg)
 - 2.1.3. msg_list.insert(msg)
 - 2.1.4. except OS error: //Client may left the chat
 - 2.1.5. break
3. send(event=None) //it is passed by binders
 - 3.1. msg ← my_msg.get()
 - 3.2. my_msg.set("")
 - 3.3. client_socket.send(msg)
 - 3.4. if (msg==quit)
 - 3.5. client_socket.close()
 - 3.6. quit()

4. on_closing(event=None)
 - 4.1. my_msg.set(quit)
 - 4.2. send()
5. host←input(enter host)
6. port←3300
7. bufsiz←1024
8. addr←(host,port)
9. client_socket.connect(addr)
10. receice_thread←Thread(target=receive)
11. receive_thread.start()