



CSE 4074 - Programming Assignment
Socket Programming – Travel Agency

Aybüke ÖZKAN - 150115005
Celal BAYRAK - 150114044

In this project, the customer communicates with the travel agency via TCP sockets. Travel agency communicates with the hotels and airlines via HTTP. When a TCP socket communication is opened, it remains opened until we close it. However, when a HTTP request sent, it will be closed when its response message received. Therefore, while one TCP connection is enough, we need to open various HTTP connections for different messages we want to send and receive.

Hotels and airlines have their own databases, we keep them in different Excel files. When the travel agency send a HTTP request to the hotel/airline, there are some different cases to respond to this request:

- If the hotel/airline is available at the selected date, hotel/airline software informs the agency by response message. At this point, the HTTP connection is closed. After the travel agency gets the information that both the hotel and airline are available, then again sends a HTTP request to the hotel/airline for updating the capacities. The hotel/airline send a response that says they changed the capacity and this HTTP connection is closed. Travel agency informs the customer that their reservation is done.
- If one or both of the hotel/airline is not available at the selected date, hotel/airline software informs the agency by response message that says the selected hotel/airline is unavailable and it gives an alternative hotel/airline which is available, if there is any. At this point, the HTTP connection is closed. The agency sends this information to the customer via TCP connection. If the customer accepts it, the procedure of the first case will be done.
- We have 2 hotels and 2 airlines, so if the customer rejects it, there won't be any other alternative. The customer needs to send another reservation request.

USER MANUAL

To run and test our code, the code files should be opened by this order:

1. hotel.py
2. airline.py
3. agency.py
4. client.py

client.py will open the GUI part. We should enter the number of passengers, we should select the hotel and airline we want, we should select the date and click the 'SEND' button. After this, client.py will send these to the travel agency via TCP, and the procedure above will be done.

