TV Game show(simple version)

Overview: This is a game built in python, which is a simpler version of TV game shows where a question is asked and the first team to press the buzzer gets the chance to answer first. There are three players. The host has a list of 20 questions and correct answers with him. He randomly chooses one of the questions (making sure it is not a repeat of previous questions) and sends to all three players. The players receive the question, think about the answer for a while and press the buzzer. The first one to press the buzzer is given a chance to give the answer. If the answer is correct, he is given 1 point, otherwise 0. The host then proceeds with the next question. The game stops when any player gets 5 points and that player is declared the winner.

Technology Used: The program was created in python 2.7 . I used socket libraries extensively to make it possible for server to send messages to another computers.

Implementation details: Server has a list of questions beforehand. Now each time the game starts, server shuffles the questions. Now the server iteratively performs following operations for each question asked: ask_question(), check_first_buzzer(),stop_other_clients_from_taking_input(),get_answer(),check_answer(),add_points() depending on whether the answer is correct or wrong.check_winner() if any.
The client side implementation is: It waits for messages from server or standard input. Whenever it gets a message, it processes it and takes further step to be taken. If the message is a question asked, then it waits for the player to press buzzer and also checks if any other player pressed the buzzer, simultaneously. If the server sends message “quit”, it will declare the winner(as mentioned in the message along with quit) and then end all the further operations and exit.

Problems faced: The main problem I faced while making the project was that: how to know which among the clients sent the buzzer message. Also in the client side, I wanted to know whether any other client has pressed the buzzer(if so stop taking input) or it can still take input. This feature was made possible by using ‘select’ library.

Overall Experience: The project helped me learn lots of new things and gave me an experience to development. It helped me learn about a very great feature of python- ‘select’ library. It helped me to gain practical knowledge of how to design a system where two computers can send and recieve message to each other and take further actions based on interactions.