Computer Networks

Assignment 2

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Q1:

To generate random numbers to pass to client, I used the set library implemented in C++. Set only allows unique values inside it, therefore I did not need to put a check that 2 clients will get the same number. After this, to maintain randomness, I passed the first index of the set to the first client, 2nd to 2nd client and 3rd to 3rd client. As the numbers in the set are generated randomly, therefore any number can be given to any client.

The client will receive this number and there is a switch depending on what it received, for 1, it will take a random number out of 10, and if the number is 0, then there will be an error. Same for client 2. As we did not have any stored database of PIN and card numbers, this was the only way I could think of to produce errors in the code. The loop will run until there is no error.

Moving on, the balance as well as withdrawal limit is passed to client 3 who will then subtract it and send back the updated balance which is then displayed.

Q.2:

The server displays a menu and the following actions happen on option chosen:

Option	Action
1	Server will ask for two strings. String will be separated by a comma. Server will return a new string that has been concatenated.
2	Server will ask for a string and character separated by a comma. Server will return the index of the found character.
3	Server will ask for two strings separated by a comma and will return true and false.
4	Server will ask for a string then will return true or false depending on the answer.
5	String will ask for two numbers separated by a comma. Numbers must be CamelCase. Meaning "Two", "Three".