

Assignment 1

(TASK 2)

Write new server2.c and client2.c and add to it the following functionalities.

- **SORTX <field> <start_row> <end_row>** : Sort according to the given field (field can be either R,S,A_1,A_2....A_5 indicating roll_no.,stu_name and assignments marks respectively) as specified:-
 - If only the field is mentioned then sort all the rows with respect to the field.
 - If only start_row is mentioned then sort all the rows from start_row to the end of the file w.r.t the given field.
 - Otherwise,sort the rows from start_row to end_row w.r.t the given field.
- **RANKX <Roll_No.>**: Returns the rank of the specified roll no. along with the student details. If roll number is not specified then return the top 10 student details in the order of their rank.
- **SIMILARX <Assignment No.>**: Returns the student details(roll number and student name) who are having similar marks for the given assignment number. You should also return the marks for those students.

At client side -

1. The client establishes a connection with the server socket on the specified port. Then, it passes SORTX,RANKX or SIMILARX requests to the server.
2. The client takes SORTX,RANKX or SIMILARX commands from the user, along with the required parameters.
3. It constructs the request and passes it to the server.
4. Fetches the output message from the server and displays it to the user.

Important Instructions-

1. *The server should reject requests that do not adhere to the above format by sending an error message back to the client. Please note that the user should type in these exact commands at the terminal; you cannot use menu-driven control, etc. **Error handling should be done at the server.***
2. *All the processing related to the file should be done at the server.The*

client side is only responsible for taking the commands from the user and displaying the results sent by the server.

Submission Instructions:

- You should have two files for server and client, named as “server.c” and “client.c” respectively.
- Save this in a folder named in the format: If your roll no. is 22CS60R05, the folder should be 22CS60R05_A4, and the compressed file should be 22CS60R05_A4.tar.gz.
- Not adhering to these instructions can incur a penalty.

Marking Scheme:

Total Marks:	40
SORTX	10
RANKX	10
SIMILAR X	10
Error Handling	10