GROUP No - 6 Section-1

MEMBERS -

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PROJECT DEFINITION

- We have made a Multi-threaded Quiz System based on TCP. With this application, the user can take a quiz on the client side.

- Simultaneously, many users can take the quiz at the same time. We have also implemented the idea that the user can have a choice of different subjects' quiz he/she wants to give. Furthermore, we have grade the quiz too.

PROJECT FLOW

- The flow would be like this: Firstly, the client gets connected with the server. Then, the client(user) has a choice of different subjects and he/she can choose which subject quiz he/she wants to give.
- Here, we have included a choice of different topics from which the user can choose to have a quiz on that specific topic only.
- Lastly, we have also graded that quiz. Using Multi-Threading, many clients(users) can be connected to the server and take the quiz at the same time.

APPROACH

1. Start the main server
2. Connect all sub servers to main server and all sub servers provide their information of connection to the main server.
3. Then, Client will connect to main server.
4. Based on client request, main server will lead the client to its specific sub server.
5. Then, Client will connect to the sub server and quiz will take place.
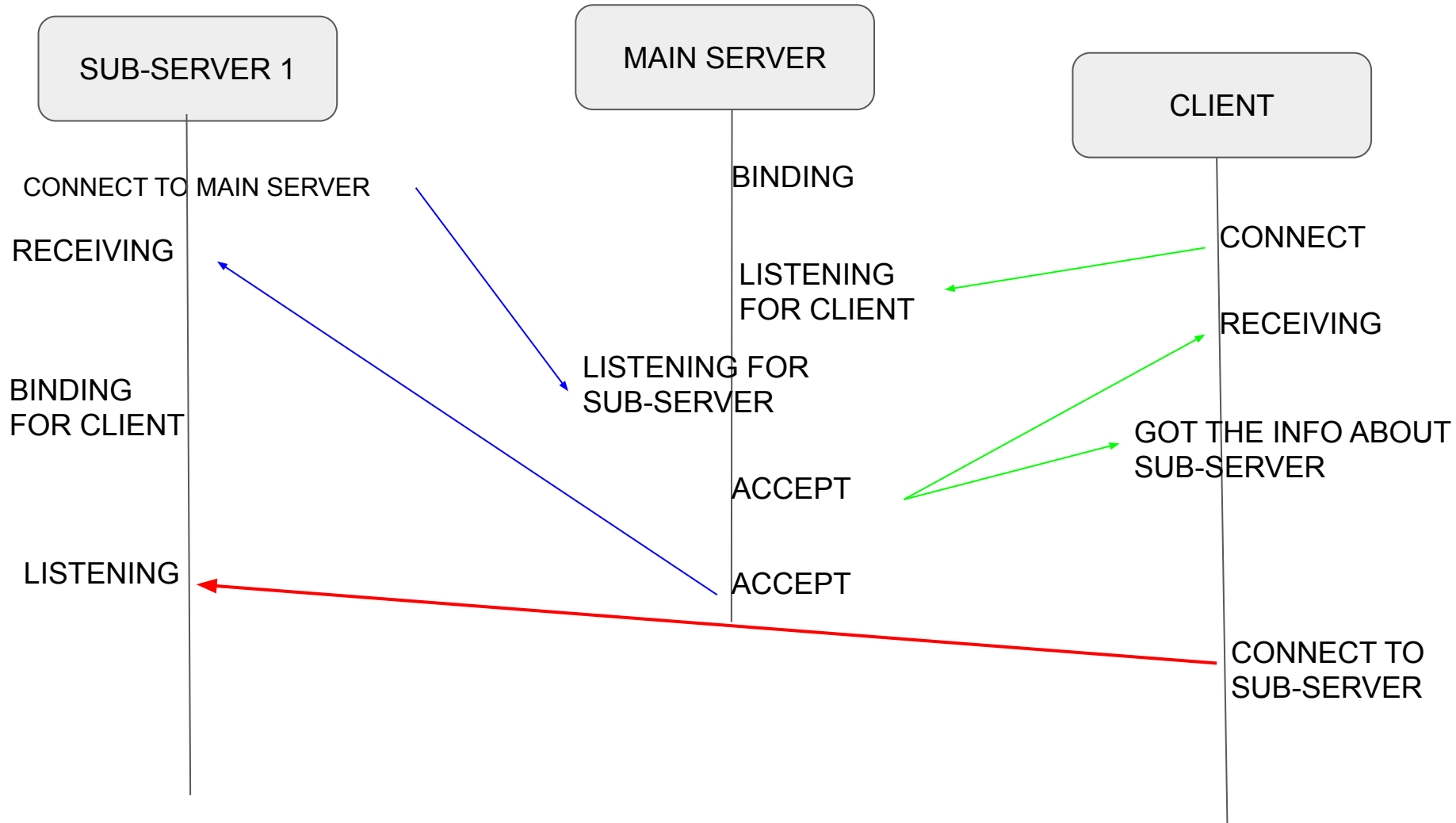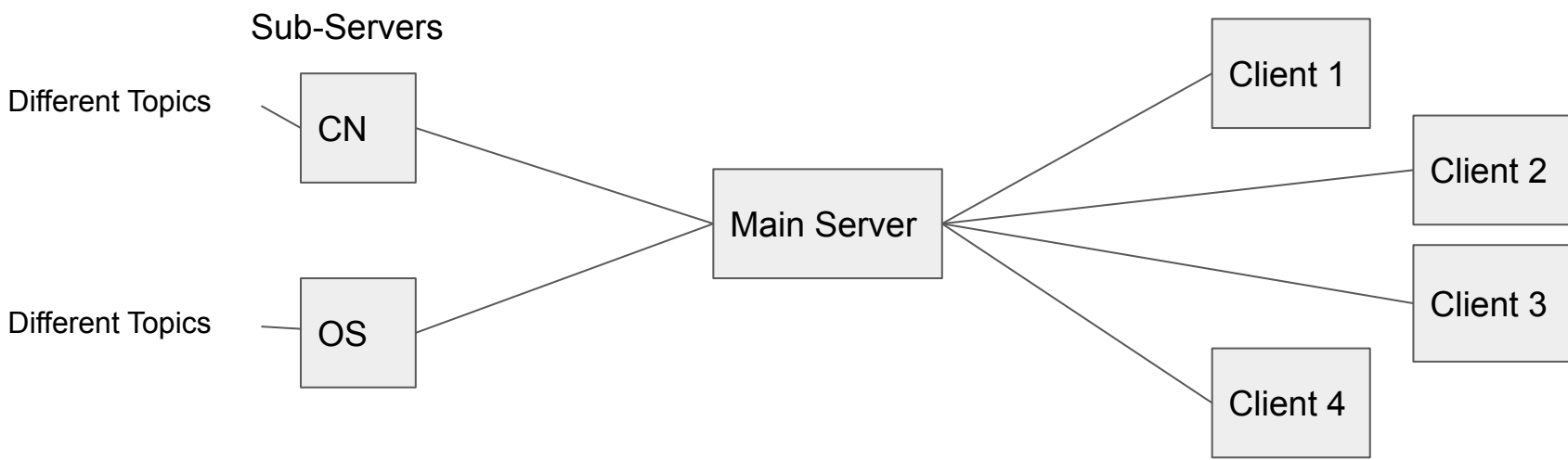
- Multiple Clients connect to main server and then connect to required subjects servers.
- Subject servers will give multiple choice options for topics . Suppose client select OS then it will give options like Disk Scheduling, I/O management and memory management.
- Based on selected option Quiz will start and client will able to answer the questions.
- All the answers of each client is stored and at the end it will show how many marks he/she got.
- Marks will be sent to main server and main server will store the details of clients and marks to a file.

CODING OVERVIEW
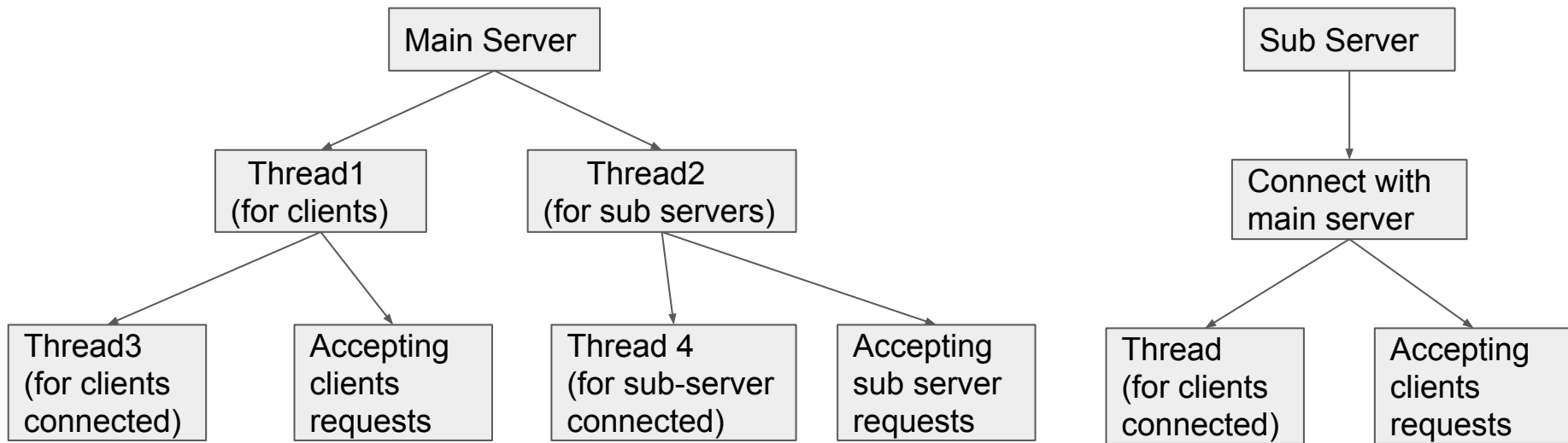
TOOLS AND REFERENCES

Tools:

- We have implemented all server and client programs in **C** language.
- We compiled with the help of **GCC** compiler.
- For Multithreading, we have used the **pthread** library.

References:

- https://www.geeksforgeeks.org/multithreading-c-2/
- https://www.tutorialspoint.com/java/java_multithreading.htm
- https://man7.org/linux/man-pages/man3/pthread_join.3.html

THANK YOU!