Report 1

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This report is a project proposal for our project in Computer Science and Communications Engineering Laboratory B.

In this project, we are going to design and establish an online chatroom in python. The brief structure of the project is shown in Fig.1.

```
              ┌────────┐
              │ Server │
              └────────┘
             /    |    \
        Mini HTTP Protocol
          /       |       \
   ┌────────┐ ┌────────┐ ┌────────┐
   │ Client │ │ Client │ │ Client │
   └────────┘ └────────┘ └────────┘
```
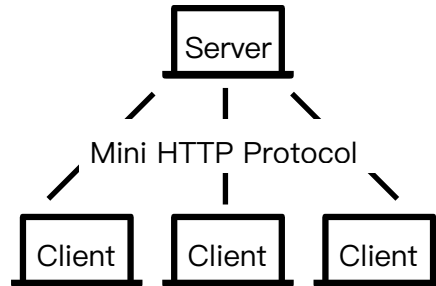
Fig.1 Structure of the project

As shown in Fig.1, the communication between clients and the server is based on a mini HTTP protocol, a protocol we design to offer only some of basic services like posting, instead of all those available in HTTP.

Apart from basic communication service, another unique design in our project is that the server is able to receive, execute, and return execution results to the python codes sent by the user from client side. In short, an interpreting function is added to the server so it can call the interpreter of python.

Generally, ZHU Yiming will be in charge of the server codes while ZHENG Nianzhao and MAO Zhenyu are responsible for the client codes. A brief implementation schedule is shown in Fig.2.

Tasks	Time period
Mini HTTP protocol	Mid–May ~Late May
Server–client layout	Late May ~ Mid–June
Interpreter part	Mid–June ~ Early July

Fig.2 Implementation schedule

As shown in Fig.2, during this month, we plan to design the mini HTTP protocol and start writing server and client codes to ensure the basic communication (posting) service. This part should be done by the time of the second report. After that, during the period between the second report and the final presentation, we will focus on the interpreter part to enable the server to execute the codes given by the user.