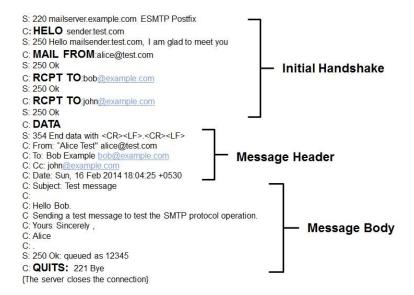# Assignment2 report

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There were many challenges during programming. At first, I can't figure out how to send email by SMTP protocol. So I researched about SMTP protocol and refered to useful links in the Assignment2 document. What helps me most is SMTPClient_smtplib.py file. To figure out how SMTP protocol works, I execute that file and see how SMTP server communicates with the client. I check every message client sends and every response server responds. I writes codes in the same way using TCP socket.

However, there were some challenges.

1. There was no response when I send "STARTTLS command". So I executed SMTPClient_smtplib.py again and compared it with my response. It turned out to be a simple coding mistake. I sent "STARTTLS₩w₩n" instead of "STARTTLS₩r₩n".

2. I was able to send an e-mail using my code. However, there was no subject and content in received e-mail. I made a mistake about SMTP message body format.

An Example SMTP session

```
S: 220 mailserver.example.com  ESMTP Postfix
C: HELO sender.test.com
S: 250 Hello mailsender.test.com, I am glad to meet you
C: MAIL FROM:alice@test.com                          ⎤
S: 250 Ok                                            ⎥
C: RCPT TO:bob@example.com                           ⎥─ Initial Handshake
S: 250 Ok                                            ⎥
C: RCPT TO:john@example.com                          ⎥
S: 250 Ok                                            ⎦
C: DATA
S: 354 End data with <CR><LF>.<CR><LF>               ⎤
C: From: "Alice Test" alice@test.com                 ⎥
C: To: Bob Example bob@example.com                   ⎥─ Message Header
C: Cc: john@example.com                              ⎥
C: Date: Sun, 16 Feb 2014 18:04:25 +0530             ⎦
C: Subject: Test message
C:                                                   ⎤
C: Hello Bob.                                        ⎥
C  Sending a test message to test the SMTP protocol operation.  ⎥─ Message Body
C: Yours Sincerely ,                                 ⎥
C: Alice                                             ⎥
C: .                                                 ⎥
S: 250 Ok: queued as 12345                           ⎦
C: QUITS:  221 Bye
{The server closes the connection}
```

For subject part, I have to explicitly add "Subject:" in front of the message. For example, If I want to send an email with subject "Hello Assignment2", I have to send "Subject: Hello Assignment2" to the mail server. Also at the end of the subject message I have to add "\r\n\r\n" to satisfy the SMTP Message format rule. By programming the assignment2, I feel the importance of protocol and message format.