RFC Compliance

Data Transfer

The SMTP data is 7-bit ASCII characters. Each character is transmitted as an 8-bit byte with the high-order bit cleared to zero.

Database

Mails are stored in database which has two tables, users and messages. Connection to the database is handled by MySQL connector driver.

HELO (Hello) Command

Server will send 503 reply code if command is already initialized, 501 if domain parsing fails or 250 (OK) if client send domain in correct format.

MAIL (Sender) Command

Mail command checks if helo command has been send first and if not, server will send 503 reply code to the client. Then it will check if mail command has been already sent and if does server will send 503 reply code because the nested mail commands are not supported. Server will also check if the path has correct format (<local-part>"@"<domain>) and if path is wrong then server sends back 501 reply code.

RCPT (Recipients) Command

Mail command checks if mail command has been sent first and if not, server will send 503 reply code to the client. Then it will check if number of recipients is less then 100 because server cannot send mail with more than 100 recipients. Server will also check if the path has correct format (<local-part>"@"<domain>) and if path is wrong then server sends back 501 reply code.

VRFY (Verify) Command

Checks if user exists in the database. If user exists, then server will send 250 ok reply to the client. If user does not exist, then server will respond with code 550. When database is unavailable server will send 421 reply code.

EXPN (Expand) Command

Checks if the mailing group exist and if it does then it will send back list of users which are in that group (250 reply code). If mail group does not exist, then server will send 550 reply and if the database unavailable the server will respond with reply code 421.

HELP Command

If client send help with argument (for example: help mail) then server will send back 214 reply with information about the command specified in argument. If argument is empty or if that argument is not valid command, then server will reply with general help message with list of all commands.

DATA Command

First server will check if the RCPT command has been sent before data command. In case that RCPT command has not been sent yet server will send 503 reply to the client. Otherwise server will send 354 reply and it will wait for data.

Data are received line by line and if server receives line contains character sequence "<CRLF>.<CRLF>" then it will stop reading data and start parsing. If line contains two dots then it will truncate (delete) one of the dots and continue in receiving data.

If any of line is longer then 1000 server will send 500 line is too long response, and it clears data buffer. That means mail has not been sent and user must send data command again to send mail.

When data string is received correctly then server will try to extract subject, date and body from this data string.

Sender, Recipients and data are inserted into database and server sends 250 ok reply to the client. If the database is unavailable, then server will respond with 421 reply.

RSET (Reset) Command

Server will send 250 ok reply if the command does not have any arguments, otherwise it will send 500 syntax error. Reset will clear all buffers such as sender and recipients.

NOOP (No operation) Command

This command prevents server from timing out and closing connection. Server has timeout set to 10 minutes which will shut out connection between client and server after this time expired. Server will reply 250 ok if there are no arguments or 500 syntax error if there are any arguments

QUIT Command

Quit command will send 221 reply to the client and then it will close transmission channel. If there are any arguments the server will send 500 syntax error and transmission channel will stay open.

SEND Command

This command is not implemented and server will back send 502 command not implemented.

SOML Command

This command is not implemented and server will back send 502 command not implemented.

SAML Command

This command is not implemented and server will back send 502 command not implemented.

TURN Command

This command is not implemented and server will back send 502 command not implemented.