Fall 2024 CIS 620 Homework 9

(Due Dec. 3)

This homework is based on 9-2 EXERCISE.

Is the filler variable really needed in the chapter 9.4 of the textbook? Try deleting the references to filler in the hello_client.c and hello_server.c files. Generate files from the hello.x protocol definition file using rpcgen. Modify the generated files hello.h, hello_clnt.c, hello_svc.c as well. Recompile the modified components. Test that it works.

Notes: This question will need you to work on two terminals on the spirit machine. Please keep them open until you are done with this question.

Instructions:

1. Please use the files hello_client.c, hello_server.c, and hello.x from the textbook.
2. Create a folder "`hwch9b`" in your home directory on the spirit machine.
3. Upload those files in the step 1 to the folder "`hwch9b`" on the spirit machine.
4. Open a terminal, logon to the spirit machine and goto the folder "`hwch9b`".
5. Issue "`who am i && date`" command in the terminal in the step 4.
6. Issue "`rpcgen -C hello.x`" to generate files.
7. Open another terminal, logon to the spirit machine and goto the folder "`hwch9b`".
8. Make changes to hello.h, hello_clnt.c, hello_svc.c, hello_client.c and hello_server.c.
9. Go back to the terminal in the step 4. Run the following two commands (make sure that there is no error to the commands):
   ```
   gcc hello_client.c hello_clnt.c -o client
   gcc hello_server.c hello_svc.c -o server
   ```
10. Go to the terminal in the step 7. Issue "`who am i && date`" command. Run "`./server`".
11. Go back to the terminal in the step 4. Run "`./client spirit`".
    Issue "`who am i && date`".

12. Do screen captures of both terminals in the step 10 and step 11.
13. Upload the screen capture files to the folder "`hwch9b`" on the grail machine.
14. Turn-in your modified files hello.h, hello_clnt.c, hello_svc.c, hello_client.c, hello_server.c and your screen capture files from the grail machine (you need to goto the folder "`hwch9b`" to issue the following command):
    ```
    turnin -c cis620x -p hwch9b hello.h hello_clnt.c hello_svc.c
    hello_client.c hello_server.c your_screen_capture_files
    ```

15. Go back to the terminal in the step 10. User Ctrl+C to break the running of the hello server.

Start on time and good luck. If you have any questions, send e-mail to a.shetty13@vikes.csuohio.edu or w.xiong15@csuohio.edu.