

Assignment 3

- (a) Write a program to find out who is logging in the local machine that is partially equivalent to the cmd "w" or "who".
- (b) Extend the above program to be working using RPC. You need to design the RPC server and RPC client such that client will trigger the request like "w" or "who" and the server has to allow to access the procedure that is enabled to be working as Remote Procedure and send the result that to be flushed by client.

Hints & Reference:

1. Learn to see /var/run/utmp
2. Source code for "struct utmp". You need to print the member variable "ut_user" for the logged in user.
3. Learn to use fopen(), clnt_create(), clnt_pcreateerror(), clnt_perror(), clnt_destroy()
4. To design the "remote server" and "remote client", you need to provision
 - (a) remote.x : that will contain specification for the remote prog, remote version and remote procedure
 - (b) remote_server.c : Will contain the remote procedure code that you defined in remote.x
 - (c) remote_client.c : Will contain the main function where from you will call "clnt_create()" system call to enable the client stub to access the server stub.

Example :

```
CLIENT *clnt;
```

```
clnt = clnt_create (host, REMOTE_PROG, REMOTE_VERS, "udp");
```

Book: Unix network programming by W R Stevens, Vol-2

From this book read the chapter-16 for "Sun RPC" programming