Yunus Delipınar 26617

Top command provides a dynamic real time view of a running system. It can display system summary information as well as a list of processes or threads currently being managed by the Linux kernel. -c flag starts top with the last remembered 'c' state reversed. If top was displaying command lines, now that field will show program names, and vice versa. The reason I picked this command and option is it came interesting to me. Since we are working on processes, this command instantly took my attention. Furthermore, the option -c is also interesting it makes the state reversed and when I saw reversing of something I jump on it.

Process hierarch as follows: To start with we need three processes because the structure of the task requires it. Firstly, program prints the required output that says I am SHELL and then I open a file to write on it when the time comes. Next, I fork to create child process after that I enter the newly created child which will be MAN. I print the required output that says I am the MAN after that, I constructed a pipe and fork again to create grandchild processes to deal with grep. Grandchild print that it is the grep processes. After creating all necessary processes my child process (MAN) executes man top command. Then grandchild (GREP) takes the output of the child process using pipe and uses grep on it. Before the grep execution is started, I changed the file descriptors in order to print output to a text file. When all the child and the grandchild process is completed, shell prints the required output and program ends.