

grep searches for patterns in a file and prints the detected lines on console. -q option of grep does not write anything even if an error occurs, if any match is found it exits immediately with zero status. In lectures I have seen grep, so I am kind of familiar to it that is why I selected it. The reason I picked -q option is that I had to pick an option it looks interesting enough, it just leaves with no output to say there is a match 😊.

Program starts with printing the PID of the Shell which is the first process, then it forks, Shell is the parent and the child becomes grep process. Grandchild of Shell (child of grep process) is the Man process runs the "man grep" program and directs the output to grep process as input. Then grep process takes the input and runs "grep -A 3 -q" and directs the output to the file "output.txt". Shell process waits till grep process finishes and man process waits for the grep to continue execution.