Path:

1. Ls: /bin/ls
2. Sort: /usr/bin/sort
3. Uniq: /usr/bin/uniq

Note: Maximum input size is 600 bytes, wherein every individual command is not more than 20 bytes while there are no more than 30 commands per instruction.

On ls | sort | uniq, the program will get executed in the following manner, using these functions in this order:

1. break_Input(): to remove the '\n' character AND/OR any spaces given after the command, from the input.
2. Parse_input(): Herein the input line is split using the white spaces and added to an array. Checks have been added to see if the command entered is "exit" or not. If it is, the shell is terminated. If not, the parsed array is passed onto the execute_commands function to execute given commands.
3. execute_commands(): The commands(Nested or not) are executed in order as given in input. Another array has been made to handle nested queries. All commands that fall under one pipeline(between 2 **'|'**) are added to this array and executed one by one. 2 different pipes have been created to help with the piping process. These pipes are used alternatively, between different pipelines. Using strcmp and strfind(strstr) functions, sense/meaning is extracted out of the commands and appropriate flags are set. Fork is then called. In the child process, using the flags set, I/O redirection takes place and the command is executed. The parent process waits for the child to exit and closes the pipes used by the child. This process repeats itself for all the nested queries. After the execution of all the commands the parent waits for all the child processes to exit and returns from the function.

Print_start_message and print_directory are functions designed to make the shell more appealing. They're only used for printing stuff on stdOutput.