

```
1 1. harsh@LAPTOP-GQUDU5KB:~$ pwd
2 /home/harsh
3 harsh@LAPTOP-GQUDU5KB:~$ cd
4 harsh@LAPTOP-GQUDU5KB:~$ ls
5 file1 file2 file3 harsh test1 test2
6 harsh@LAPTOP-GQUDU5KB:~$ mkdir harsh
7 mkdir: cannot create directory 'harsh': File exists
8 harsh@LAPTOP-GQUDU5KB:~$ mkdir ex1
9 harsh@LAPTOP-GQUDU5KB:~$ cd ex1
10 harsh@LAPTOP-GQUDU5KB:~/ex1$ nano a.txt b.txt c.txt
11 harsh@LAPTOP-GQUDU5KB:~/ex1$ ls
12 a.txt b.txt c.txt
13 harsh@LAPTOP-GQUDU5KB:~/ex1$ grep "bioinformatics" *.*
14 a.txt:bioinformatics
15 b.txt:bioinformatics
16 harsh@LAPTOP-GQUDU5KB:~/ex1$ grep "bioinformatics" *.* |wc -l
17 2
18 root@LAPTOP-GQUDU5KB:/home/harsh# nano a.txt b.txt c.txt
19 root@LAPTOP-GQUDU5KB:/home/harsh# grep "sequence" *.* |wc -l
20 2
21
22
23 2. harsh@LAPTOP-GQUDU5KB:~$ pwd
24 /home/harsh
25 harsh@LAPTOP-GQUDU5KB:~$ ls -lt
26 total 36
27 -rw-r--r-- 1 root root 10 Jul 16 20:40 c.txt
28 -rw-r--r-- 1 root root 25 Jul 16 20:39 a.txt
29 drwxr-xr-x 2 harsh harsh 4096 Jul 16 20:20 ex1
30 drwxr-xr-x 2 harsh harsh 4096 Jul 15 13:15 harsh
31 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:31 test2
32 -rw-r--r-- 1 harsh harsh 17 Jul 14 19:21 file3
33 -rw-r--r-- 1 harsh harsh 47 Jul 14 19:21 file2
34 -rw-r--r-- 1 harsh harsh 28 Jul 14 19:20 file1
35 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:18 test1
36 harsh@LAPTOP-GQUDU5KB:~$ sudo su
37 [sudo] password for harsh:
38 root@LAPTOP-GQUDU5KB:/home/harsh# chmod 770 *.*
39 root@LAPTOP-GQUDU5KB:/home/harsh# ls -lt
40 total 36
41 -rwxrwx--- 1 root root 10 Jul 16 20:40 c.txt
42 -rwxrwx--- 1 root root 25 Jul 16 20:39 a.txt
43 drwxr-xr-x 2 harsh harsh 4096 Jul 16 20:20 ex1
44 drwxr-xr-x 2 harsh harsh 4096 Jul 15 13:15 harsh
45 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:31 test2
46 -rw-r--r-- 1 harsh harsh 17 Jul 14 19:21 file3
47 -rw-r--r-- 1 harsh harsh 47 Jul 14 19:21 file2
48 -rw-r--r-- 1 harsh harsh 28 Jul 14 19:20 file1
49 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:18 test1
50
51
52
53 3. drwxr-xr-x 2 harsh harsh 4096 Jul 16 20:20 ex1
54 drwxr-xr-x 2 harsh harsh 4096 Jul 15 13:15 harsh
55 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:31 test2
56 -rw-r--r-- 1 harsh harsh 17 Jul 14 19:21 file3
57 -rw-r--r-- 1 harsh harsh 47 Jul 14 19:21 file2
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58 -rw-r--r-- 1 harsh harsh 28 Jul 14 19:20 file1
59 drwxr-xr-x 2 harsh harsh 4096 Jul 14 19:18 test1
60 harsh@LAPTOP-GQUDU5KB:~$ grep "ERROR" errorlogfile.txt
61 2024-07-11 12:02:41 ERROR Database connection failed
62 2024-07-11 12:04:53 ERROR Failed to load configuration
63 2024-07-11 12:06:45 ERROR User authentication failed
64 2024-07-11 12:08:30 ERROR Unable to save file
65 harsh@LAPTOP-GQUDU5KB:~$ grep "ERROR" errorlogfile.txt | sort +1 -2 | cat >
error_logs.txt
66 harsh@LAPTOP-GQUDU5KB:~$ cat error_logs.txt
67 2024-07-11 12:02:41 ERROR Database connection failed
68 2024-07-11 12:04:53 ERROR Failed to load configuration
69 2024-07-11 12:06:45 ERROR User authentication failed
70 2024-07-11 12:08:30 ERROR Unable to save file
71 harsh@LAPTOP-GQUDU5KB:~$ cat errorlogfile.txt
72 2024-07-11 12:01:34 INFO User logged in
73 2024-07-11 12:02:41 ERROR Database connection failed
74 2024-07-11 12:03:12 WARNING Disk space low
75 2024-07-11 12:04:53 ERROR Failed to load configuration
76 2024-07-11 12:05:01 INFO File uploaded successfully
77 2024-07-11 12:06:45 ERROR User authentication failed
78 2024-07-11 12:07:22 INFO System shutdown initiated
79 2024-07-11 12:08:30 ERROR Unable to save file
80 2024-07-11 12:09:19 WARNING High memory usage
81 2024-07-11 12:10:10 INFO User logged out
82
83
84 4. harsh@LAPTOP-GQUDU5KB:~$ mkdir dept
85 harsh@LAPTOP-GQUDU5KB:~$ cd dept
86 harsh@LAPTOP-GQUDU5KB:~/dept$ mkdir fin pers mktg
87 harsh@LAPTOP-GQUDU5KB:~/dept$ cd fin
88 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ mkdir exp inc
89 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd..
90 cd...: command not found
91 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd pers
92 -bash: cd: pers: No such file or directory
93 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd ..
94 harsh@LAPTOP-GQUDU5KB:~/dept$ cd pers
95 harsh@LAPTOP-GQUDU5KB:~/dept/pers$ mkdir admin pay
96 harsh@LAPTOP-GQUDU5KB:~/dept/pers$ cd ..
97 harsh@LAPTOP-GQUDU5KB:~/dept$ cd fin
98 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd exp
99 harsh@LAPTOP-GQUDU5KB:~/dept/fin/exp$ touch ent.txt postage.txt
100 harsh@LAPTOP-GQUDU5KB:~/dept/fin/exp$ cd ..
101 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd inc
102 harsh@LAPTOP-GQUDU5KB:~/dept/fin/inc$ touch fees.txt sales.txt
103 harsh@LAPTOP-GQUDU5KB:~/dept/fin/inc$ cd ..
104 harsh@LAPTOP-GQUDU5KB:~/dept/fin$ cd ..
105 harsh@LAPTOP-GQUDU5KB:~/dept$ cd pers
106 harsh@LAPTOP-GQUDU5KB:~/dept/pers$ cd admin
107 harsh@LAPTOP-GQUDU5KB:~/dept/pers/admin$ touch exp.txt reco.txt
108 harsh@LAPTOP-GQUDU5KB:~/dept/pers/admin$ cd ..
109 harsh@LAPTOP-GQUDU5KB:~/dept/pers$ cd pay
110 harsh@LAPTOP-GQUDU5KB:~/dept/pers/pay$ touch ded.txt add.txt
111 harsh@LAPTOP-GQUDU5KB:~/dept/pers/pay$ cd ..
112 harsh@LAPTOP-GQUDU5KB:~/dept/pers$ cd ..
113 harsh@LAPTOP-GQUDU5KB:~/dept$ cd mktg
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114 harsh@LAPTOP-GQUDU5KB:~/dept/mktg$ touch salesinfo.txt pur.txt
115 harsh@LAPTOP-GQUDU5KB:~/dept/mktg$ cd ..
116 harsh@LAPTOP-GQUDU5KB:~/dept$ tree
117 .
118 └─ a.txty
119 └─ c.txt
120 └─ dept
121 │   └─ fin
122 │       └─ exp
123 │           └─ ent.txt
124 │               └─ postage.txt
125 │           └─ inc
126 │               └─ fees.txt
127 │                   └─ sales.txt
128 │   └─ mktg
129 │       └─ pur.txt
130 │           └─ salesinfo.txt
131 │   └─ pers
132 │       └─ admin
133 │           └─ exp.txt
134 │               └─ reco.txt
135 │       └─ pay
136 │           └─ add.txt
137 │               └─ ded.txt
138 └─ error_logs.txt
139 └─ errorlogfile.txt
140 └─ errorlogfile.txt:SandBoxSafeFile
141 └─ errorlogfile.txt:Zone.Identifier
142 └─ ex1
143 │   └─ a.txt
144 │       └─ b.txt
145 │           └─ c.txt
146 └─ file1
147 └─ file2
148 └─ file3
149 └─ harsh
150 │   └─ 1.txt
151 │       └─ 2.txt
152 │           └─ 3.txt
153 └─ snap
154 │   └─ tree
155 │       └─ 18
156 │           └─ common
157 │               └─ current -> 18
158 └─ test1
159 └─ test2
160 │   └─ f1
161 │       └─ f1.txt
162 │       └─ f2
163 │           └─ f2.txt
164 │       └─ f3
165 │           └─ f3.txt
166 17 directories, 31 files
167 harsh@LAPTOP-GQUDU5KB:~$ tree dept
168 dept
169 └─ fin
170 │   └─ exp
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```
171 |   |   | ent.txt
172 |   |   | postage.txt
173 |   |   | inc
174 |   |   | fees.txt
175 |   |   | sales.txt
176 |   | mktg
177 |   |   | pur.txt
178 |   |   | salesinfo.txt
179 |   | pers
180 |   |   | admin
181 |   |   |   | exp.txt
182 |   |   |   | reco.txt
183 |   |   | pay
184 |   |   |   | add.txt
185 |   |   |   | ded.txt
```

186
187 7 directories, 10 files

```
188 harsh@LAPTOP-GQUDU5KB:~$ cp dept/pers/pay/ded.txt dept/mktg/deduc.txt
189 harsh@LAPTOP-GQUDU5KB:~$ ln -s $(pwd)/dept/mktg/deduc dept/pers/admin/deduc_link
190 harsh@LAPTOP-GQUDU5KB:~$ cp dept/mktg/salesinfo.txt dept///pers/pay
191 harsh@LAPTOP-GQUDU5KB:~$ mv dept/pers/pay/salesinfo.txt dept/fin/exp/sinfo.txt
192 harsh@LAPTOP-GQUDU5KB:~$ cp dept/fin/exp/sinfo.txt dept/fin/
193 harsh@LAPTOP-GQUDU5KB:~$ rm dept/fin/exp/sinfo.txt
194 harsh@LAPTOP-GQUDU5KB:~$ mv dept/fin/exp/postage.txt dept/pers/pexp.txt
195 harsh@LAPTOP-GQUDU5KB:~$ ln -s $(pwd)/dept/pers/pexp.txt dept/pers/pexp_link
196 harsh@LAPTOP-GQUDU5KB:~$ rm dept/pers/pexp.txt
197 harsh@LAPTOP-GQUDU5KB:~$ cd dept
198 harsh@LAPTOP-GQUDU5KB:~/dept$ tree
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```
199 .
200 |   | fin
201 |   |   | exp
202 |   |   |   | ent.txt
203 |   |   | inc
204 |   |   |   | fees.txt
205 |   |   |   | sales.txt
206 |   |   | sinfo.txt
207 |   | mktg
208 |   |   | deduc.txt
209 |   |   | pur.txt
210 |   |   | salesinfo.txt
211 |   | pers
212 |   |   | admin
213 |   |   |   | deduc_link -> /home/harsh/dept/mktg/deduc
214 |   |   |   | exp.txt
215 |   |   |   | reco.txt
216 |   |   | pay
217 |   |   |   | add.txt
218 |   |   |   | ded.txt
219 |   |   | pexp_link -> /home/harsh/dept/pers/pexp.txt
```