Simon Fraser University School of Computing Science CMPT 300: Assignment #4

The UNIX Is Command

Case 1: ./UnixLs -i, ./UnixLs -l, ./UnixLs -R Output:

```
\checkmark TERMINAL
  Jeongwoonui—MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -i
3104742 UnixLs 3099290 makefile 3099650 subdir_test 3104741 UnixLs.o 3024161 UnixLs.h 2918678 assignment4_300.pdf 3024003 UnixLs.c
  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -l
-rwxr-xr-x 1jeongwoonsuh staff 50296 Dec 06 2020 21
                                                         Dec 06 2020 21:30
                  1jeongwoonsuh
                                                                                       UnixIs
                                     staff
                                                          Dec 06 2020 21:28
                   1jeongwoonsuh
                                                 121
    -rw-r--r--
                                                                                       makefile
                  5jeongwoonsuh
1jeongwoonsuh
                                                          Dec 06 2020 19:58
   drwxr-xr-x
                                      staff
                                                 160
                                                                                        subdir_test
   -rw-r--r--
                                      staff
                                                 5572
                                                          Dec 06 2020 21:30
                                                                                       UnixLs.o
                   1jeongwoonsuh
                                      staff
                                                 1111
                                                          Dec 06 2020 20:36
                                                                                       UnixLs.h
                                     staff
                   1jeongwoonsuh
                                              113524
                                                          Nov 29 2020 22:17
   -rw-r--r--
                                                                                       assignment4_300.pdf
                  1jeongwoonsuh
    -rw-r--r--
                                     staff
                                                7004
                                                         Dec 06 2020 21:28
                                                                                       UnixLs.c
  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -R
  UnixLs makefile subdir_test UnixLs.o UnixLs.h assignment4_300.pdf UnixLs.c
  ./subdir_test:
2_dir 1_dir
  ./subdir_test/2_dir:
  mainsample.c
  ./subdir_test/1_dir:
  for_test.png
  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Case 2: ./UnixLs -iRl Output:

```
\checkmark TERMINAL
 Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -iRl
                           1jeongwoonsuh
1jeongwoonsuh
                                                               Dec 06 2020 21:30
     3104742 -rwxr-xr-x
                                             staff
                                                      50296
                                                                                        UnixLs
     3099290 -rw-r--r--
                                             staff
                                                        121
                                                               Dec 06 2020 21:28
                                                                                        makefile
                                                               Dec 06 2020 19:58
                                                                                         subdir_test
     3099650 drwxr-xr-x
                           5jeongwoonsuh
                                             staff
                                                        160
                                                               Dec 06 2020 21:30
     3104741 -rw-r--r--
                           1jeongwoonsuh
                                                       5572
                                             staff
                                                                                        UnixIs.o
                                                               Dec 06 2020 20:36
Nov 29 2020 22:17
                           1jeongwoonsuh
1jeongwoonsuh
                                                                                        UnixLs.h
     3024161 -rw-r--r--
                                             staff
                                                       1111
     2918678 -rw-r--r--
                                             staff
                                                     113524
                                                                                         assignment4_300.pdf
                           1jeongwoonsuh
                                                               Dec 06 2020 21:28
     3024003 -rw-r--r--
                                             staff
                                                       7004
                                                                                        UnixLs.c
  ./subdir_test:
     3099784 drwxr-xr-x
                            3jeongwoonsuh
                                             staff
                                                         96
                                                               Dec 06 2020 19:52
                                                                                         2 dir
                                                               Dec 06 2020 19:52
     3099766 drwxr-xr-x
                           3 jeongwoonsuh
                                                         96
                                                                                         1_dir
                                             staff
  ./subdir_test/2_dir:
                                                               Sep 29 2020 17:56
     1905934 -rw-r--r--
                                                      13660
                            1jeongwoonsuh
                                             staff
                                                                                        mainsample.c
  ./subdir_test/1_dir:
     2956141 -rw-r--r-
                                            staff 119442
                                                               Nov 30 2020 23:38
                           1jeongwoonsuh
                                                                                         for_test.png
 Jeongwoonui—MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Case 3: ./UnixLs -Ri Output:

```
    TERMINAL

Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -Ri
3104742 UnixLs 3099290 makefile 3099650 subdir_test 3104741 UnixLs.o 3024161 UnixLs.h 2918678 assignment4_300.pdf 3024003 UnixLs.c

./subdir_test:
3099784 2_dir 3099766 1_dir

./subdir_test/2_dir:
1905934 mainsample.c

./subdir_test/1_dir:
2956141 for_test.png
Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Case 4: ./UnixLs -li Output:

```
√ TERMINAL

  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -li
    3104742 -rwxr-xr-x 1jeongwoonsuh
                                          staff
                                                  50296
                                                           Dec 06 2020 21:30
                                                                                   UnixLs
                          1jeongwoonsuh
                                                    121
    3099290 -rw-r--r--
                                                           Dec 06 2020 21:28
                                                                                   makefile
                                          staff
    3099650 drwxr-xr-x 5jeongwoonsuh
                                                           Dec 06 2020 19:58
                                          staff
                                                    160
                                                                                   subdir_test
                                                   5572
    3104741 -rw-r--r--
                        1jeongwoonsuh
                                          staff
                                                           Dec 06 2020 21:30
                                                                                   UnixLs.o
                                          staff
    3024161 -rw-r--r--
                          1jeongwoonsuh
                                                   1111
                                                           Dec 06 2020 20:36
                                                                                   UnixLs.h
                                                           Nov 29 2020 22:17
    2918678 -rw-r--r--
                          1jeongwoonsuh
                                          staff
                                                 113524
                                                                                   assignment4_300.pdf
    3024003 -rw-r--r--
                          1jeongwoonsuh
                                          staff
                                                   7004
                                                           Dec 06 2020 21:28
                                                                                   UnixLs.c
 Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$
```

Case 5: ./UnixLs -iR Output:

```
V TERMINAL

Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -iR
3104742 UnixLs 3099290 makefile 3099650 subdir_test 3104741 UnixLs.o 3024161 UnixLs.h 2918678 assignment4_300.pdf 3024003 UnixLs.c

./subdir_test:
3099784 2_dir 3099766 1_dir

./subdir_test/2_dir:
1905934 mainsample.c

./subdir_test/1_dir:
2956141 for_test.png
Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Case 6: ./UnixLs -lR Output:

```
✓ TERMINAL

  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -lR -rwxr-xr-x 1jeongwoonsuh staff 50296 Dec 06 2020 21:3
                                                     Dec 06 2020 21:30
                                                                                 UnixLs
                 1jeongwoonsuh
                                   staff
                                                      Dec 06 2020 21:28
   -rw-r--r--
                                              121
                                                                                 makefile
   drwxr-xr-x
                                   staff
                 5jeongwoonsuh
                                              160
                                                      Dec 06 2020 19:58
                                                                                 subdir_test
                                             5572
                                                      Dec 06 2020 21:30
   -rw-r--r--
                 1jeongwoonsuh
                                   staff
                                                                                 UnixLs.o
   -rw-r--r--
                                   staff
                                                      Dec 06 2020 20:36
                                             1111
                                                                                 UnixLs.h
                 1jeongwoonsuh
                 1jeongwoonsuh
                                   staff
                                           113524
                                                      Nov 29 2020 22:17
                                                                                 assignment4_300.pdf
   -rw-r--r--
                 1jeongwoonsuh
                                   staff
                                             7004
                                                      Dec 06 2020 21:28
                                                                                 UnixLs.c
  ./subdir_test:
                                                      Dec 06 2020 19:52
Dec 06 2020 19:52
   drwxr-xr-x
                 3jeongwoonsuh
                                   staff
                                               96
                                                                                 2_dir
                                                                                  1 dir
                 3jeongwoonsuh
                                   staff
                                               96
   drwxr-xr-x
  ./subdir_test/2_dir:
   -rw-r--r-- 1jeongwoonsuh
                                   staff
                                            13660
                                                      Sep 29 2020 17:56
                                                                                 mainsample.c
  ./subdir_test/1_dir:
                                   staff 119442
                                                      Nov 30 2020 23:38
   -rw-r--r-- 1jeongwoonsuh
                                                                                  for_test.png
  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Case 7: no options Output:

```
V TERMINAL

Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs a
There does not exist such file or directory: a

Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -a
There is no such option: a, please provide correct extension. (such as -i, -l, or -R)
Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ■
```

Additional cases for outputs

Case 8: ./UnixLs -i -l Output:

```
√ TERMINAL

  Jeongwoonui—MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -i -l
     3104742 -rwxr-xr-x
                          1jeongwoonsuh
                                           staff
                                                    50296
                                                             Dec 06 2020 21:30
                                                                                     UnixLs
     3099290 -rw-r--r--
                          1jeongwoonsuh
                                           staff
                                                      121
                                                             Dec 06 2020 21:28
                                                                                     makefile
                          5jeongwoonsuh
     3099650 drwxr-xr-x
                                                     160
                                                             Dec 06 2020 19:58
                                                                                     subdir_test
                                           staff
     3104741 -rw-r--r--
                           1jeongwoonsuh
                                           staff
                                                     5572
                                                             Dec 06 2020
                                                                         21:30
                                                                                     UnixLs.o
                                                             Dec 06 2020 20:36
     3024161 -rw-r--r--
                                                     1111
                           1jeongwoonsuh
                                                                                     UnixLs.h
                                           staff
     2918678 -rw-r--r--
                           1jeongwoonsuh
                                           staff
                                                   113524
                                                             Nov 29 2020 22:17
                                                                                     assignment4 300.pdf
                                                                                     UnixLs.c
                          1jeongwoonsuh
                                           staff
                                                     7004
                                                             Dec 06 2020 21:28
     3024003 -rw-r--r--
  Jeongwoonui—MacBookPro:Assignment_4 jeongwoonsuh$ 🛮
```

Case 9: ./UnixLs -R -i -l Output:

```
\checkmark TERMINAL
 Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -R -i -l
     3104742 -rwxr-xr-x
                           1jeongwoonsuh
                                           staff
                                                    50296
                                                             Dec 06 2020 21:30
                                                                                     UnixLs
     3099290 -rw-r--r--
                                                      121
                                                             Dec 06 2020 21:28
                          1jeongwoonsuh
                                           staff
                                                                                     makefile
                          5jeongwoonsuh
     3099650 drwxr-xr-x
                                           staff
                                                      160
                                                             Dec 06 2020
                                                                         19:58
                                                                                     subdir_test
     3104741 -rw-r--r--
                                                     5572
                                                             Dec 06 2020 21:30
                                           staff
                           1jeongwoonsuh
                                                                                     UnixLs.o
     3024161 -rw-r--r--
                           1jeongwoonsuh
                                           staff
                                                     1111
                                                             Dec 06 2020 20:36
                                                                                     UnixLs.h
                                           staff
                                                  113524
                                                             Nov 29 2020 22:17
     2918678 -rw-r--r--
                           1jeongwoonsuh
                                                                                     assignment4_300.pdf
     3024003 -rw-r--r--
                          1jeongwoonsuh
                                           staff
                                                     7004
                                                             Dec 06 2020 21:28
                                                                                     UnixLs.c
  ./subdir_test:
                                                       96
                                                             Dec 06 2020 19:52
     3099784 drwxr-xr-x
                                           staff
                                                                                     2_dir
                           3jeongwoonsuh
                                                       96
                                                             Dec 06 2020 19:52
     3099766 drwxr-xr-x
                           3jeongwoonsuh
                                           staff
                                                                                     1_dir
  ./subdir_test/2_dir:
     1905934 -rw-r--r--
                           1jeongwoonsuh
                                           staff
                                                    13660
                                                             Sep 29 2020 17:56
                                                                                     mainsample.c
  ./subdir_test/1_dir:
                                           staff 119442
                                                             Nov 30 2020 23:38
     2956141 -rw-r--r--
                           1jeongwoonsuh
                                                                                     for_test.png
 Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$
```

Case 10: ./UnixLs -il -R Output:

```
√ TERMINAL

  Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$ ./UnixLs -il -R
     3104742 -rwxr-xr-x
3099290 -rw-r--r--
                                                               Dec 06 2020 21:30
                           1jeongwoonsuh
                                            staff
                                                     50296
                                                                                        UnixLs
                                                               Dec 06 2020 21:28
                                                       121
                                                                                        makefile
                           1jeongwoonsuh
                                             staff
                           5jeongwoonsuh
                                            staff
                                                               Dec 06 2020 19:58
     3099650 drwxr-xr-x
                                                       160
                                                                                        subdir_test
                                            staff
                                                      5572
                                                               Dec 06 2020 21:30
     3104741 -rw-r--r--
                           1jeongwoonsuh
                                                                                        UnixLs.o
                                                              Dec 06 2020 20:36
Nov 29 2020 22:17
                                                      1111
     3024161 -rw-r--r--
                           1jeongwoonsuh
                                            staff
                                                                                        UnixLs.h
                                                    113524
                                            staff
                                                                                        assignment4_300.pdf
     2918678 -rw-r--r--
                           1jeongwoonsuh
                                                               Dec 06 2020 21:28
                                                                                        UnixLs.c
     3024003 -rw-r--r--
                           1jeongwoonsuh
                                             staff
  ./subdir_test:
     3099784 drwxr-xr-x
                                                               Dec 06 2020 19:52
                           3 jeongwoonsuh
                                             staff
                                                                                        2 dir
     3099766 drwxr-xr-x
                                                               Dec 06 2020 19:52
                           3jeongwoonsuh
                                             staff
                                                                                        1_dir
  ./subdir_test/2_dir:
     1905934 -rw-r--r--
                                             staff
                                                     13660
                                                               Sep 29 2020 17:56
                                                                                        mainsample.c
                           1jeongwoonsuh
  ./subdir_test/1_dir:
     2956141 -rw-r--r--
                                            staff 119442
                           1jeongwoonsuh
                                                               Nov 30 2020 23:38
                                                                                        for_test.png
 Jeongwoonui-MacBookPro:Assignment_4 jeongwoonsuh$
```