Sample Output/Demonstration of Results

(NOTE: As per requirement 5 of output, all normal UnixLs has been printed one file per line)

- **Base Implementation:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs
Assignment 4 - Sthanala - Ayeon.zip
infodemo.c
makefile
Sample Output - Sthanala - Ayeon.pdf
Sample Output.docx
UnixLs
UnixLs.c
~$mple Output.docx
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls
'Assignment 4 - Sthanala - Ayeon.zip'  'Sample Output - Sthanala - Ayeon.pdf'  'Sample Output.docx'   UnixLs   UnixLs.c   infodemo.c   makefile  '~$mple Output.docx'
```

- **Different Directory A:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs ..
Assignment 2
Assignment 3
Assignment 4
CMPT300 A2 - sthanala - ayeon
```

  - **LS:**

- **Different Directory B:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs ../"Assignment 3"
Assignment 3 - Sthanala - Ayeon.zip
Assignment 3 Report.docx
Assignment 3 Report.pdf
main
makefile
mem_test
mem_test.c
my_malloc
my_malloc.c
my_malloc.h
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls ../"Assignment 3"
'Assignment 3 - Sthanala - Ayeon.zip'  'Assignment 3 Report.docx'  'Assignment 3 Report.pdf'   main   makefile   mem_test   mem_test.c   my_malloc   my_malloc.c   my_malloc.h
```

- **-l argument:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs -l ..
drwxrwxrwx 1 root root  4096 Dec 06 2021 07:14 Assignment 2
drwxrwxrwx 1 root root  4096 Dec 06 2021 07:14 Assignment 3
drwxrwxrwx 1 root root  4096 Dec 06 2021 07:34 Assignment 4
drwxrwxrwx 1 root root  4096 Dec 06 2021 07:14 CMPT300 A2 - sthanala - ayeon
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls .. -l
total 0
drwxrwxrwx 1 root root 4096 Dec  6 07:14 'Assignment 2'
drwxrwxrwx 1 root root 4096 Dec  6 07:14 'Assignment 3'
drwxrwxrwx 1 root root 4096 Dec  6 07:34 'Assignment 4'
drwxrwxrwx 1 root root 4096 Dec  6 07:14 'CMPT300 A2 - sthanala - ayeon'
```

- **-R argument:**
  - **UnixLS:**

```
^[[Aroot@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs -R ../"Assignment 2"

../Assignment 2:
 list  list.c  TestDir 3  TestDir1  TestDir2

../Assignment 2/TestDir 3:
 list  list.c  list.h  makefile  s-talk  s-talk.c  serverTest  serverTest.c

../Assignment 2/TestDir1:
 list  TestNestDir

../Assignment 2/TestDir1/TestNestDir:
 s-talk  s-talk.c

../Assignment 2/TestDir2:
 list  list.c
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls -R ../"Assignment 2"
'../Assignment 2':
'TestDir 3'   TestDir1   TestDir2   list   list.c

'../Assignment 2/TestDir 3':
list  list.c  list.h  makefile  s-talk  s-talk.c  serverTest  serverTest.c

'../Assignment 2/TestDir1':
TestNestDir  list

'../Assignment 2/TestDir1/TestNestDir':
s-talk  s-talk.c

'../Assignment 2/TestDir2':
list  list.c
```

- **-i argument:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs -i
16325548649278694  Assignment 4 - Sthanala - Ayeon.zip
12666373952136131  infodemo.c
8162774324907446  makefile
18577348463213973  Sample Output - Sthanala - Ayeon.pdf
87257242791118460  Sample Output.docx
72902018968071917  UnixLs
35184372088852792  UnixLs.c
6473924464580416  ~$mple Output.docx
4503599628334358  ~WRL3998.tmp
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls -i
16325548649278694 'Assignment 4 - Sthanala - Ayeon.zip'   72902018968071917  UnixLs       8162774324907446  makefile
18577348463213973 'Sample Output - Sthanala - Ayeon.pdf'  35184372088852792  UnixLs.c     6473924464580416 '~$mple Output.docx'
 1970324838062736 'Sample Output.docx'                    12666373952136131  infodemo.c   4503599628334358 '~WRL3998.tmp'
```

- **-li arguments:**
  - **UnixLS:**

```
^[[Aroot@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs -li ..
42784196460043365 drwxrwxrwx 1 root root  4096 Dec 06 2021 07:37 Assignment 2
 8162774325014188 drwxrwxrwx 1 root root  4096 Dec 06 2021 07:14 Assignment 3
51509920738070932 drwxrwxrwx 1 root root  4096 Dec 06 2021 07:54 Assignment 4
 2533274790901604 drwxrwxrwx 1 root root  4096 Dec 06 2021 07:14 CMPT300 A2 - sthanala - ayeon
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls -li ..
total 0
42784196460043365 drwxrwxrwx 1 root root 4096 Dec  6 07:37 'Assignment 2'
 8162774325014188 drwxrwxrwx 1 root root 4096 Dec  6 07:14 'Assignment 3'
51509920738070932 drwxrwxrwx 1 root root 4096 Dec  6 07:54 'Assignment 4'
 2533274790901604 drwxrwxrwx 1 root root 4096 Dec  6 07:14 'CMPT300 A2 - sthanala - ayeon'
```

- **-lRi arguments:**
  - **UnixLS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ./UnixLs -liR

.:
12666373952136131 -rwxrwxrwx 1 root root    849 Dec 06 2021 07:14 infodemo.c
 8162774324907446 -rwxrwxrwx 1 root root     80 Dec 06 2021 07:14 makefile
 5066549581311954 -rwxrwxrwx 1 root root 259709 Dec 06 2021 07:56 Sample Output.docx
34902897112126361 -rwxrwxrwx 1 root root  17776 Dec 06 2021 07:54 UnixLs
349028971112142136 -rwxrwxrwx 1 root root  6769 Dec 06 2021 07:55 UnixLs.c
112308515707574116 -rwxrwxrwx 1 root root    162 Dec 06 2021 07:29 ~$mple Output.docx
 3377699721072433 -rwxrwxrwx 1 root root  14901 Dec 06 2021 07:29 ~WRL0003.tmp
```

  - **LS:**

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls -liR
.:
total 304
   5066549581311954 -rwxrwxrwx 1 root root 259709 Dec  6 07:56 'Sample Output.docx'
  34902897112126361 -rwxrwxrwx 1 root root  17776 Dec  6 07:54  UnixLs
  34902897112142136 -rwxrwxrwx 1 root root   6769 Dec  6 07:55  UnixLs.c
  12666373952136131 -rwxrwxrwx 1 root root    849 Dec  6 07:14  infodemo.c
   8162774324907446 -rwxrwxrwx 1 root root     80 Dec  6 07:14  makefile
 112308515707574116 -rwxrwxrwx 1 root root    162 Dec  6 07:29 '~$mple Output.docx'
   3377699721072433 -rwxrwxrwx 1 root root  14901 Dec  6 07:29 '~WRL0003.tmp'
```

- **Symbolic links:**
  - **UnixLS:**

```
shashank@Haibhailie:~/Desktop/CMPT300/cmpt300-assignment-2/Assignment 4$ ./UnixLs -l
lrwxrwxrwx 1 shashank shashank     22 Dec 06 2021 05:22 symbolic_link -> ./DummyDir/my_malloc.c
drwxrwxr-x 2 shashank shashank   4096 Dec 06 2021 08:08 Assignment 4 - Sthanala - Ayeon
-rw-rw-r-- 1 shashank shashank   6954 Dec 06 2021 16:32 UnixLs.c
-rw-rw-r-- 1 shashank shashank 321177 Dec 06 2021 08:05 Sample Output - Assignment 4 - Sthanala, Ayeon.pdf
-rwxrwxr-x 1 shashank shashank  17776 Dec 06 2021 16:32 UnixLs
drwxrwxr-x 5 shashank shashank   4096 Dec 06 2021 04:48 DummyDir
-rw-rw-r-- 1 shashank shashank     80 Dec 06 2021 08:07 makefile
-rw-rw-r-- 1 shashank shashank 297934 Dec 06 2021 08:09 Assignment 4 - Sthanala - Ayeon.zip
```

  - **LS:**

```
shashank@Haibhailie:~/Desktop/CMPT300/cmpt300-assignment-2/Assignment 4$ ls -l
total 648
drwxrwxr-x 2 shashank shashank   4096 Dec  6 08:08 'Assignment 4 - Sthanala - Ayeon'
-rw-rw-r-- 1 shashank shashank 297934 Dec  6 08:09 'Assignment 4 - Sthanala - Ayeon.zip'
drwxrwxr-x 5 shashank shashank   4096 Dec  6 04:48  DummyDir
-rw-rw-r-- 1 shashank shashank     80 Dec  6 08:07  makefile
-rw-rw-r-- 1 shashank shashank 321177 Dec  6 08:05 'Sample Output - Assignment 4 - Sthanala, Ayeon.pdf'
lrwxrwxrwx 1 shashank shashank     22 Dec  6 05:22  symbolic_link -> ./DummyDir/my_malloc.c
-rwxrwxr-x 1 shashank shashank  17776 Dec  6 16:32  UnixLs
-rw-rw-r-- 1 shashank shashank   6954 Dec  6 16:32  UnixLs.c
```

Note: Some terminals are highlighted because I am presently on WSL and sometimes the base ls shows directories in an unreadable format like:

```
root@DESKTOP-17QTDT8:/mnt/c/Users/Shashank/Desktop/Fall 2021/CMPT300/Assignments/cmpt300-assignment-2/Assignment 4# ls -liR ..
..:
total 0
42784196460043365 drwxrwxrwx 1 root root 4096 Dec  6 07:37 'Assignment 2'
 8162774325014188 drwxrwxrwx 1 root root 4096 Dec  6 07:14 'Assignment 3'
 5150920738070932 drwxrwxrwx 1 root root 4096 Dec  6 07:56 'Assignment 4'
 2533274790901604 drwxrwxrwx 1 root root 4096 Dec  6 07:14 'CMPT300 A2 - sthanala - ayeon'
```

Which is why I highlighted them just by selecting them.