The toy shell

Immagine we are writting an operating system, and we got to a point where we have an operational kernel and full support for your favourite language. So what do we do next ? Well we need some way to interact with the OS, and naturally first thing that every OS creates is, no not a GUI, but a command line shell. So what we want to do in this first version of the shell is be able to walk around our new shiny file system and be able to do simple file operations.

The MVP

For the "MVP" of our shell we will implement a simple prompt that shows us our current directory, like this:

```
/Your/Current/Directory> write --command --here "should accept quoted arguments"
```

(Does not nescassarilty has to be any specific directory separator, you choose)

And also we want to implement the following commands:

list

This command lists all the files and directories inside the current directory, also giving us the appropriate file size next to files. The output should look as follows:

```
C:\Users\T0974\Desktop\projects\TheFinalBoss\test>list
enc_temp_folder ............................................. directory
lmio-2020-3et2-sal-kalnai-vyr.pdf ........................... 152004
lmio-2020-3et2-sal-namas-vyr.pdf ............................ 167311
lmio-2020-3et2-sal-skriestuvas-vyr.pdf ...................... 151778
lmio-2020-3et2-sal-spelione-vyr.pdf ......................... 173559
lmio-2020-3et2-sal-tiltai-vyr.pdf ........................... 177748
lmio-2020-3et2-sal-zemelapis-vyr.pdf ........................ 155891
C:\Users\T0974\Desktop\projects\TheFinalBoss\test>
```

enter <directory>

This command "enters" a directory, changing the current directory to the specified directory, and preserves the current directory in history stack of directories that would be used in the next command.

```
C:\test>enter enc_temp_folder
C:\test\enc_temp_folder>
```

leave

This command should "leave" the currently entered directory, as in it would get back to the previous directory, if there is any, or give error otherwise.

```
C:\test>enter enc_temp_folder
C:\test\enc_temp_folder>
C:\test\enc_temp_folder>leave
C:\test>
C:\test>leave
Cannot leave, history empty.
```

copy <source> <destination>

This command copies contents of file or directory to another file or directory.

```
copy testfile.txt some_other_place\tempfile.txt
```

delete <target>

This command shall delete a file or directory entirely.

```
delete testfile.txt
```

create <target> <contents>

This command will create a file with the given <*target*> path and will put <*contents*> into the file.

```
create testfile.txt "Hello world! It's me, in the place to be!";
```

stop

This shuts down our command shell and exists our "OS" (basically just exists the program)

Notes

- Please do not cheat and forward these commands to underlying shell like cmd or bash. Please use your platform or standard library api's instead. Hint: the <filesystem> library of c++17 will help you alot here.
- This task was designed to take you around 1.5 hours, and yo do not need to implement it fully. Do as much as you can managed in the given time :)
- Each command is expected to report any errors to the user and perhaps it's usage if the user enters it incorrectly.
- If you do manage to finish all of it, go crazy, add something you find cool, impress us.
- Good luck, and have fun.