

UNIX Utilities Project

This covers my implementation of the popular unix command-line tools coded in C.

- my-cat: displays file contents
- my-grep: searches for patterns in files
- my-zip: compresses a file
- my-unzip: decompresses files compressed by my-zip

All of the programs are written in C and compile with -Wall and -Werror showing no warnings.

Implementation details

- All programs properly handle file opening errors and invalid arguments.
- Proper memory management with no leaks
- Handles edge cases such as empty files and missing files.

Repo:

<https://github.com/LUTVeeti/K-ytt-j-rjestelm-t-ja-systeemiohjelmointi-projektit.git>

Usage guide and examples

1. my-cat

Compile: gcc -o my-cat my-cat.c -Wall -Werror

Use the following command ./my-cat [filename]

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-cat output.txt
  a file
  is
  this
  hello
```

2. my-grep

Compile: gcc -o my-grep my-grep.c -Wall -Werror

Use the following command ./my-grep "search-term" [filename]

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-grep "hello" output.txt
  hello
```

You can also search for a pattern from multiple files:

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-grep "hello" input.txt output.txt
  hello
  hello
```

3. my-zip

Compile: gcc -o my-zip my-zip.c -Wall -Werror

Use the following command ./my-zip [filename] > compressedfilename.z

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-zip input.txt > compressedinput.z
[?] compressedinput
```

You can also zip multiple files:

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-zip input.txt output.txt > compressedinputoutput.z
```

4. my-unzip

Compile: gcc -o my-unzip my-unzip.c -Wall -Werror

Use the following command ./my-unzip filename.z

```
● veethicc@Veetintykki:~/systeemiohjelmointi$ ./my-unzip compressedinputoutput.z  
hello  
this  
is  
a filea file  
is  
this  
hello
```