Search with Grep

grep command will search a pattern inside of a file or a directory.

```
$ grep 'dog' file
```

This command will search and print out all of the lines in the *file* which contain the word *dog*.
You can also search the whole directory, in that case you will also get the filepaths to the files which contain the word, but you need to use the **r** option to achieve this. If you don't care about the case of the letters, add the **i** option to make the search case insensitive. **w** option will print only the lines which contain this exact words and not the lines where that word is included in another one.
This search parameter doesn't have to be a simple string. It can also be a **regular expression**. Depending on which OS you use, you will either get the GNU or the BSD version of the **grep** command, which uses different **regular expression** engines. These expressions create patterns just like globbing. They are not tied to the grep command, on the contrary, they are present everywhere in the IT world.

I will put some general examples here, but you need to do some research on your own to really use all of the power that **regex** provides.

```
$ grep 'over$' file
```

This will search for all of the lines in a *file* which end with the word *over*.

```
$ grep '....\.mp3' file
```

This will match all of the lines in a *file* which have the word that contains any

four characters, followed by a dot and *mp3*. The dot in regular expressions represents one character (just like *?* in globbing). The \. is the literal dot character, because I escaped it with the backslash. I had to do this, otherwise, that dot would also be considered as any character placeholder.

```
$ grep 'me[ew]' file
```

This will match either *mee* or *mew* (gotta *match* them all, if you know what I mean).

```
$ grep '^[a-z]' file
```

This will match every line that begins with the lowercase letter.
These are the general patterns which work in most of the engines. You can also use the extended version with **E**. I will leave you to research this on your own. Good luck!