

Homework 6

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Homework 6

```
[4]: cd
```

```
[5]: pwd
```

```
/home/jupyter-official-nanakai
```

```
[1]: man egrep
```

GREP(1)

User Commands

GREP(1)

NAME

grep, egrep, fgrep, rgrep - print lines matching a pattern

SYNOPSIS

```
grep [OPTIONS] PATTERN [FILE...]
grep [OPTIONS] -e PATTERN ... [FILE...]
grep [OPTIONS] -f FILE ... [FILE...]
```

DESCRIPTION

grep searches for PATTERN in each FILE. A FILE of "-" stands for standard input. If no FILE is given, recursive searches examine the working directory, and nonrecursive searches read standard input. By default, grep prints the matching lines.

In addition, the variant programs egrep, fgrep and rgrep are the same as grep -E, grep -F, and grep -r, respectively. These variants are deprecated, but are provided for backward compatibility.

OPTIONS

Generic Program Information

--help Output a usage message and exit.

-V, --version

Output the version number of grep and exit.

Matcher Selection

- E, --extended-regexp
Interpret PATTERN as an extended regular expression (ERE, see below).
- F, --fixed-strings
Interpret PATTERN as a list of fixed strings (instead of regular expressions), separated by newlines, any of which is to be matched.
- G, --basic-regexp
Interpret PATTERN as a basic regular expression (BRE, see below). This is the default.
- P, --perl-regexp
Interpret the pattern as a Perl-compatible regular expression (PCRE). This is experimental and grep -P may warn of unimplemented features.

Matching Control

- e PATTERN, --regexp=PATTERN
Use PATTERN as the pattern. If this option is used multiple times or is combined with the -f (--file) option, search for all patterns given. This option can be used to protect a pattern beginning with "-".
- f FILE, --file=FILE
Obtain patterns from FILE, one per line. If this option is used multiple times or is combined with the -e (--regexp) option, search for all patterns given. The empty file contains zero patterns, and therefore matches nothing.
- i, --ignore-case
Ignore case distinctions, so that characters that differ only in case match each other.
- v, --invert-match
Invert the sense of matching, to select non-matching lines.
- w, --word-regexp
Select only those lines containing matches that form whole words. The test is that the matching substring must either be at the beginning of the line, or preceded by a non-word constituent character. Similarly, it must be either at the end of the line or followed by a non-word constituent character. Word-constituent characters are letters, digits, and the underscore. This option has no effect if -x is also specified.

- `-x, --line-regexp`
Select only those matches that exactly match the whole line. For a regular expression pattern, this is like parenthesizing the pattern and then surrounding it with `^` and `$`.
- `-y` Obsolete synonym for `-i`.

General Output Control

- `-c, --count`
Suppress normal output; instead print a count of matching lines for each input file. With the `-v, --invert-match` option (see below), count non-matching lines.
- `--color[=WHEN], --colour[=WHEN]`
Surround the matched (non-empty) strings, matching lines, context lines, file names, line numbers, byte offsets, and separators (for fields and groups of context lines) with escape sequences to display them in color on the terminal. The colors are defined by the environment variable `GREP_COLORS`. The deprecated environment variable `GREP_COLOR` is still supported, but its setting does not have priority. `WHEN` is never, always, or auto.
- `-L, --files-without-match`
Suppress normal output; instead print the name of each input file from which no output would normally have been printed. The scanning will stop on the first match.
- `-l, --files-with-matches`
Suppress normal output; instead print the name of each input file from which output would normally have been printed. The scanning will stop on the first match.
- `-m NUM, --max-count=NUM`
Stop reading a file after `NUM` matching lines. If the input is standard input from a regular file, and `NUM` matching lines are output, `grep` ensures that the standard input is positioned to just after the last matching line before exiting, regardless of the presence of trailing context lines. This enables a calling process to resume a search. When `grep` stops after `NUM` matching lines, it outputs any trailing context lines. When the `-c` or `--count` option is also used, `grep` does not output a count greater than `NUM`. When the `-v` or `--invert-match` option is also used, `grep` stops after outputting `NUM` non-matching lines.
- `-o, --only-matching`
Print only the matched (non-empty) parts of a matching line, with each such part on a separate output line.

`-q, --quiet, --silent`
Quiet; do not write anything to standard output. Exit immediately with zero status if any match is found, even if an error was detected. Also see the `-s` or `--no-messages` option.

`-s, --no-messages`
Suppress error messages about nonexistent or unreadable files.

Output Line Prefix Control

`-b, --byte-offset`
Print the 0-based byte offset within the input file before each line of output. If `-o` (`--only-matching`) is specified, print the offset of the matching part itself.

`-H, --with-filename`
Print the file name for each match. This is the default when there is more than one file to search.

`-h, --no-filename`
Suppress the prefixing of file names on output. This is the default when there is only one file (or only standard input) to search.

`--label=LABEL`
Display input actually coming from standard input as input coming from file LABEL. This is especially useful when implementing tools like `zgrep`, e.g., `gzip -cd foo.gz | grep --label=foo -H something`. See also the `-H` option.

`-n, --line-number`
Prefix each line of output with the 1-based line number within its input file.

`-T, --initial-tab`
Make sure that the first character of actual line content lies on a tab stop, so that the alignment of tabs looks normal. This is useful with options that prefix their output to the actual content: `-H`, `-n`, and `-b`. In order to improve the probability that lines from a single file will all start at the same column, this also causes the line number and byte offset (if present) to be printed in a minimum size field width.

`-u, --unix-byte-offsets`
Report Unix-style byte offsets. This switch causes `grep` to report byte offsets as if the file were a Unix-style text file, i.e., with CR characters stripped off. This will produce results identical to running `grep` on a Unix machine. This

option has no effect unless `-b` option is also used; it has no effect on platforms other than MS-DOS and MS-Windows.

`-Z, --null`

Output a zero byte (the ASCII NUL character) instead of the character that normally follows a file name. For example, `grep -lZ` outputs a zero byte after each file name instead of the usual newline. This option makes the output unambiguous, even in the presence of file names containing unusual characters like newlines. This option can be used with commands like `find -print0`, `perl -0`, `sort -z`, and `xargs -0` to process arbitrary file names, even those that contain newline characters.

Context Line Control

`-A NUM, --after-context=NUM`

Print `NUM` lines of trailing context after matching lines. Places a line containing a group separator (`--`) between contiguous groups of matches. With the `-o` or `--only-matching` option, this has no effect and a warning is given.

`-B NUM, --before-context=NUM`

Print `NUM` lines of leading context before matching lines. Places a line containing a group separator (`--`) between contiguous groups of matches. With the `-o` or `--only-matching` option, this has no effect and a warning is given.

`-C NUM, -NUM, --context=NUM`

Print `NUM` lines of output context. Places a line containing a group separator (`--`) between contiguous groups of matches. With the `-o` or `--only-matching` option, this has no effect and a warning is given.

File and Directory Selection

`-a, --text`

Process a binary file as if it were text; this is equivalent to the `--binary-files=text` option.

`--binary-files=TYPE`

If a file's data or metadata indicate that the file contains binary data, assume that the file is of type `TYPE`. Non-text bytes indicate binary data; these are either output bytes that are improperly encoded for the current locale, or null input bytes when the `-z` option is not given.

By default, `TYPE` is `binary`, and when `grep` discovers that a file is binary it suppresses any further output, and instead outputs either a one-line message saying that a binary file matches, or no message if there is no match.

If TYPE is without-match, when grep discovers that a file is binary it assumes that the rest of the file does not match; this is equivalent to the -I option.

If TYPE is text, grep processes a binary file as if it were text; this is equivalent to the -a option.

When type is binary, grep may treat non-text bytes as line terminators even without the -z option. This means choosing binary versus text can affect whether a pattern matches a file. For example, when type is binary the pattern q\$ might match q immediately followed by a null byte, even though this is not matched when type is text. Conversely, when type is binary the pattern . (period) might not match a null byte.

Warning: The -a option might output binary garbage, which can have nasty side effects if the output is a terminal and if the terminal driver interprets some of it as commands. On the other hand, when reading files whose text encodings are unknown, it can be helpful to use -a or to set LC_ALL='C' in the environment, in order to find more matches even if the matches are unsafe for direct display.

-D ACTION, --devices=ACTION

If an input file is a device, FIFO or socket, use ACTION to process it. By default, ACTION is read, which means that devices are read just as if they were ordinary files. If ACTION is skip, devices are silently skipped.

-d ACTION, --directories=ACTION

If an input file is a directory, use ACTION to process it. By default, ACTION is read, i.e., read directories just as if they were ordinary files. If ACTION is skip, silently skip directories. If ACTION is recurse, read all files under each directory, recursively, following symbolic links only if they are on the command line. This is equivalent to the -r option.

--exclude=GLOB

Skip any command-line file with a name suffix that matches the pattern GLOB, using wildcard matching; a name suffix is either the whole name, or any suffix starting after a / and before a +non-/. When searching recursively, skip any subfile whose base name matches GLOB; the base name is the part after the last /. A pattern can use *, ?, and [...] as wildcards, and \ to quote a wildcard or backslash character literally.

--exclude-from=FILE

Skip files whose base name matches any of the file-name globs read from FILE (using wildcard matching as described under `--exclude`).

`--exclude-dir=GLOB`

Skip any command-line directory with a name suffix that matches the pattern GLOB. When searching recursively, skip any subdirectory whose base name matches GLOB. Ignore any redundant trailing slashes in GLOB.

`-I` Process a binary file as if it did not contain matching data; this is equivalent to the `--binary-files=without-match` option.

`--include=GLOB`

Search only files whose base name matches GLOB (using wildcard matching as described under `--exclude`).

`-r, --recursive`

Read all files under each directory, recursively, following symbolic links only if they are on the command line. Note that if no file operand is given, `grep` searches the working directory. This is equivalent to the `-d recurse` option.

`-R, --dereference-recursive`

Read all files under each directory, recursively. Follow all symbolic links, unlike `-r`.

Other Options

`--line-buffered`

Use line buffering on output. This can cause a performance penalty.

`-U, --binary`

Treat the file(s) as binary. By default, under MS-DOS and MS-Windows, `grep` guesses whether a file is text or binary as described for the `--binary-files` option. If `grep` decides the file is a text file, it strips the CR characters from the original file contents (to make regular expressions with `^` and `$` work correctly). Specifying `-U` overrides this guesswork, causing all files to be read and passed to the matching mechanism verbatim; if the file is a text file with CR/LF pairs at the end of each line, this will cause some regular expressions to fail. This option has no effect on platforms other than MS-DOS and MS-Windows.

`-z, --null-data`

Treat input and output data as sequences of lines, each terminated by a zero byte (the ASCII NUL character) instead of a

newline. Like the -Z or --null option, this option can be used with commands like sort -z to process arbitrary file names.

REGULAR EXPRESSIONS

A regular expression is a pattern that describes a set of strings. Regular expressions are constructed analogously to arithmetic expressions, by using various operators to combine smaller expressions.

grep understands three different versions of regular expression syntax: "basic" (BRE), "extended" (ERE) and "perl" (PCRE). In GNU grep there is no difference in available functionality between basic and extended syntaxes. In other implementations, basic regular expressions are less powerful. The following description applies to extended regular expressions; differences for basic regular expressions are summarized afterwards. Perl-compatible regular expressions give additional functionality, and are documented in pcreyntax(3) and pcrepattern(3), but work only if PCRE is available in the system.

The fundamental building blocks are the regular expressions that match a single character. Most characters, including all letters and digits, are regular expressions that match themselves. Any meta-character with special meaning may be quoted by preceding it with a backslash.

The period `.` matches any single character.

Character Classes and Bracket Expressions

A bracket expression is a list of characters enclosed by `[` and `]`. It matches any single character in that list; if the first character of the list is the caret `^` then it matches any character not in the list. For example, the regular expression `[0123456789]` matches any single digit.

Within a bracket expression, a range expression consists of two characters separated by a hyphen. It matches any single character that sorts between the two characters, inclusive, using the locale's collating sequence and character set. For example, in the default C locale, `[a-d]` is equivalent to `[abcd]`. Many locales sort characters in dictionary order, and in these locales `[a-d]` is typically not equivalent to `[abcd]`; it might be equivalent to `[aBbCcDd]`, for example. To obtain the traditional interpretation of bracket expressions, you can use the C locale by setting the `LC_ALL` environment variable to the value C.

Finally, certain named classes of characters are predefined within bracket expressions, as follows. Their names are self explanatory, and they are `[:alnum:]`, `[:alpha:]`, `[:cntrl:]`, `[:digit:]`, `[:graph:]`, `[:lower:]`, `[:print:]`, `[:punct:]`, `[:space:]`, `[:upper:]`, and `[:xdigit:]`. For example, `[:alnum:]` means the character class of numbers and

letters in the current locale. In the C locale and ASCII character set encoding, this is the same as [0-9A-Za-z]. (Note that the brackets in these class names are part of the symbolic names, and must be included in addition to the brackets delimiting the bracket expression.) Most meta-characters lose their special meaning inside bracket expressions. To include a literal] place it first in the list. Similarly, to include a literal ^ place it anywhere but first. Finally, to include a literal - place it last.

Anchoring

The caret ^ and the dollar sign \$ are meta-characters that respectively match the empty string at the beginning and end of a line.

The Backslash Character and Special Expressions

The symbols \< and \> respectively match the empty string at the beginning and end of a word. The symbol \b matches the empty string at the edge of a word, and \B matches the empty string provided it's not at the edge of a word. The symbol \w is a synonym for [_[:alnum:]] and \W is a synonym for [^_[:alnum:]].

Repetition

A regular expression may be followed by one of several repetition operators:

- ? The preceding item is optional and matched at most once.
- * The preceding item will be matched zero or more times.
- + The preceding item will be matched one or more times.
- {n} The preceding item is matched exactly n times.
- {n,} The preceding item is matched n or more times.
- {,m} The preceding item is matched at most m times. This is a GNU extension.
- {n,m} The preceding item is matched at least n times, but not more than m times.

Concatenation

Two regular expressions may be concatenated; the resulting regular expression matches any string formed by concatenating two substrings that respectively match the concatenated expressions.

Alternation

Two regular expressions may be joined by the infix operator |; the resulting regular expression matches any string matching either alternate expression.

Precedence

Repetition takes precedence over concatenation, which in turn takes precedence over alternation. A whole expression may be enclosed in parentheses to override these precedence rules and form a subexpression.

Back References and Subexpressions

The back-reference `\n`, where `n` is a single digit, matches the substring previously matched by the `n`th parenthesized subexpression of the regular expression.

Basic vs Extended Regular Expressions

In basic regular expressions the meta-characters `?`, `+`, `{`, `|`, `(`, and `)` lose their special meaning; instead use the backslashed versions `\?`, `\+`, `\{`, `\|`, `\(`, and `\)`.

ENVIRONMENT VARIABLES

The behavior of `grep` is affected by the following environment variables.

The locale for category `LC_foo` is specified by examining the three environment variables `LC_ALL`, `LC_foo`, `LANG`, in that order. The first of these variables that is set specifies the locale. For example, if `LC_ALL` is not set, but `LC_MESSAGES` is set to `pt_BR`, then the Brazilian Portuguese locale is used for the `LC_MESSAGES` category. The `C` locale is used if none of these environment variables are set, if the locale catalog is not installed, or if `grep` was not compiled with national language support (NLS). The shell command `locale -a` lists locales that are currently available.

GREP_OPTIONS

This variable specifies default options to be placed in front of any explicit options. As this causes problems when writing portable scripts, this feature will be removed in a future release of `grep`, and `grep` warns if it is used. Please use an alias or script instead.

GREP_COLOR

This variable specifies the color used to highlight matched (non-empty) text. It is deprecated in favor of `GREP_COLORS`, but still supported. The `mt`, `ms`, and `mc` capabilities of `GREP_COLORS` have priority over it. It can only specify the color used to highlight the matching non-empty text in any matching line (a selected line when the `-v` command-line option is omitted, or a context line when `-v` is specified). The default is `01;31`, which means a bold red foreground text on the terminal's default background.

GREP_COLORS

Specifies the colors and other attributes used to highlight various parts of the output. Its value is a colon-separated list of capabilities that defaults to `ms=01;31;mc=01;31;sl=:cx=:fn=35;ln=32;bn=32;se=36` with the `rv`

and ne boolean capabilities omitted (i.e., false). Supported capabilities are as follows.

sl= SGR substring for whole selected lines (i.e., matching lines when the -v command-line option is omitted, or non-matching lines when -v is specified). If however the boolean rv capability and the -v command-line option are both specified, it applies to context matching lines instead. The default is empty (i.e., the terminal's default color pair).

cx= SGR substring for whole context lines (i.e., non-matching lines when the -v command-line option is omitted, or matching lines when -v is specified). If however the boolean rv capability and the -v command-line option are both specified, it applies to selected non-matching lines instead. The default is empty (i.e., the terminal's default color pair).

rv Boolean value that reverses (swaps) the meanings of the sl= and cx= capabilities when the -v command-line option is specified. The default is false (i.e., the capability is omitted).

mt=01;31
SGR substring for matching non-empty text in any matching line (i.e., a selected line when the -v command-line option is omitted, or a context line when -v is specified). Setting this is equivalent to setting both ms= and mc= at once to the same value. The default is a bold red text foreground over the current line background.

ms=01;31
SGR substring for matching non-empty text in a selected line. (This is only used when the -v command-line option is omitted.) The effect of the sl= (or cx= if rv) capability remains active when this kicks in. The default is a bold red text foreground over the current line background.

mc=01;31
SGR substring for matching non-empty text in a context line. (This is only used when the -v command-line option is specified.) The effect of the cx= (or sl= if rv) capability remains active when this kicks in. The default is a bold red text foreground over the current line background.

- fn=35 SGR substring for file names prefixing any content line. The default is a magenta text foreground over the terminal's default background.
- ln=32 SGR substring for line numbers prefixing any content line. The default is a green text foreground over the terminal's default background.
- bn=32 SGR substring for byte offsets prefixing any content line. The default is a green text foreground over the terminal's default background.
- se=36 SGR substring for separators that are inserted between selected line fields (:), between context line fields, (-), and between groups of adjacent lines when nonzero context is specified (--). The default is a cyan text foreground over the terminal's default background.
- ne Boolean value that prevents clearing to the end of line using Erase in Line (EL) to Right (\33[K) each time a colorized item ends. This is needed on terminals on which EL is not supported. It is otherwise useful on terminals for which the back_color_erase (bce) boolean terminfo capability does not apply, when the chosen highlight colors do not affect the background, or when EL is too slow or causes too much flicker. The default is false (i.e., the capability is omitted).

Note that boolean capabilities have no =... part. They are omitted (i.e., false) by default and become true when specified.

See the Select Graphic Rendition (SGR) section in the documentation of the text terminal that is used for permitted values and their meaning as character attributes. These substring values are integers in decimal representation and can be concatenated with semicolons. grep takes care of assembling the result into a complete SGR sequence (\33[...m). Common values to concatenate include 1 for bold, 4 for underline, 5 for blink, 7 for inverse, 39 for default foreground color, 30 to 37 for foreground colors, 90 to 97 for 16-color mode foreground colors, 38;5;0 to 38;5;255 for 88-color and 256-color modes foreground colors, 49 for default background color, 40 to 47 for background colors, 100 to 107 for 16-color mode background colors, and 48;5;0 to 48;5;255 for 88-color and 256-color modes background colors.

LC_ALL, LC_COLLATE, LANG

These variables specify the locale for the LC_COLLATE category, which determines the collating sequence used to interpret range expressions like [a-z].

LC_ALL, LC_CTYPE, LANG

These variables specify the locale for the LC_CTYPE category, which determines the type of characters, e.g., which characters are whitespace. This category also determines the character encoding, that is, whether text is encoded in UTF-8, ASCII, or some other encoding. In the C or POSIX locale, all characters are encoded as a single byte and every byte is a valid character.

LC_ALL, LC_MESSAGES, LANG

These variables specify the locale for the LC_MESSAGES category, which determines the language that grep uses for messages. The default C locale uses American English messages.

POSIXLY_CORRECT

If set, grep behaves as POSIX requires; otherwise, grep behaves more like other GNU programs. POSIX requires that options that follow file names must be treated as file names; by default, such options are permuted to the front of the operand list and are treated as options. Also, POSIX requires that unrecognized options be diagnosed as "illegal", but since they are not really against the law the default is to diagnose them as "invalid". POSIXLY_CORRECT also disables _N_GNU_nonoption_argv_flags_, described below.

_N_GNU_nonoption_argv_flags_

(Here N is grep's numeric process ID.) If the ith character of this environment variable's value is 1, do not consider the ith operand of grep to be an option, even if it appears to be one. A shell can put this variable in the environment for each command it runs, specifying which operands are the results of file name wildcard expansion and therefore should not be treated as options. This behavior is available only with the GNU C library, and only when POSIXLY_CORRECT is not set.

EXIT STATUS

Normally the exit status is 0 if a line is selected, 1 if no lines were selected, and 2 if an error occurred. However, if the -q or --quiet or --silent is used and a line is selected, the exit status is 0 even if an error occurred.

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BUGS

Reporting Bugs

Email bug reports to the bug-reporting address `bug-grep@gnu.org`. An email archive <http://lists.gnu.org/mailman/listinfo/bug-grep> and a bug tracker <http://debbugs.gnu.org/cgi/pkgreport.cgi?package=grep> are available.

Known Bugs

Large repetition counts in the `{n,m}` construct may cause `grep` to use lots of memory. In addition, certain other obscure regular expressions require exponential time and space, and may cause `grep` to run out of memory.

Back-references are very slow, and may require exponential time.

SEE ALSO

Regular Manual Pages

`awk(1)`, `cmp(1)`, `diff(1)`, `find(1)`, `gzip(1)`, `perl(1)`, `sed(1)`, `sort(1)`, `xargs(1)`, `zgrep(1)`, `read(2)`, `pcre(3)`, `pcresyntax(3)`, `pcrepattern(3)`, `terminfo(5)`, `glob(7)`, `regex(7)`.

POSIX Programmer's Manual Page

`grep(1p)`.

Full Documentation

A complete manual <http://www.gnu.org/software/grep/manual/> is available. If the `info` and `grep` programs are properly installed at your site, the command

```
info grep
```

should give you access to the complete manual.

NOTES

This man page is maintained only fitfully; the full documentation is often more up-to-date.

GNU `grep` 3.1

2017-06-21

GREP(1)

```
[3]: pwd
```

/home/jupyter-official-nanakai/Unisat HW

```
[4]: cat 14.txt
```

```
The Top Science Books  
A Brief History of Time  
by Stephen Hawking  
Print | Audiobook
```

```
Complications: A Surgeon's Notes on an Imperfect Science  
by Atul Gawande  
Print | Audiobook
```

```
The Emperor of All Maladies: A Biography of Cancer  
by Siddhartha Mukherjee  
Print | Audiobook
```

```
More Science Book Recommendations  
A Short History of Nearly Everything  
by Bill Bryson  
Print | Audiobook
```

```
The Checklist Manifesto: How to Get Things Right  
by Atul Gawande  
Print | Audiobook
```

```
The House of God  
by Samuel Shem  
Print | Audiobook
```

```
Better: A Surgeon's Notes on Performance  
by Atul Gawande  
Print | Audiobook
```

```
[5]: egrep 'Audiobook' 14.txt
```

```
Print | Audiobook  
Print | Audiobook  
Print | Audiobook  
Print | Audiobook  
Print | Audiobook  
Print | Audiobook  
Print | Audiobook
```

```
[6]: egrep -n 'Audiobook' 14.txt
```

```
4:Print | Audiobook  
8:Print | Audiobook  
12:Print | Audiobook  
17:Print | Audiobook
```

```
21:Print | Audiobook
25:Print | Audiobook
29:Print | Audiobook
```

```
[7]: egrep -c 'Audiobook' 14.txt
```

```
7
```

```
[8]: egrep '[dbk]' 14.txt
```

```
The Top Science Books
by Stephen Hawking
Print | Audiobook
by Atul Gawande
Print | Audiobook
The Emperor of All Maladies: A Biography of Cancer
by Siddhartha Mukherjee
Print | Audiobook
More Science Book Recommendations
by Bill Bryson
Print | Audiobook
The Checklist Manifesto: How to Get Things Right
by Atul Gawande
Print | Audiobook
The House of God
by Samuel Shem
Print | Audiobook
by Atul Gawande
Print | Audiobook
```

```
[12]: egrep '[dbk]{2,}' 14.txt
```

```
by Siddhartha Mukherjee
```

```
[13]: egrep 'Pri.+' 14.txt
```

```
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
```

```
[14]: egrep 'ook$' 14.txt
```

```
Print | Audiobook
Print | Audiobook
```



```
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
```

```
[15]: egrep '^by' 14.txt #to find authors
```

```
by Stephen Hawking
by Atul Gawande
by Siddhartha Mukherjee
by Bill Bryson
by Atul Gawande
by Samuel Shem
by Atul Gawande
```

```
[16]: egrep 'by|print|Bill' 14.txt
```

```
by Stephen Hawking
by Atul Gawande
by Siddhartha Mukherjee
by Bill Bryson
by Atul Gawande
by Samuel Shem
by Atul Gawande
```

```
[18]: egrep 'Print|Bill' 14.txt #just checking
```

```
Print | Audiobook
Print | Audiobook
Print | Audiobook
by Bill Bryson
Print | Audiobook
Print | Audiobook
Print | Audiobook
Print | Audiobook
```

```
[22]: pwd
```

```
/home/jupyter-official-nanakai/Unisat HW
```

```
[23]: cd
```

```
[24]: pwd
```

```
/home/jupyter-official-nanakai
```

```
[25]: ls
```

```
Leila  nanakai  new_test  shared  Stepik  test  'Unisat HW'
```

```
[26]: ls > myoutput
```

```
[27]: ls
```

```
Leila  myoutput  nanakai  new_test  shared  Stepik  test  'Unisat HW'
```

```
[28]: cat myoutput
```

```
Leila
myoutput
nanakai
new_test
shared
Stepik
test
Unisat HW
```

```
[29]: touch myoutput2
```

```
[30]: cat myoutput
```

```
Leila
myoutput
nanakai
new_test
shared
Stepik
test
Unisat HW
```

```
[31]: ls >myoutput
```

```
[32]: cat myoutput
```

```
Leila
myoutput
myoutput2
nanakai
new_test
shared
Stepik
test
Unisat HW
```

```
[33]: wc -l myoutput
```

9 myoutput

[35]: date

Fri Apr 10 22:39:36 UTC 2020

[]: