Fundamentals of Computing: Lecture 37

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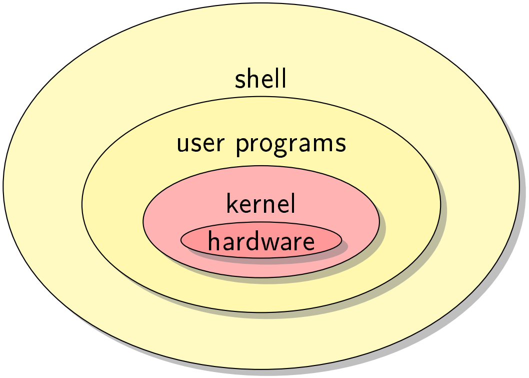
The Unix system



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Which shell?

There are many shells available, each slightly different syntax.
We will use the `bash` shell. Other common shells are `csh`, `zsh` etc.

Simplest shell program

The starting $ is the prompt. You dont have to type it.

```
$ programname arg1 arg2 arg2
```

e.g.

```
$ echo foo bar biz
```

Redirecting a file to input and output to file

Remember that every program has three open files, `stdin`, `stdout`, `stderr`

- If we write `$ cmd <foo` then the `stdin` of `cmd` is the file `foo` and not the keyboard.
- If we write `$ cmd >foo` then the `stdout` of `cmd` is the file `foo` and not the monitor.

```
$ cat > foo
I am redirecting the output of cat to foo.
$ cat < foo
I am redirecting the output of cat to foo.
$ exit
```

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# Too much data  see in pages
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This also tells us about piping.

```
$ cmd1 | cmd2 | cmd3 | cmd4
$
```

Some useful programs

- `echo` prints its command line arguments
- `less` shows int `stdin` in pages
- `grep pattern` shows only those lines of its stdin that matches the pattern.