## **Building Blocks**

wildcards can be used with any command that accepts filenames as arguments

| *       | All files                         |
|---------|-----------------------------------|
| a*      | All files that start with 'a'     |
| b*.txt  | All files that start with 'b' and |
|         | end in '.txt'                     |
| file??? | All files that begin with 'file'  |
|         | and are followed by exactly 3     |
|         | characters                        |
| [abc]*  | All files that begin with either  |
|         | 'a', 'b', or 'c'                  |

## piping redirect the output of one program into the input of another

```
eureka@ubuntu:~$ ls | sort
Desktop
Documents
Downloads
epd
examples.desktop
learn pandas
Music
new test.csv
new test file
Pictures
Public
redis-2.6.2
redis-2.6.2.tar.gz
sites
Templates
test
test file
Videos
workspace
```

when piping, exit code returned is only the last part of the pipe. The exit codes are provided in the PIPESTATUS special array. cmd1 exit code is in \${PIPESTATUS[0]}, cmd3 exit code in \${PIPESTATUS[2]}, \$? is always the same as \${PIPESTATUS: -1}. \${PIPESTATUS: \*} lists all exit codes

| eureka@ubuntu:~\$ who |                |              |   |
|-----------------------|----------------|--------------|---|
| eureka                | tty7           | 2013-07-01 2 | 21:22   |
| eureka                | pts/0          | 2013-07-01 2 | 21:26 (:0)  |
| eureka@u              | nbuntu:~\$ who | o  grep hi   | <pre>eureka@ubuntu:~\$ echo \${PIPESTATUS[\$?]} 1</pre> |
| eureka@u              | ıbuntu:~\$ who | o  grep hi   | <pre>eureka@ubuntu:~\$ echo \${PIPESTATUS[-1]}</pre>    |

|                                | 1   |
|--------------------------------|---|
| eureka@ubuntu:~\$ who  grep hi | eureka@ubuntu:~\$ echo<br>\${PIPESTATUS[1]}<br>1        |
| eureka@ubuntu:~\$ who  grep hi | <pre>eureka@ubuntu:~\$ echo \${PIPESTATUS[0]} 0</pre>   |
| eureka@ubuntu:~\$ who  grep hi | <pre>eureka@ubuntu:~\$ echo \${PIPESTATUS[*]} 0 1</pre> |