Re-initialisation of the data directories

- you will need the latest directory configuration from here:

```
$ cd
$ rm -f skeleton-doom3-data.tar.gz
$ wget http://floppsie.comp.glam.ac.uk/download/targz/ske
$ tar zxf skeleton-doom3-data.tar.gz
```

- this will re-initialise doom3 directories and also configure `emacs` and `gdb` which is vital for compiling and debugging the game engine

Download the doom3 engine source code

- we make sure we all have the same directory structure as we will use emacs to compile/debug dhewm3

```
$ mkdir -p $HOME/Sandpit/git-doom3
```

- and fetch the engine

```
$ cd $HOME/Sandpit/git-doom3
$ git clone https://github.com/gaiusm/pybot-dhewm3
```


Compile the doom3 engine from the command line

- we will compile it from within `emacs`
- start emacs and press F5 to compile and debug doom3

Generate a map for doom3

- before we can run doom3 we need to generate a suitable map

```
$ cd
$ cd Sandpit/chisel/python
$ ./developer-txt2map ../maps/onebot.txt
```

- this will generate `tiny.map` which is used in the next few slides

Running doom3

- to run `doom3` type:
-
```
$ d3
```
- once the splash screen has finished press the ~ key
- now type `dmap tiny.map`
  - this will compile the map
- and now `map tiny.map`
  - which loads in the compiled map
- you should see yourself and pybot appear in a room
  - pybot will come and find you

Running doom3

- once you have finished with the doom3 engine
  - you will now need to use the command line to kill off the python bot (which will still be running in the background)
-
```
$ ps aux | grep python
$ kill -9 python pid number
```
- make sure this process no longer appears in the process list (using `ps`)

Better Python and Doom3 running

- killing off the python bot can become tiresome
  - so you can use `mrun` to spawn a process and send its output to another terminal window
  - when `mrun` stops, all its children windows are killed and all Python bots disappear
- try running the game again using these commands:
-
```
$ cd Sandpit/git-doom3/pybot-dhewm3
$ ./shell/debug-bots single-bot.par
```
- when doom3 finishes, press the enter key in the above window
  - the Python window should also disappear and tidy up gracefully

Further reading

- examine the shell scripts
  - `./shell/debug-bots` and `./shell/debug-only-bots`
- write down an explanation of their function