

Process to Compile Nethack for Ubuntu:

Nice resource: <https://nethackwiki.com/wiki/Compiling>

1. Clone from <https://github.com/NetHack/NetHack.git>. We'll say you save it in a folder named "Nethack".
2. Install dependencies. In the Terminal, run "sudo apt-get install bison flex libncurses5-dev" then type your password if any.
3. Instructions can be found in Nethack/sys/unix/NewInstall.unx. Gist of it is: there are "hints" files that automate the compilation process for certain systems, and in this case we can use the "linux" hints file.
4. Once you've followed the instructions in the NewInstall.unx file, navigate to your new NETHACKDIR (probably /usr/games/lib/nethackdir) and create a file called "sysconf" with the command "touch sysconf".

Now you're compiled and installed! Run "nethack" in the terminal to play.

How did we get to this point?

Nethack is over 30 years old, and has had significant support from the developers. They have made it pretty straightforward for anyone to compile and install the game on numerous machines. By reading the README in the top directory from the github, it seemed like installing on Linux would be as easy as following the instructions in the "\$top/sys/unix" folder, but just by looking in that folder, you can see there are actually something like 4 instruction files! After reading through these, the "NewInstall.unx" file was the newest, and seemed to simplify the process as long as our system isn't out-of-the-ordinary. We are using a fresh Ubuntu install, so just using the Linux hints file works fine.

I had some trouble with the dependencies, but that was because I did not read all the resources available to me (specifically, the wiki page linked above is very clear about the dependencies). A bit of trial-and-error there had me compiled in short order. Running the game was more difficult, because I couldn't figure out where the "sysconf" file was supposed to go. Once again, that wiki page is very clear about this, so maybe the moral of the story is: read the wiki page on compiling, when that is an option to you!

Lastly, there were no included test cases, and after discussion with the developers, their tests are not recorded in easy-to-distribute files.