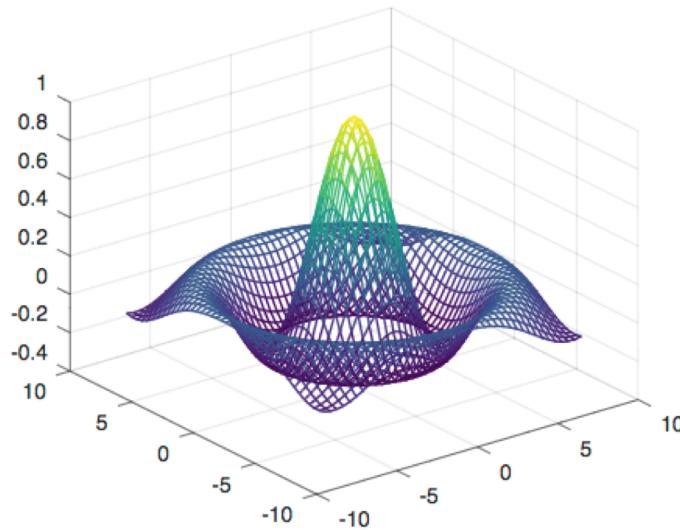


Octave Starting Guide



Scientific Programming Language

- Powerful mathematics-oriented syntax with built-in plotting and visualization tools
- Free software, runs on GNU/Linux, macOS, BSD, and Windows
- Drop-in compatible with many Matlab scripts

[Download](#)

[Docs](#)

Syntax Examples

The Octave syntax is largely compatible with Matlab. The Octave interpreter can be run in GUI mode, as a console, or invoked as part of a shell script. More Octave examples can be found in [the wiki](#).

Octave has been installed in our teaching computer at LJMU

Connecting to our teaching computer at LJMU

- See the webpage below

<http://www.astro.ljmu.ac.uk/~aribclar/nx/index.html>

Connecting to LJMU

You can connect to a computer at the LJMU by using a program called NoMachine. This will allow you to run all of software required for this course and access all data that is necessary.

Choose your operating system

The first step is to obtain NoMachine. To do this, you need to know which operating system you're using. [Click here if you're unsure.](#) Once you know which operating system you're using, please select the appropriate version below:



Windows



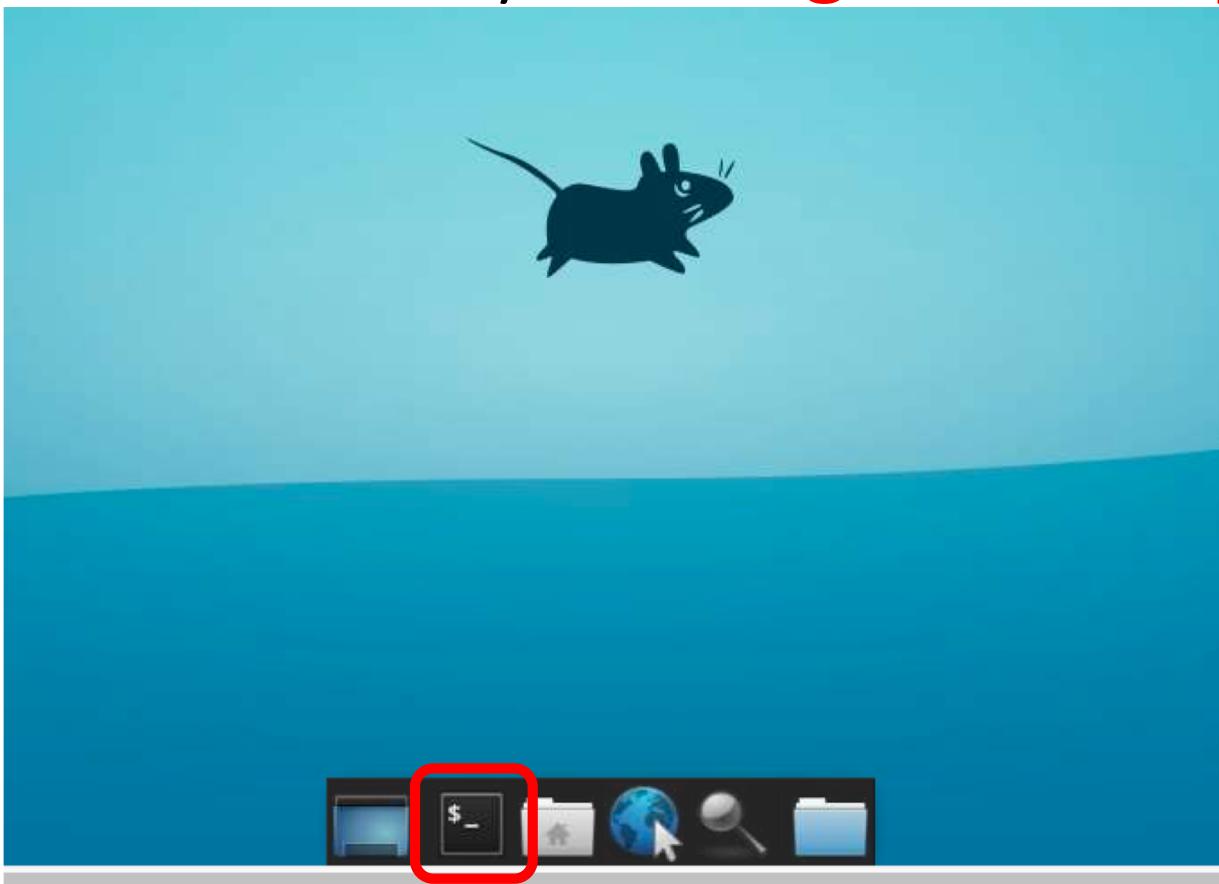
Mac



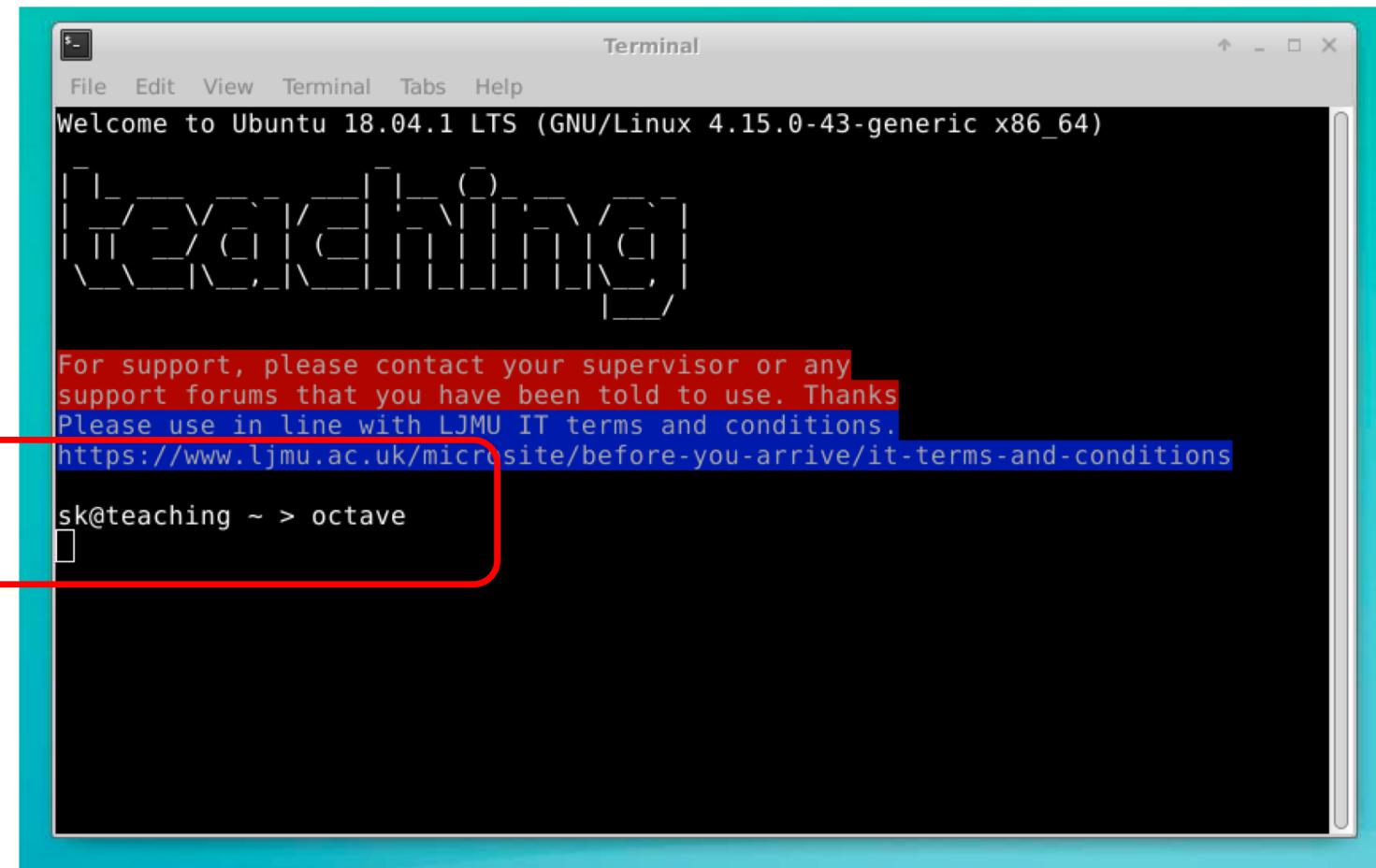
Linux

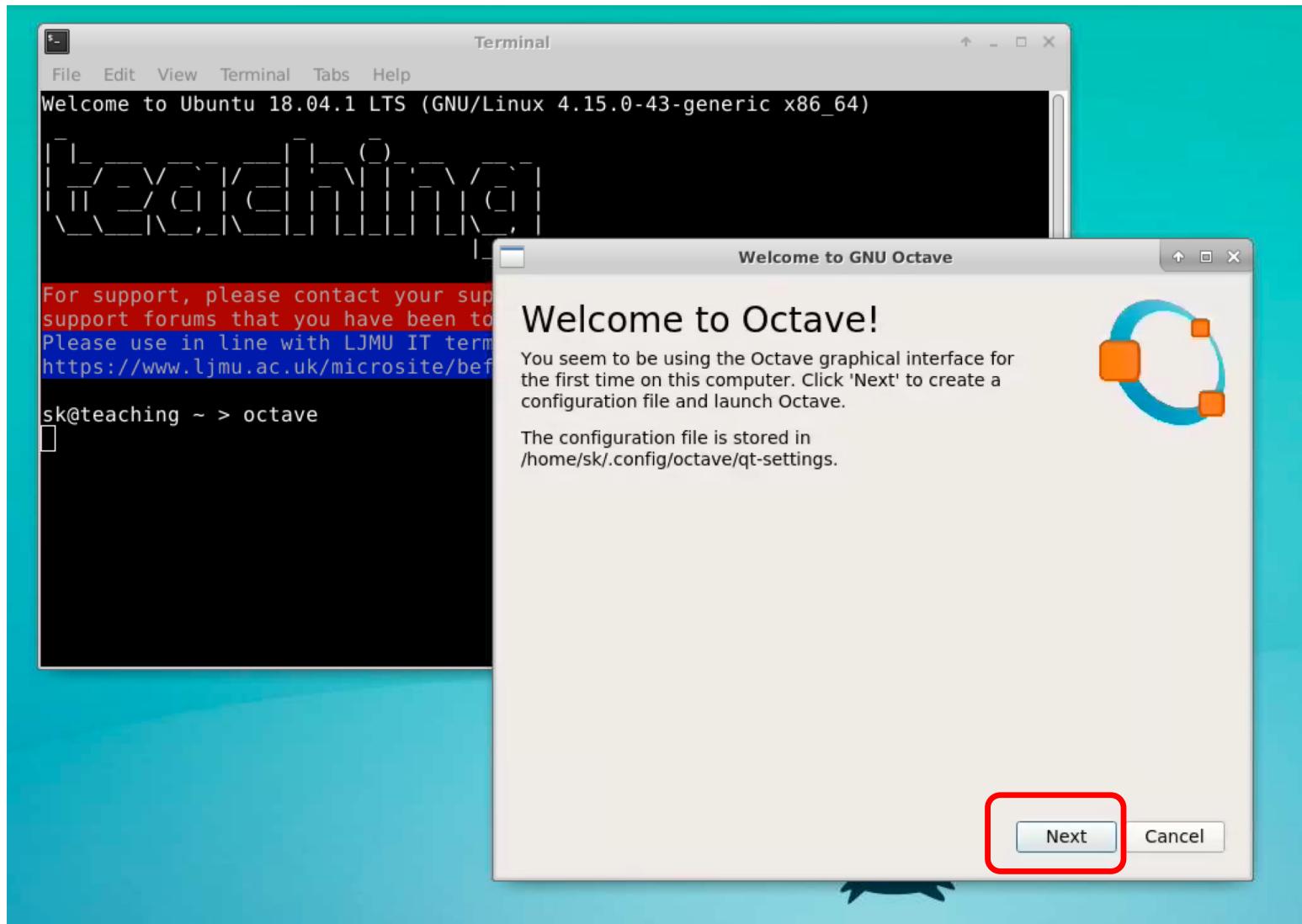
If you're still unsure which version to choose, please contact your supervisor for assistance.

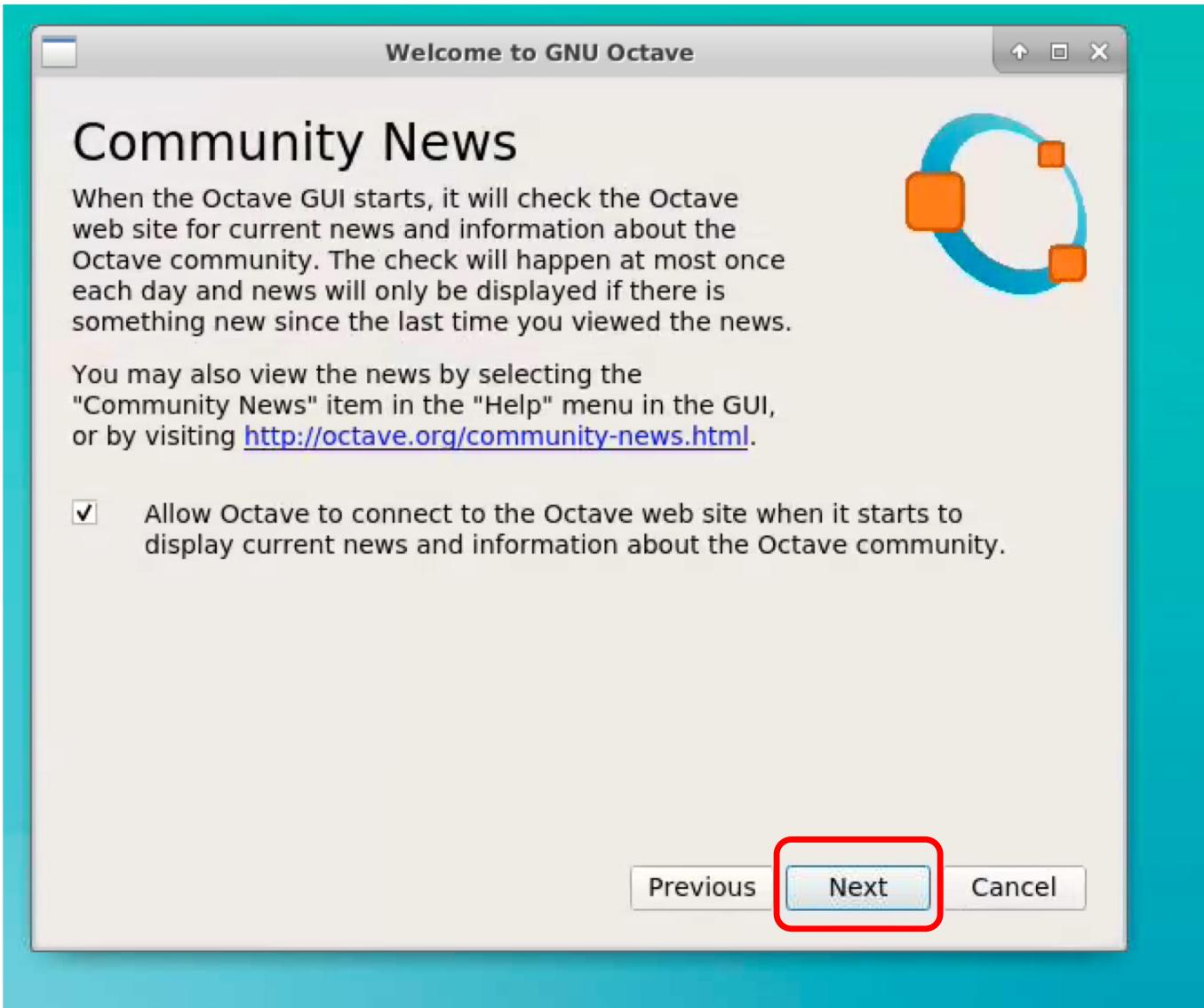
After login to the teaching computer,
Launch a terminal by **clicking** a desktop icon

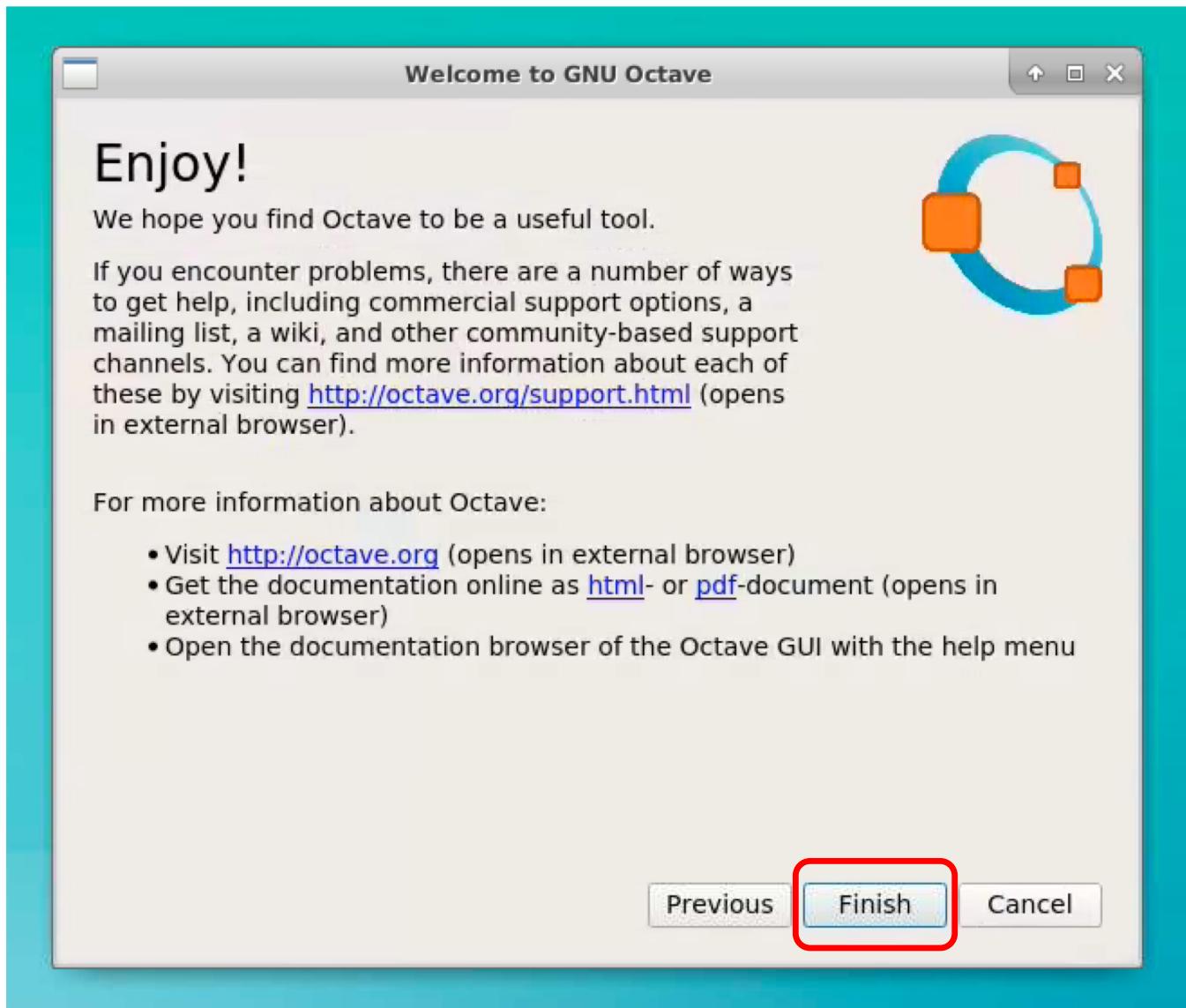


Type “octave” in terminal and hit return to execute

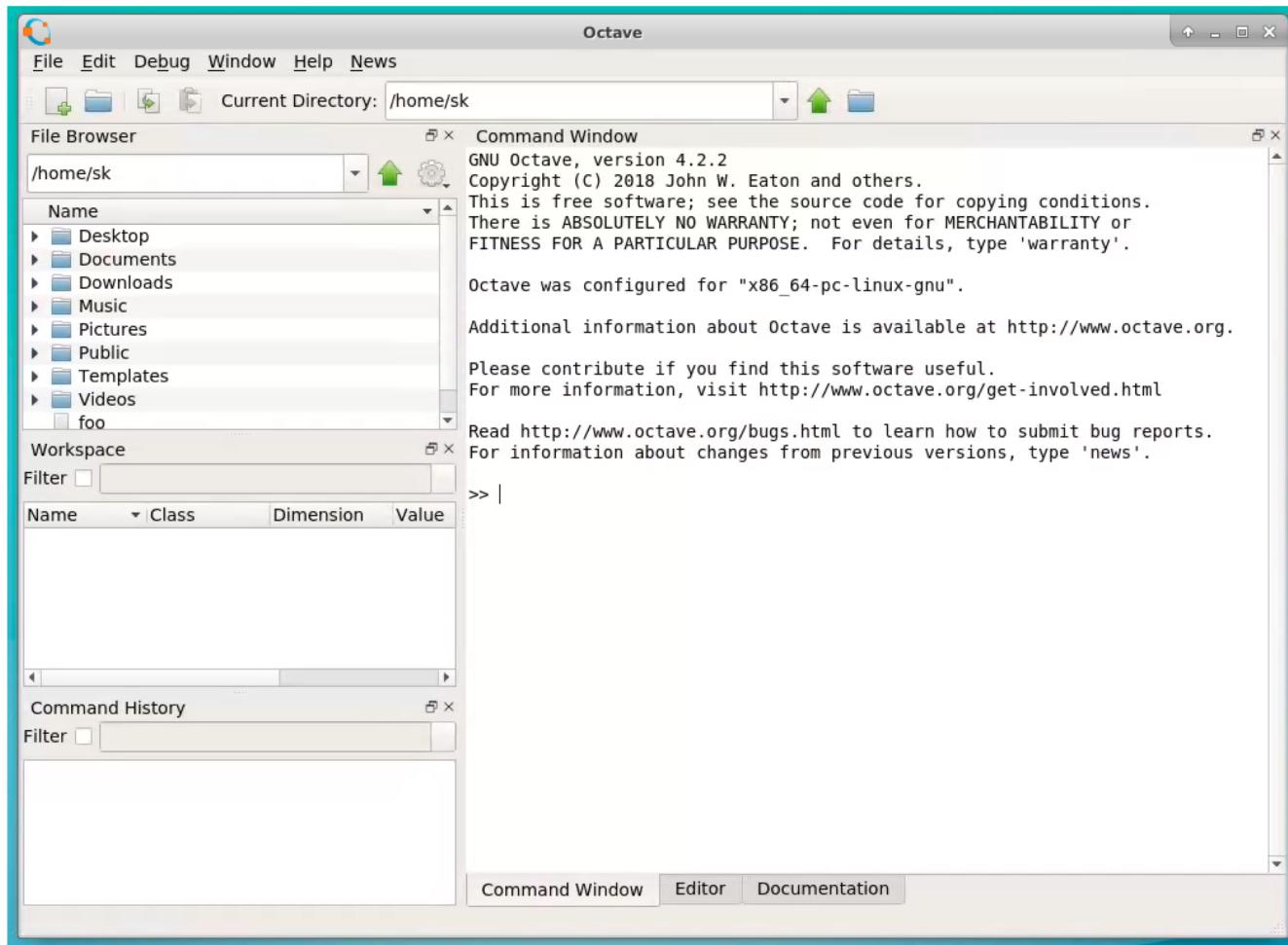




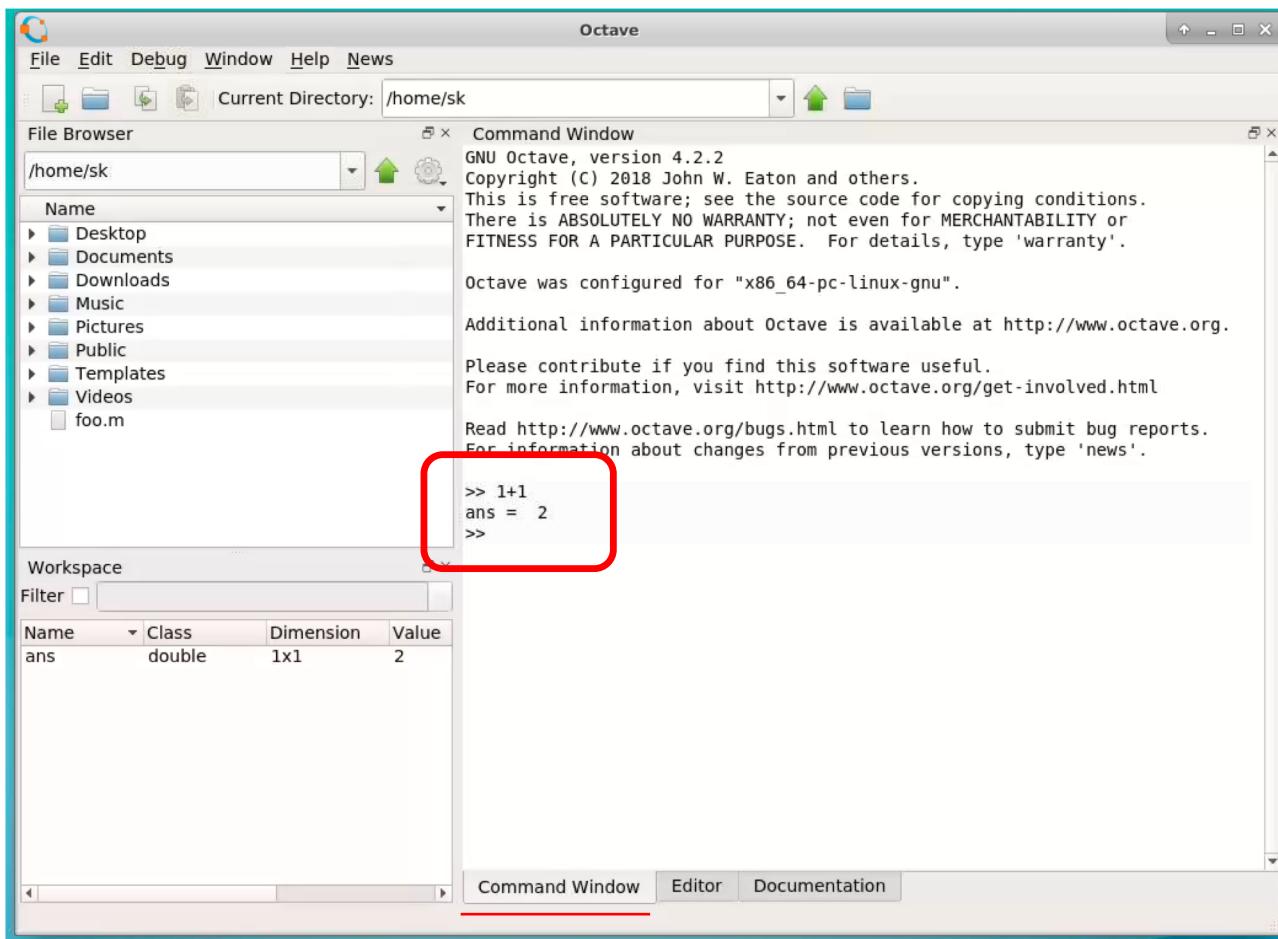




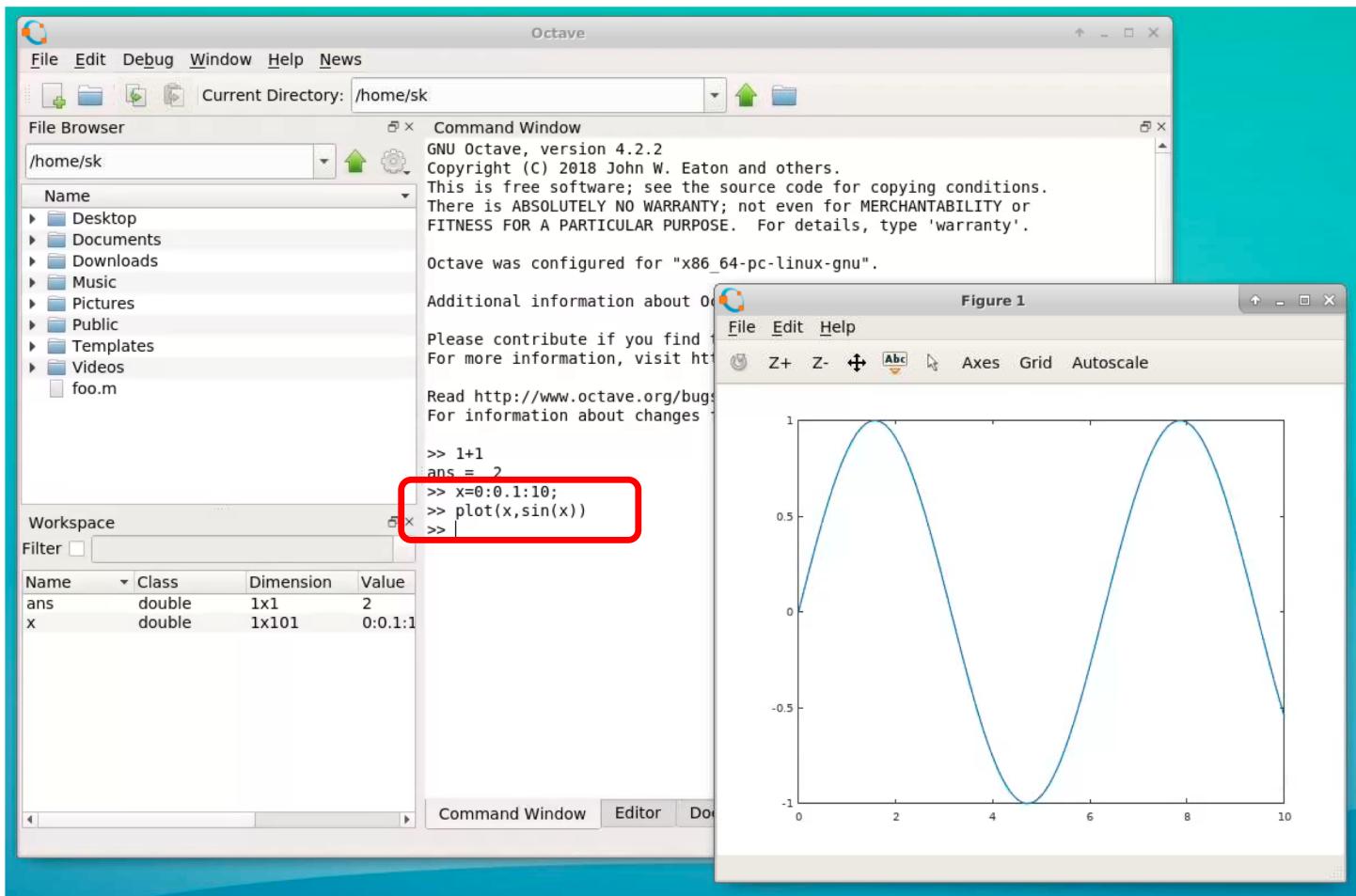
Finally Octave GUI opens



You can type commands in the command window



plot a sine function

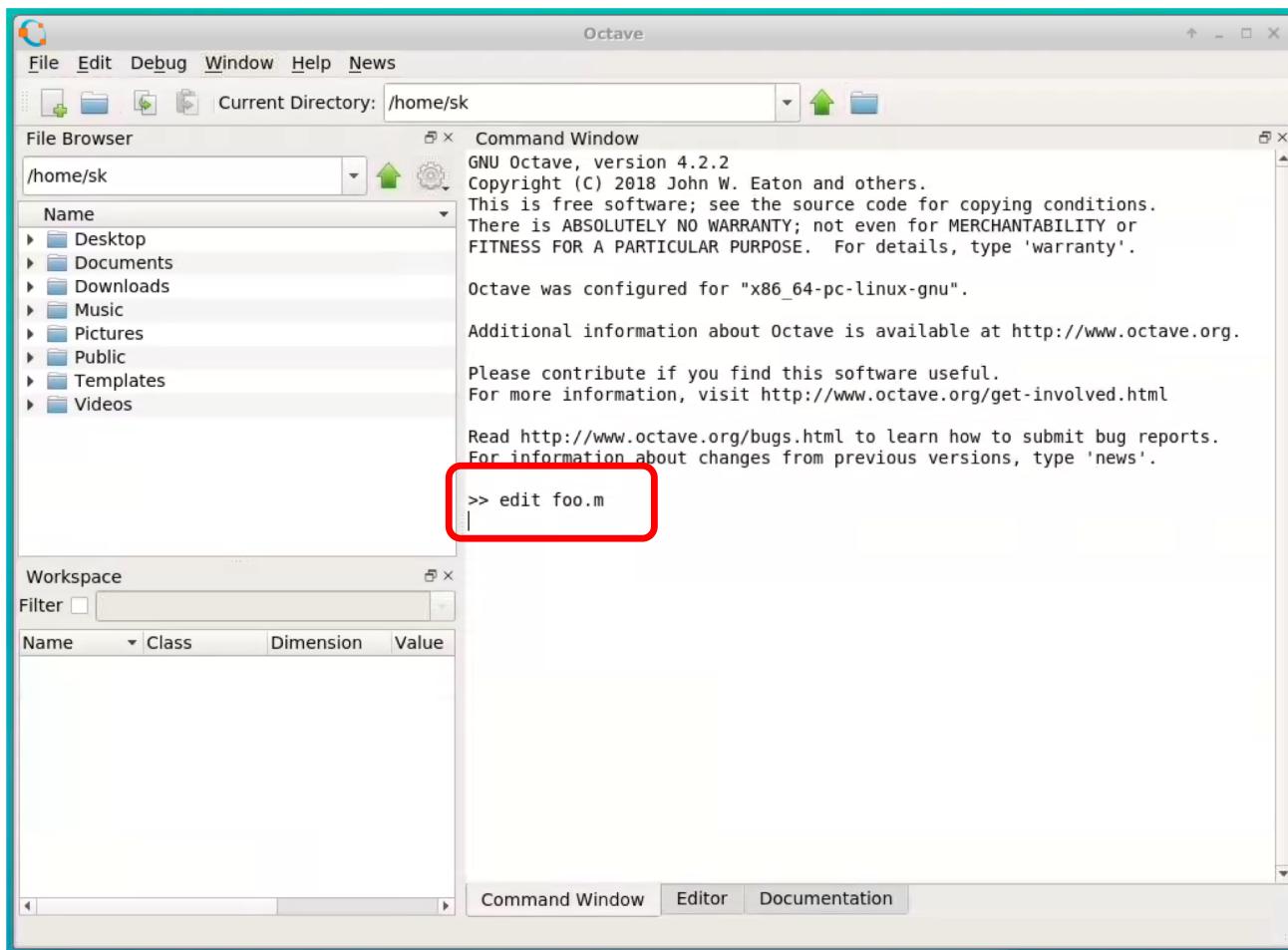


$x=0:0.1:10;$
creates a equal-spaced array

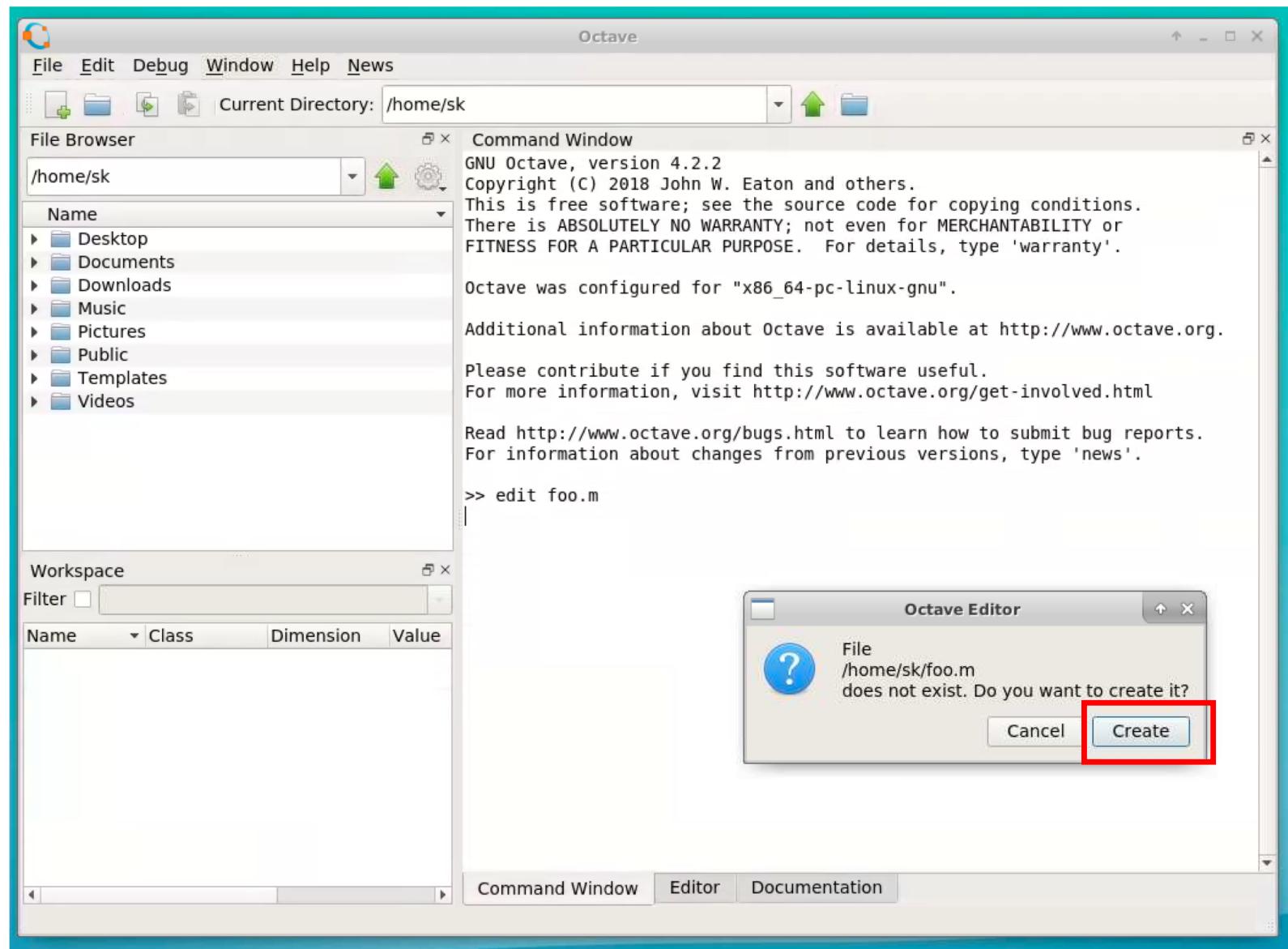
$x = [0 \ 0.1 \ 0.2 \ 0.3 \dots \ 9.8 \ 9.9 \ 10];$

See octave tutorial for more details.

You can write a script (or your own function)



Type “edit any_name.m”
The extension should be .m



The screenshot shows the Octave IDE interface. The top menu bar includes File, Edit, Debug, Window, Help, and News. The current directory is set to /home/sk. The left pane contains a File Browser showing a list of directories and files, with 'foo.m' selected. The right pane is an Editor window displaying the contents of 'foo.m'. The code in the editor is:

```
5 ## the Free Software Foundation; either version 3 of the License, or
6 ## (at your option) any later version.
7 ##
8 ## This program is distributed in the hope that it will be useful,
9 ## but WITHOUT ANY WARRANTY; without even the implied warranty of
10 ## MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
11 ## GNU General Public License for more details.
12 ##
13 ## You should have received a copy of the GNU General Public License
14 ## along with this program. If not, see <http://www.gnu.org/licenses/
15
16 ## -*- texinfo -*-
17 ## @deftypefn {} {@var{retval} =} foo (@var{input1}, @var{input2})
18 ##
19 ## @seealso{}
20 ## @end deftypefn
21
22 ## Author: Shiho Kobayashi <sk@teaching>
23 ## Created: 2019-01-16
24
25 function [retval] = foo (input1, input2)
26
27 endfunction
28
```

A red box highlights the last four lines of the code (lines 24 through 28), and the text "Delete these lines" is overlaid on the right side of the red box.

Octave

File Edit Debug Window Help News

Current Directory: /home/sk

File Browser /home/sk

Name

- Desktop
- Documents
- Downloads
- Music
- Pictures
- Public
- Templates
- Videos
- foo.m

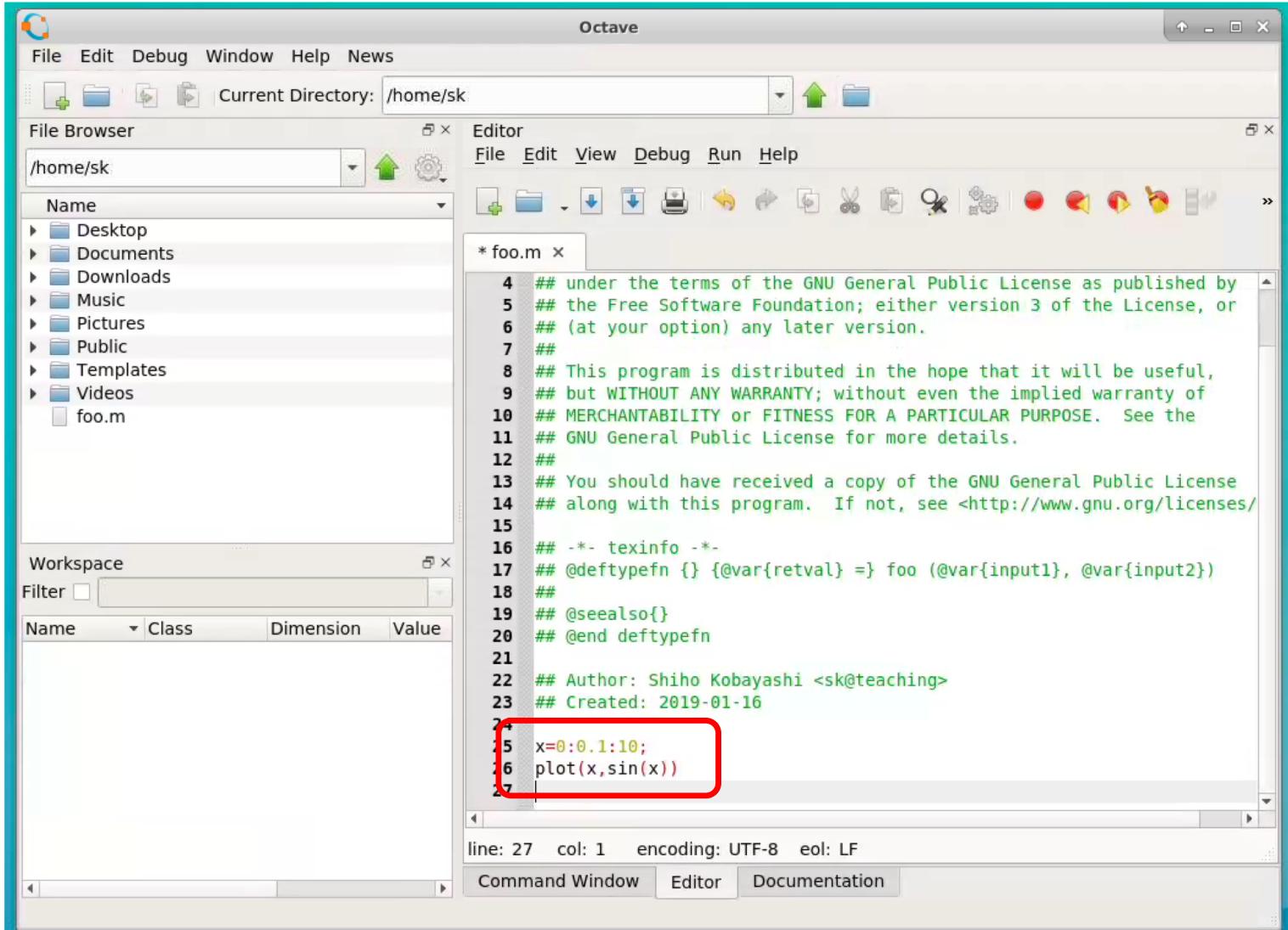
Editor

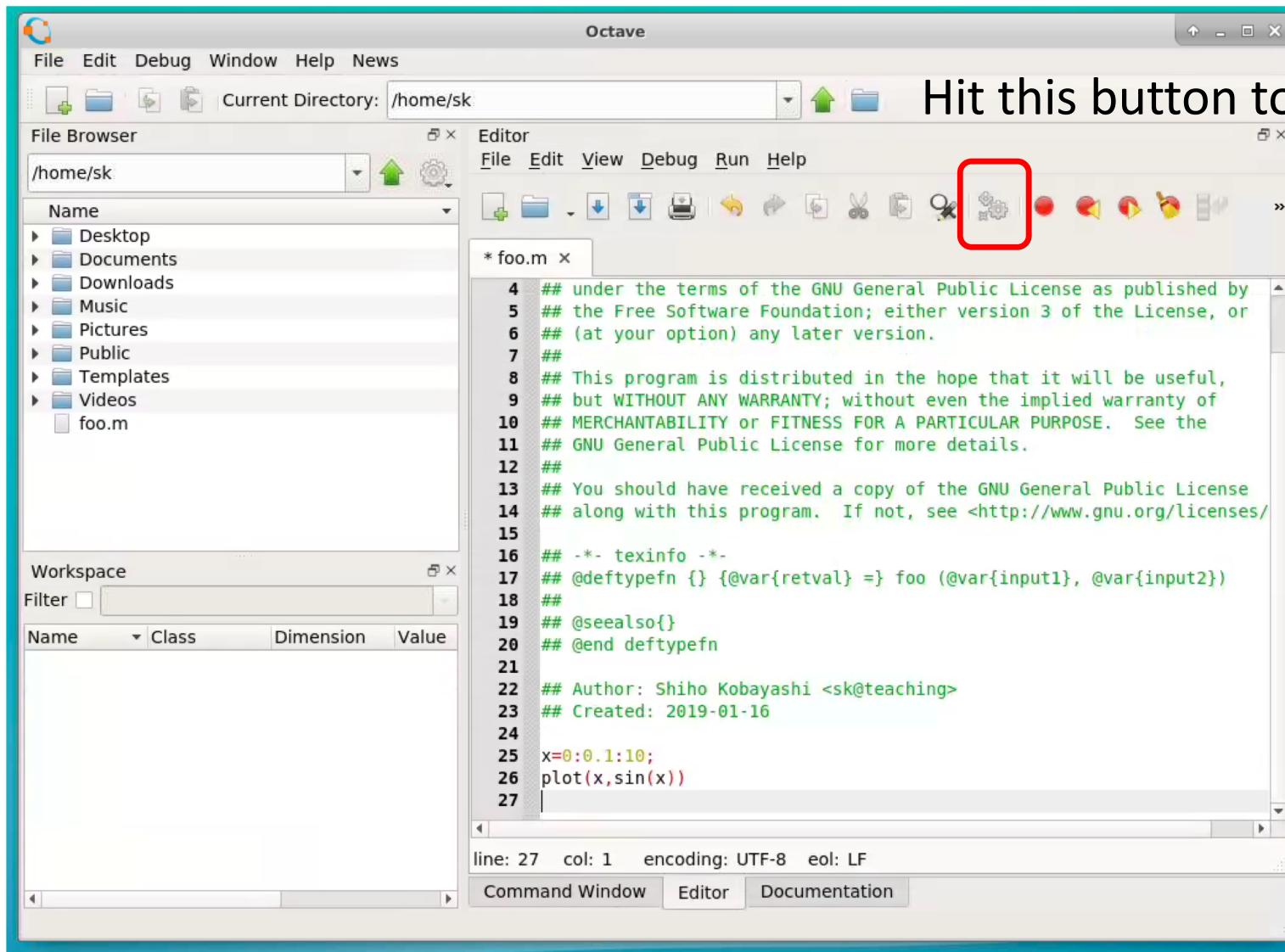
* foo.m *

```
4 ## under the terms of the GNU General Public License as published by
5 ## the Free Software Foundation; either version 3 of the License, or
6 ## (at your option) any later version.
7 ##
8 ## This program is distributed in the hope that it will be useful,
9 ## but WITHOUT ANY WARRANTY; without even the implied warranty of
10 ## MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
11 ## GNU General Public License for more details.
12 ##
13 ## You should have received a copy of the GNU General Public License
14 ## along with this program. If not, see <http://www.gnu.org/licenses/>.
15 ##
16 ## -*- texinfo -*-
17 ## @deftypefn {} {@var{retval}} =} foo (@var{input1}, @var{input2})
18 ##
19 ## @seealso{}
20 ## @end deftypefn
21 ##
22 ## Author: Shiho Kobayashi <sk@teaching>
23 ## Created: 2019-01-16
24 ##
25 x=0:0.1:10;
26 plot(x,sin(x))
```

line: 27 col: 1 encoding: UTF-8 eol: LF

Command Window Editor Documentation





Hit this button to execute

