## Creating a bootable Linux based USB stick

1. This process requires 2 USB sticks or 1 USB stick and a writeable CD

2. Download a small a light Linux distro. This should be in the LiveCD form

64bit Lubuntu is my example as it will fit on a 8gig usb: http://lubuntu.net/

Choose step 3 or step 4 a-d

3. Use windows or your CD writing software of choice to burn the ISO image downloaded in step 2 to CD

4. Download Rufus if you are using 2 usb sticks

    a. Rufus can be found at https://rufus.akeo.ie/

    b. Install and then open Rufus. Select the download image in step 1 burn the image to the usb stick. By selecting the CD button (red square in picture below).

    c. Click start
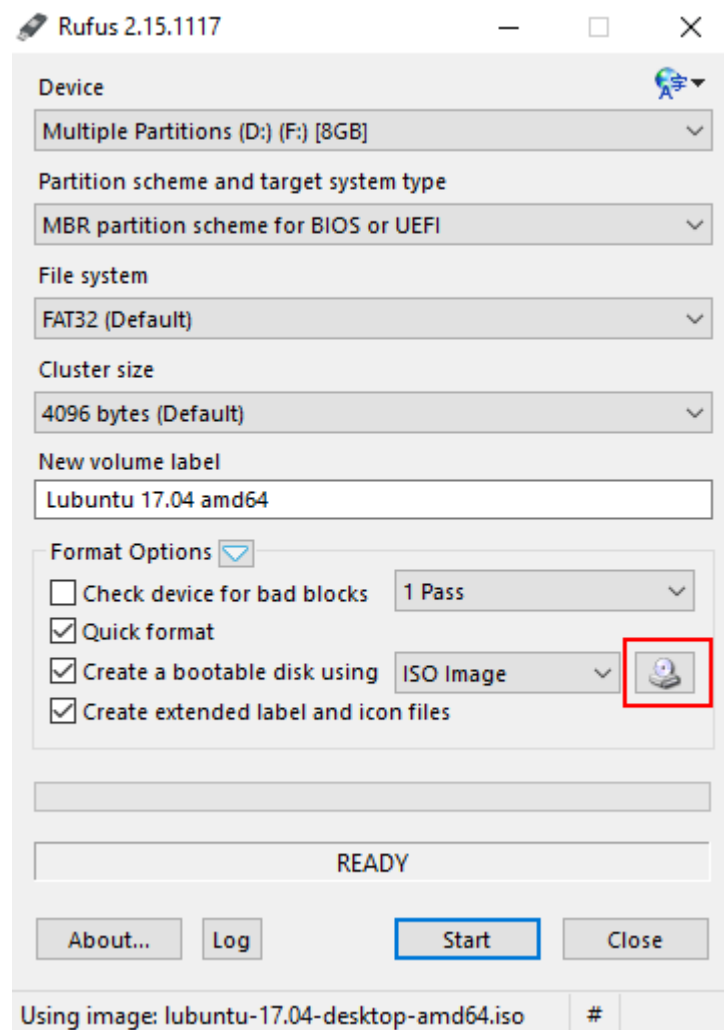

   d. If prompted for a ISOHybrid image just go with the default "write in ISO image mode"

5. You now have either a live bootable USB or CD

6. Place the CD or USB into the computer and let it boot

   a. You may need to press a key usually enter or a f key to get the computer to boot to USB

7. If the USB/CD boots you will see a screen similar to the one shown below select "Install" using the arrow keys and press enter. This may vary if you have chosen a different version of Linux
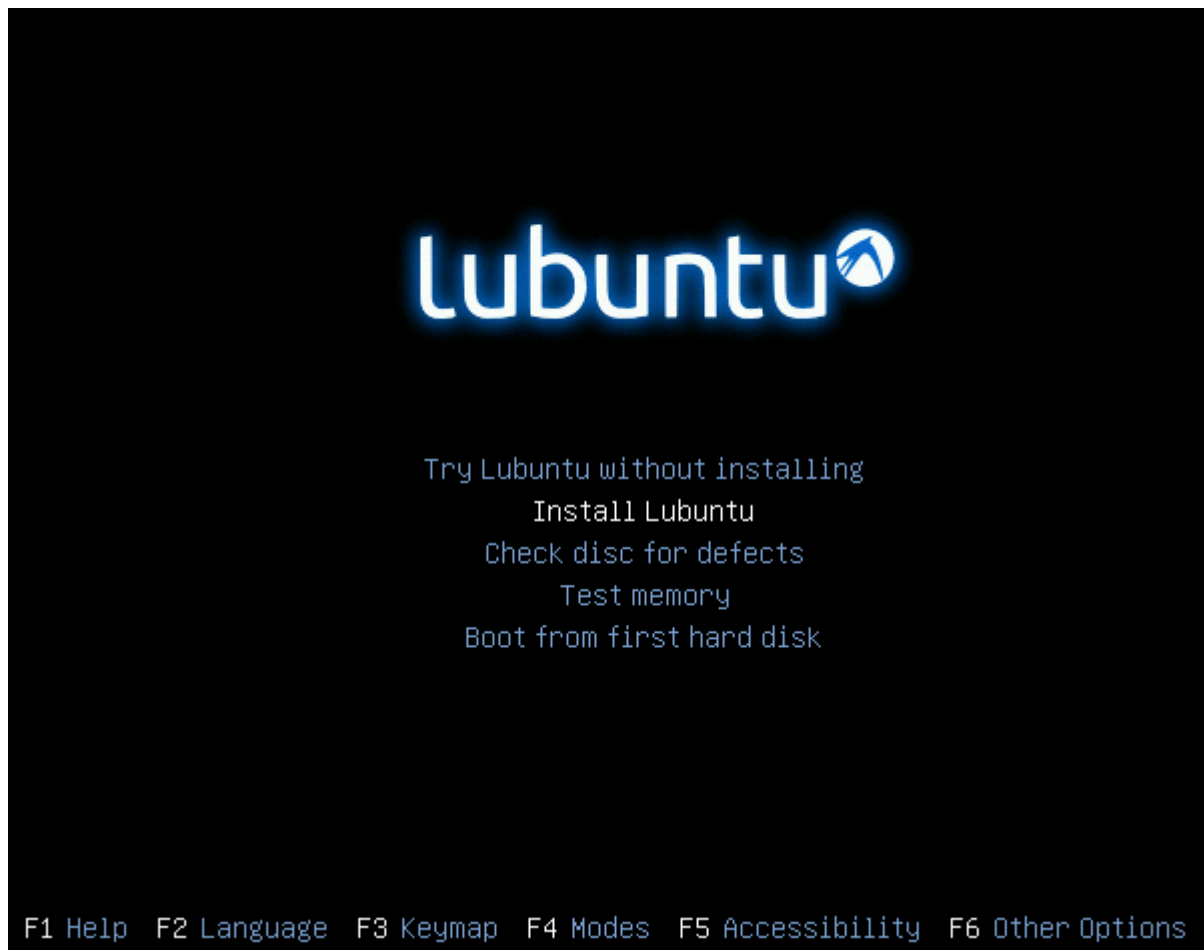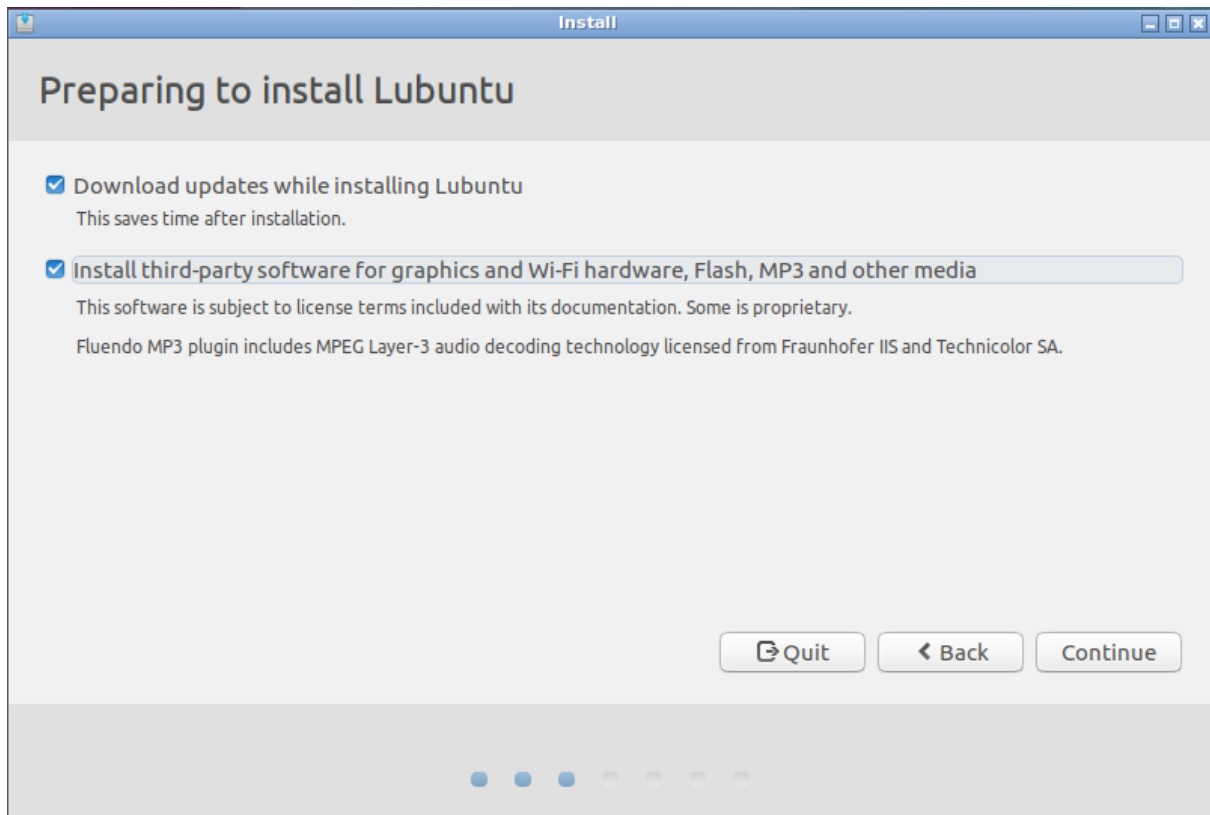
8. Insert the second USB stick

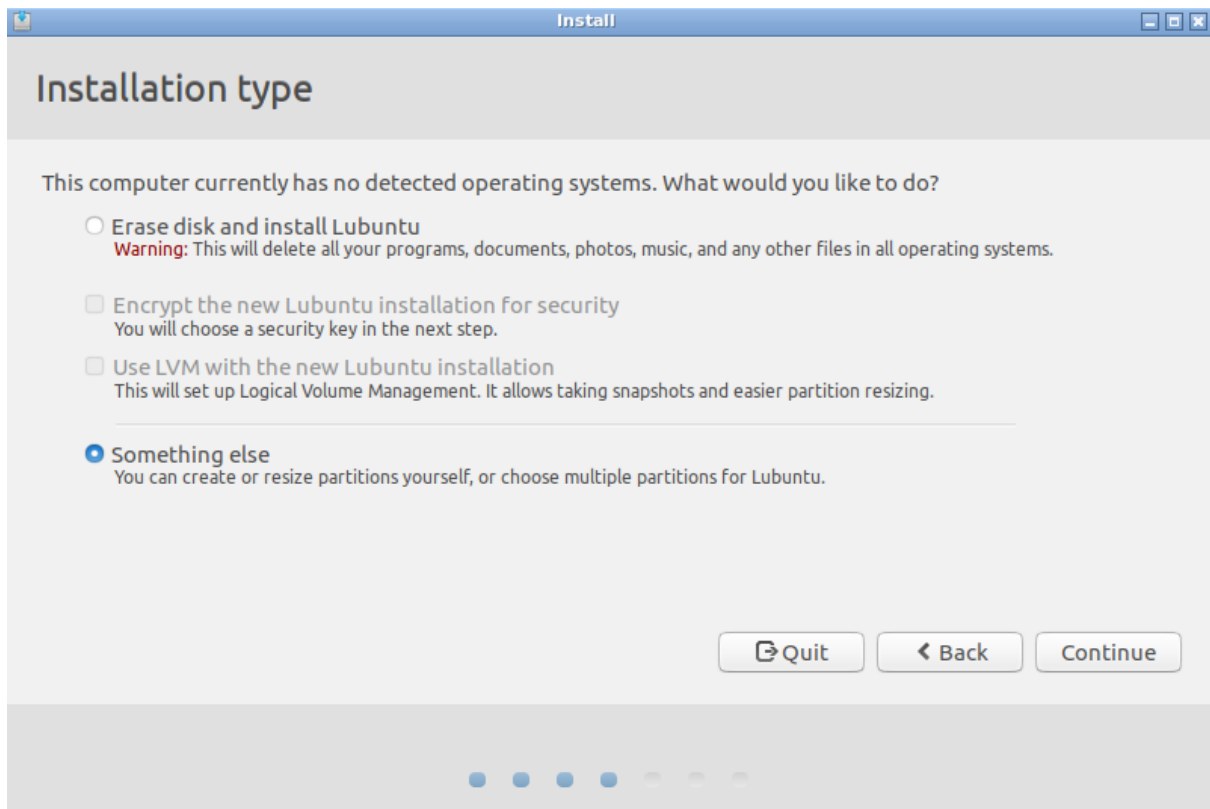9. The next screen we need to choose language
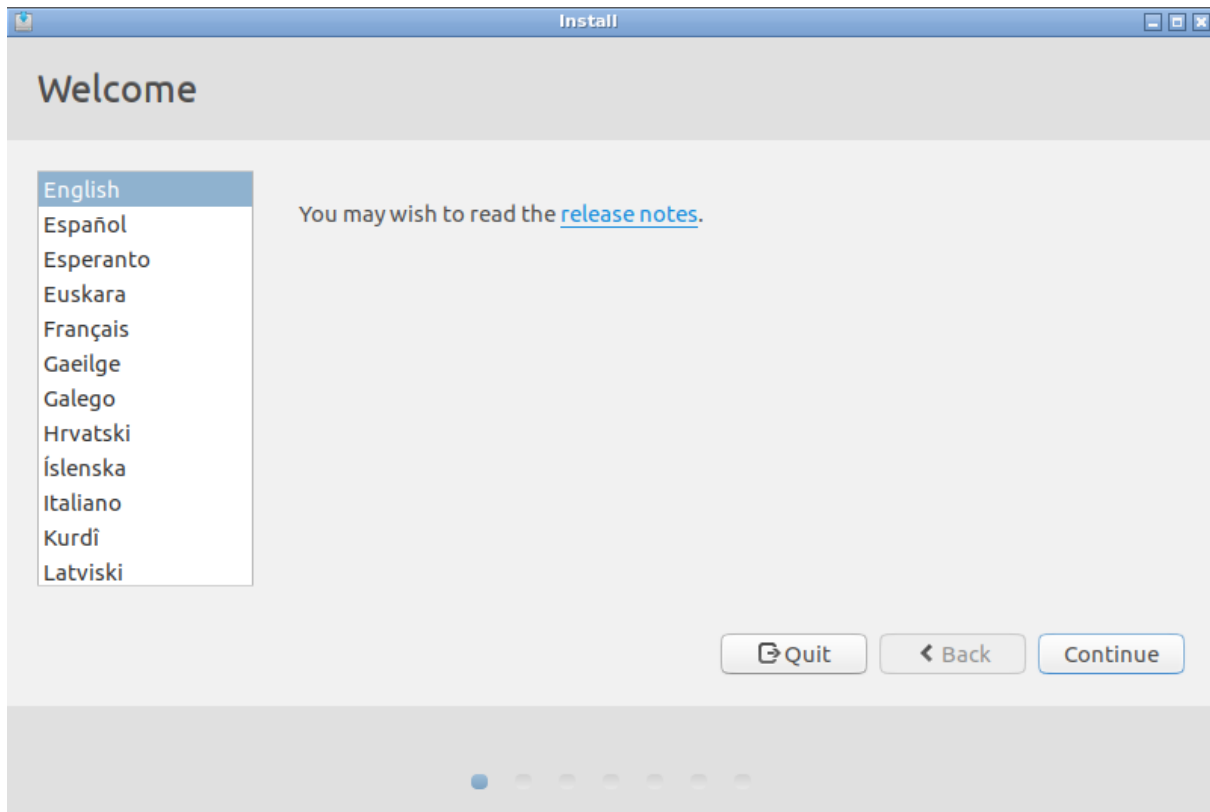
10. If you are using a wireless network this would be configured here. (I am not)
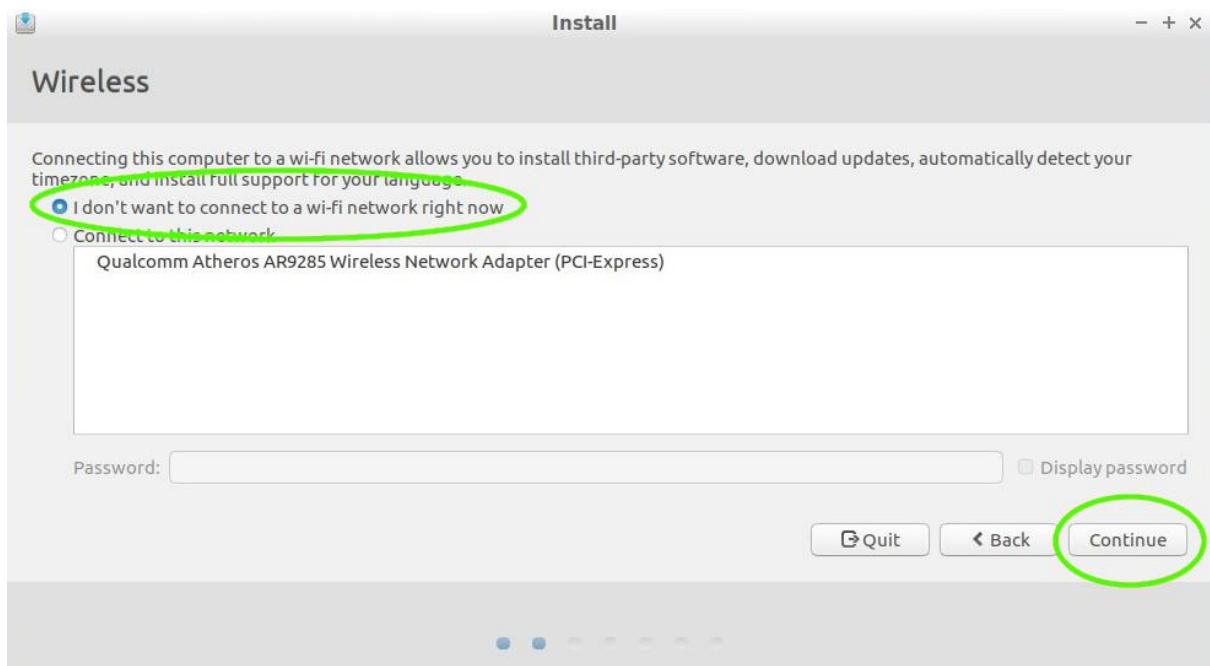
11. If you have the option select to download updates during install and to enable 3rd party (this step is optional you can just click Continue for a faster install

Preparing to install Lubuntu

☑ Download updates while installing Lubuntu
This saves time after installation.

☑ Install third-party software for graphics and Wi-Fi hardware, Flash, MP3 and other media
This software is subject to license terms included with its documentation. Some is proprietary.

Fluendo MP3 plugin includes MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Technicolor SA.

Quit   ◀ Back   Continue

12. Select installation type as "something else" and click continue

Installation type

This computer currently has no detected operating systems. What would you like to do?

○ Erase disk and install Lubuntu
Warning: This will delete all your programs, documents, photos, music, and any other files in all operating systems.

☐ Encrypt the new Lubuntu installation for security
You will choose a security key in the next step.

☐ Use LVM with the new Lubuntu installation
This will set up Logical Volume Management. It allows taking snapshots and easier partition resizing.

◉ Something else
You can create or resize partitions yourself, or choose multiple partitions for Lubuntu.

Quit   ◀ Back   Continue

13. You will now be able to see the second USB stick inserted at step 8. In my case this is /dev/sdc. To help with identification look for the description. The description for my USB drive is "USB flash memory 8.0GB". I have put a green highlight around this in the picture below step 15.

14. If the drive does not show as free space you will need to delete the partitions

    Note At this point you could wipe your windows operating system if you delete the wrong partition in my case this is the top 4 options listed under: /dev/sda with NTFS……………… Leave these alone.

15. Select partitions under dev/sdc and delete each one. To delete a partition right click and select "Delete".
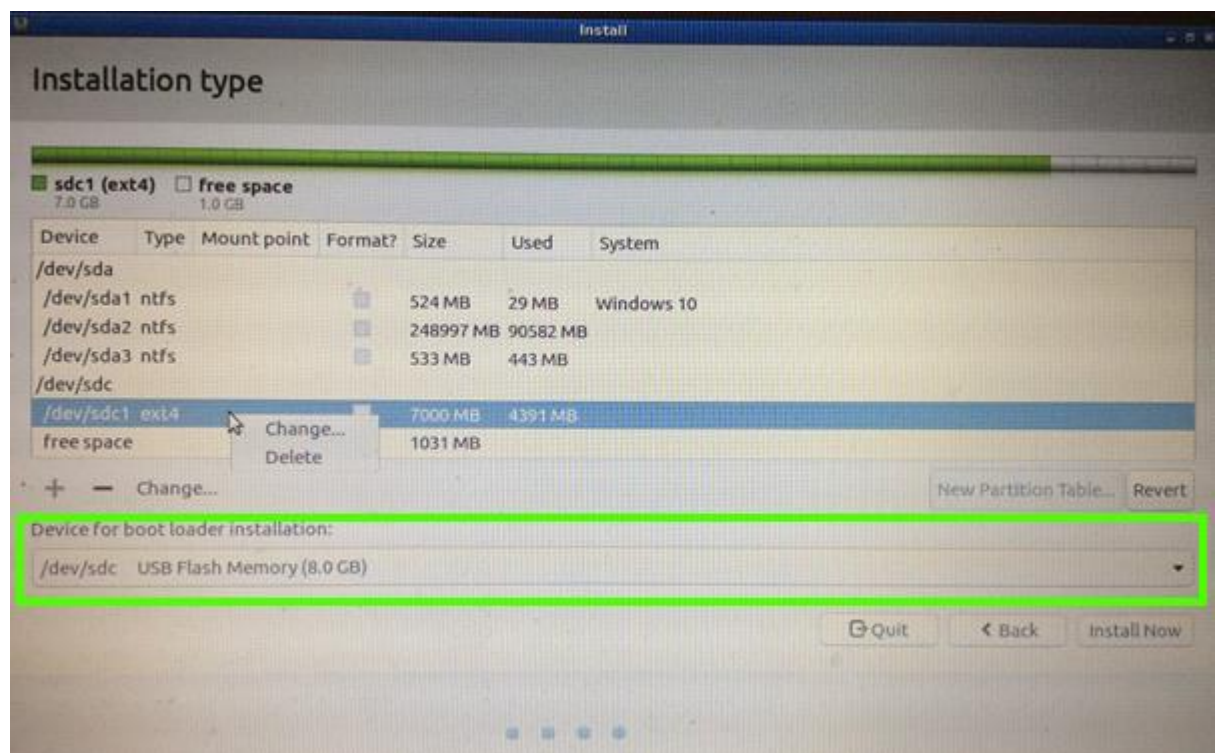
16. After deleting the partitions under /dev/sdc it will show as free space

17. Select the free space and click the + sign (circled in green). We now need to create a new partition with the 4 options set below:
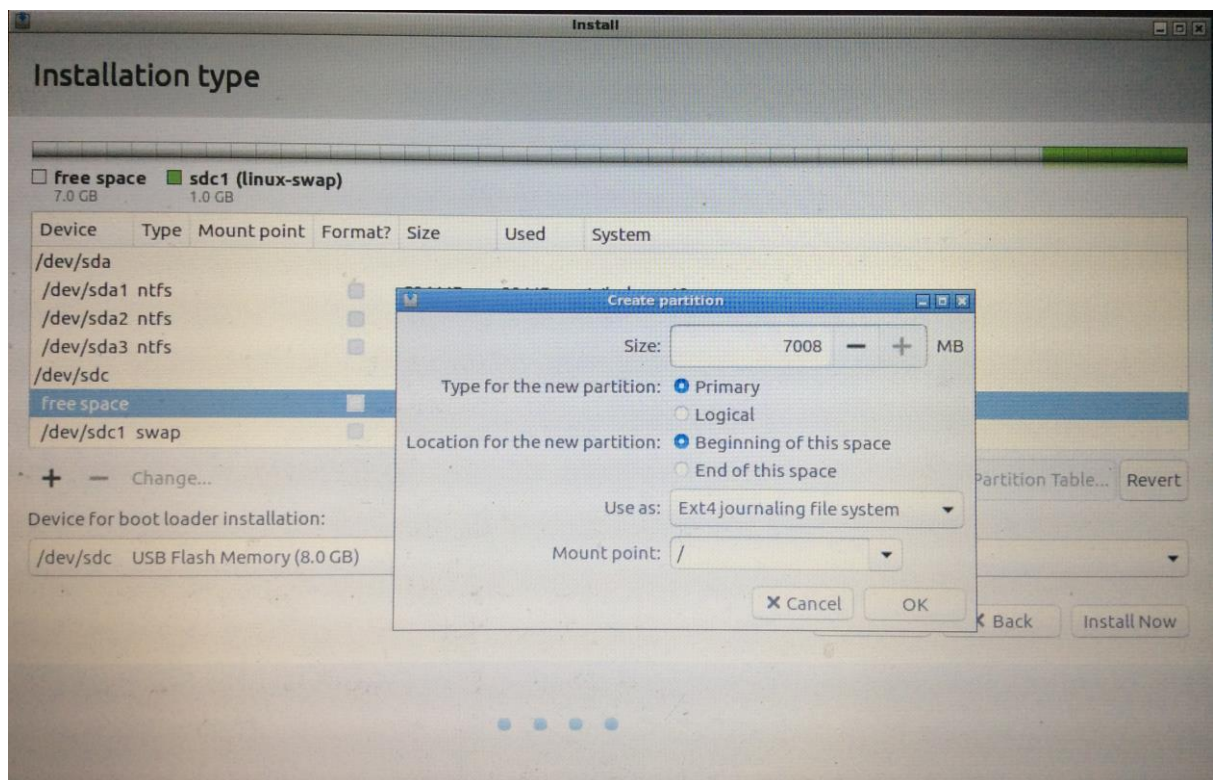
- Size is: 1024

- Partition: Primary

- Location: End of this space

- Use as: Swap area
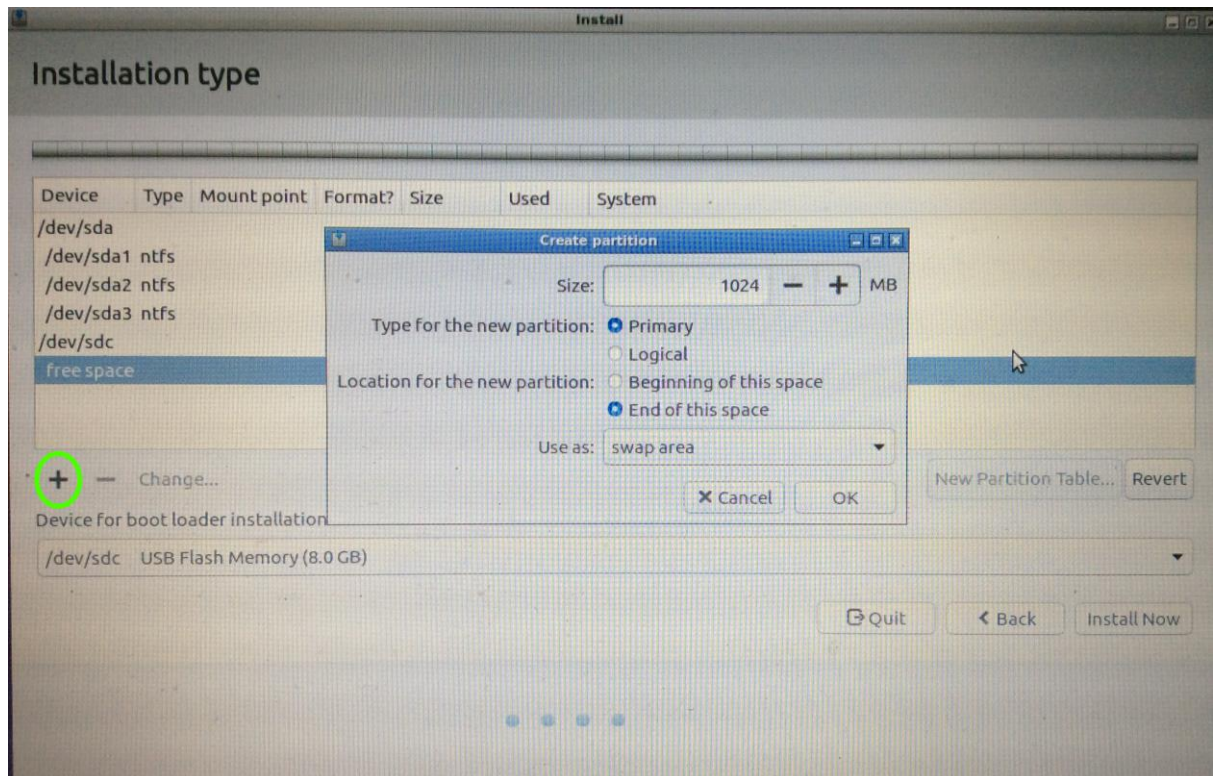
18. When the 4 options are set click OK

19. The next partition will be used to install the operating system onto. The 5 options are

- Size: 7008 (this is all the space left on 8gb USB stick)

- Type: Primary

- Location: Beginning of this space

- Use as: Ext4 journaling file system
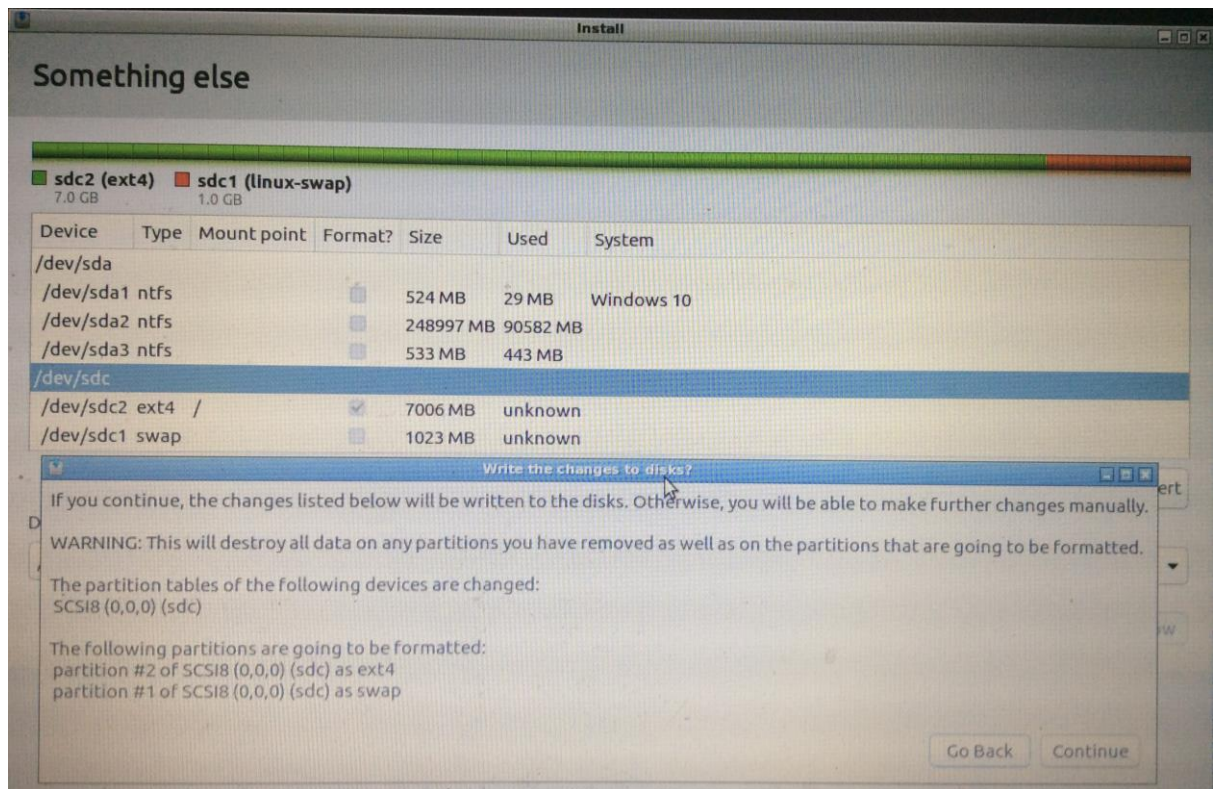
- Mount point: /

20. Click ok once the options are set

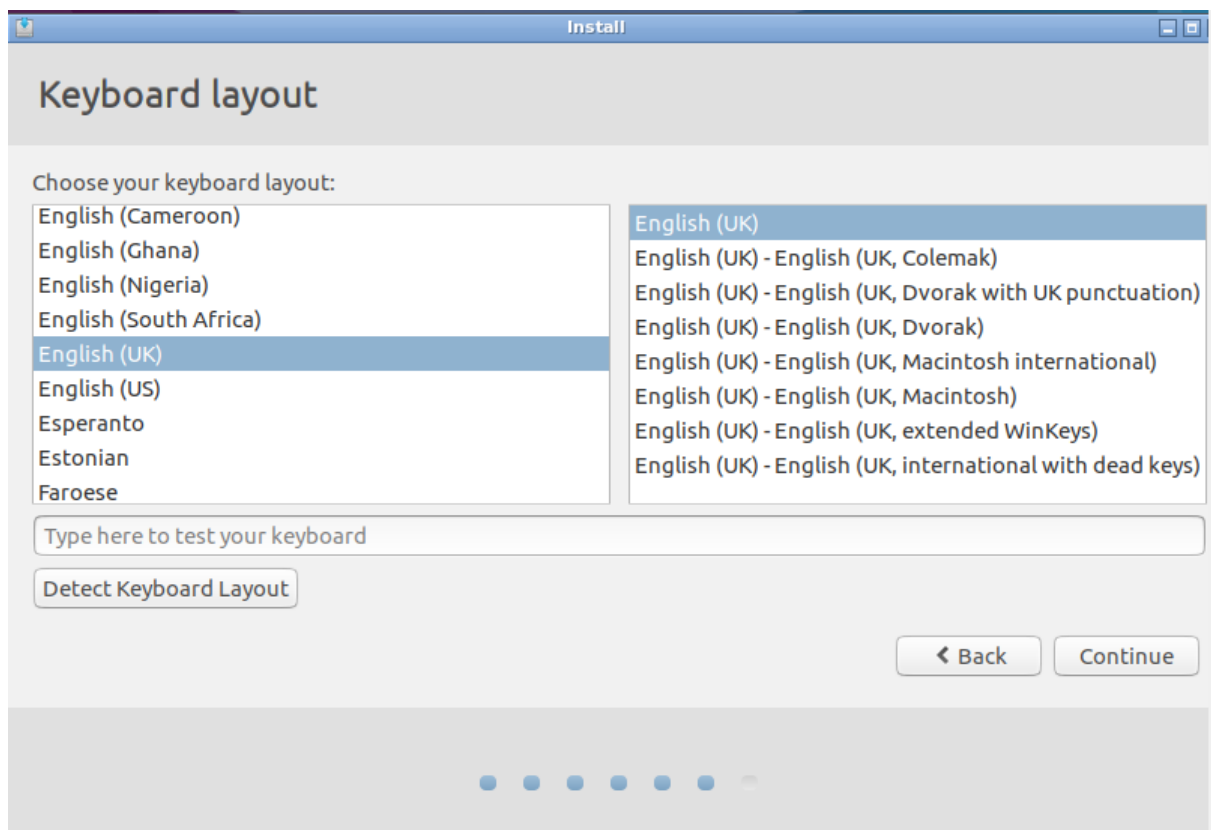21. Select the /dev/sd partition

22. Click "install now"

23. Now the sanity check box appears click continue after checking the screen has the right options selected.
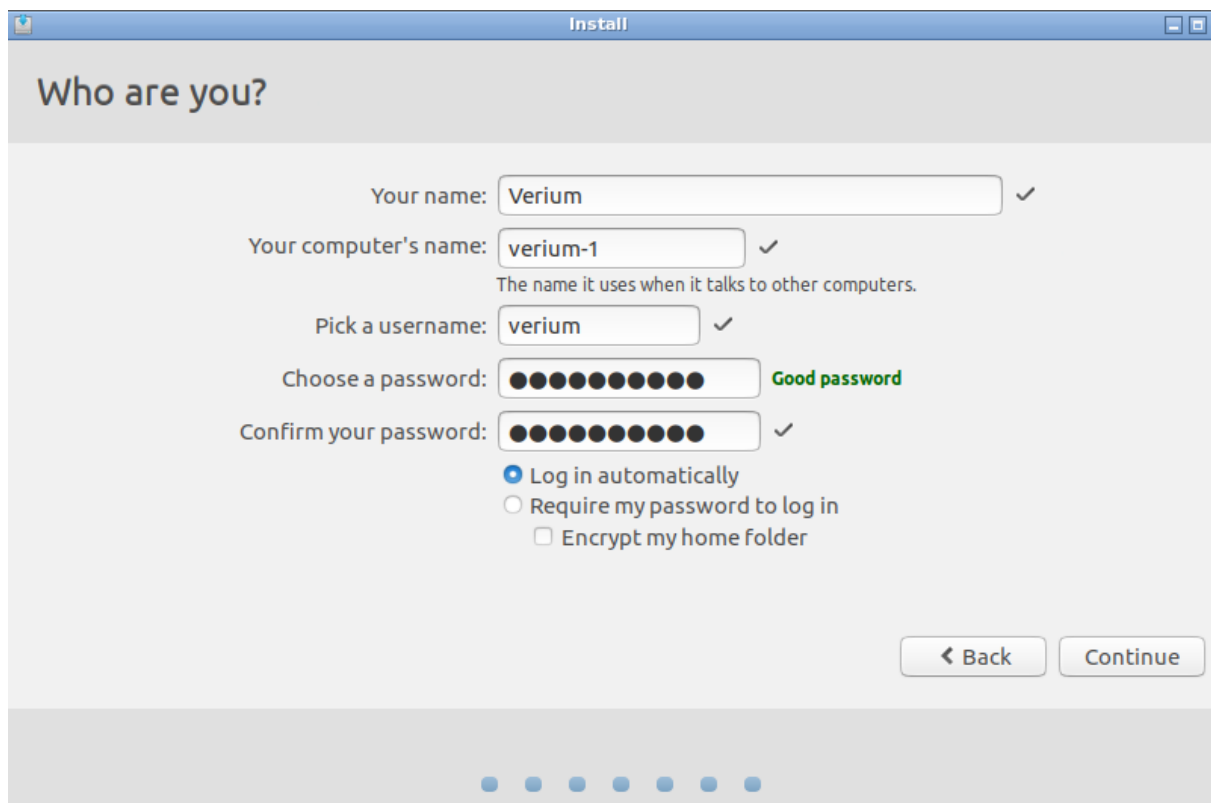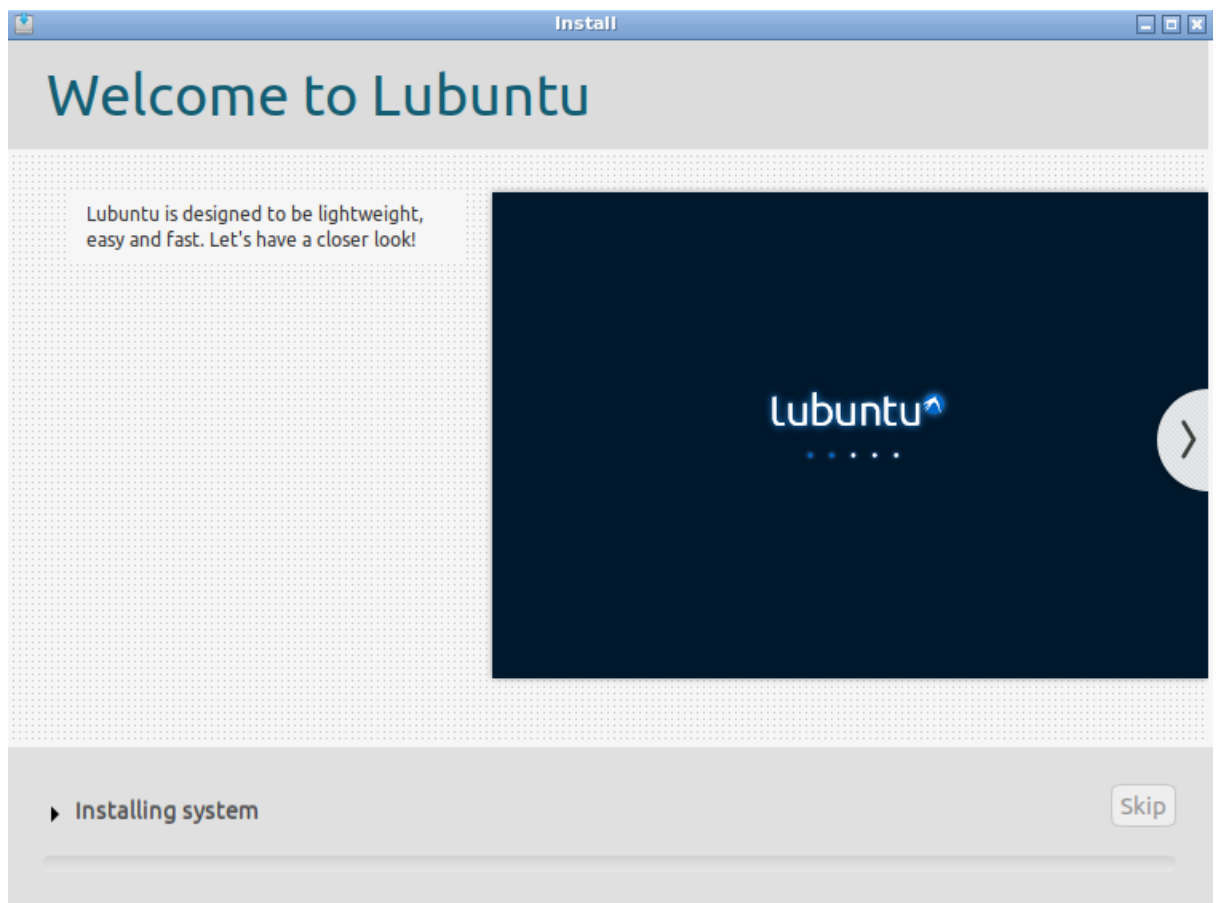

24. Select your region and click continue
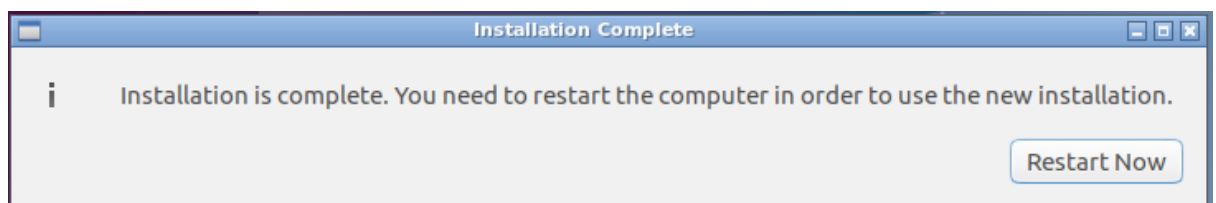
25. Select your keyboard layout

26. Name your computer, pick a username and provide a good passed and optional auto logon

27. The install will now happen:

28. Once complete. You will be prompted to restart.

29. Remove the First USB stick or CD.

30. The freshly created USB stick will boot into a fully functional copy of Linux

This completes the install Linux onto a USB stick documentation