Experiment no :- 2

Aim :- study of different operating system for Raspberry-Pi. Understanding the process as installation on Raspberry-Pi.

Theory :-

Introduction :-

The Raspberry Pi is a wonderful but power full little computer that fits the place of your hand. Despite of its size it has enough power to run operating system, home media center, a VPN & a lot more.

The Raspberry Pi has a SD card slot for mass storage & will attempt to boot of & that device from SD card when the board is powered on by 5V micro USB supply.

No mallet how good & powerfull the hardware of Raspberry Pi is without an operating system if is just a piece of silicon fiberglass & a few other condition materials.

① Raspbian :-

Currently, Raspbian is the most popular linux based operating system for the Raspberry-pi, Raspbian is an open source operating system based on Debian, which has been modified specially for Raspberry-Pi.

For a beginner it's a good place to start & especially if you are starting with progeamming & are used to windows based system as it bears some resemblance to the windows.

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② Pidora :-

After waiting for a long, Raspberry Pi users are finally getting an optimised version of pidora to replace the current Raspbian as the new created excitement among the Raspberry Pi Community. who are finally getting opportunity to enjoy pedora on their devices after the preview attempt to introduce pedora Remix for Pi ended up as a failure coupled with greater speed & rest of features of pidora 18.

③ Arch linux :-

Arch linux is an excellent choice for reasons one of the greatest advantages of the Arch linux distribution is its simplicity in approach & attitude

④ OSMC :-

OSMC [open source media center] is a free & open source media player based on linux. Founded in 2014, OSMC lets you play back media from your local network, attached storage & the internet OSMC is a leading media center in terms of features set & community & is based on Kodi project

⑤ RetroPIE :-

Retro Pie allows you to turn your Raspberry Pi into a retro-gaming machine it's platform developed on the base on Raspbian. emultion station, Rebo pie enable you to play your favourite arcade, home-console. classic PC games with minimum setup

⑥ RISC OS :-

RISC OS is British OS originally designed by Acorn Computer ltd in Cambridge England & was first released in 1987 It was specifically designed to run of ARM chiped. it is first

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Compact + efficient. RTS os is not a version of linux, no is it any way related to window + interestingly was developed by original ARM team.

⑦ Kali linux :-

Kali linux is a Debian based security auditing linux distribution it is specially designed for digital forensics + penetration testing. it is maintained + funded by offensive security. Kali linux provides many pre-installed package with numerous pentration-testing.

Conclusion :-

Thus, we have studied installation for various os in Raspberry Pi.

Installing os for Raspberry-Pi :-

Aim :- To understand os installation for Raspberry Pi.

Process :-

1. open website www.raspberry.org
2. Click on 'Download' tab
3. Click on "RASBIAN" option
4. we required - 'Raspbian stretch with desktop". Click on 'Download Torrent" option.
5. A "Torrent file" is downloaded
6. But actual os is present in zip file of these Torrent
7. Now open the "bit Torrent" software

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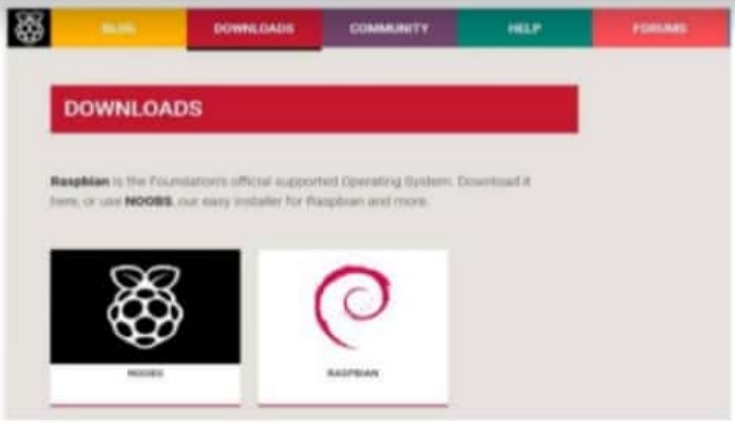
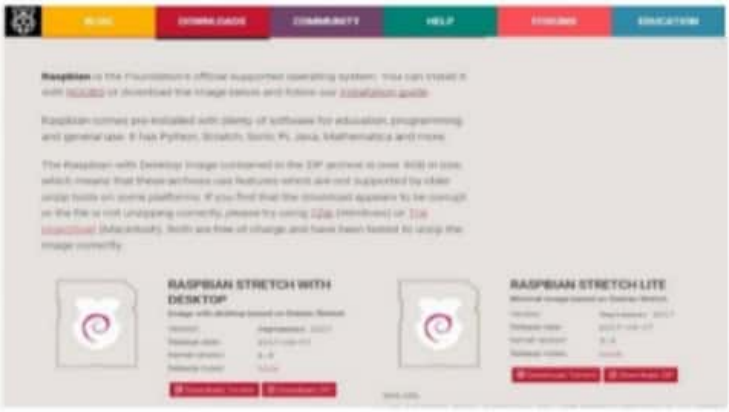
3.



4. Click on the "RASPBIAN" option.



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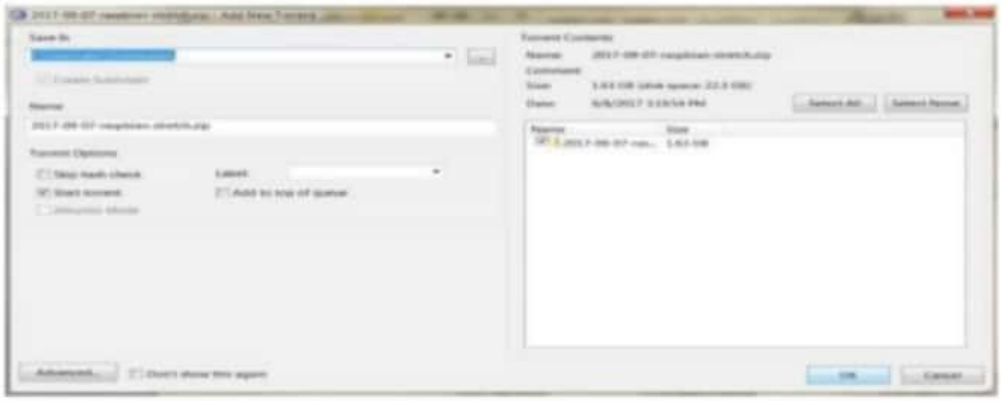
12. Here select the path of downloaded "Torrent file".



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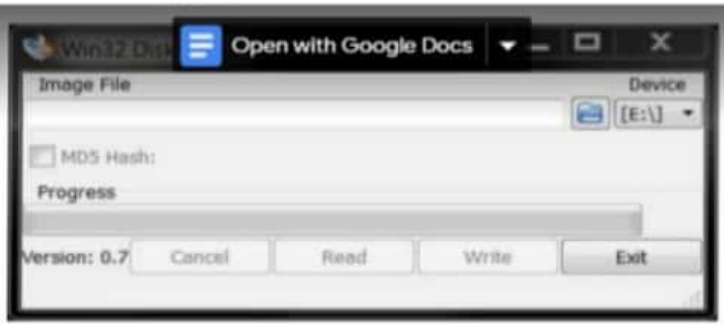
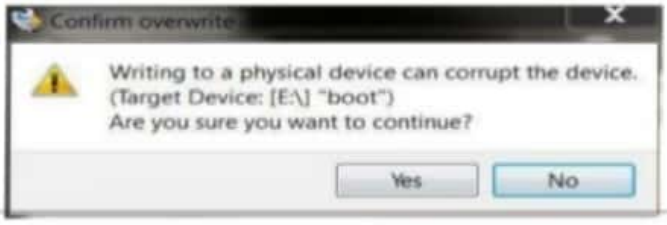


18. Open the unzipped file in the "Image file" option byselecting the path from the Blue icon. The selected path is shown in the below image.
19. Now plug-in the SD card reader having SD card inside it, in the USB port of your PC.
20. Ensure that your SD card reader is having the same drive which is shown in the Device option (near the blue icon)

21. After ensuring that the "Image file path" and the "Device" are selected correctly, now click'Write' button to write the image on the SD card.
22. After this the following window appears.



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23. Here click 'Yes' and Confirm the overwrite
24. Image file will be written on SD card.
25. After the procedure is completed, it gives "Write Successful" message.
26. Congratulations! Your SD card is ready with your OS to work in the Raspberry-Pi-3 board.
27. Insert this SD card in Raspberry pi3.

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