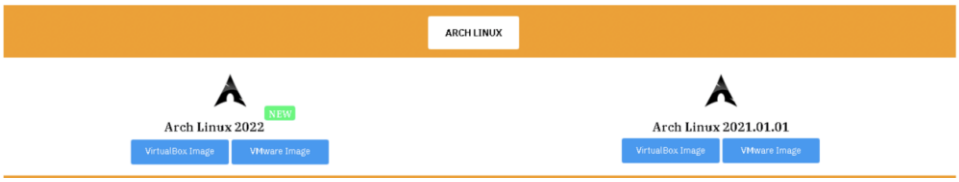
The following is a step-by-step guide to installing a bare-bones Arch with XFCE on VirtualBox.

1. Download the Arch 2022 VirtualBox Image from https://www.linuxvmimages.com/



2. Unpack the resulting ArchLinux_2022_VB.7z file into /labfiles/VMs/Arch_x
3. Open VirtualBox Manager
    a. Select tools
    b. Click the add button
    c. Path to /labfiles/VMs/Arch_x
    d. Open the ArchLinux_2022_VB_LinuxVMImages.COM.vbox file
4. Configure the VM
    a. While the VM is off open the settings pane
    b. Select the audio tab, and uncheck the Enable Audio option
    c. Select the network tab and set the “attached to:” dropdown to bridged
5. Launch the Arch_VM
    a. Login with user/password archlinux/archlinux
6. Clear the package cash with $ sudo pacman –Scc
    a. pacman is the archliux package manager
    b. -Sc issues a clean command that will clear the pacman package cash
    c. -Scc issues a strict clean that will clear all files from the pacman package cash
7. Update the archlinux secure keyring with $ sudo pacman –S archlinux-keyring
    a. Pacman –S is the equivalent of apt install
    b. If the archlinux secure keyring is not up to date pacman will be unable to verify the integrity of any packages you try to install
8. Update the package list with $ sudo pacman -Syu
    a. -Sy refreshes the package list
    b. -Su updates installed packages from the current package list
9. Install the xfce4 package group with $ sudo pacman –S xfce4
    a. Select the (default=all) option
    b. xfce is a lightweight window manager application
10. Install input and video drivers
    a. Identify your required drives with $ sudo lspci -v | grep -A1 -e VGA -e 3D
        i. In this environment, it will be VMware
    b. Search for the correct drive with $ sudo pacman –Ss xf86-video
        i. -Ss initiates a package search that will list all packages that contain that name
    c. Install the video driver with $ sudo pacman –S xf86-video-vmware
    d. Repeat the previous two steps for the input drivers
        i. $ sudo pacman –S xf86-input-vmmouse
11. Install the gnome desktop manager with $ sudo pacman –S gdm
12. Enable gdm with $ sudo systemctl enable gdm.service

13. Switch to root with $ sudo su root
    a. The following commands will not work correctly if you are not logged in as root
14. Create a new user with # useradd -G wheel -s /bin/bash -m "username" -c "displayname"
    a. Where username is the login and displayname is the user's display name
    b. -G assigns the new user to a group by the group's name
    c. -s defines the path to the user's default shell
    d. -m automatically creates the user's home directory
    e. -c sets the user's display name
    f. In this case use # useradd -G wheel -s /bin/bash -m "aadmin" -c "Arch Admin"
15. Set the password for aadmin with # passwd aadmin
    a. Set the password to Password4Cohort
16. Exit root # exit
17. Reboot $ sudo reboot
18. Login as Arch Admin
19. Open terminal
20. Delete the archlinux user with $ userdel –r archlinux
    a. -r deletes the user's home directory

Congratulations! You now have a bare bones Arch Linux installation with a basic GUI!

Some additional features you might want to install are audio drivers and basic applications like nano. You may also want to change the splash text on the login screen. Unfortunately, you will have to learn how to do that on your own, as that is outside the scope of this guide.

Sources

- https://wiki.archlinux.org/title/Pacman
    - https://bbs.archlinux.org/viewtopic.php?id=167182
    - https://ostechnix.com/fix-invalid-corrupted-package-pgp-signature-error-arch-linux/
- https://wiki.archlinux.org/title/users_and_groups
    - https://unix.stackexchange.com/questions/59461/useradd-fails-on-archlinux
    - https://bbs.archlinux.org/viewtopic.php?id=137328
    - https://bbs.archlinux.org/viewtopic.php?id=38736
- https://wiki.archlinux.org/title/xfce
- https://wiki.archlinux.org/title/xorg
- https://wiki.archlinux.org/title/GDM
    - https://bbs.archlinux.org/viewtopic.php?id=165941