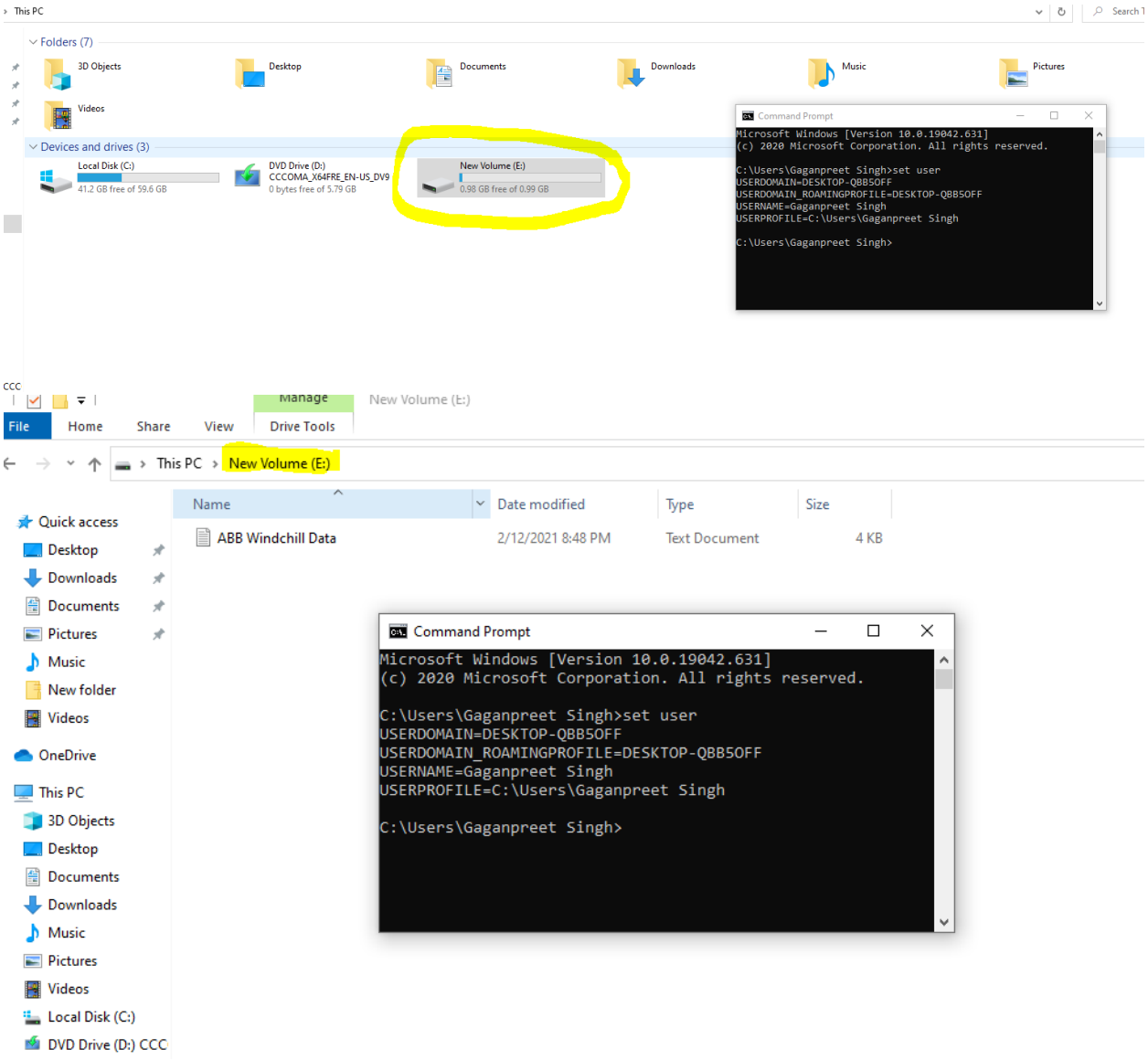
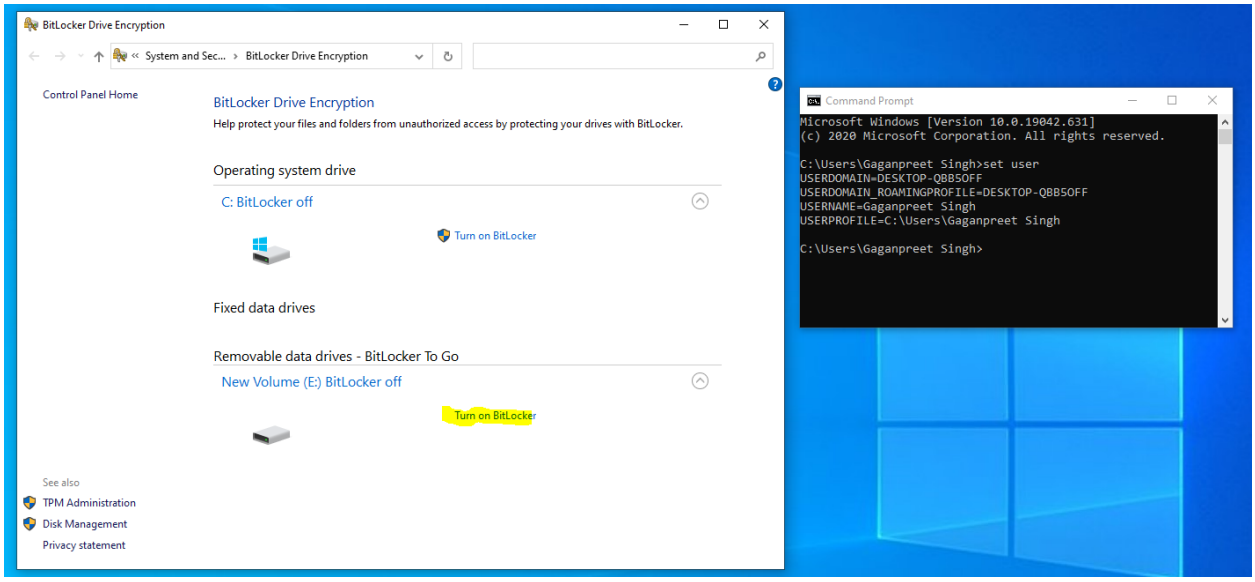
Activity: BITLOCKER

- Encrypting a Drive

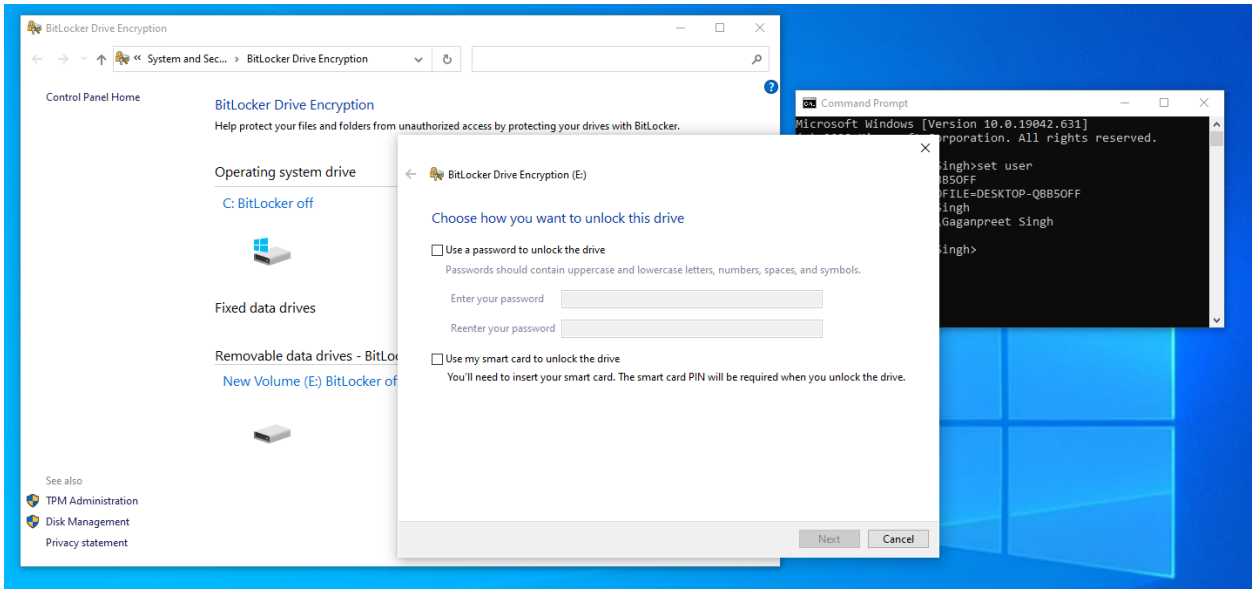
1. We are going to encrypt New Volume (E:) using BitLocker and it is clear the drive is accessible at the moment without encryption.



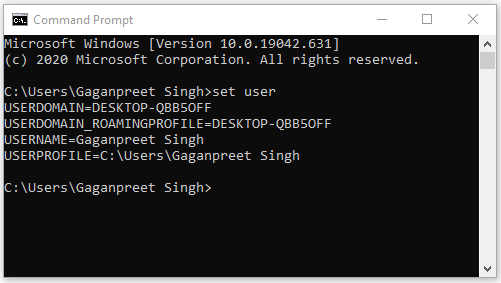
2. To Encrypt, Click Start, click Control Panel, click System and Security and click BitLocker Drive Encryption
3. Click Turn on BitLocker for the drive you want to encrypt.

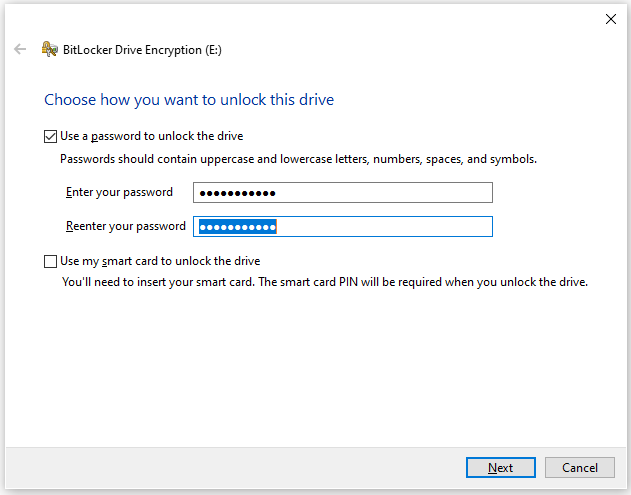


4. After Clicking BitLocker, a tab will open up which will ask to choose a format to unlock the drive after encryption.

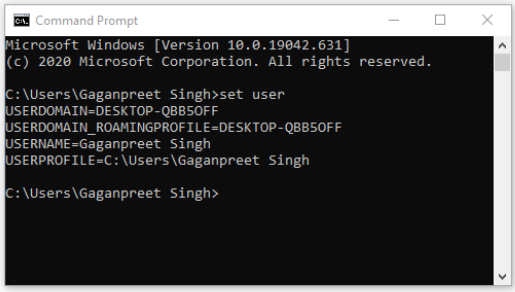


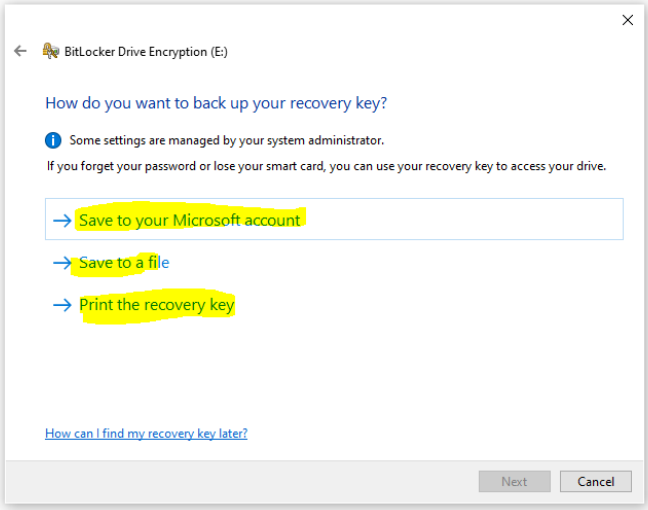
5. Click on “Use a password to unlock the drive” checkbox and set a password that must contain uppercase, numbers, spaces and symbols and confirm it. Click Next.



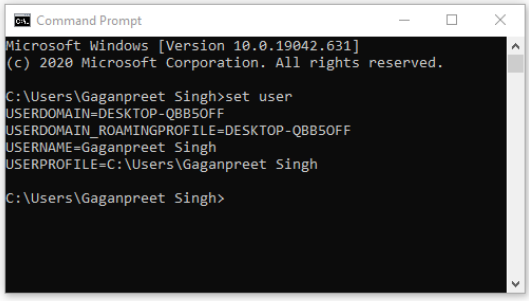


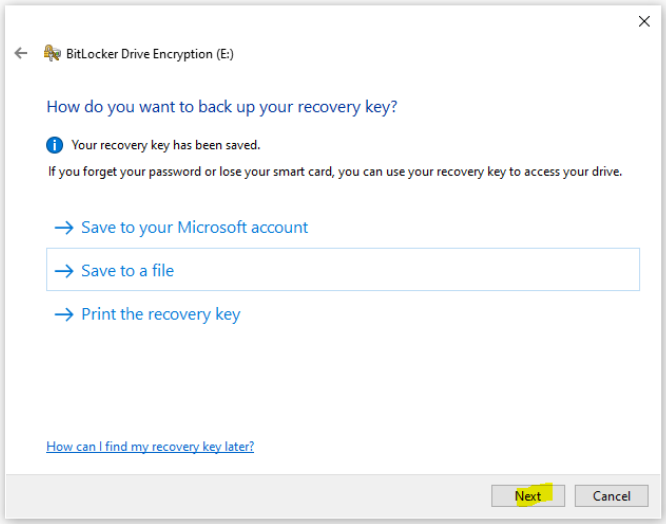
6. Now a new window with title How do you want to back up your recovery key will appear. This will provide us 3 options to backup the password we used for encryption.



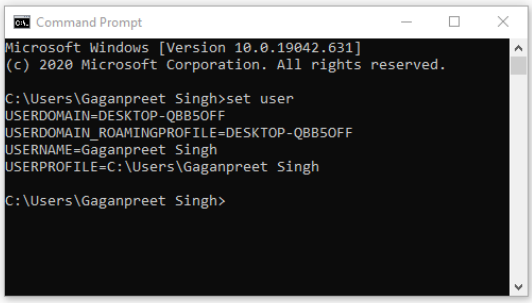


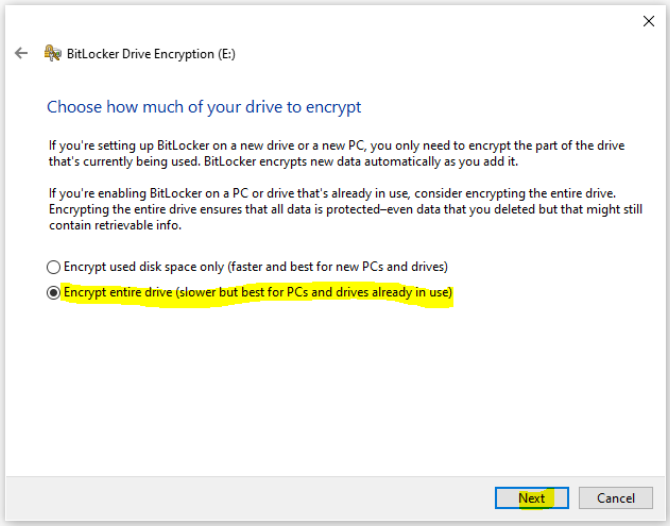
7. Click any option and click next.



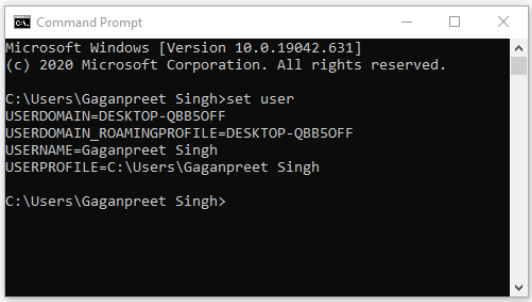


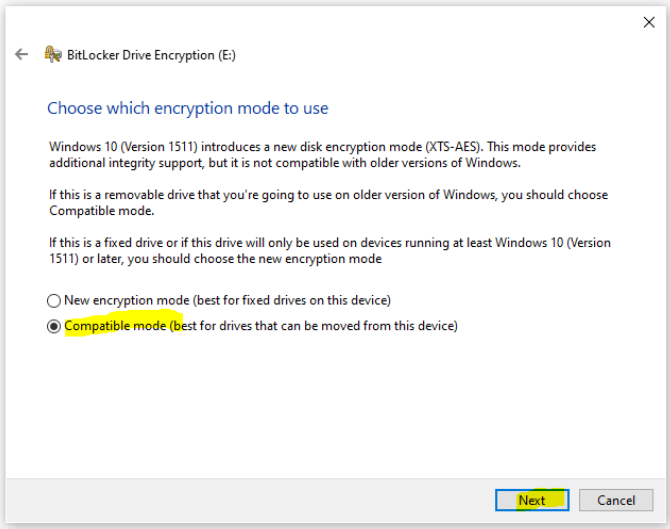
8. On Clicking next, we'll get an option to encrypt the whole drive or to encrypt the entire drive. Click encrypt entire drive because we don't have much data in the drive and click Next.



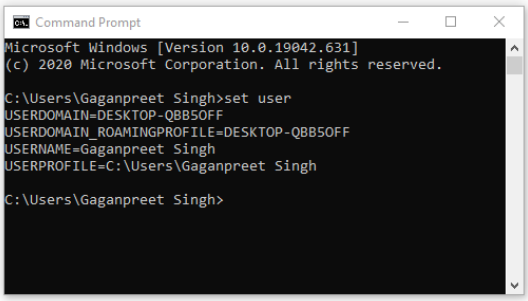


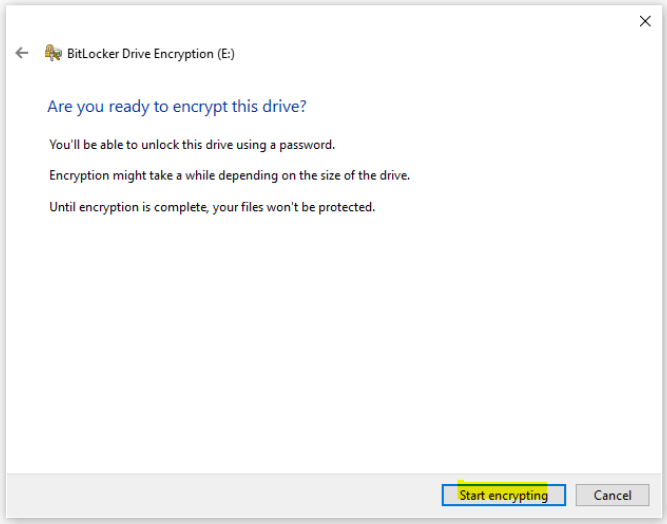
9. Choose the encryption mode according to your OS on the next tab and click next.



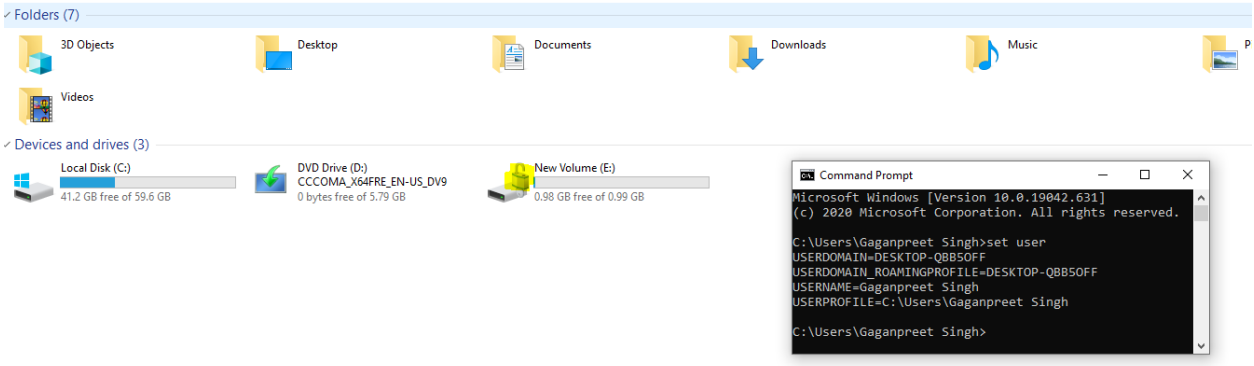


10. If Ready click on Start Encryption.

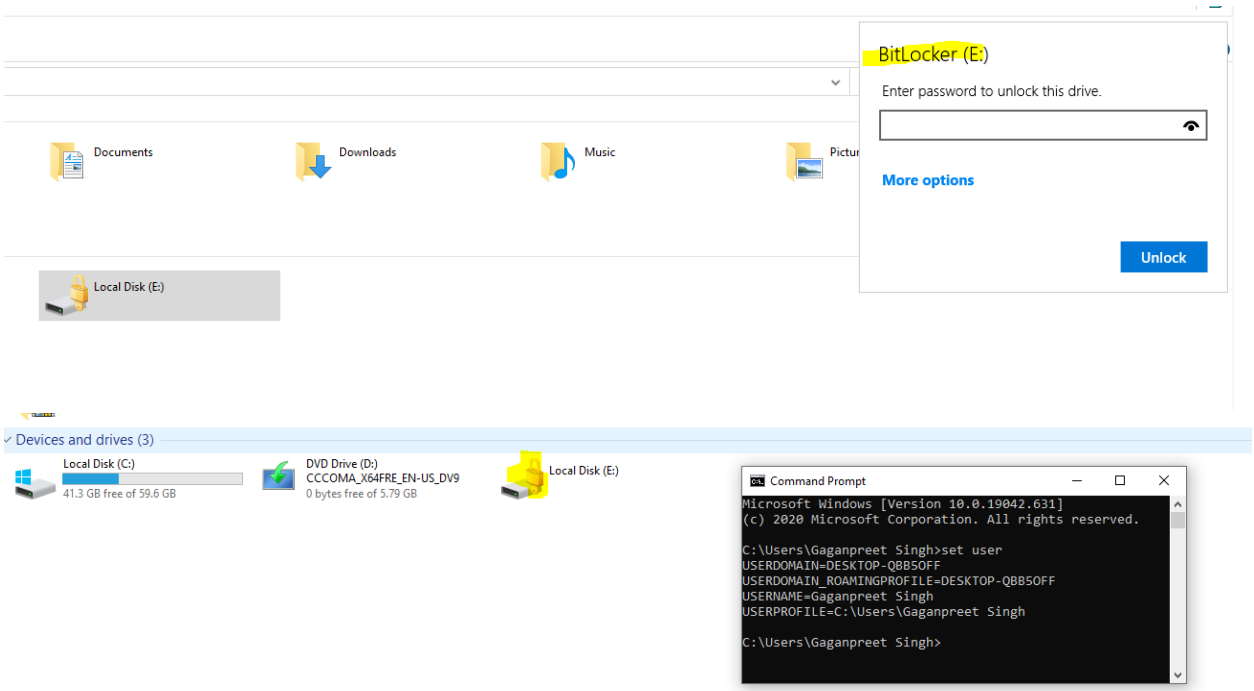




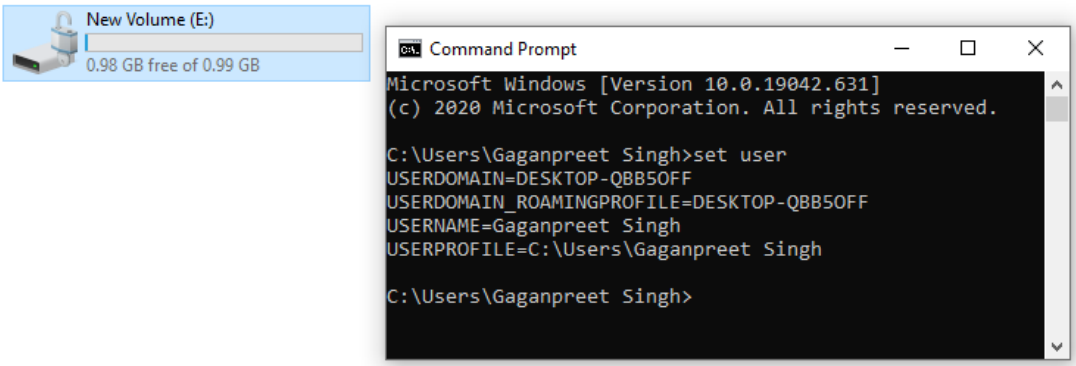
11. Click windows + E key and you'll see that the drive is encrypted but is unlocked.



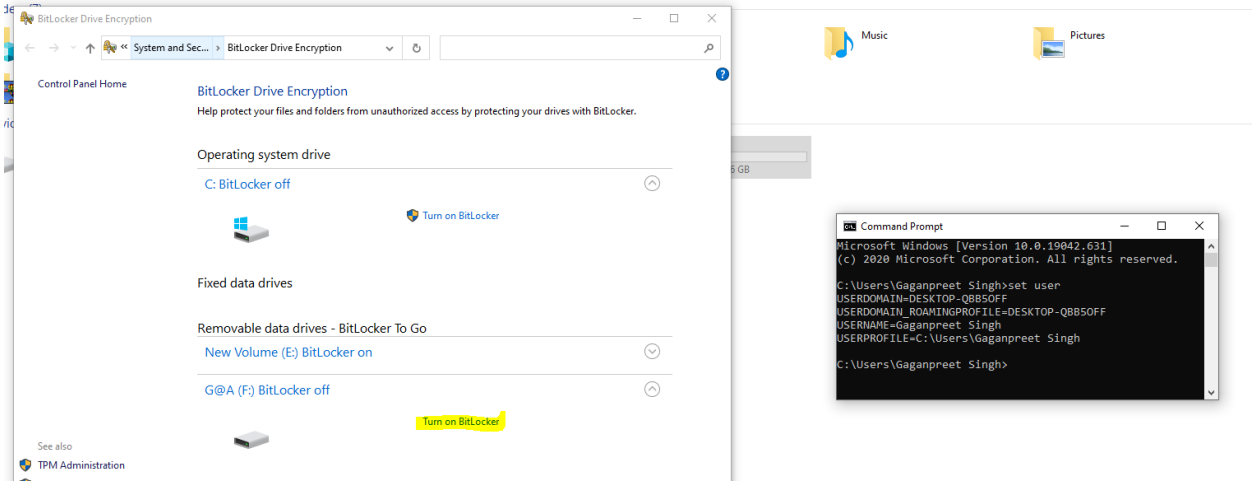
12. Restart the machine and check. The drive is encrypted and would require the password to unlock.



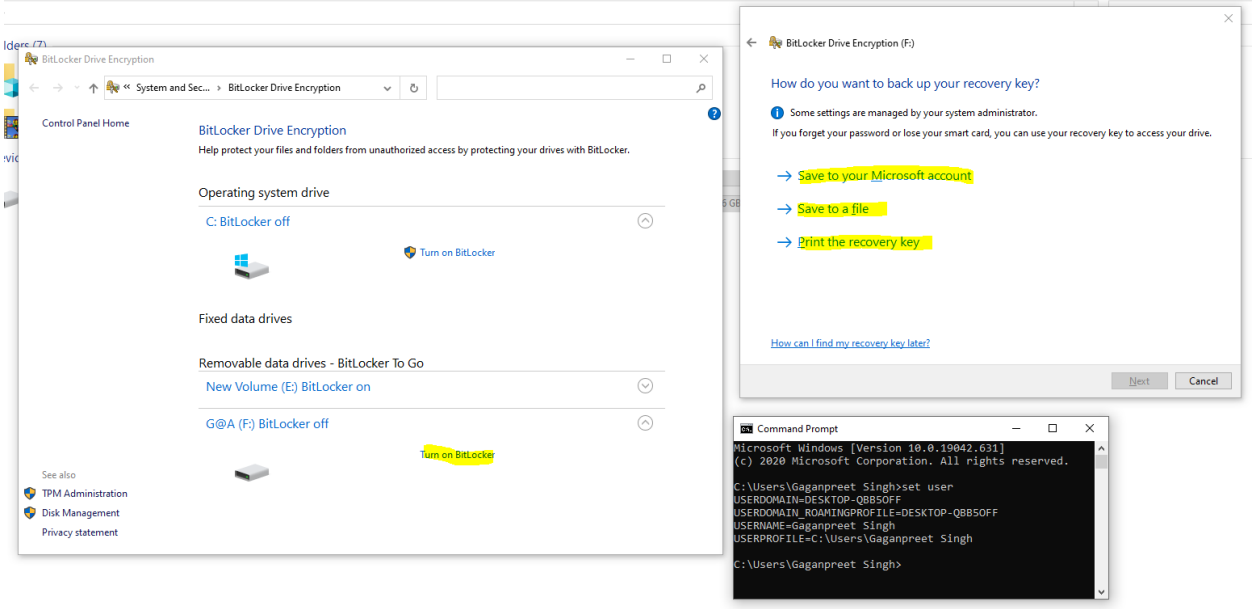
13. Enter the password to decrypt.

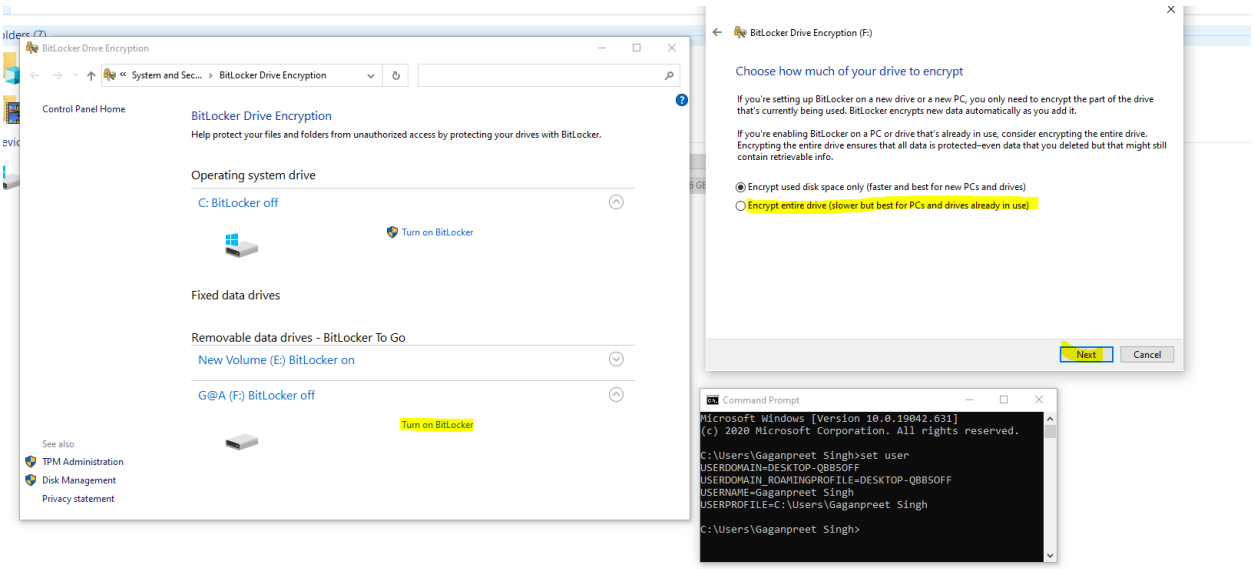


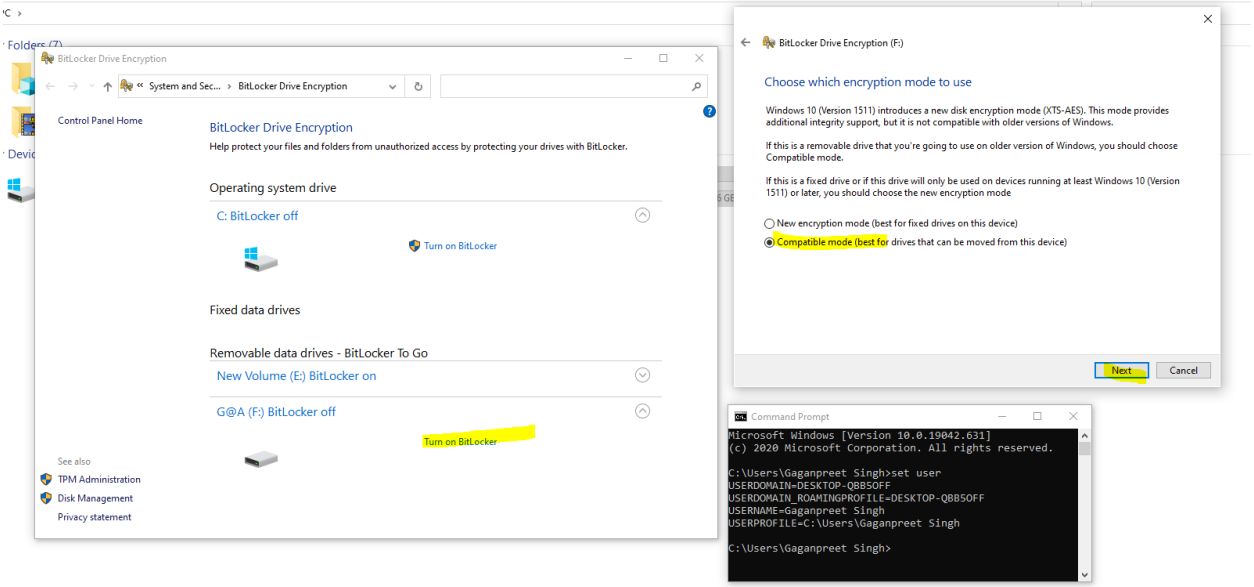
- Encrypting a USB
  1. To Encrypt, Click Start, click Control Panel, click System and Security and click BitLocker Drive Encryption.
  2. Click Turn on BitLocker for the USB you want to encrypt.

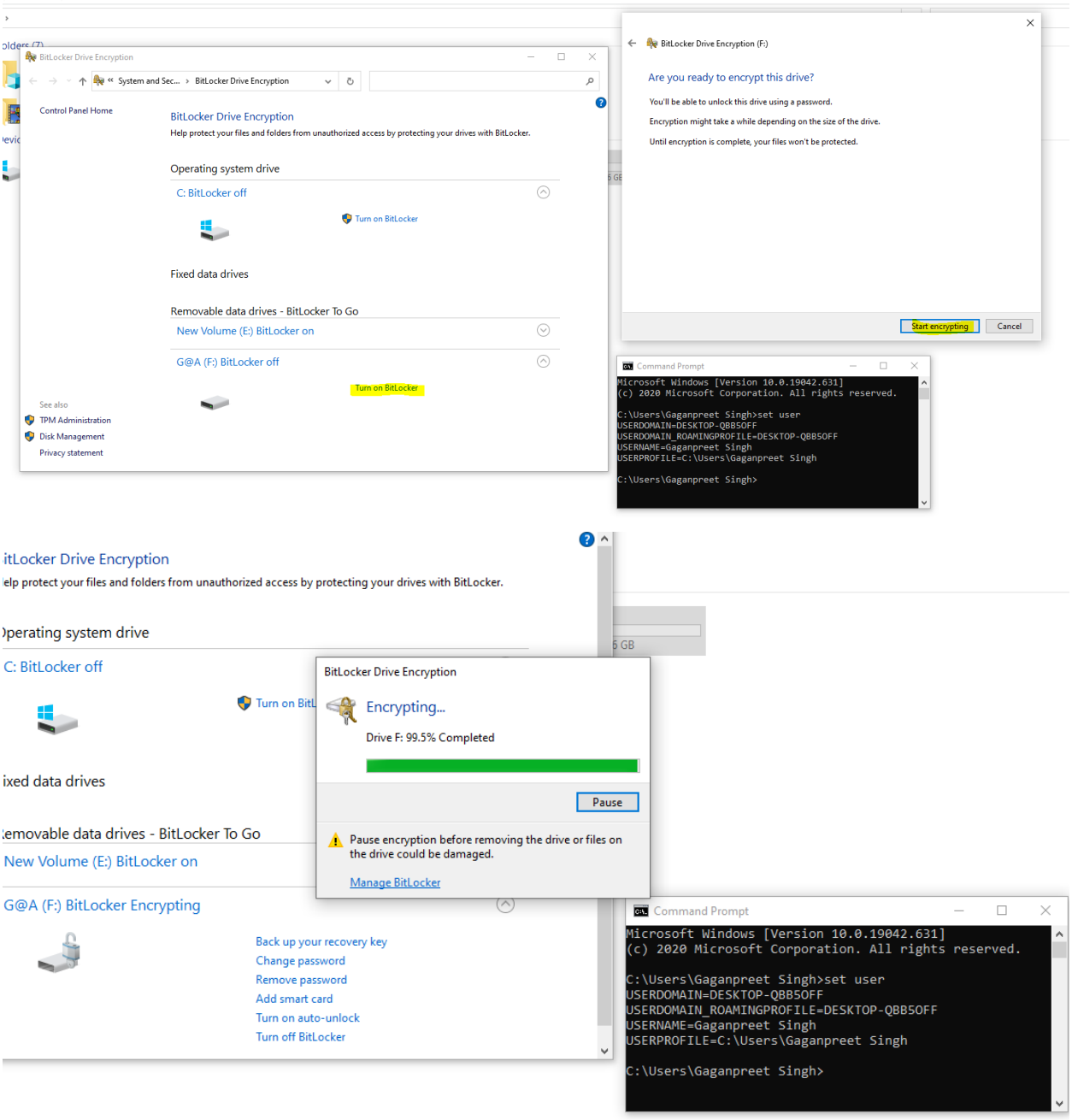


  3. Repeat steps 4 to 10 of ***"Encrypting a Drive"*** process mentioned above.

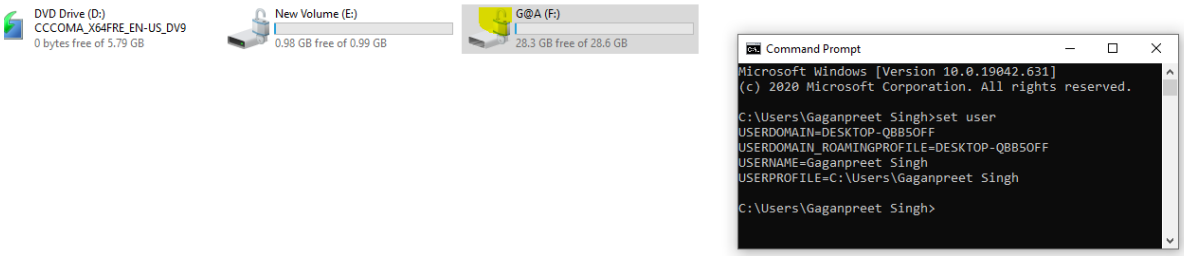



BitLocker Drive Encryption
System and Sec... › BitLocker Drive Encryption
Control Panel Home
BitLocker Drive Encryption
Help protect your files and folders from unauthorized access by protecting your drives with BitLocker.
Operating system drive
C: BitLocker off
Turn on BitLocker
Fixed data drives
Removable data drives - BitLocker To Go
New Volume (E:) BitLocker on
G@A (F:) BitLocker off
Turn on BitLocker
See also
TPM Administration
Disk Management
Privacy statement
BitLocker Drive Encryption (F:)
Choose how much of your drive to encrypt
If you're setting up BitLocker on a new drive or a new PC, you only need to encrypt the part of the drive that's currently being used. BitLocker encrypts new data automatically as you add it.
If you're enabling BitLocker on a PC or drive that's already in use, consider encrypting the entire drive. Encrypting the entire drive ensures that all data is protected—even data that you deleted but that might still contain retrievable info.
Encrypt used disk space only (faster and best for new PCs and drives)
Encrypt entire drive (slower but best for PCs and drives already in use)
Next
Cancel
Command Prompt
Microsoft Windows [Version 10.0.19042.631]
(c) 2020 Microsoft Corporation. All rights reserved.
C:\Users\Gaganpreet Singh>set user
USERDOMAIN=DESKTOP-QBB5OFF
USERDOMAIN_ROAMINGPROFILE=DESKTOP-QBB5OFF
USERNAME=Gaganpreet Singh
USERPROFILE=C:\Users\Gaganpreet Singh
C:\Users\Gaganpreet Singh>

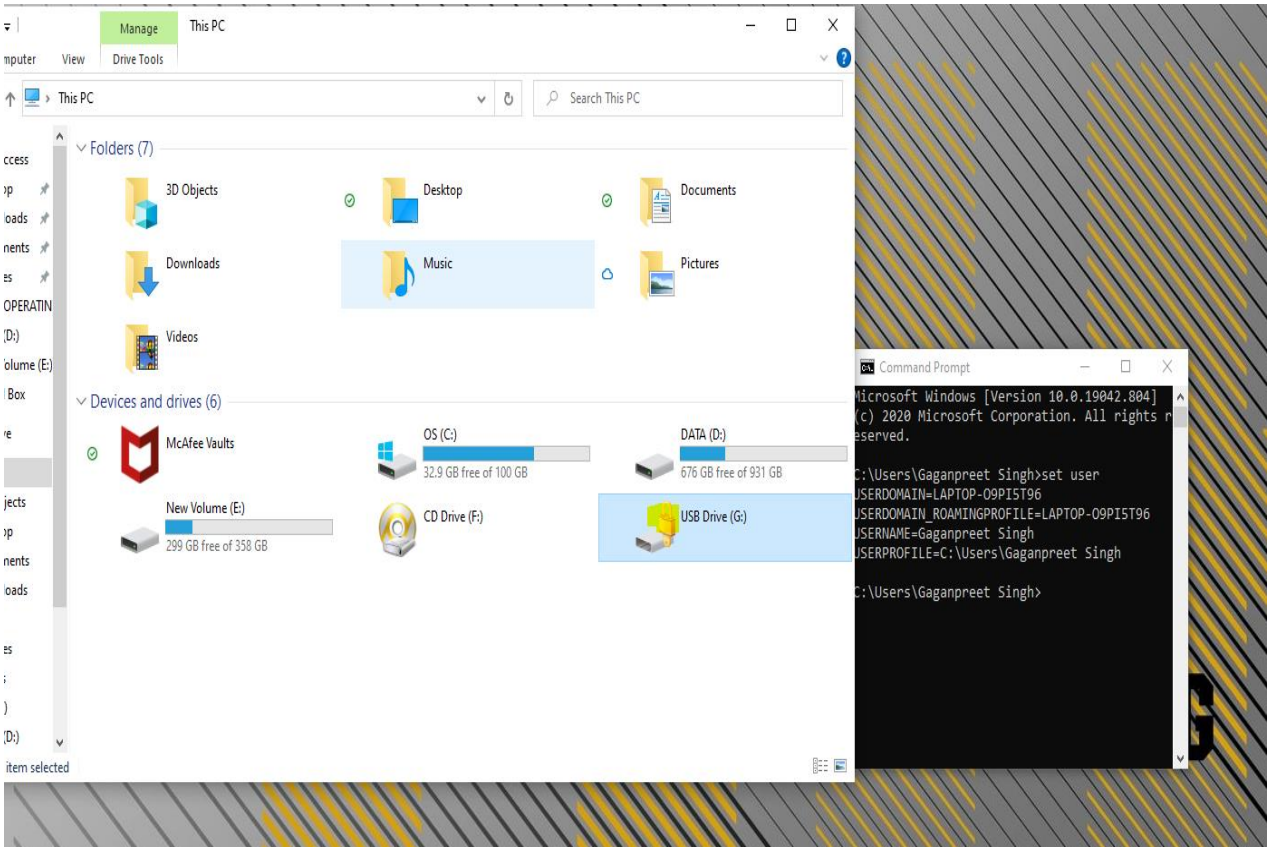

BitLocker Drive Encryption
System and Sec... › BitLocker Drive Encryption
Control Panel Home
BitLocker Drive Encryption
Help protect your files and folders from unauthorized access by protecting your drives with BitLocker.
Operating system drive
C: BitLocker off
Turn on BitLocker
Fixed data drives
Removable data drives - BitLocker To Go
New Volume (E:) BitLocker on
G@A (F:) BitLocker off
Turn on BitLocker
See also
TPM Administration
Disk Management
Privacy statement
BitLocker Drive Encryption (F:)
Choose which encryption mode to use
Windows 10 (Version 1511) introduces a new disk encryption mode (XTS-AES). This mode provides additional integrity support, but it is not compatible with older versions of Windows.
If this is a removable drive that you're going to use on older version of Windows, you should choose Compatible mode.
If this is a fixed drive or if this drive will only be used on devices running at least Windows 10 (Version 1511) or later, you should choose the new encryption mode
New encryption mode (best for fixed drives on this device)
Compatible mode (best for drives that can be moved from this device)
Next
Cancel
Command Prompt
Microsoft Windows [Version 10.0.19042.631]
(c) 2020 Microsoft Corporation. All rights reserved.
C:\Users\Gaganpreet Singh>set user
USERDOMAIN=DESKTOP-QBB5OFF
USERDOMAIN_ROAMINGPROFILE=DESKTOP-QBB5OFF
USERNAME=Gaganpreet Singh
USERPROFILE=C:\Users\Gaganpreet Singh
C:\Users\Gaganpreet Singh>

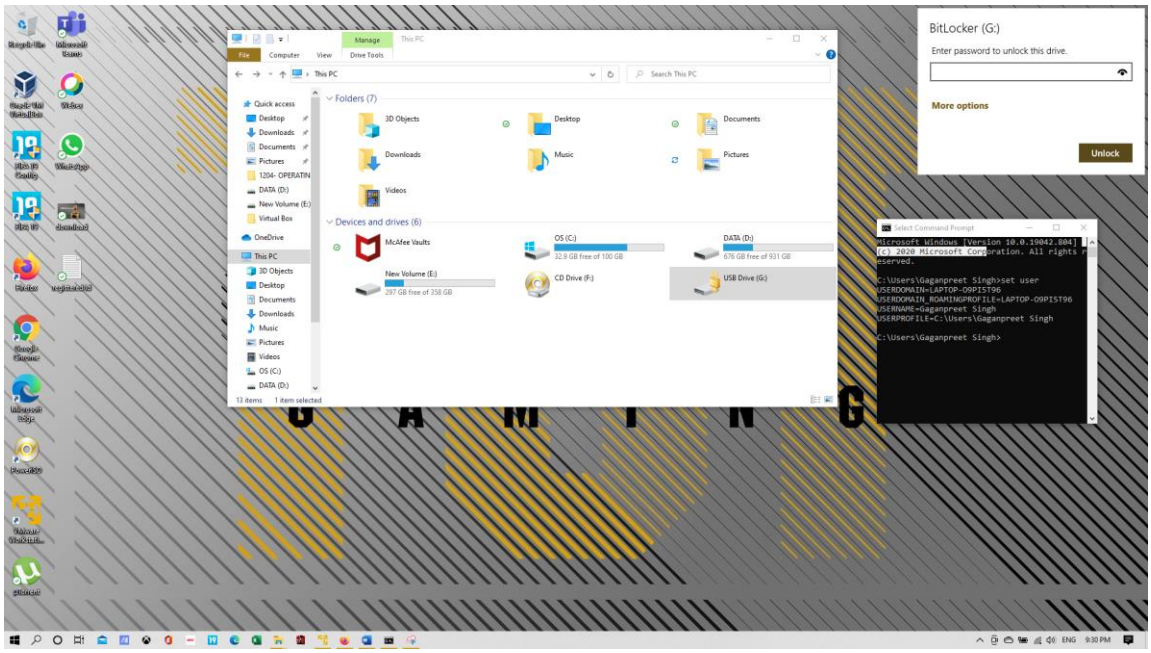


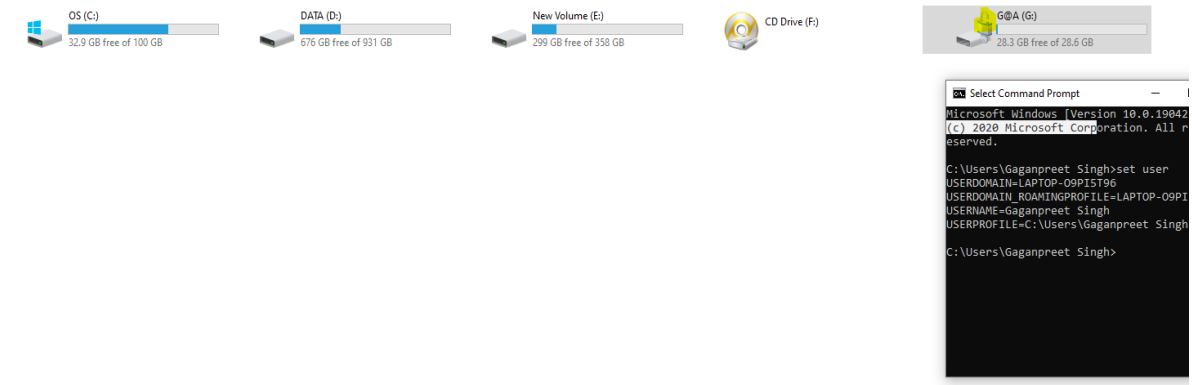
4. You can see now the USB is encrypted and unlocked.



5. Unplug the USB and connect again to another Machine. You can see clearly, we cannot access the USB as it is encrypted, we can unlock it using the password.







6. We can disable BitLocker and remove encryption too as shown in below image. Unlock the USB and click on TurnOff BitLocker.

Operating system drive

C: BitLocker off

Turn on BitLocker

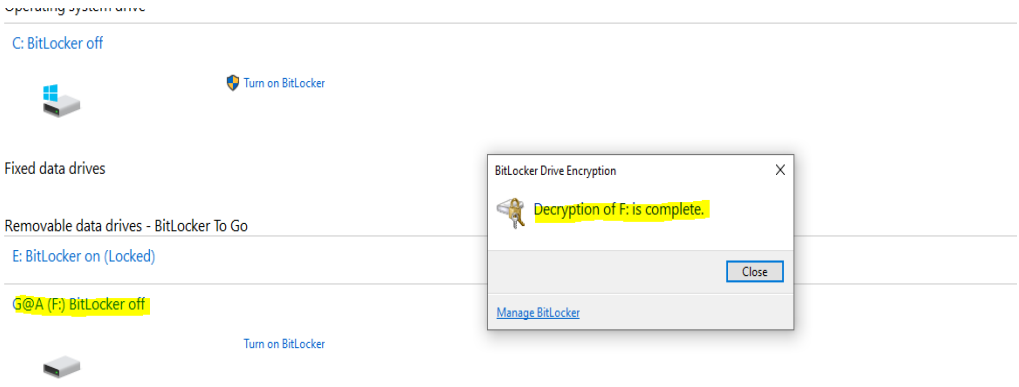
Fixed data drives

Removable data drives - BitLocker To Go

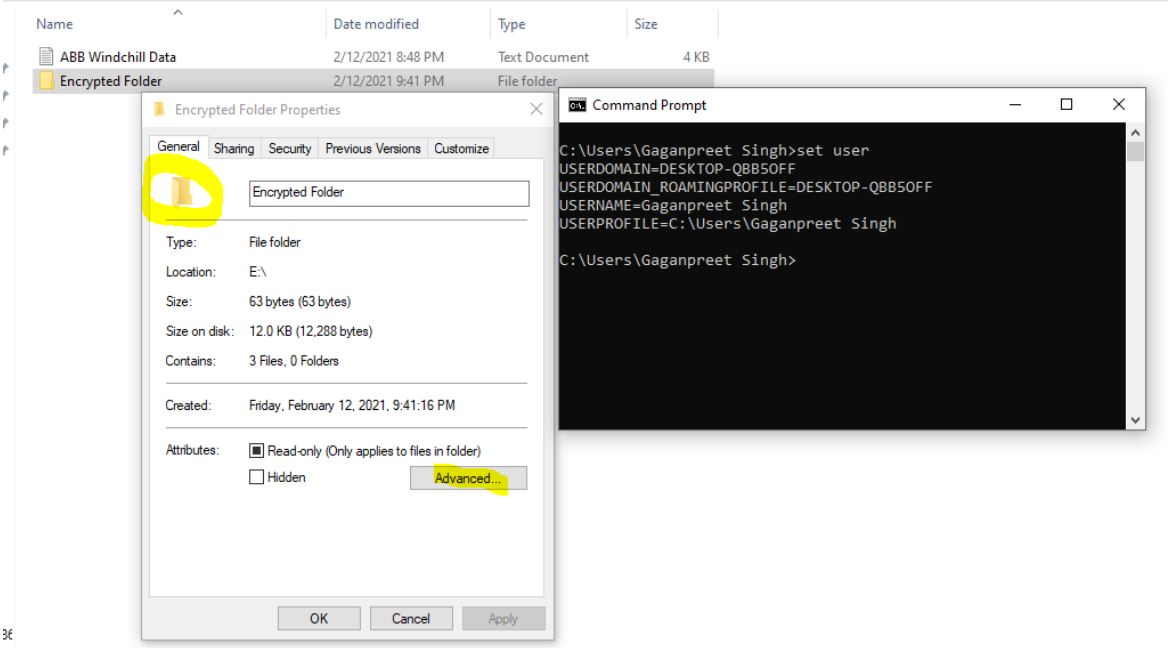
E: BitLocker on (Locked)

G@A (F:) BitLocker on

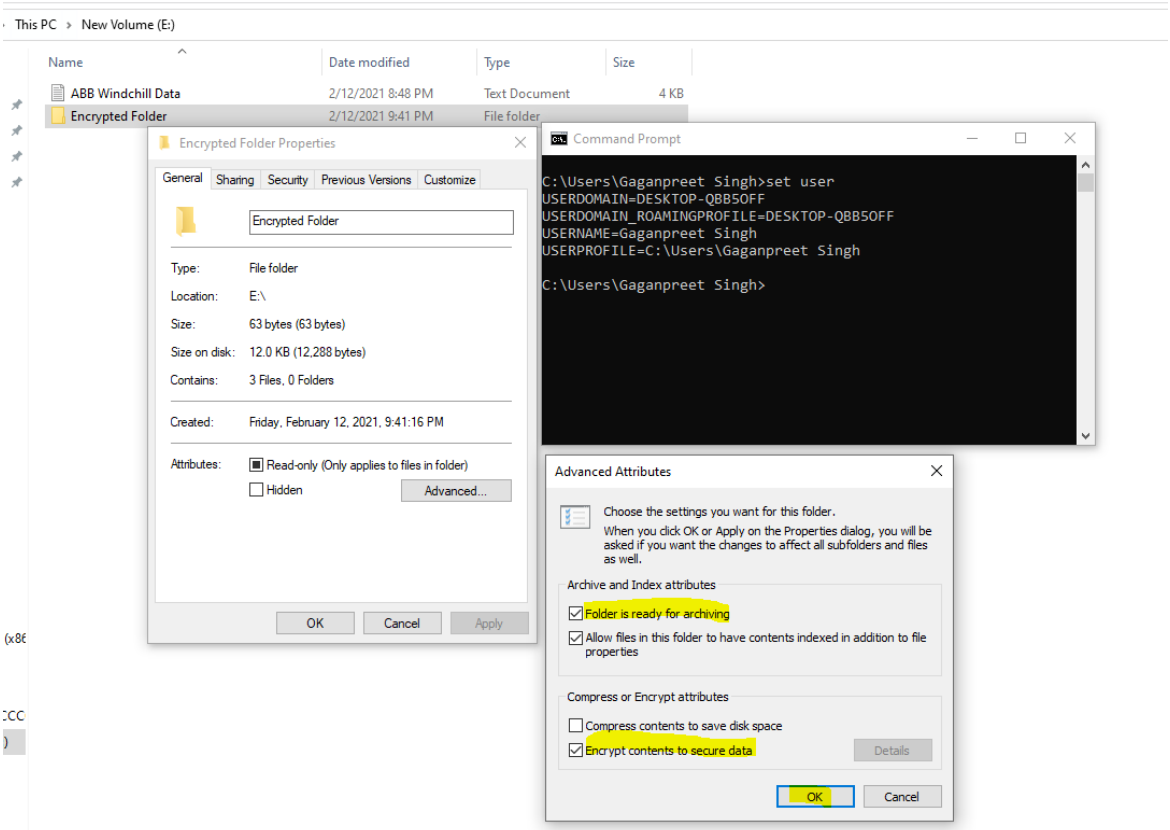
Back up your recovery key
Change password
Remove password
Add smart card
Turn on auto-unlock
Turn off BitLocker



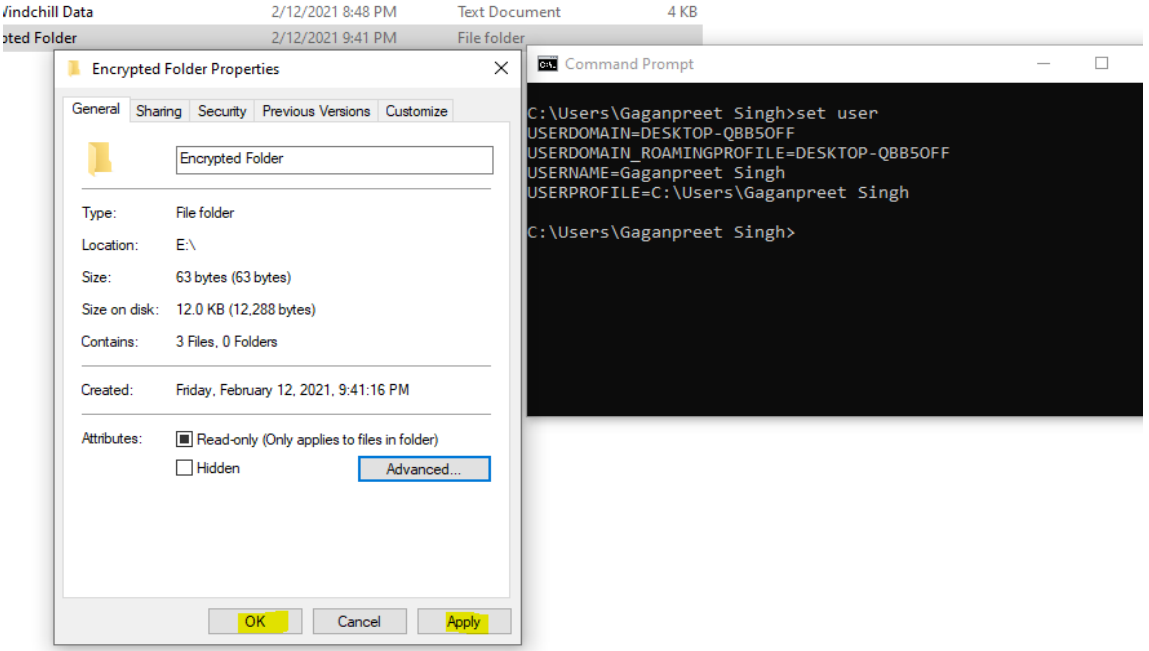
- Encrypting a Folder
    i. Right Click on the folder you want to Encrypt, Click on Properties. Click Advanced.

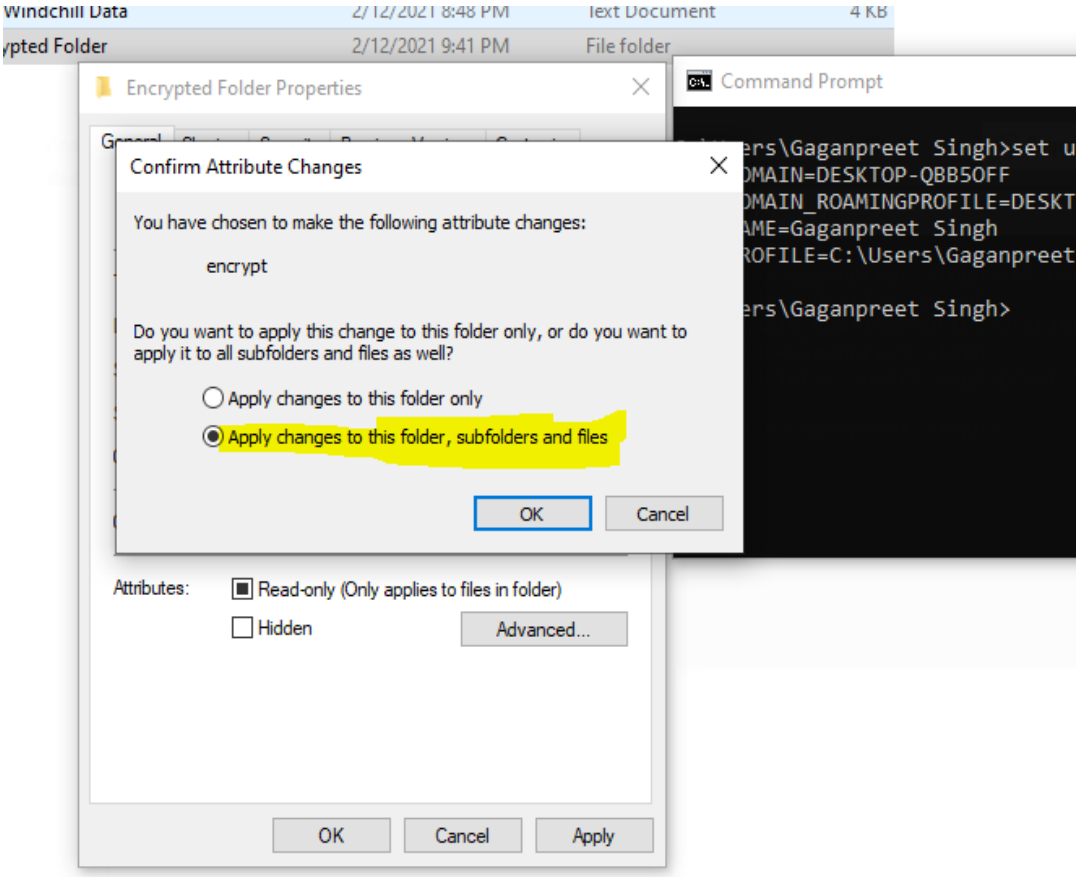


    ii. Now, in the advanced attributes tab, click Encrypt contents to secure data checkbox and click ok.

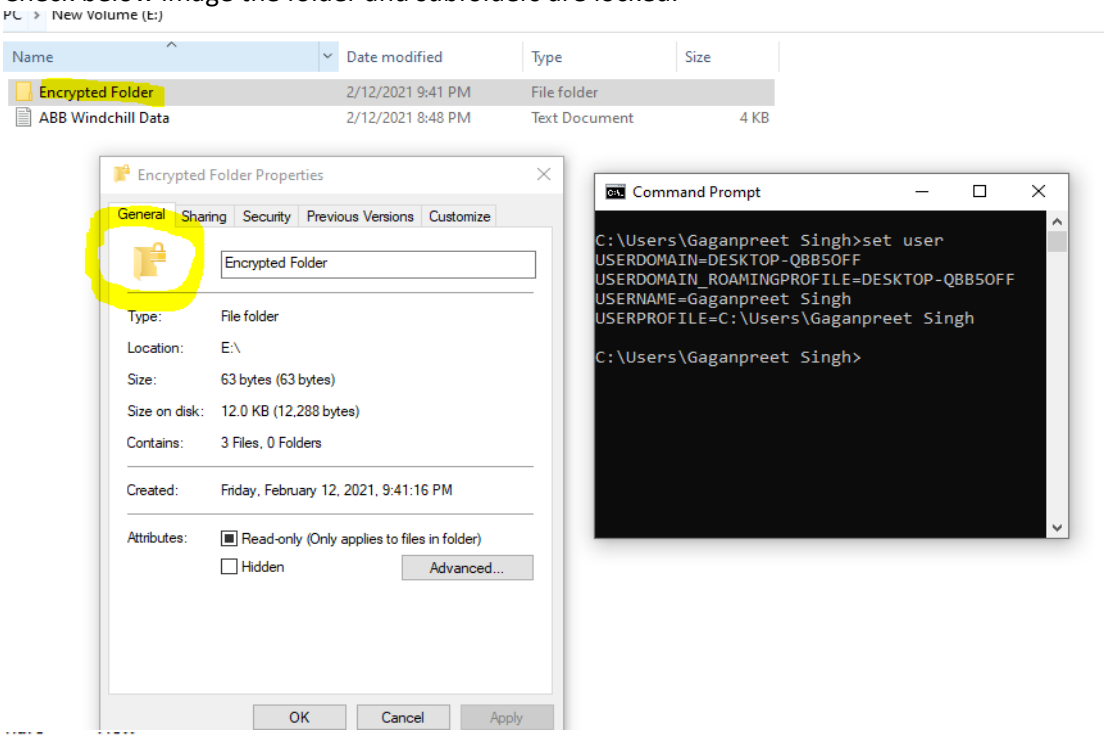


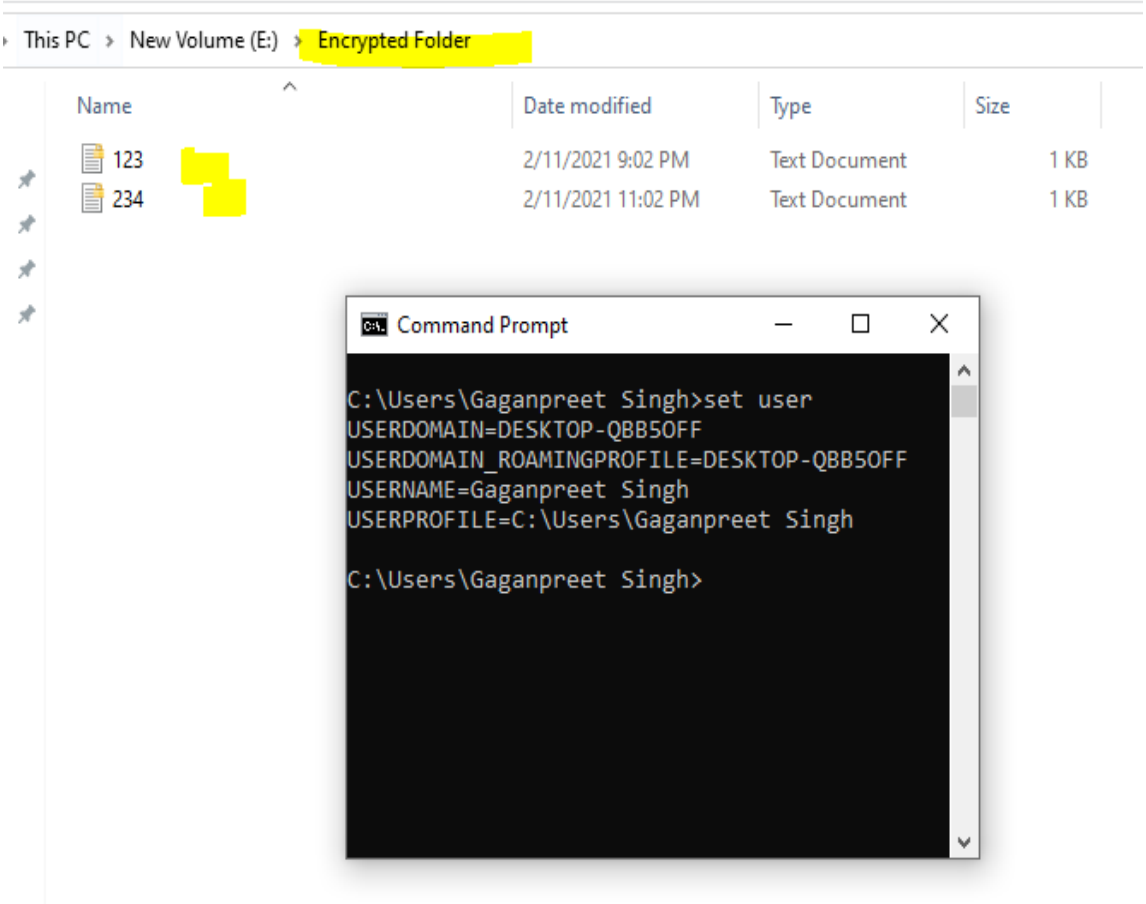
iii. Click ok and Apply. Choose if you want to encrypt all files and folders inside it.



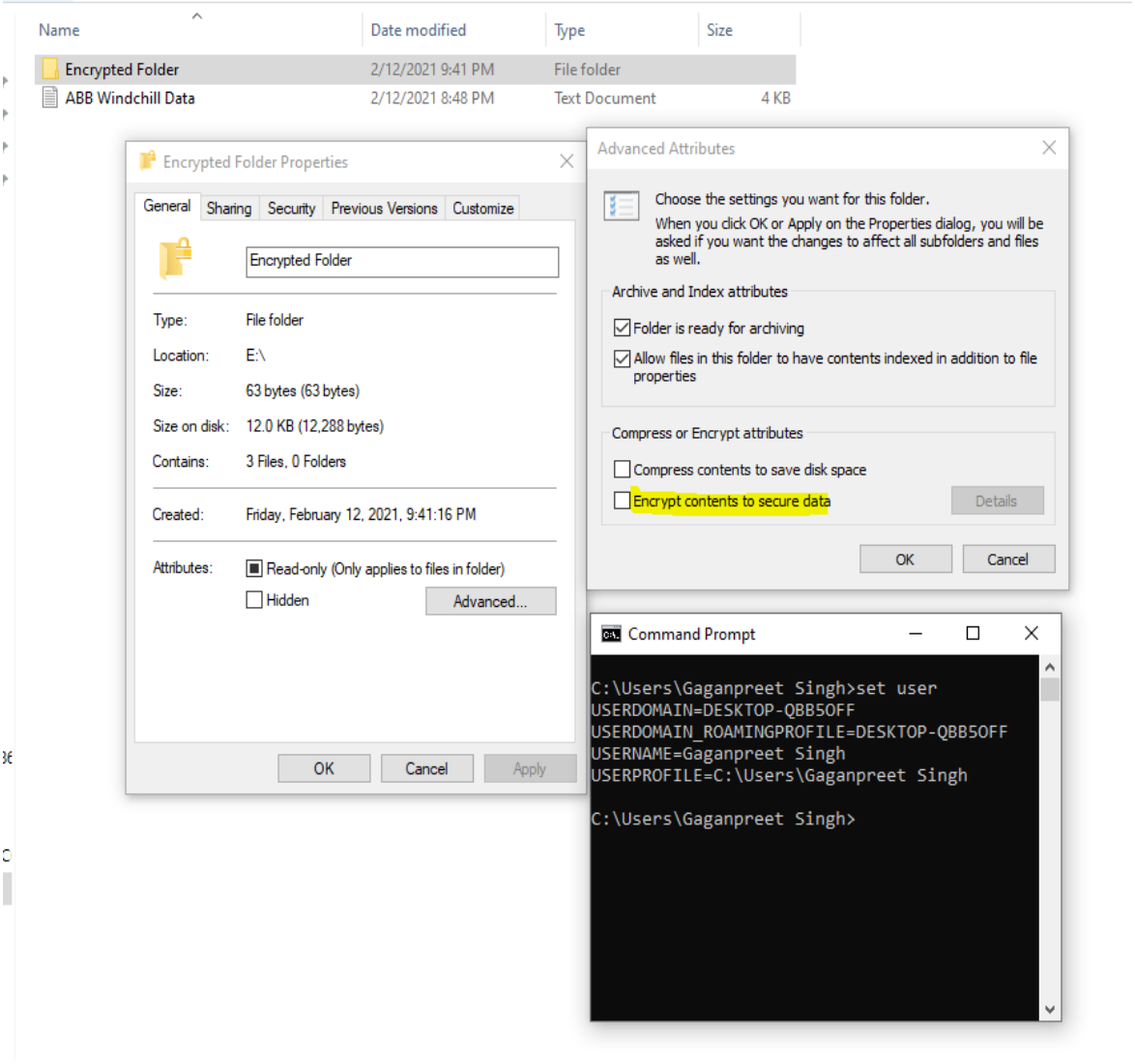


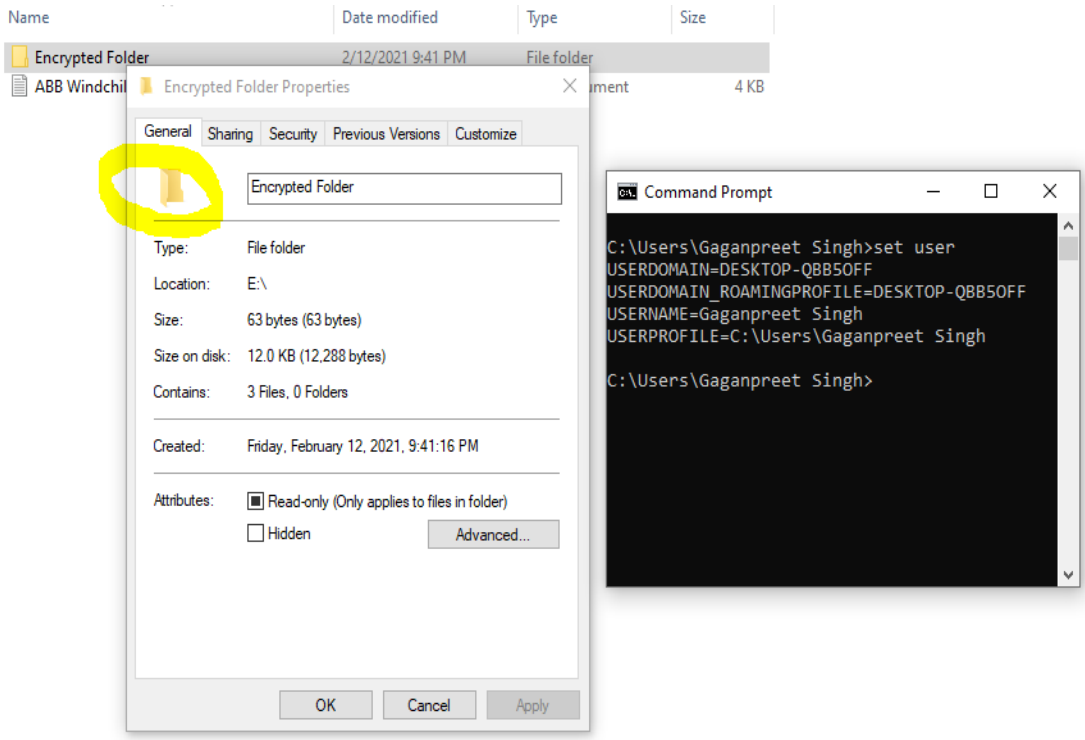
iv. Check below image the folder and subfolders are locked.





v. To remove lock, Right Click and click Properties tab on folder and go to advanced tab and uncheck the checkbox.




Name
Date modified
Type
Size
Encrypted Folder
2/12/2021 9:41 PM
File folder
ABB Windchil
ıment
4 KB
Encrypted Folder Properties
General
Sharing
Security
Previous Versions
Customize
Encrypted Folder
Type:
File folder
Location:
E:\
Size:
63 bytes (63 bytes)
Size on disk:
12.0 KB (12,288 bytes)
Contains:
3 Files, 0 Folders
Created:
Friday, February 12, 2021, 9:41:16 PM
Attributes:
Read-only (Only applies to files in folder)
Hidden
Advanced...
OK
Cancel
Apply
Command Prompt
C:\Users\Gaganpreet Singh>set user
USERDOMAIN=DESKTOP-QBB5OFF
USERDOMAIN_ROAMINGPROFILE=DESKTOP-QBB5OFF
USERNAME=Gaganpreet Singh
USERPROFILE=C:\Users\Gaganpreet Singh
C:\Users\Gaganpreet Singh>