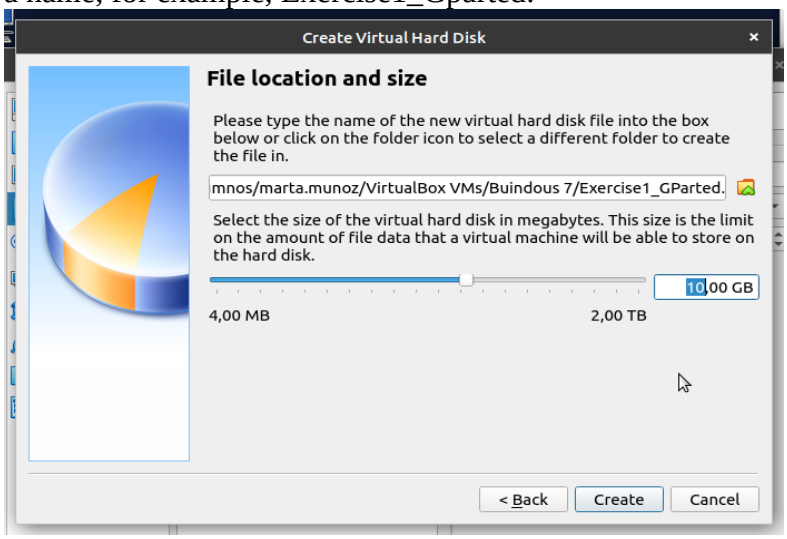
For the following exercises, you have to use a Windows 7 or 10 virtual machine. To solve the exercises, create a document with screenshots including the settings for each part.

Exercise 1

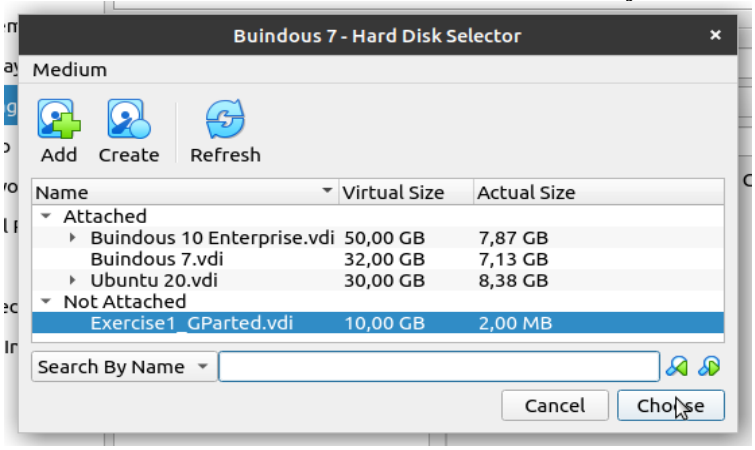
First, let us create a new hard disk for the virtual machine. Then, we are going to create the following partitions:

- **A NTFS primary partition of 2GB called PNTFS.**

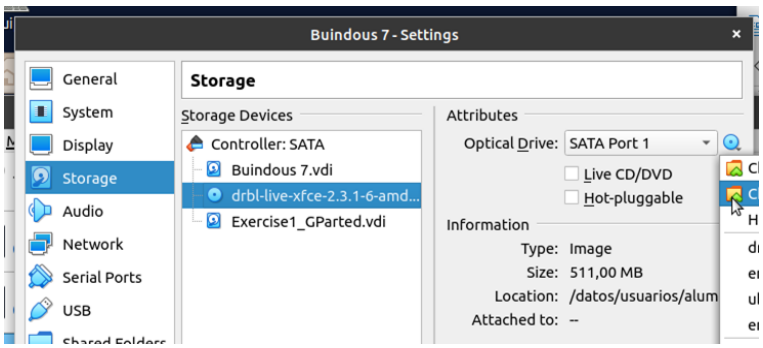
I started the Virtual Machine with Windows 7 OS, because is lighter and a bit quicker than the other ones. So, in order to create the first partition, Windows 7 > Settings, I choose Storage > Adds hard disk. Later, in the menu, I choose Create: VDI, Dynamically Allocated, and 10 GB of space. I create a name, for example, Exercise1_Gparted:



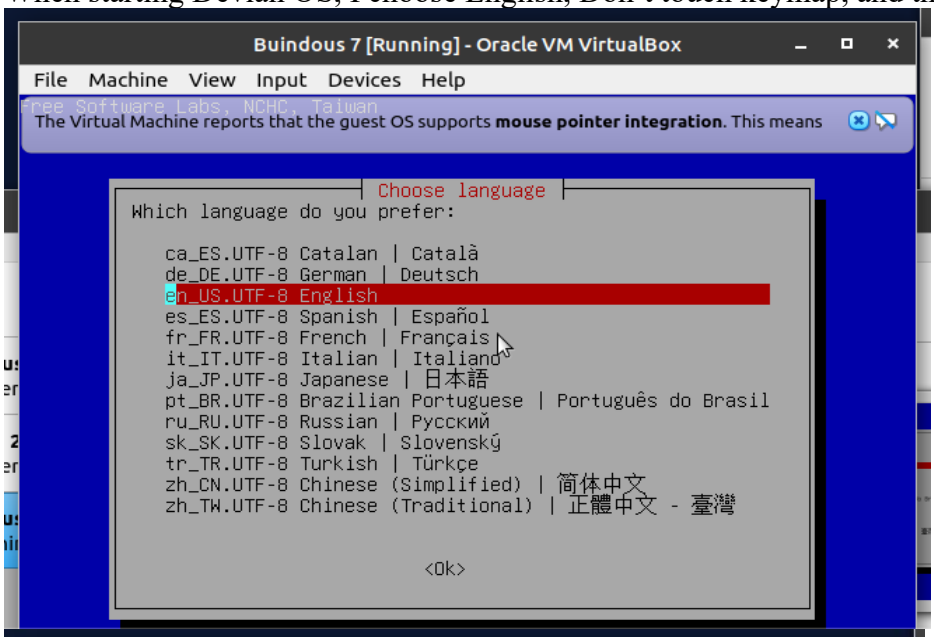
As it´s seen, this hard disk it´s not attached to any OS:

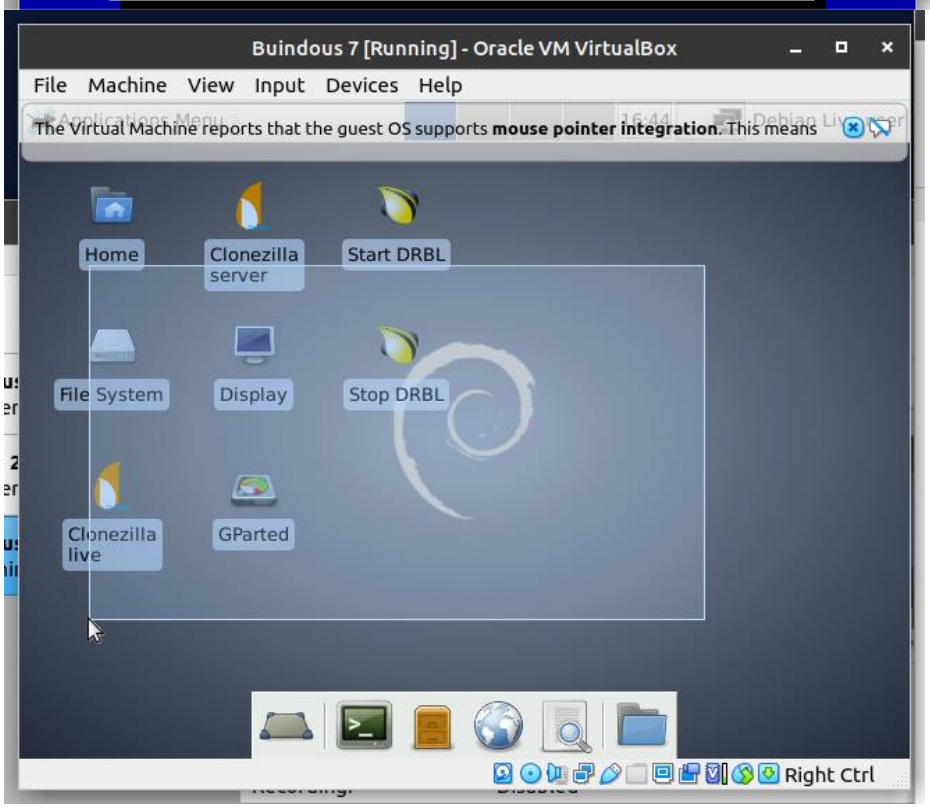


Once is created, in the Optical Drive I selected Choose > Choose a disk file > DRBL-live.



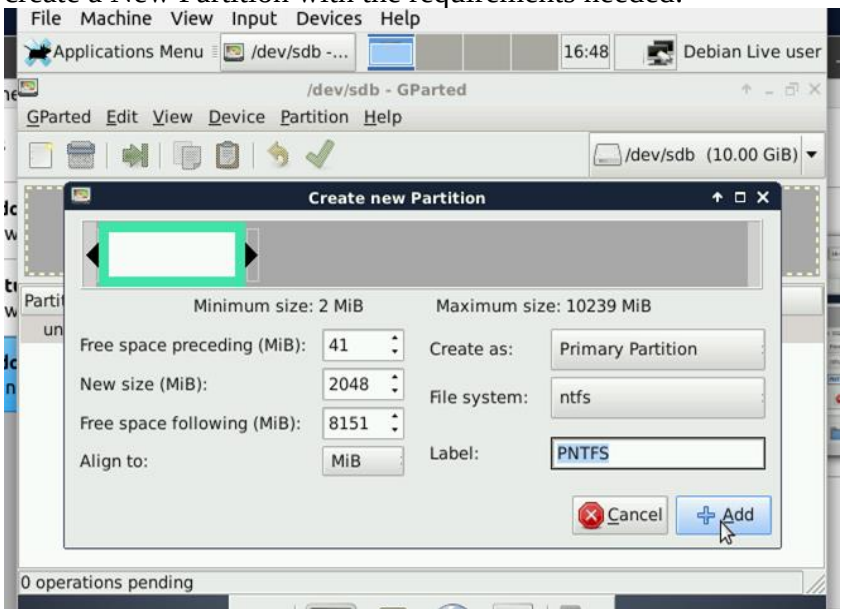
When starting Devian OS, I choose English, Don't touch keymap, and the option 0:





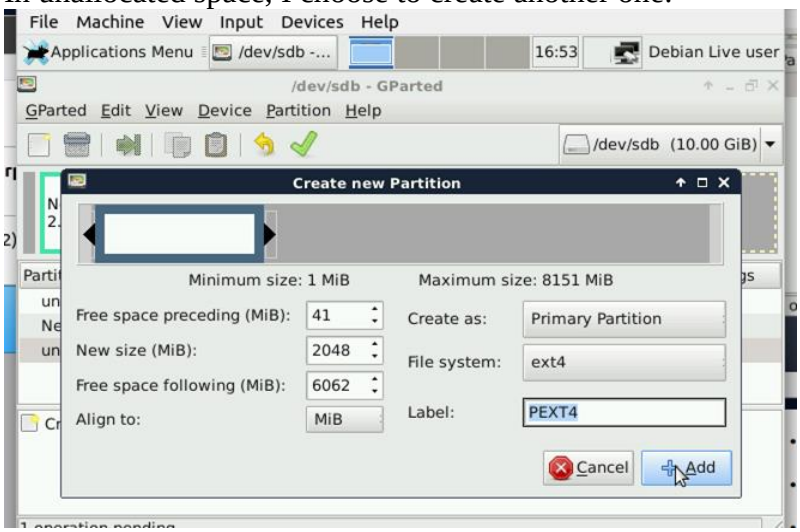
I initialized the GParted program.

Device > Create Partition Table, I choose the MSDOS type. When the table is created, now I can create a New Partition with the requirements needed:



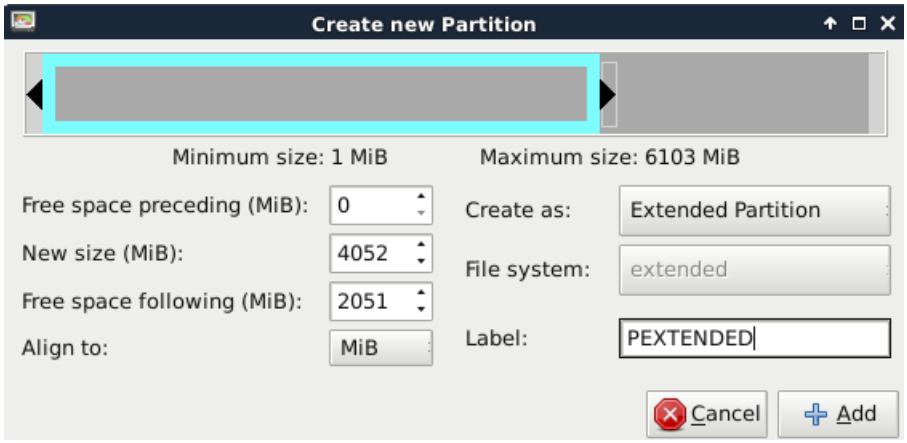
- An EXT4 primary partition of 2GB called PEXT4.

In unallocated space, I choose to create another one:



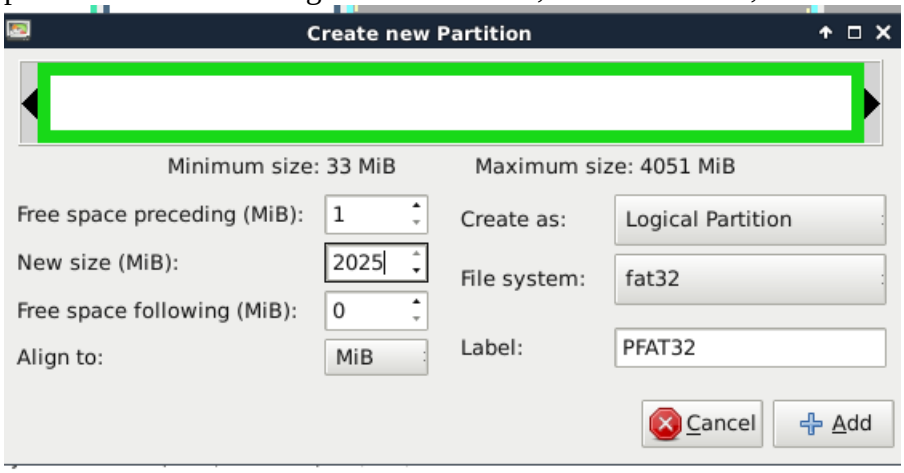
- An extended partition of 4GB.

(Notes: I have lost the document where I complete this exercise, so I have done the whole process again but with my personal computer; the result will be the same, but with a different route)
Now, I do the same process to create an extended partition using all the available space, setting the label to “PEXTENDED”:

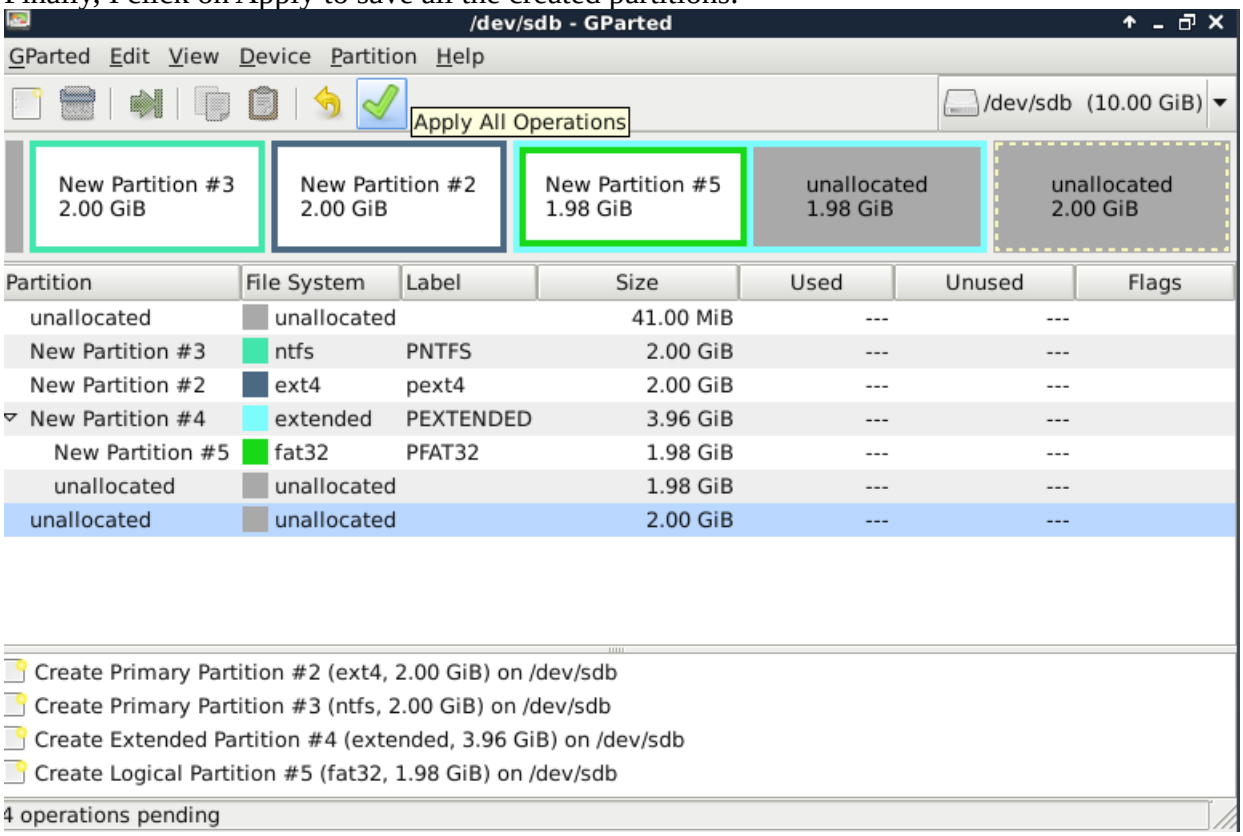


- A logical partition of 2GB called PFAT32.

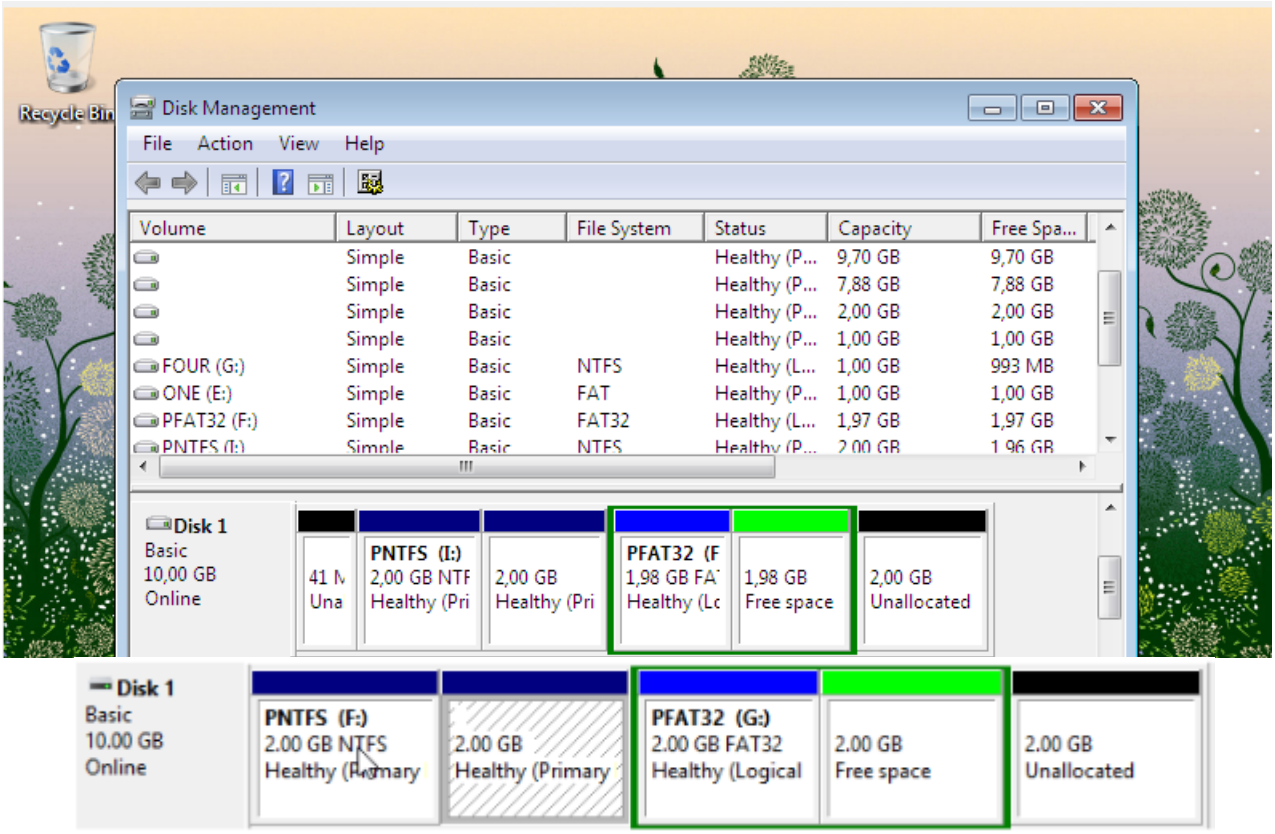
To create a logical partition (only available on extended partitions), I right-click over the extended partition and create a logical unit of 2 GB, which has 2GB, FAT32 file system and PFAT32 label:



Finally, I click on Apply to save all the created partitions:



In Windows 7, with the program “Create disk partitions and manage”, I check that the partitions are correct as the statement says. They are more or less the same, with the exception that I have choose a bit more unallocated space while creating the first partition (41 MB):



Answer the following questions

1. Why is the file system not showed in the second partition?

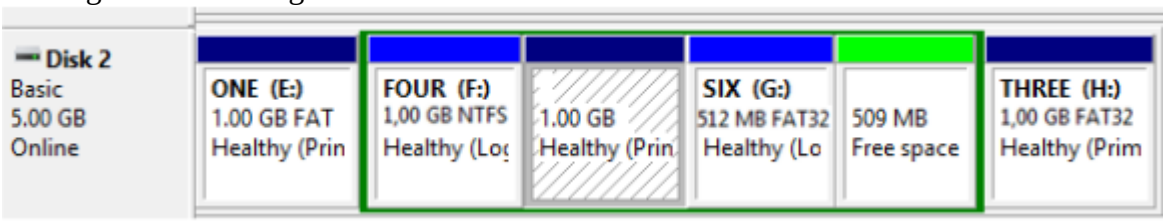
- Because Windows does not recognize EXT4 file system, so it only recognizes NTFS file system.

2. If you had to create a new partition to store 2 GB data, where would you put the partition in? Which file system should you use? Justify your answer.

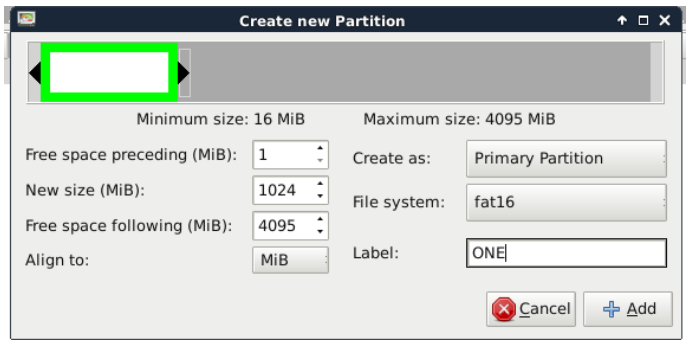
- I can use the extended partition or the free space outside to create a primary partition, It´s possible in both ways. Anyway, because I´m u
- sing Windows, the file system would have to be NTFS, FAT16 or FAT32, the file systems that Windows can read.

Exercise 2

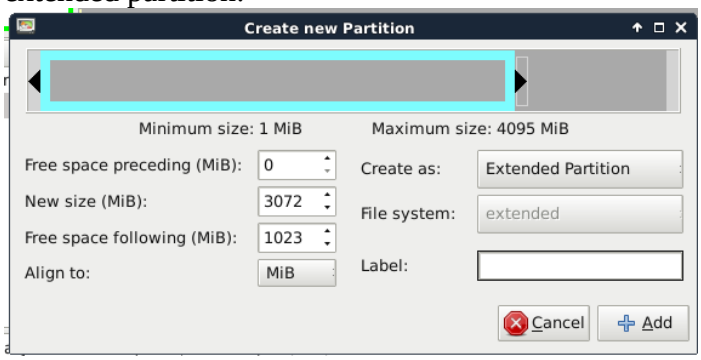
Create a new disk of 5GB in the same Windows virtual machine. Now, configure the partitions with GParted to get the following result:



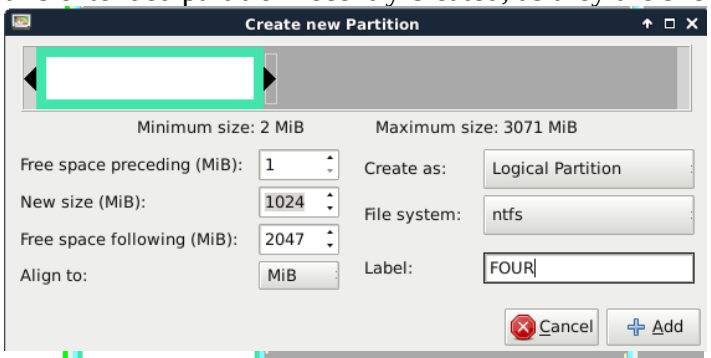
With GParted from drbl disk image run, I generate a new Partition Table (MSDOS type) and create the first partition with FAT16 file system from an unallocated space:

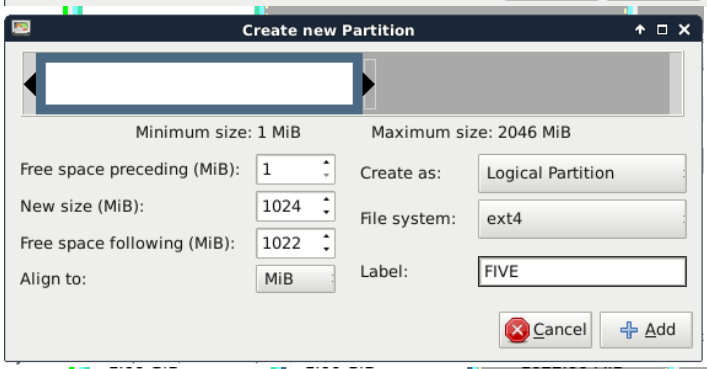


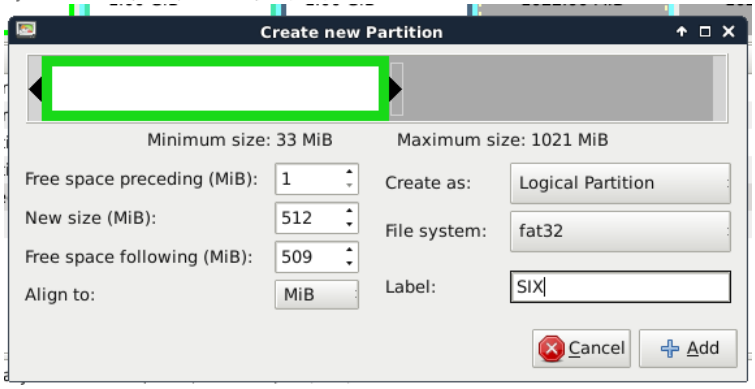
Once the first partition is done, I create the second one clicking on the unallocated space, being a extended partition:



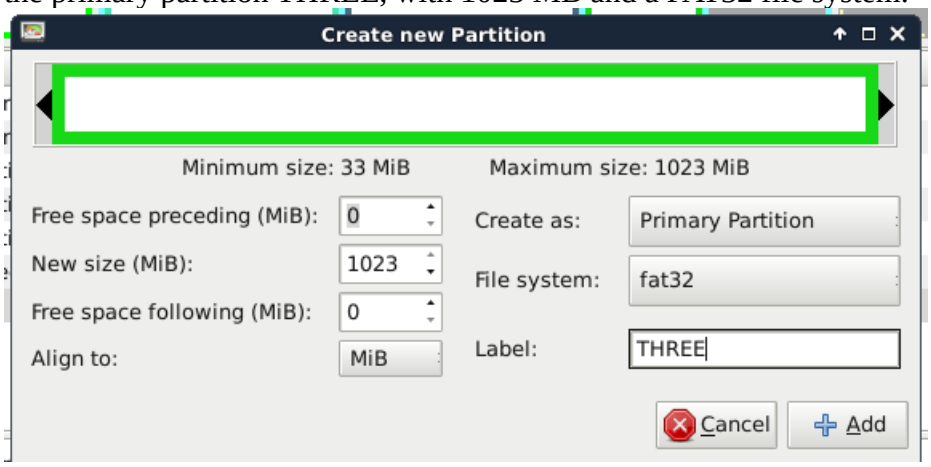
In this extended partition, I will create logical partitions FOUR, FIVE and SIX by right clicking on this extended partition recently created, as they are shown in the snapshots below:



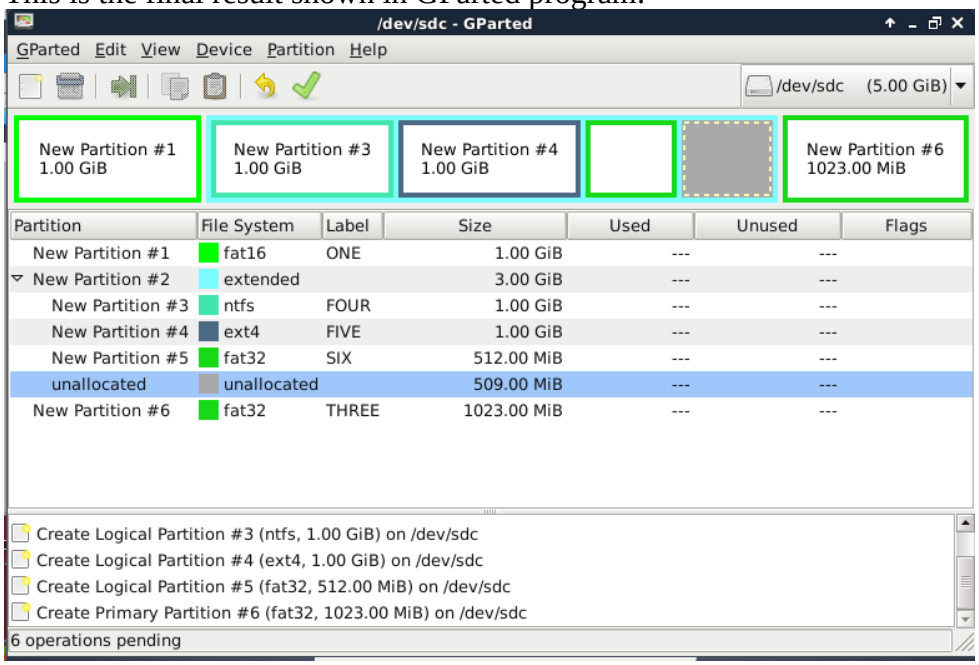




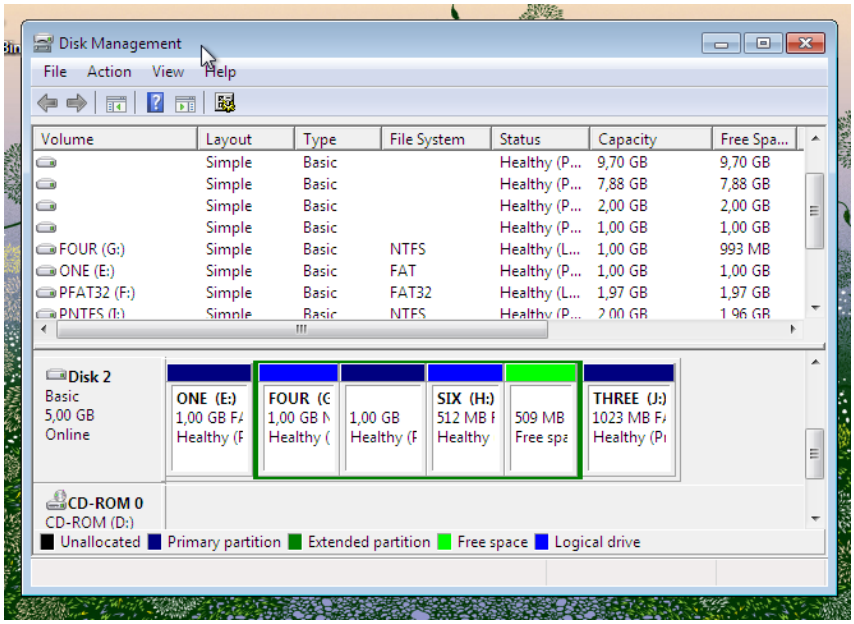
Then, in the rest of the unallocated space located outside the extended partition, I choose to create the primary partition THREE, with 1023 MB and a FAT32 file system:



This is the final result shown in GParted program:



And in Windows 7, I get a table like the example that wants the statement:



Answer the following questions:

1. How does GParted name the new hard disk

- It names the new hard disk as "/dev/sdc".

2. List all the partitions you have created, indicating type and file system.

- The partitions created are the following ones:
- Primary partition (label: "ONE") → 1024 MB, FAT16 file system.
- Extended partition of 3072 MB:
    - Logical partition (label: "FOUR") → 1024 MB, NTFS file system.
    - Logical partition (label: "FIVE") → 1024 MB, which is not shown in Windows Disk Management due to the ext4 file system.
    - Logical partition (label: "SIX") → 512 MB, FAT32 file system.
- Primary partition (label: "THREE") → 1023 MB, FAT32 file system.