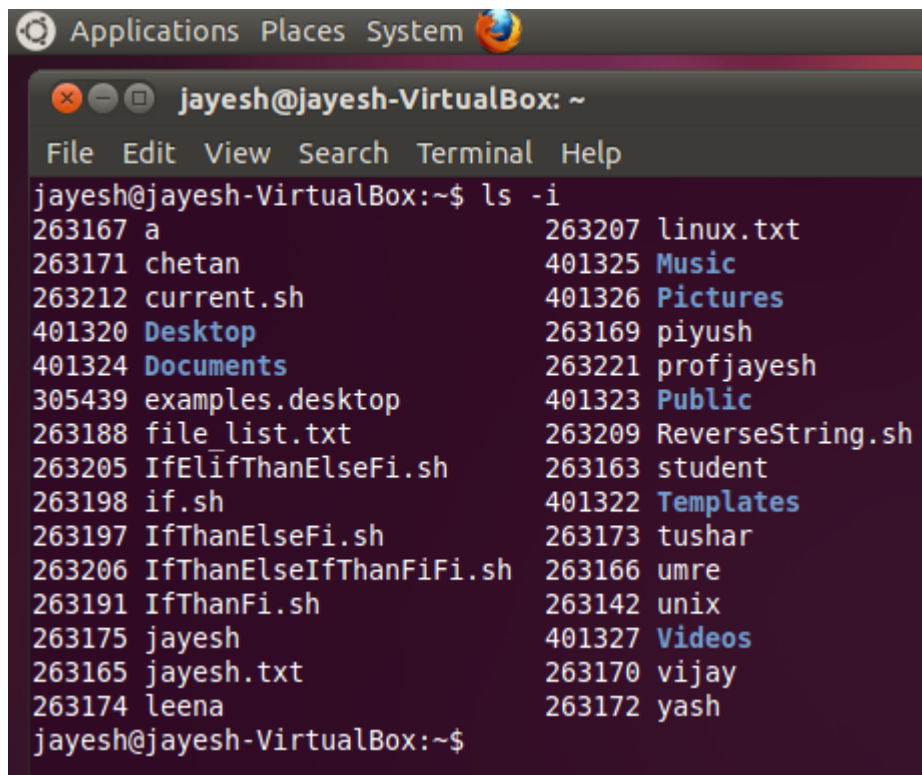


Inode is an unique identification number , which uniquely exist for each file in Linux system. An Inode is a data structure that stores the following information about a file -

- Size of file
- Device ID
- User ID of the file
- Group ID of the file
- The file mode information and access privileges for owner, group and others
- File protection flags
- The timestamps for file creation, modification etc
- link counter to determine the number of hard links
- Pointers to the blocks storing file's contents

The *name of file* is not stored in Inode. When a file is created inside a directory then the file-name and Inode number are assigned to file. These two entries are associated with every file in a directory. When a user tries to access the file or any information related to the file then he/she uses the file name to do so but internally the file-name is first mapped with its Inode number stored in a table. There is a table (*Inode table*) where this mapping of Inode numbers with the respective Inodes is provided. Some of the commands used to know Inode number is-

1. `ls -li` , used to see Inode number of each file, at left side Inode number is shown and right side is file name.

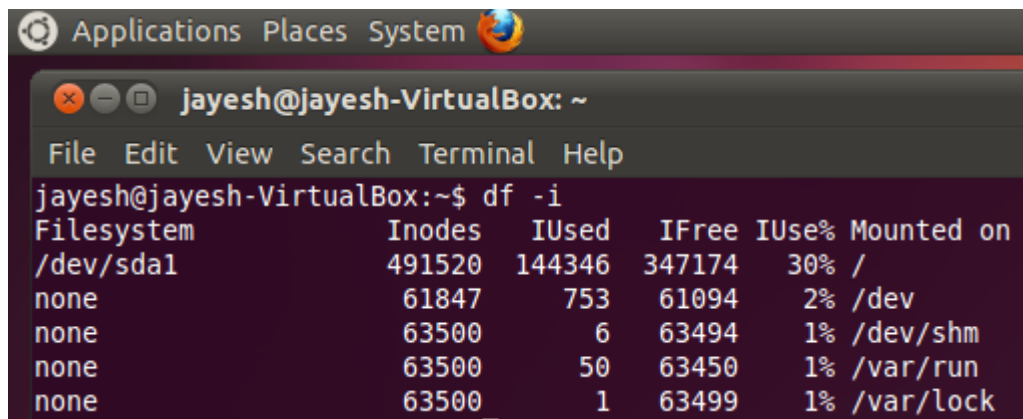


```

Applications Places System
jayesh@jayesh-VirtualBox: ~
File Edit View Search Terminal Help
jayesh@jayesh-VirtualBox:~$ ls -li
263167 a                               263207 linux.txt
263171 chetan                         401325 Music
263212 current.sh                    401326 Pictures
401320 Desktop                       263169 piyush
401324 Documents                     263221 profjayesh
305439 examples.desktop              401323 Public
263188 file_list.txt                 263209 ReverseString.sh
263205 IfElifThanElseFi.sh           263163 student
263198 if.sh                         401322 Templates
263197 IfThanElseFi.sh               263173 tushar
263206 IfThanElseIfThanFiFi.sh       263166 umre
263191 IfThanFi.sh                   263142 unix
263175 jayesh                        401327 Videos
263165 jayesh.txt                     263170 vijay
263174 leena                         263172 yash
jayesh@jayesh-VirtualBox:~$

```

2. `df -i`, shows the Inode number of File system,



```

Applications Places System
jayesh@jayesh-VirtualBox: ~
File Edit View Search Terminal Help
jayesh@jayesh-VirtualBox:~$ df -i
Filesystem      Inodes    IUsed   IFree IUse% Mounted on
/dev/sda1       491520   144346  347174   30% /
none            61847     753    61094    2% /dev
none            63500      6    63494    1% /dev/shm
none            63500     50    63450    1% /var/run
none            63500      1    63499    1% /var/lock

```

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