# Customized Virtual File System(CVFS)

- **Platform Used :**

  Windows NT platform OR Linux Distribution.

- **Architectural Requirement**

  Intel 32 bit Processor.

- **User Interface :**

  Command User Interface(CUI).

- **SDK used :**

  None.

- **Technology used :**

  System programming using C.

## Introduction of CVFS :

- In this project we used all the Data Structure which are used by operating system(OS) to perform file system operation.

- As per name ‘virtual’ in the CVFS, we perform all the operation on the primary memory storage(RAM).

- Data Structure created in the CVFS :

  1. Inode Table
  2. File Table
  3. UAREA
  4. User File Descriptor Table(UFDT)

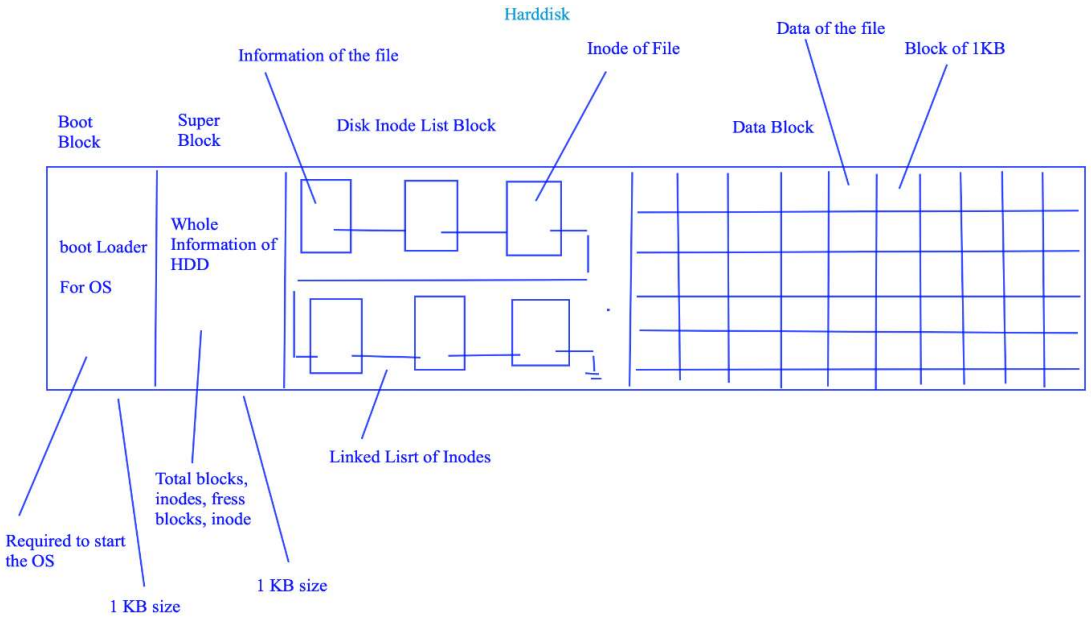
5. Super block
6. Disk Inode List Block(DILB)
7. Data Block
8. Boot block

- We provide basic and neccessry operation on CVFS as below :

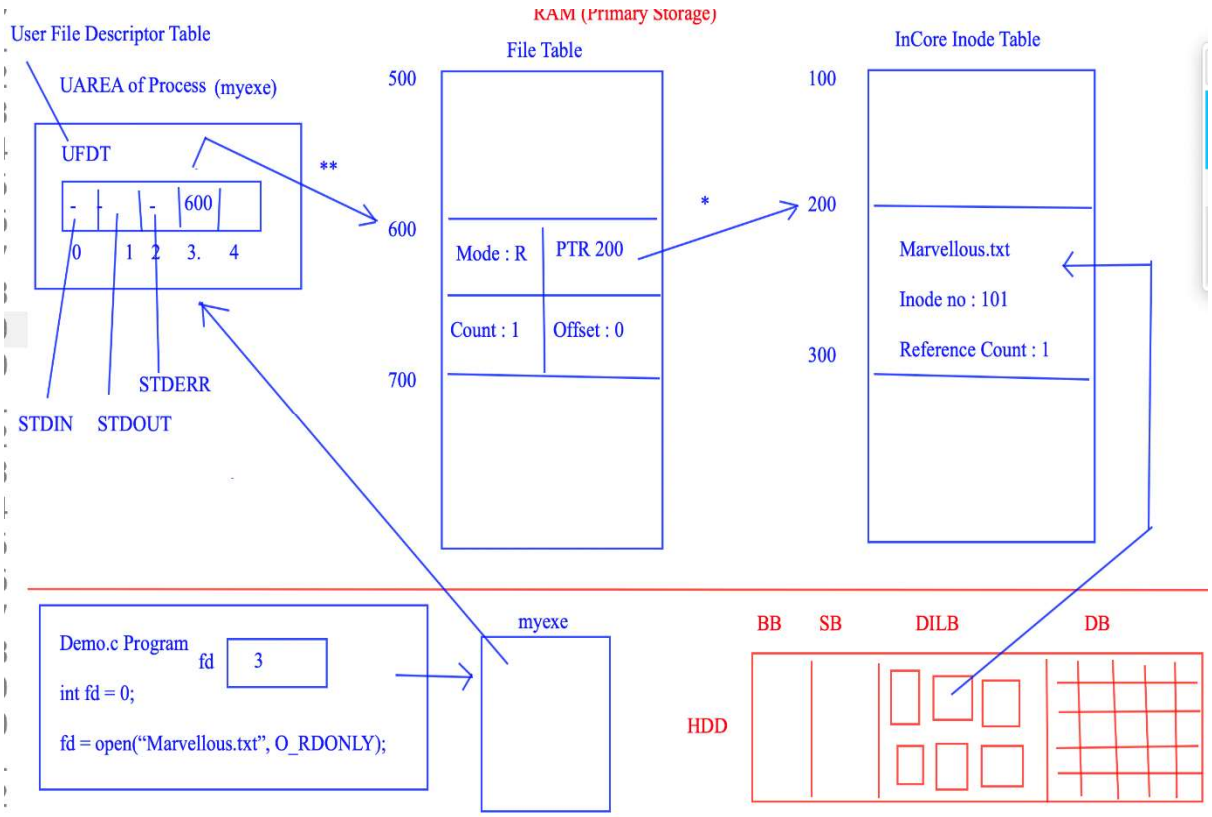
1. Create
2. Open
3. Close
4. Read
5. Write
6. Lseek
7. RM
8. LS
9. Stat
10. Fstat

- By using this project we can get overview of(UNIX file system) on any platform.

- Diagram of Hard Disk



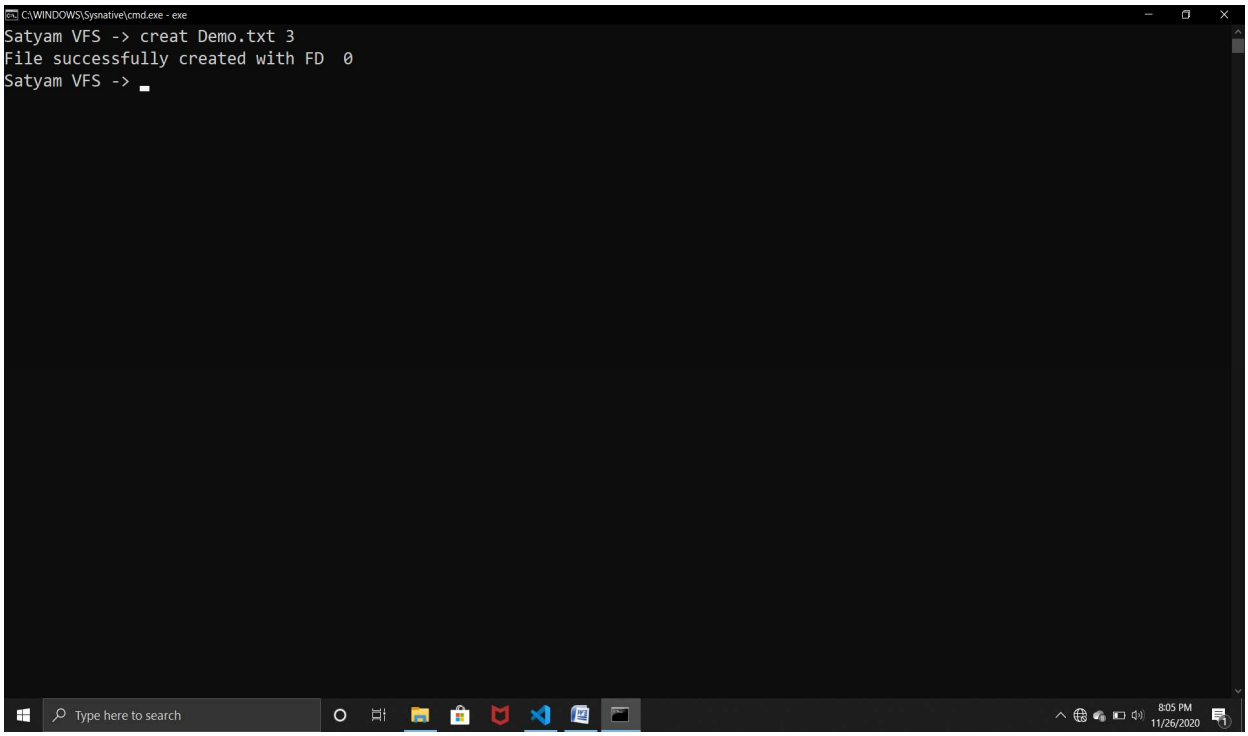
- Diagram of whole process :



## Operation Performed by using CVFS as below

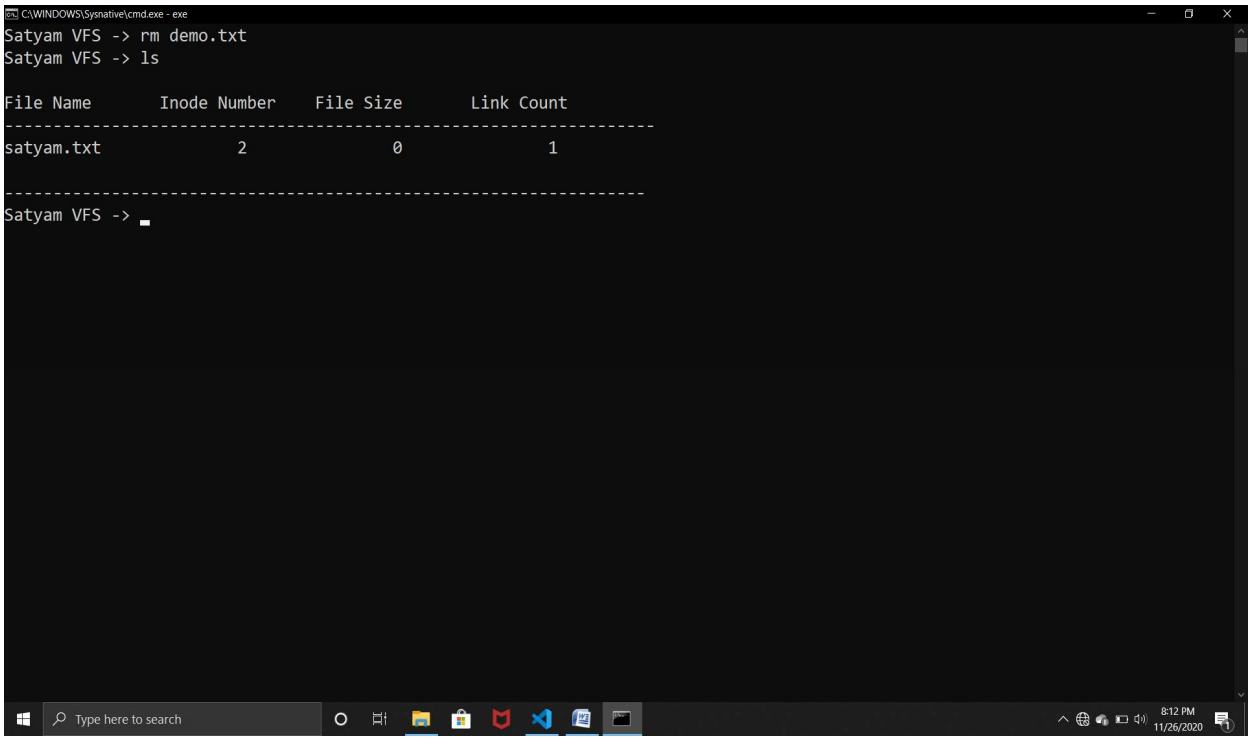
### 1. Create File :

- **Description :** Used to create the new regular file.
- **Usages :** creat File _name Permission



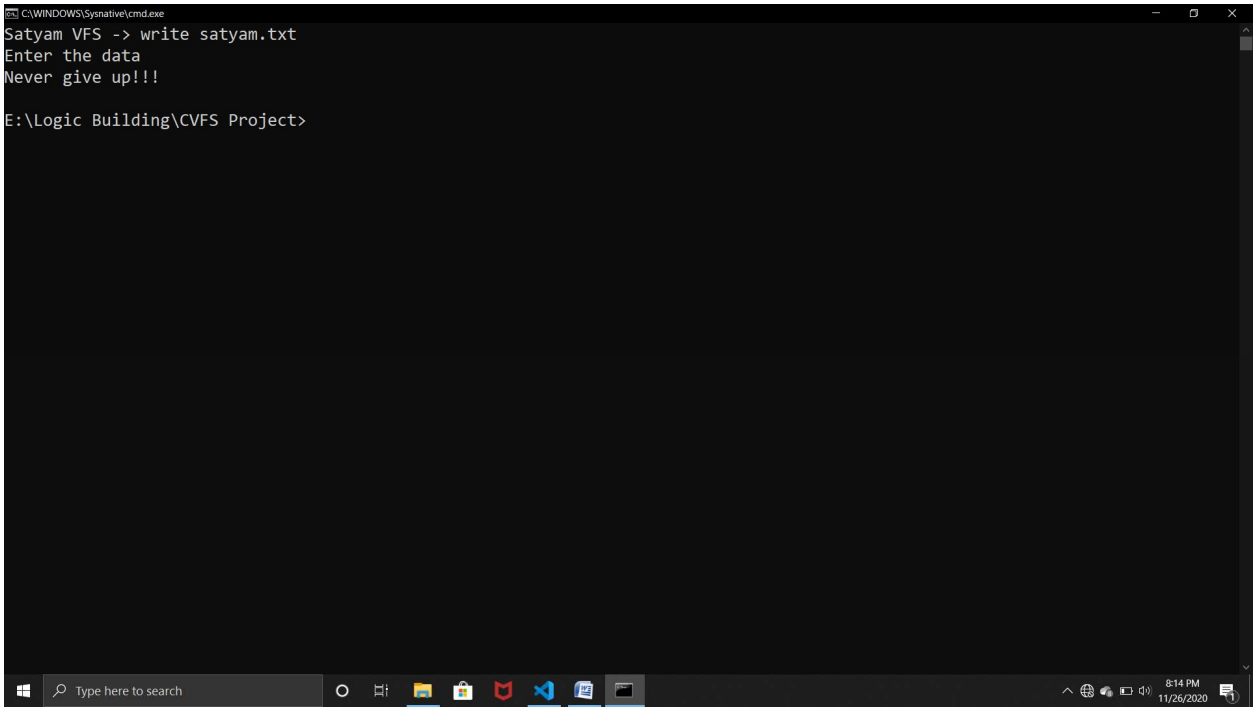
## 2. Delete File :

- **Description :** Used to delete regular file.
- **Usages :** rm File _name



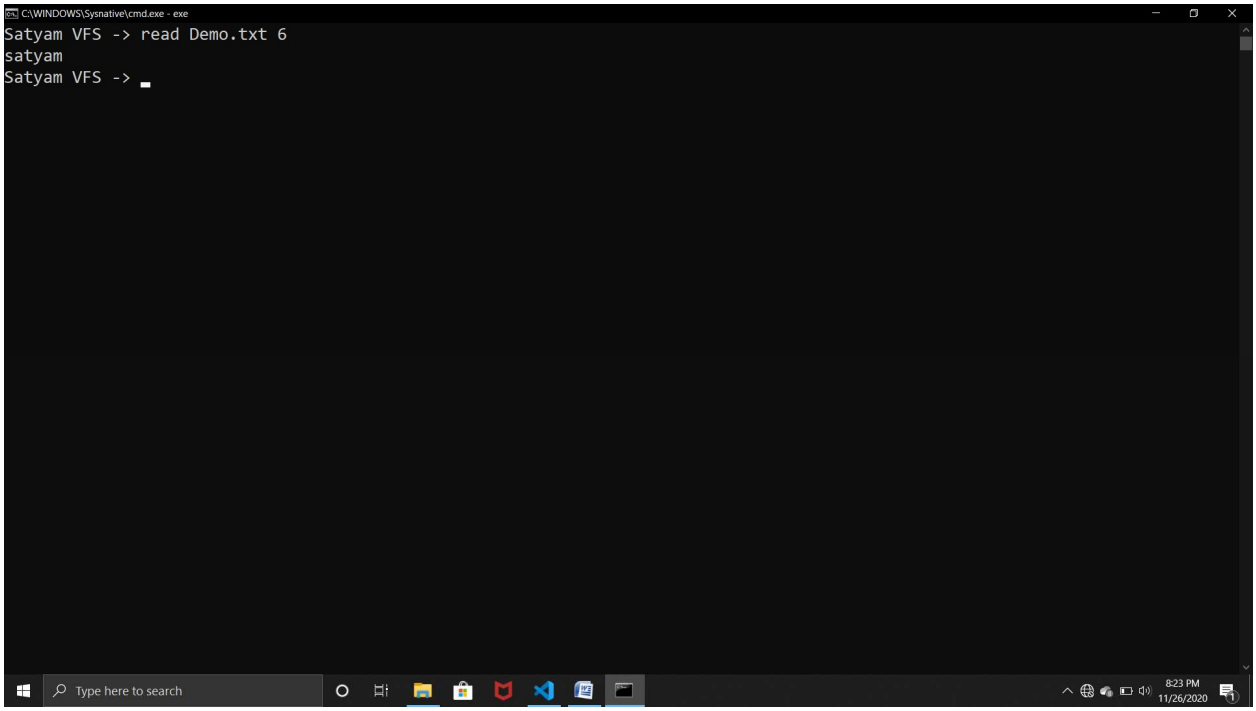
## 3. Write :

- **Description :** Used to write in regular file.
- **Usages :** write File _name
  'write the data that we want to write'



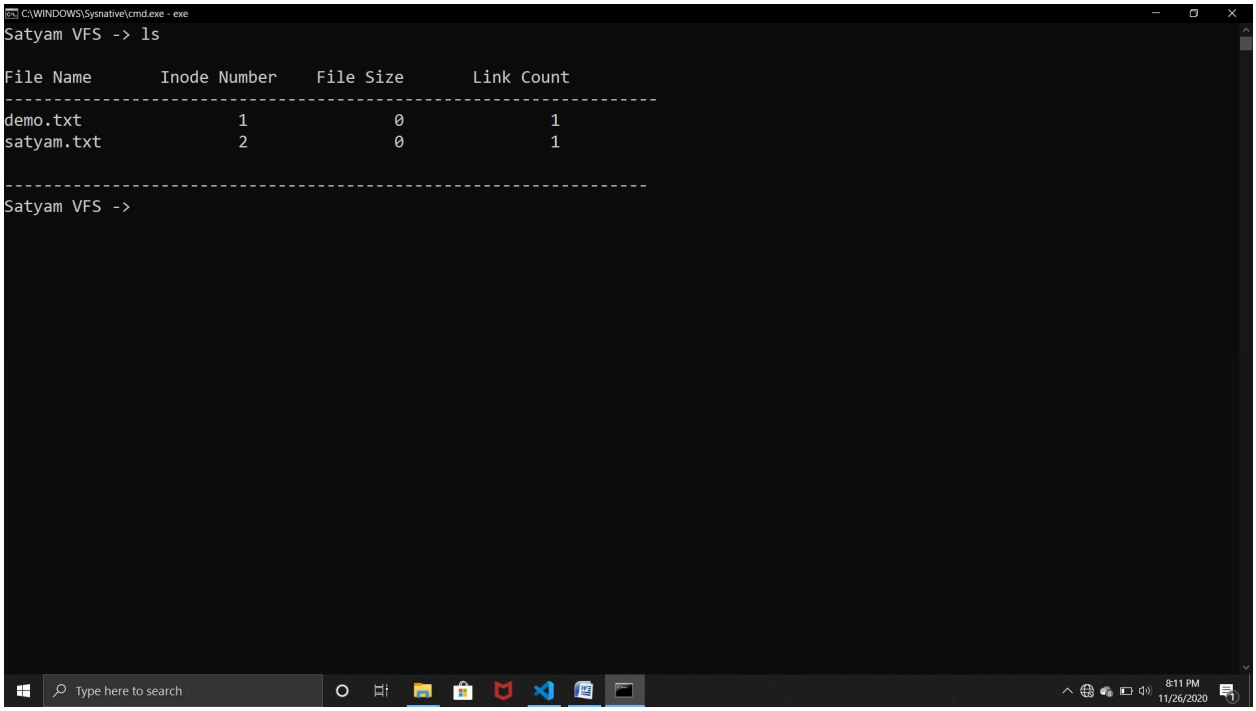
## 4. Read File :

- **Description : Used** to read the number of bytes from regular file.
- **Usages :** read File _name no_of_bytes



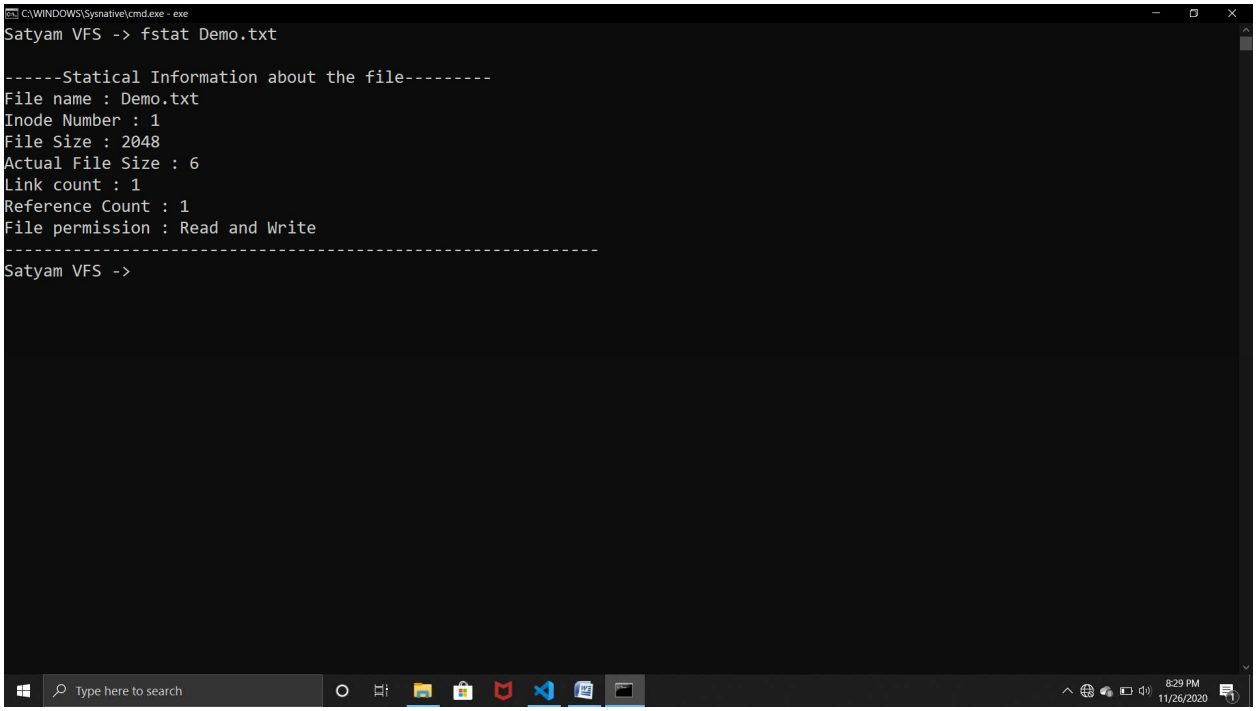
## 5. List of File :

- **Description :** Used to list out regular file**.**
- **Usages :** ls



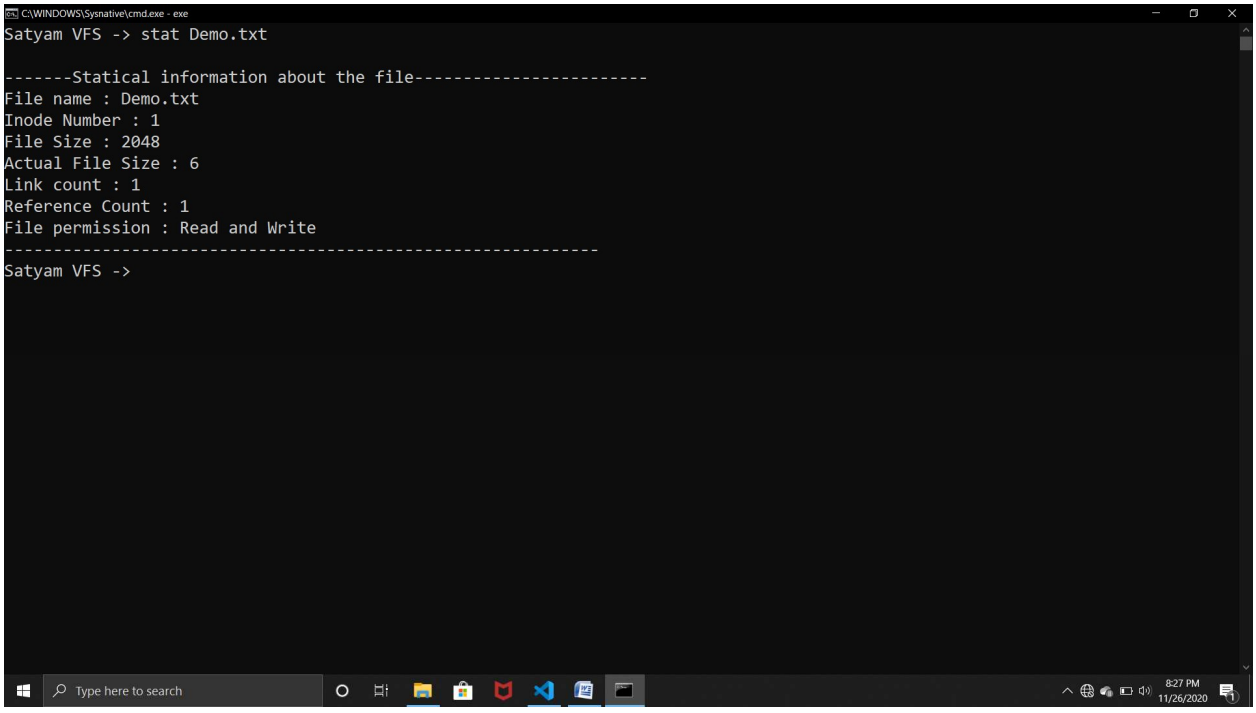
## 6. File statistics :

- **Description :** Used to display information of regular file**.**
- **Usages :** fstat File _name



## 7. Statistics of File :

- **Description :** Used to display information of regular file.
- **Usages :** stat File _name



## 8. man :

- **Description :** Used to give information of the command
- **Usages :** rm cmd_name