**Logic building with industrial project - 1**

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1. **Name of Project :**

Customised Virtual File System

1. **Technology used :**

C Programming Language,CPP

1. **User interface used:**

CUI Based (Command user interface)

1. **Platform Requirement :**

We prefer windows NT oprating System.

1. **Hardware Requirement :**

Minimum 512 MB of RAM necessory.

1. **Desrciption Of The Project:**

This Project is used create customised file System

which can be work on windows NT platforms.

we are going to implement UFS file System.

1. **Data Structure Used in The Project:**
2. **Diagram of Data Structure Used in the Project:**
3. **The Flow of Project**
4. **Actual The Code Project**
5. **Actual The Code Past Screenshot Of Output Which Demonstrates every Feature of our Project Separately**
6. **Before every function of our project, there should be one header which should contain below things as**

**Storage device:**

Primary RAM

Secondary HDD

Everything which is storage in HDD is considered as a file.

File is unformated uniform stream of bytes.

**File System :**

File system is way of storing and retriving the files into

the harddisk.

Examples :

NTFS : New Technology File System(Windows)

FAT 32 / FAT 16 : File Allocation Table (16 / 32)(Linux)

UFS : UNIX File System. (our Project used)

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**Customised Virtual File System**

**Customised :** Becaus it is designed dependes on the user requirement

**Virtual :** Beacuse its used in the RAM.

**File System :** Way of storing and retriving the files.

**File System Programming:**

Library function - Inmtrenally calls system calls ex:fopen()

system calls-Internally executed by the kernel ex:open()

**Important System of file subsystem:**

**open():** it is used to open existing file

**close() :** it is used to close the existing file

**read() :** it is used to read the data from file

**write() :** it is used to write data into file

**lseek() :** it is used to change the offset of the file

**creat() :** it is used to create new regular file file

int open(char \* name , int mode);

1:Name of the file

2:Mode in which we want to open the file (O\_RDONLY , OWRONLY , O\_RDWR)

Return : Integer which is treated as a file descripter.

void close(int fd):

1 : file decripter which is return by the open

Return : Nothing

1. **What is mean by file system?**

In computing, a **file system**  controls how data is stored and retrieved. Without a **file system**, data placed in a storage medium would be one large body of data with no way to tell where one piece of data stops and the next begins. ... There are many different kinds of **file systems.**

1. **What is file system structure?**

The **file system structure** is the most basic level of organization in an operating **system**. Providing a common **file system structure** ensures users and programs are able to access and write **files**. **File** systems break **files** down into two logical categories: Shareable vs. unsharable **files**.