**MINOR PROJECT 1**

**SYNOPSIS**

**ON**

**Sort-it-out:A Linux File Sorter**

**Submitted By**

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**Project Title: Sort-it-out:A Linux File Sorter**

ABSTRACT

Sorting is a basic task in many types of computer applications. Especially when large amounts of data are to be sorted, efficiency becomes a major issue. There are many different sorting algorithms and even more ways in which they can be implemented.. Though the real challenge lies in the implementation and the theoretical concept is of mere importance. In this Project we propose to use one of the sorting algorithm in our file sorter whose advantages and disadvantages have been discussed. Linux booting is time taking task which involves several stages .The Main aim is to sort the file on Linux Booting into their Defined Locations.To make the List more Informative it is Important to show the files in Alphabetical order so that they can be accessed easily.One of the major Parameters is to provide clean and cluster free System .

Keywords:- Linux Booting,Sorting ,Cluster.

**Introduction:**

Linux system involves 7 processes in it booting and has various commands through which we can sort files once the system booting is done.But Sorting of files after the booting process is complete is important for the system to be more informative. When we navigate through Linux file system we must be sure about the file types, then according to the type of extensions the file should be automatically stored at its specific location.This is what our project is all about.

Linux booting process involves several stages and components. By the means of a boot loader the kernel starts and then the hardware is initialized by the BIOS. After this stage the boot process is handles by the operating system itself.Once the system is turned on the BIOS initializes the screen and the keyboard and also performs the testing for the main memory. The boot loader resides in the main memory and determines how much part of the boot process is left. To pass system control, the boot loader loads both the kernel and an initial RAM–based file system (initramfs) into memory. The contents of the initramfs can be used by the kernel directly. Init handles the booting process of the system through different levels by providing different functionalities.

**Literature Review:**

**Problem Statement:**

File System involves n number of files, some of those files are visible to us while mostly hidden. Whenever we boot our Linux system all the files are present in a cluster so it is difficult to find a particular file so for saving time and energy of user we have proposed a Linux file sorting algorithm to sort this cluster of files into their defined location.However, if the number of files and folders in file system is high, there are problems when we try to fetch the exact file from the system. It is also not an efficient task and involves huge amount of wastage of computer resources. In this proposed work, we try to eliminate this problem of file systems by creating a Linux File Sorter.

**Objectives:**

**Methodology:**

**System Requirements: (Software/Hardware)**

Software Interface:

* Operating System: Linux OS
* Grub loader
* Text Editor
* Gcc Compiler
* Terminal
* Vim Editor

Hardware Interface:

* 1.3 GHz or faster core speed.
* 2 GB RAM minimum/ 4 GB RAM recommended.
* 1 GB minimum available hard disk space for guest operating systems.

**Schedule: (PERT Chart):-**

Structural Design and pseudo code

Duration:1 week

Start date: 17.09.2019

End date: 24.09.2019

System Requirement Analysis and Review

Duration: 2 week

Start date: 02.09.2019

End date: 16.09.2019

Study of Linux booting process and file sorting

Duration:1 week

Start date: 25.08.2019

End date: 1.09.2019

Coding

Duration:1 week

Start date: 03.10.2019

End date: 10.10.2019

Algorithm Analysis

Duration: 1 week

Start date: 25.09.2019

End date: 02.10.2019

Testing (Accuracy)

Duration: 2 weeks

Start date: 11.10.2019

End date: 25.10.2019

Final Report Generation

Duration:1 week

Start date: 10.11.2019

End date: 17.11.2019

Comparative Study

Duration: 1 week

Start date: 26.10.2019

End date: 01.11.2019

Implementation and System Testing

Duration: 2 weeks

Start date: 02.11.2019

End date: 09.11.2019

**References:**

i.)https://pdfs.semanticscholar.org/d010/950f6b3c9521eb437334fa69c0b2b9353010.pdf

**ii).**

**\*** Whole Documents should not be more than 7 pages excluding Front Page

\* The Front should contain Project Name, Partial Submission for Minor, Students name, Enrollment No, SAP Id no, Mentor Name

\* References should have indexing and refer them in your synopsis wherever necessary.

\* Delete the lines under each section and put your related project’s information related to that section in place of them, also delete these 4 lines starting with “\*”.

**Approved By**

**Signature Signature**

**mentor\_name Dr. Monit Kapoor**

**Mentor Head of Department**