# Implementation of Anti-Drive

**Manasi Mali[1], Harshal More[2], Snehashree Mhatre[3], Nilesh Mali[4], Prof. Amit Chougule[5]**

*[1,2,3,4]Student of Graduation, Department of Computer Engineering, G. V. Acharya Institute of Engineering and Technology, Mumbai University, Mumbai, 400098, Maharashtra, India.*
*[5]Head of Department, Department of Computer Engineering, G. V. Acharya Institute of Engineering and Technology, Mumbai University, Mumbai, 400098, Maharashtra, India.*

---------------------------------------------------------------------***---------------------------------------------------------------------

**Abstract -** *In computer system, User already installed antivirus software which protect the USB drive. When an USB drive is attaching to your computer, Antivirus will automatically scan it and delete virus. This antivirus is in the form of software which present inside the computer not inside the pen drive. Each computer system does not contain the anti-virus software to protect the files present inside the pen drive. If computer system affected by viruses and malware than it will infect all removable drives and files and folders present in it. When we attach pen drive to the infected computer the viruses corrupt the data.*

*In proposed system, the anti-drive has in-built anti-virus. This anti-virus protects the pen drive from viruses and malicious code. When this anti- drive attaches to infected system then the files are not get affected due to the anti-virus present inside the anti-drive. Anti-drive protects the files and data from getting corrupted.*

*Keywords- Anti-drive, Antivirus, Computer System, USB Drive, Virus.*

## I. INTRODUCTION

A USB flash drive also known as a USB stick, USB thumb drive or pen drive is a plug-and- play portable storage device that uses flash memory. A USB flash drive can store important files and data backups, carry favourite settings or applications, run diagnostics to troubleshoot computer problems or launch an OS from a bootable USB [1]. A computer virus is a malicious program that self-replicates by copying itself to another program. In other words, the computer virus spreads by itself into other executable code or documents. The purpose of creating a computer virus is to infect vulnerable systems, gain admin control and steal user sensitive data [2]. Antivirus software is a program or set of programs that are designed to prevent, search for, detect, and remove software viruses, and other malicious software like worms, trojans, adware, and more [3].

The anti-drive has in-built anti-virus. The purpose of Antivirus is to detect, neutralize malware and viruses. Antivirus not only will identify and destroy the computer virus, but it is also designed to fight off other kinds of threats such as worms [4]. This anti-virus protects the

pen drive from viruses and malicious software. When this anti-drive attaches to infected system then it automatically searches infected files and delete it. Anti-drive protects the data from viruses and infected files.

## II. OBJECTIVES

The main objective of this project to provide the security to the pen drive from the infected files which contains viruses, worms. The scope of project includes:

- Meant to provide security to files.

- Does not need of extra antivirus.

- Time saving while scanning

- Automatic runnable antivirus no need of extra click.

## III. LITRATURE SURVEY

### The Computerized Pen Drive

This paper proposes an extremely innovative and creative pen-drive model which is totally computerized. The Imagination of a pen drive with a display and in-build USB ports has resulted in the development of this paper. The overall idea of this proposal is to build a pen drive which can be used even without a computer system. The challenge in this process is to develop an operating system to the pen drive device which is capable of displaying the contents of the pen-drive and it must have the capacity to share its data through transmissions to other pen drive by means of the USB ports in- build in it. The important thing to be taken in consideration is the cost efficiency of the pen drive device and the prevention of the attack of the virus on the data a device to make it more reliable and secure resource through which we can do all the operation like pen drive but even without the use of the system.

### Antivirus Security

In this era of modern technology, computers play a very important role in our daily lives. Computers play its functions in private homes, offices, workspaces, hospitals, schools, and everywhere else. It is undeniable that computers are very important nowadays but of course, no

matter how great the technology is, there will still be some flaws and problems. The existence of computer viruses revolutionized the way the computer works and what type of security measures are supposed to be taken to prevent this serious problem.

**The Design and Implementation of an Antivirus Software**

People use computers for all kind of activities: online gaming, shopping, entertainment, emails, face book, study, research, etc. At the same time, the risk of infection by malicious programs in these computers is rising. The main issue is that general users don't understand what a virus is and how computers get infected. On the other hand, many vendors produce antivirus software with different features to prevent or remove these viruses from people's computers. General users don't understand the concept of each feature in these programs, nor is there a tool to advise users about what the features mean and help them select the right software for personal or business needs. The purpose of this paper is to create an advising system to assist general users to study about computer virus and antivirus, understand the various features of antivirus software products, and select right antivirus software to protect their computers.

## IV.   EXISTING SYSTEM

A flash drive is a small, ultra-portable storage device which, unlike an optical drive or a traditional hard drive, has no moving parts. Flash drives connect to computers and other devices via a built-in USB Type-A plug, making a flash drive a kind of combination USB device and cable. Flash drives are often referred to as

pen drives, thumb drives, or jump drives. The terms USB drive and solid state drive (SSD) are also sometimes used but most of the time those refer to larger and not so mobile USB-based storage devices.

A USB flash drive is a device used for data storage that includes a flash memory and an integrated Universal Serial Bus (USB) interface. Most USB flash drives are removable and rewritable. Physically, they are small,

durable and reliable. The larger their storage space, the faster they tend to operate. USB flash drives are mechanically very robust because there are no moving parts. They derive the power to operate from the device to which they are connected (typically a computer) via the USB port.

Disadvantages of Existing System:

- Risk of Virus and Malware.
- Files are easily getting corrupted.

## V.   PROPOSED SYSTEM

The flow of proposed system starts from user attaches anti-drive to the computer system. When anti-drive attaches to the computer system it starts scanning for the malicious files. In scanning process in-built antivirus scan all files and if any infected files are found then delete it and protect our pen drive as well as computer system from infected files. The antivirus act as a security wall between the computer system and pen drive. After this process anti-drive is ready to use various activities like copy, cut, delete and move the files from anti-drive to computer system or vice versa.
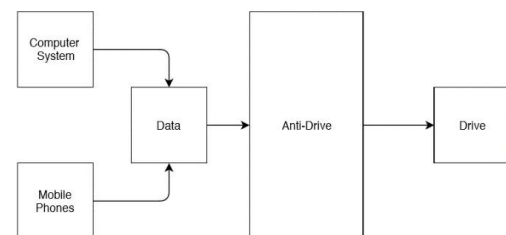


System Architecture of Anti-Drive

The user can use anti-drive to transfer data from one device to another device safely. Anti-drive detects viruses and delete from every location.

## VI.   METHODOLOGY

**Batch Programing:**

A batch file is a kind of script file in DOS, OS/2 and Microsoft Windows. It consists of a series of commands to be executed by the command-line interpreter, stored in a plain text file. A batch file may contain any command the interpreter accepts interactively and use constructs that enable conditional branching and looping within the batch file, such as IF, FOR, and GOTO labels. The term "batch" is from batch processing, meaning "noninteractive execution", though a batch file may not process a batch of multiple data.

**Virus Signature:**

In the antivirus world, a signature is an algorithm or hash (a

number derived from a string of text) that uniquely identified a specific virus. A single signature may be consistent with a large number of viruses. This allows the scanner to detect a brand-new virus it has never even seen before. This ability is commonly referred to as either heuristics or generic detection. A virus signature is a continuous sequence of bytes that is common for a certain malware sample. That means it's contained within the malware or the infected file and not in unaffected files. Nowadays, signatures are far from sufficient to detect malicious files.
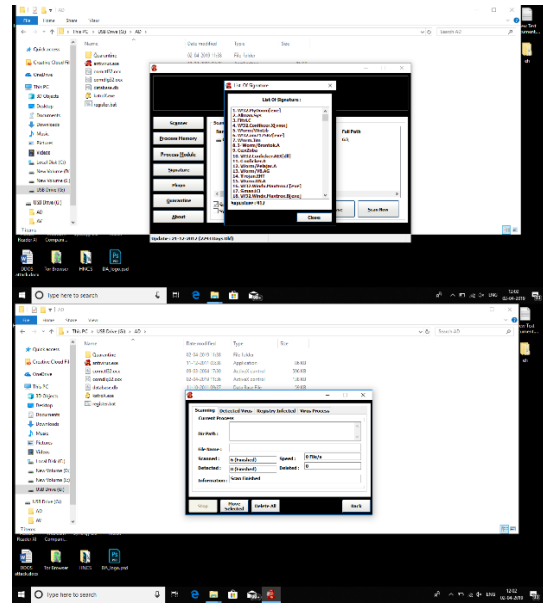


## VII. IMPLEMENTATION

In this project, we developed a "Anti-Drive" is an antivirus software stored in pen drive which protects our data from virus. An Anti-Drive contains a program which detects the virus and delete it. User attaches an Anti-Drive to the computer system, firstly it asks for action that user want to perform like complete scan, system area scan, single file scan, etc. In Anti-Drive, viruses can be detected by using signature detection method. One signature list of viruses is inserted in antivirus that match with the infected files, if the signature is matched then virus is deleted immediately.

## VIII. RESULT ANALYSIS
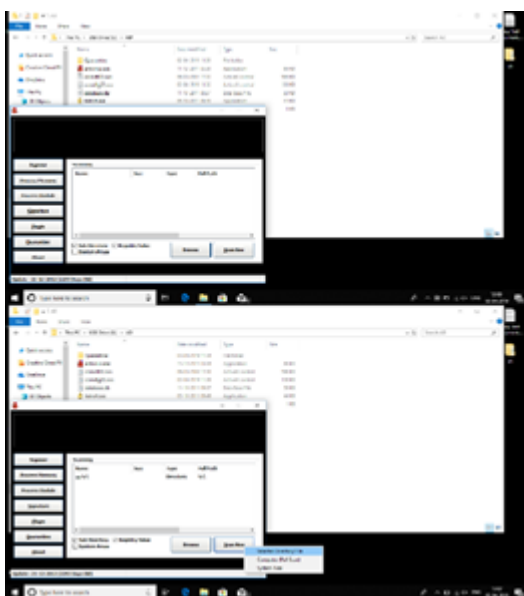




## IX. CONCLUSION

The Anti-Drive is proposed for the benefit of providing security from viruses and worms, and also prevents from creating shortcuts. The proposed system has the in-built antivirus which provides high level security to the files present inside the pen drive. It provides protection from vulnerable activities while transferring files. Thus, making transformation of files very safely and provide safety to other files too. So, the overall implementation cost is low and can be easily configured. The user can easily use it with any system.

## X. FUTURE SCOPE

The future scope of this project is:

- Increase Space: In future use we can increase space by adding extra of flash memory.

- Implementation of new chip: By adding new chip in circuit of pen drive we can give extra space for antivirus which is very efficient.

- More secure: By adding combination of two anti-viruses.

- Circuit modification: Modification of circuit can make pen drive very cheap and reliable to use.

## XI. REFERENCES

1) https://searchstorage.techtarget.com/defini tion/USB-drive
2) Comodo Security Solutions, Inc. [US] | https://antivirus.comodo.com/blog/comput er-

safety/what-is-virus-and-its-definition/

3) Webroot Inc. [US] | https://www.webroot.com/in/en/resources/ tips-articles/what-is-anti-virus-software

4) https://safr.me/blog/2014/08/16/the-role- of- antivirus-software/

5) R. Arvind, Student (Sona college, Salem),

6) M. Senthil Kumar, Lecture (Sona college, Salem, India), R. Lavanya, assistant professor (NSIT, Thiruvarur, India) "The Computerized Pen Drive", International Journal of Computer Applications Volume 41– no.5, march 2012.

7) https://pdfs.semanticscholar.org/ba69/d1d 7f43cd06f34278571ba44569eddc88299.pd f

8) Jeslyn Chong, Ing Wei, Ching and Hui Boon, Lim. "ANTI-VIRUS SECURITY" https://www.iup.edu/WorkArea/Download Asset.aspx?id=61309

9) Eugene Chamorro, Jianchao Han, Mohsen Beheshti "The Design and Implementation of an Antivirus Software" https://ieeexplore.ieee.org/document/6209 220