# System Monitoring Tool

# Introduction

It’s important to monitor the systems that we use everyday. Whether it’s a personal system or a system used at work, keeping track of its performance is important. When we keep track of system performance, we’re able to know when certain parts may be going bad, if parts must be upgraded, or if there is activity going on in the system that is unusual.

# Problem

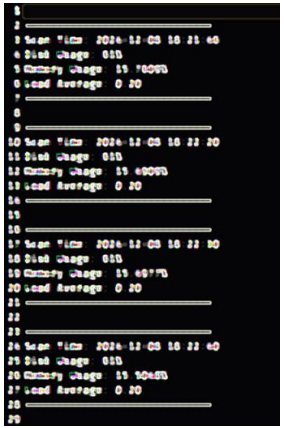
When system resources aren’t tracked properly, users may not be able to realize when their resources are being overloaded. This could lead to irreversible damage to system parts. If a system happens to be a web server that handles a great amount of traffic, it would be unfortunate if the system was overloaded due to having inadequate resources. This would lead to the server having latency issues or possibly result in downtime.

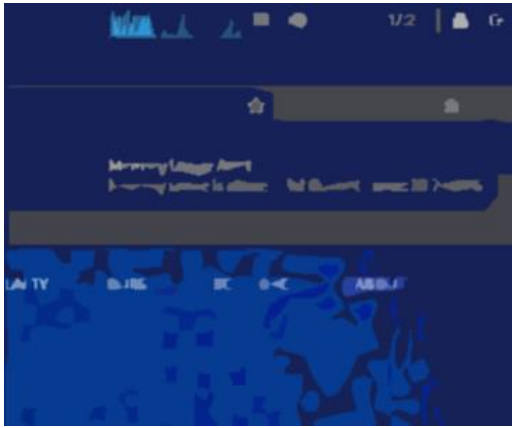
# Methods

Currently, if users wish to monitor their system’s resources, they can use the built in task managers that most OSs come with. However, when looking to monitor specific resources, task manager may distract the user with all of the data it collects. This may result in users looking for 3rd party software that does the specific thing they want. Our program creates a log file that tracks system performance, it outputs that data to the terminal, and if the threshold for resources is breached, it will alert the user via a desktop notification using libnotify-bin.

# Solution

Our solution is a program that builds a log of a system's disk usage, memory usage, and CPU load. This log allows users to monitor their system's performance without overwhelming them with too much information.





# Conclusion

In conclusion, this program is great as a tool used to monitor system utilization of CPU load, disk usage, and memory usage. It keeps a log of the system’s performance, while also giving real-time updates to the terminal, and alerting the user via a desktop notification if the system resource utilization is higher than expected.