**LOG FILE MAKER**

**Problem Statement :**

**Approach :**

* The project was split into two phases.

1. Creating log files to all the currently running foreground and background events.
2. Creating log files to the events like mouse clicks, mouse movements and keyboard strokes.

* **Phase 1 :**
* To create log files to all the currently running processes , we searched around the system files and found that , **/proc** has a list of many folders which represent the currently running processes
* All these folders are named by the process ids. Then each of these directories further have a lot of files which store the data about the currents stats of the process like cpu usage , name of the process , process id, clock ticks since the process started , devices being used by that process. etc..
* Inside each process folder , there is a file named **stat** which has all the information in a consolidated form. It has 52 fields. Out of all these fields , we only parsed the required fields.
* We created a structure which has {Process id , Process name , current status , start time , Owner , memory usage , start address } , to be appended to the log file on every change.
* The fields present in stat file are separately available in different files like status , smaps , statm , mounts , mountinfo , mem etc... which give a further detailed information about the process .But for the current use , stat information is enough.
* We have written a parser which extracts the fields given in the structure for every process present in the **/proc** and appends to the log file.
* For every five minutes , it again runs and checks if any new activity has started after a particular given time or which have a change in memory usage or a change in the current status(sleeping, running )and appends those changes to the log file.
* **Phase 2 :**