

# PROJECT REPORT

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## Problem Statement

Problem statement included designing of an algorithm which can help users to analyze his/her screen time and provide the output in user readable form , along with development of an algorithm to reduce the eye strain while working for long hours on laptop/PC.

## Description

My project is aimed at building a screen time analysis algorithm , which can help the user by telling him the time spent on different applications , so that he can better organize his work. Along with that , I will also include a notification system which will help the user to take a short break while working for long hours. The notification algorithm will serve the purpose of overcoming eyestrain , stress and other similar issues .

The screen time analysis on running will provide users a graphical form of data mentioning time spent on different applications .The notification code displays a message along with the opening of a melodious song for a given time interval , helping users to relax for a few seconds .

## Solution

For screen time analyzer : Made a python file named autotimer.py , which helps us in determining on which application we are currently and if the application matches with any of the one before the code updates the time under that application section in the json file. Also the code is made such that it can run on mac/windows and according to the operating system used the necessary modules will be imported . The code also determines the url of the application we are running and all the inputs received are updated in the json file .

The second file named activity.py helps us to record the data in a particular format like seconds , minutes , hours etc spent on the particular application at one go and also provide the start and the end time. This code basically stores the information using json file in the format which is provided to it .

The third file named screen analysis.py is the main file which helps to read data and present it in graphical format using matplotlib library , also the json file made in the project is converted to .csv file so that we can use the matplotlib library to present output .

The notification code contains simple algorithm , with plyer library and youtube video link along with the text message to be displayed to user while showing notification .

## Conclusion

All the algorithms made serve the purpose of providing users with structured data , so that he can use it for analysing his working efficiency , time wastage while working etc . The notification algorithm is made so that the user can have some break while he is continuously working on a laptop/pc.

