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Presence Indicator: A real time attendance system using Image Recognition

Technology Stack:

Python(opencv)

Let's start with the terminologies.

Real time: an application program that functions within a time frame that the user senses as immediate or current.

But what is difference between **attendance system and presence indicator**?

Is latter a fancier term for the former? Answer is NO.

Traditional attendance systems were not real time. It's a one-time process. Can a traditional attendance system show us real time statistics about the changes in presence? Of course, we can have numerous rounds of attendance but will that be efficient and accurate? Answer is NO.

A real time attendance system uses image recognition to record changes in presence at real time.

Now, is that efficient and accurate? Answer is YES.

Using opencv library in python, we can recognize faces and log the changes in presence. With advent of better technologies at affordable prices, implementation of accurate solutions is easier than ever.
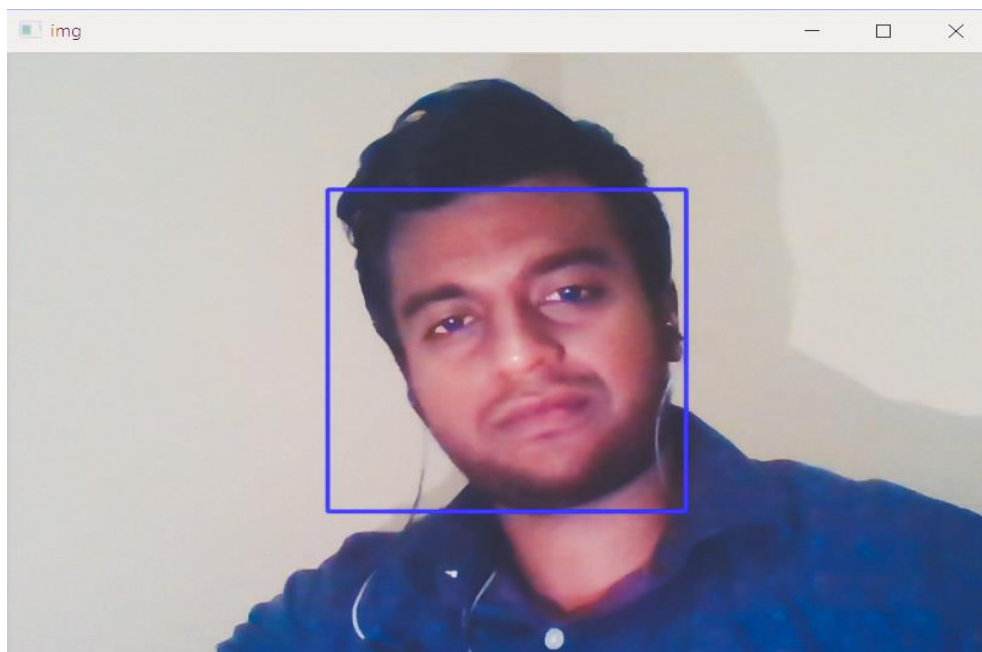
Screenshots

Fig: Image recognition

```
####################################
Attendance record for 07-19-2018
####################################
Change in presence at 21:53:33 count changed to 1
Change in presence at 21:53:33 count changed to 0
Change in presence at 21:53:34 count changed to 1
Change in presence at 21:53:35 count changed to 0
Change in presence at 21:53:35 count changed to 1
Change in presence at 21:53:36 count changed to 0
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Change in presence at 21:53:36 count changed to 0
Change in presence at 21:53:36 count changed to 1
Change in presence at 21:53:36 count changed to 0
```

Fig: Presence logs