

Example paper: Who was the earliest riser? An empirical study of employee office hours.

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This is an example article for the tutorial “Creating a Research Object”.

We present a novel methodology for determining the earliest arrival and latest departure from an office. We tested this empirically on generated example data for 3 fictional employees. Subsequent analysis shows that the office was in attendance for 11 hours.

Background

In many company settings, employees arrive and leave an office at different hours. Managers often gather data on these arrival and departure times, but lack the sufficient analytical tools to extract useful metrics such as total attendance.

Method

We generated a CSV file of example attendance data for 3 fictional employees Alice, Bob and Charlie. The names chosen are based on common placeholder names[1]. We chose the name *Charlie* over *Carol* and *Carlos* to maintain a neutral gender distribution.

We devised an algorithm, for determining the earliest employee arriving, by processing the rows of the file and compare the current row’s arrival time with the current earliest arrival. A variant of this algorithm was subsequently used to determine the latest arrival. The algorithm was implemented in Python[2].

Results

The analysis showed that the employee arriving earliest was Charlie at 8:00. The employee leaving latest was Alice, at 19:00. The office was thus in attendance for 11 hours, including lunch.

Future work

The algorithm can in theory be extended to also calculate which employee work the longest hours.

References

- [1] *Alice and Bob*. Wikipedia. https://en.wikipedia.org/wiki/Alice_and_Bob retrieved 2015-06-23.
- [2] Van Rossum, Guido, and Fred L. Drake. *Python language reference manual*. Network Theory, 2003.