

Context

In the company BargeCom, several employees use the software product ASoft. ASoft works with "Per-seat" licenses. A per-seat license (or "named user license") is a software license model based on the number of individual users who have access to a digital service or product. For example, a 50-user per-seat license would mean that up to 50 individual named users can access the program.

An ASoft license costs 1000 EUR per user and has to be renewed every year. For 2022, BargeCom has bought 40 licenses. At this time, BargeCom's IT department is analyzing how many licenses it will need in 2023. This analysis starts with a survey, where BargeCom asks its employees which software they need. The IT department conducted the following information from this survey:

1. Every user with an ASoft license in 2022 wants to keep using ASoft in 2023
2. 15 employees that don't have an ASoft license in 2022, requested an ASoft license in 2023.

Research Question

If the IT department blindly follows the requests of BargeCom's employees, the total ASoft licensing cost will increase with 37.5%. BargeCom's CEO asks the IT manager to analyze if this cost increase is really needed?

Dataset

To answer the research question, you have access to a dataset containing an ASoft usage log. For every user, it tracks when (and how long) he uses ASoft.

This dataset contains the following variables:

- Id, the technical id of a line in the dataset. This id should be unique for every line.
- UserId, the technical user id of an employee using ASoft.
- Usage Date, the date when the UserId used ASoft.
- Department, the department where the UserId belongs to
- Session Time, the number of minutes ASoft has been used by the UserId on Usage

Date: The dataset was captured on september 17, 2022.