

# 4-Flight Project

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## My role at Thales Ams

Thales is an international company specialized in aerospace and aeronautics. It is known, in particular, for the manufacturing of satellites, but it also produces aircraft cockpits and calculators for air traffic. Thales Las is responsible for building the latter. My EM (Engineering and Management) team oversees projects, including their costs, time spent, and the number of people per project. My role is to synthesize the data and bring a new depth to these insights through my technical skills.

## BACKGROUND

Today, projects are modeled based on workload (the need for additional or reduced personnel). It happens that managers sometimes request an excessively high positive workload, making it impossible to implement within the given timeframe.

## MISSING GAP AND AIM

Therefore, it would be necessary for us to anticipate and address excessively high workload peaks in order to satisfy the employee's needs. To achieve this, we should identify projects that are likely, within the next 6 months, to require an excessive number of employees. This will enable us to engage in discussions with the respective project teams regarding the project's progress.

## METHODS AND RESULTS

To detect this, we will utilize all the workload data for each month and each project. Subsequently, we will perform clustering using both K-means and hierarchical methods, along with Latent Dirichlet Allocation (LDA). This approach will help us distinguish between low-risk projects and those that may pose challenges in terms of excessive workload.

The training and testing phase appears to conclude that the method is effective.

## CONCLUSION

The project has successfully prevented slowdowns within the 4-Flight project. This tool is utilized by data scientists who notify managers in the event of risk detection.