An example of an industry where maximizing and minimizing objective functions are necessary is the airline industry. This sector involves various constraints that require careful management.

The **Objective Functions** could be:

* **Maximization**: Airlines aim to maximize revenue or profit by optimizing flight schedules, ticket pricing, and seat occupancy. For instance, setting ticket prices to maximize total revenue based on demand forecasting.
* **Minimization**: Simultaneously, they work to minimize costs, such as fuel consumption, maintenance expenses, crew scheduling costs, and turnaround time.

One may say, this is pretty obvious and indeed it is, and then we could say “easier said than done”)

The **Constraints** may include, at least:

* The aircraft availability and maintenance schedules
* The crew working hours (regulated by labor laws)
* The airport gate optimal utilization and availability
* The flight time windows (regulated by air traffic control)
* The fuel capacity and costs
* The passenger demands and booking trends.

This creates a complex optimization and interesting problem that requires balancing different goals depending on the context. For example, during peak travel seasons, maximizing revenue might be the priority. In low-demand seasons, minimizing costs to avoid losses might take precedence.