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Decision Analysis

- **Factory Theme:** We decided to go for a Car Assembly plant because we thought that the data gathered from the simulator could strongly represent what happens inside an assembly plant.
- **Average time production (day/week/month/year):** We decided that average time production was a necessary part of the dashboard. Understanding the average time it takes to assemble a car allows managers to optimize the production process. They can identify bottlenecks, inefficient processes, or areas where improvements can be made. Also, this helps in allocating resources efficiently.
- **Restock time and fixing time:** Another important thing to consider is what stops production. In this particular case, when a working station runs out of material to work the production gets stopped until it is restocked. With this in mind, we think that is a really important thing to consider in the dashboard.
- **Data Preparation:** For the data preparation we decided to use Pandas dataframes. We believe that this is a very powerful tool to manipulate data and to pass it to the dashboard code.
- **Dashboard Tool:** For the dashboard we decided to use a python library called Streamlit. With the data gathered from the simulator we created a beautiful dashboard that is also hosted online.