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# Data Warehouse Project – Part 3 – Dashboarding

In the following, we describe our decision and assumptions made for the Dashboarding part of the Project.

- Considering the data sources of our Tableau file, we connected our oracle database and then ran two SQL queries to retrieve our required attributes from the ‘LogBookReporting’ and ‘AircraftUtilization’ views, which yield a better running time than querying the database directly. Afterwards, we joined the results with the dimension tables using an inner join to complete our physical tables. We then set up our multidimensional fact concept by connecting our two logical tables using a join on the attributes ‘aircraft’ and ‘month’.
- For query 1, we decided to use a line chart and filtered by the model using the ‘pages’ function. Therefore we can use the dynamic filtering on the right hand side of the chart to let the user switch between aircraft models. The line chart allows the user to see the high/lows of the measures and detect trends.
- For query 2, we used a bar chart to show the differences in groups over time per aircraft for the measures ‘ADOSS’ and ‘ADOSU’. Again, we enabled the dynamic filtering of aircrafts, like we did for all queries to give more flexibility to the dashboard’s user.
- For query 3, we also decided to use a bar chart to allow the user to compare all six measures for each month to detect trends, changes and peaks. These values can be dynamically filtered by aircraft.
- For query 4, we chose a bar chart to present the differences in the two measures ‘MRRh’ and ‘MRRc’ accordingly. This type allows us to compare them precisely for each aircraft model along the x-axis. Furthermore, a dynamic filter on the right hand side lets the user compare values amongst different airports.
- We also had to decide on how to compute the aggregations for the measures. For the measures ‘FC’, ‘FH’, ‘ADOSS’ and ‘ADOSU’, we simply retrieved them from our Aircraft_Extraction table and computed them by applying the sum using the Tableau functionality. The measures ‘RRh‘, ‘RRc’, ‘PRRh’, ‘PRRc’, MRRh’ and ‘MRRc’ needed to be computed manually using the functionality for measures in Tableau to reach the wanted outcome. After that, we also created the sum of the for integrating them into our visualizations.