


<div>COMPANY</div> <div>  </div> <div>Click here to access the company site</div>	Project	<a href="#">Click here to access the project</a>
	Date	December - 2021
	Description	It was a data analysis project developed to developed with the aim of obtaining approval for an application to a data analyst vacancy at the PecSmart company.
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### 1. Challenge proposed by the company

The company PecSmart provided data on a batch of pigs. The data about:

- 4 sheds, with their respective daily feed consumption
- 1 animal growth curve
- 8 microphones, representing daily variations in pig respiratory health.

The objective was to develop the following levels of information through a report using Power BI:

- Daily information
- Weekly consolidated information
- Monthly consolidated information
- Information must also be be presented separately per sensor.

The report should highlight outliers/abnormalities, allow filter application, dynamic visualization.

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### 2. Report

Below, Fig. 1, we have the image from the final report. It also may be accessed through the link:

<https://app.powerbi.com/links/BtrG1bHwkU?ctid=613f69c4-9294-431e-8ea2-8b7d55e1c73d&pbisource=linkShare&bookmarkGuid=d94c13b8-87d3-4145-a962-76ea8ddfaab1>

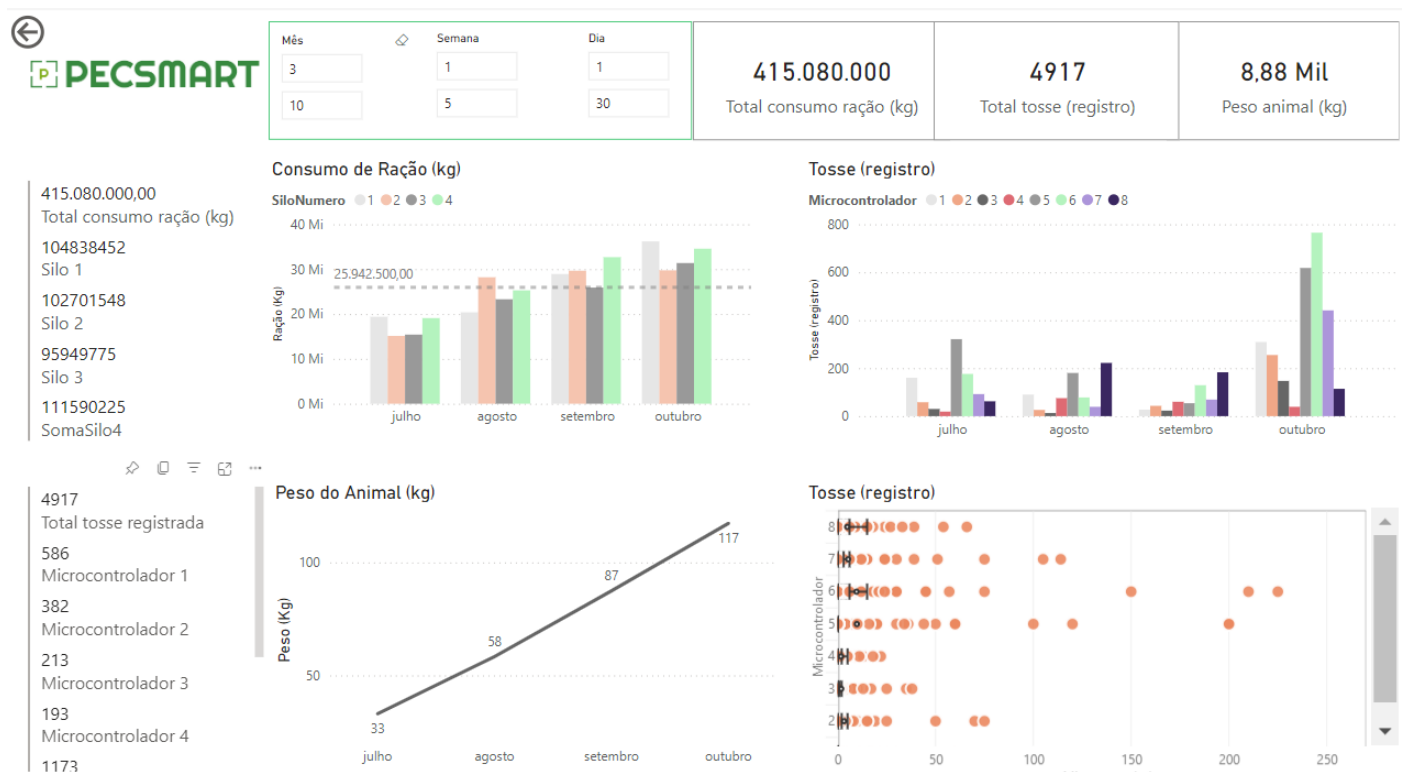


Fig. 1 – Final report.

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### 3. Solution overview

The data were available throw a .xlsx spreadsheet, Fig 2. It's possible verify that the original dataset doesn't respect the database normal forms.

Dia	Peso médio (kg/animal)	Consumo de ração (kg/dia)				Monitoramento tosse (tosse/dia)							
		Silo 1	Silo 2	Silo 3	Silo 4	Mic 1	Mic 2	Mic 3	Mic 4	Mic 5	Mic 6	Mic 7	Mic 8
1	22,11	526036	445214	290780	680470	0	0	0	1	1	2	2	5
2	22,75	537250	434000	672563	298687	10	0	1	1	0	0	0	3
3	23,57	374820	596430	551722	419528	0	2	1	1	20	0	3	3

Fig. 2 – Data source

Due to this problem, the dataset was reordered according to the normal form and aiming the use of a “star schema”. Star schema usually used the data as a dimension table, however at this model it was used as a fact table. This decision was made because was not clear whether the column “Peso medio” is the target of the project. Below, Fig. 3, we have the model used to develop the report.

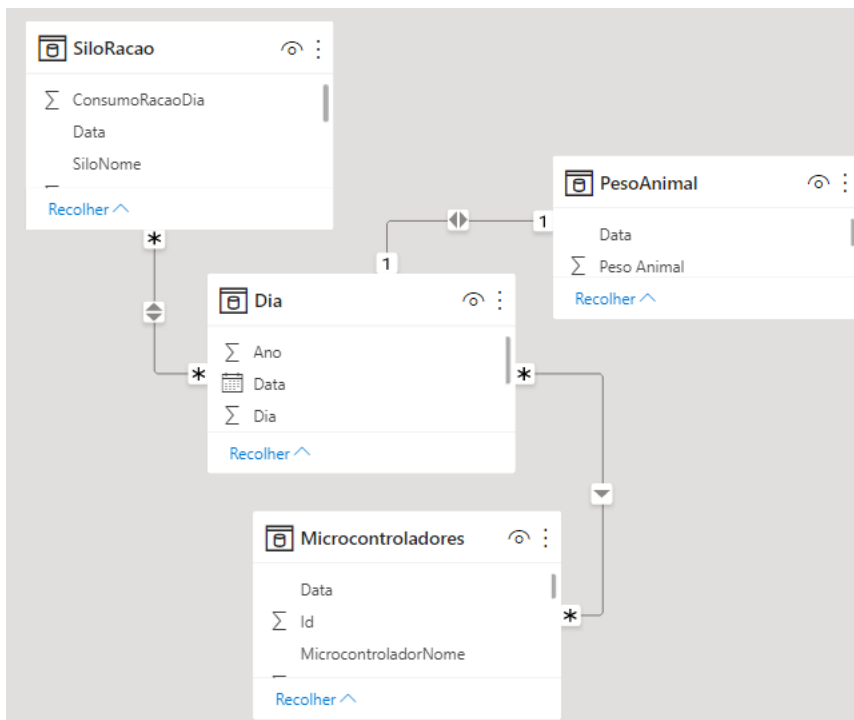


Fig. 3 – Star schema developed to execute the analysis.

Finally, in the third step, the data were cleaned throw DAX and the final report was generated.

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