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Database Principles  
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Company Databases

I currently work at a manufacturing facility as a mechanical/ manufacturing engineer. I have been at this company for a little over a year since the start of the pandemic. One of the biggest problems with the company is that there is no database system, and document and data organization depends on the individual employees. There is no company standardized system that all employees should abide by, making it difficult to share information with other departments as well. I currently work on automating processes, and one of my responsibilities is to collect data from production processes, as well as sensor data from machines. Since we don’t have a database, most of our data collection is acquired from machine (PLCS) and transferred ether by network (switch transfer) or directly by USB. Once the data is captured, I will store it in an excel document, and analyze the data (Although I am aware of the problems of using excel as a database). Not having a centralized database leads to many delays in my workflow. In times when I need some other departments data, I search through nested folders, misnamed folders, duplicates, outdated information. This will generally cause problems and delays in planning as well. For example, since the data collection is the responsibility of the employee, and there is no company standard as to how to capture and present the data, some excel worksheets that other engineers present are messy, hard to follow and inconsistent. The company is small and has been around for about 30 years. Many of the managers that have been at the company since it opened have old and outdated view on technology. I know that the company would benefit from a database, but it would be hard to transition everyone , and all current data to a new system, which is most likely the reason that the company does not have a database yet. Personally, I believe that this leads to many inefficiencies, and a general lack of organization, that can be easily solved.

Before I had this job, I was working at the public works department of my hometown. There we had an oracle exclusive server. Since the citys public works department accrues so much information and data, it would be very difficult to ever replace the database that they currently use. I no longer work there, so I don’t have a concrete answer, but I assume that they have had their oracle system for a long time, and don’t have any plans to swap to another database.