



Excel might be useful, but it is probably not appropriate... Excel is not a database:..

Many find themselves reliant on using Excel spreadsheets to manage the oversight of processes, keeping records, tracking activity and recording outcomes when spreadsheets are simply an inappropriate solution. A database is a program that organises data into fields and records. A spreadsheet is a program that is designed to simply stores data in a grid of rows and columns allowing for calculations and the generation of graphs.

Both databases and spreadsheets are used by firms to organise, store, and use data. While both are valuable tools, a database has several advantages over a spreadsheet, not least the difference between being a long-term solution compared to a short-term fix when relied upon for tracking and evidencing key processes.

This document highlights and looks to describe some of those key differences.

Data Quality Checks

The database allows for certain variables to be set as the only possible entries. Say the only options are male and female--if you input "Alien," the database will not accept the data. Spreadsheets allow value categories such as numbers, but not the level of customization afforded by a purpose designed database. Databases also check certain fields when instructed to prevent unique identifiers such as unique identifiers from being duplicated. These duplication checks and other types of data validation are not available with spreadsheets.

Integration of Data

Databases, by default and by design, allow data from multiple sources to be integrated into one database. Data from multiple systems and sources can be integrated into fields so that data from all sources is organised and searchable. This can be accomplished with a spreadsheet but requires other applications and maybe even custom programming to allow this feature, which is difficult to establish and difficult to manage and enhance.

Resource Efficiency

A spreadsheet is stored in a computer's random access memory while it is being used. This is a problem if the spreadsheet contains extremely large amounts of data. A database only has to load the data being worked with into the RAM meaning only parts of a large database are used at any given time.



User Efficiency & Permissions based access

A database can be programmed to display data based on a user's need. For instance, a compliance function might wish to view quality measures and the HR team might need access to more personal information about job role and succession planning. A spreadsheet displays all data making specific information more difficult to locate. By definition then, a database makes it far simpler to provide certain users with views and access that is relevant to their role.

Cost Efficiency

A database is more efficient in use when compared to large spreadsheets. The efficiency allows less time spent on tasks and fewer mistakes, significantly mitigating the risk of error and inaccuracy. This translates into savings in man hours and accuracy for a business as its employees are more productive and efficient.

Growth Efficiency

As data is entered into a spreadsheet the overall size of the spreadsheet increases much faster than a comparable database. As more and more information is entered there are appreciable differences in the time it takes to generate reports, graphs and data access over a network.



Audit History

Without version control and a robust approach to saving multiple files, excel provides access to just the most recent changes to given cell at best. A database on the other hand can be configured to capture time stamped, transparent and auditable records throughout the whole extent of the data on file.