**ASSIGMENT#1**

A spreadsheet is not a database. Understanding these differences between spreadsheets and databases allows sound decision making to manage and process data. Now I will talk about these differences between spreadsheets and databases.

First of all, there are also similarities between the two. Both can contain large amounts of tabular data and use existing data to make calculations. Third, neither spreadsheets nor databases are typically used by a single person, so many users work with data. The differences between the two forms of data storage lie in the way these three features are implemented.

Let's examine the differences section by section.

* **Data Consistency**

Databases control access permissions and user restrictions and provide a stable structure. One person can instantly make a change that everyone can see. This feature improves efficiency and data consistency when using databases. Also, using databases eliminates duplicate information. For example, if you are using a spreadsheet full of data, you might change the email address once and accidentally miss updating the same address in another record. This can lead to accidental errors. As a result, Spreadsheets also have their advantages. It is an excellent tool that allows us to perform comprehensive analysis. However, relational databases are definitely the structure to be preferred for easy retrieval and updating of data, efficiency, data consistency, data integrity, speed and security. They can store a large amount of raw data and are excellent at separating data from the way it is displayed for analysis.

* **Data Integrity**

Data integrity is a strong advantage when working with databases. Naturally, you might think a spreadsheet can contain multiple worksheets, so one can create tables in the worksheets, and then use the worksheets to create relations between the tables. Why bother using relational databases? Well, in a spreadsheet, such relations will be logically limited. Instead of setting up spreadsheets or worksheets, one can set up relations between the tables, and this will boost the performance of operations, increasing the speed with which you could manipulate your dataset. Spreadsheets lag a bit when it comes to its multi-user feature. Essentially, everyone has to update their spreadsheet with new data. For example, if there is a last name in the “Customers” table for a new purchase or fix to be registered, each user will have to make these changes manually. You might rightly think that the latest versions of Google Docs and Office fix this issue, but they only do so partially. In Google Docs, you may have trouble figuring out who changed or deleted information incorrectly, which often leads to a cumbersome situation where people have a hard time organizing their tasks.