Matthew's Grocery store has been running for 3 years in business. Over the years, the store's profits have decreased in value. To deal with this complication, Matthew decides to make an inventory for his stock to keep track for each annual surplus.

The inventory can be represented in three (3) main ways.

1. **Manually recording stock calculating surpluses.**

**Advantages**

* Even though computer solutions are quicker in entering information, it is easier to recall information from a manual journal ledger since you can flip to the pages you need, and even spread out books on a table.

**Disadvantages**

* It is very slow and a tedious process.
* Compiling this information requires careful location and rewriting of information, which is inefficient.
* It occupies more storage space.
* It is difficult to backup data.

1. **Implementing a database management system to store information.**

**Advantages**

* Manipulation of information is very quick and accurate.
* It occupies less storage space.
* Allows for backup of data.

**Disadvantages**

* There is the risk of corrupted data.
* Data loss is problematic in computers.
* Duplicates are generally formed which are not required.
* Requires familiarity with the database management software.

1. **Constructing a program that automatically records and calculates data.**

**Advantages**

* Allows for the automation of inventory-related tasks.
* Data can be updated real-time.
* Data is more secure.

**Disadvantages**

* It is difficult to use as the user needs beforehand information to read and write files from the program.
* Technology is required and power failures generally render the system useless temporarily.