Name: Arn Sovannpheakdey
Class: ITE, G5, Y3

Task 1

Explain the advantages and disadvantages of ACID and BASE databases.

Acid:

Advantage:

ACID is an acronym for atomicity, consistency, isolation, and durability. Each of these four qualities contribute to the ability of a transaction to ensure data integrity.

Disadvantages:

It is really hard to guarantee ACID across scalable, highly available, shared-nothing systems due to complex and high overhead commit protocols, and difficult tradeoffs in available replication schemes.

BASE databases

Advantage:

- **Accuracy:** Data is stored just once, eliminating
- **Flexibility:** Complex queries are easy for users to carry out.
- **Collaboration:** Multiple users can access the same database.
- **Trust:** Relational database models are mature and well-understood.
- **Security:** Data in tables within a RDBMS can be limited to allow access by only specific users.

Disadvantages

- **Limitations in Structure**: Many relational database systems impose limits on the lengths of data fields. If you enter more information into a field than it can accommodate, the information will be lost.

- **Isolated Information**: Because relational databases can use a large number of tables, there is always the risk that some information may be lost or forgotten, particularly when it is being transferred from one system to another. This is usually more of a problem for large organizations, particularly when they are using different database systems.