

# **Data Science**



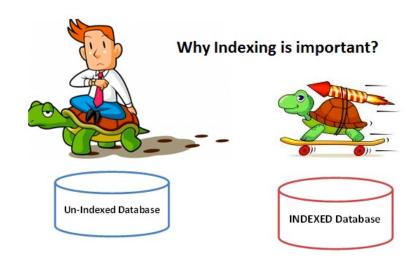


# Indexing

### Indexing



- Indexing is a way to optimize our search queries on large databases. With the help of indexing, we can avoid scanning the whole table to obtain the results we are looking for.
- In more formal terms, indexes in database is a kind of data structure that improves the speed of operations in a table.





# Indexing



**SQLite** 

### **SQLite**



- It is a relational database management system based on the SQL language.
- It is self-contained, serverless and zero-configuration.
- It is very fast and lightweight, and the entire database is stored in a single disk file.
- The lite in SQLite means light weight in terms of setup, database administration, and required resource.
- It is used in a lot of applications as internal data storage.

### SQLite with Python



- mysqlalchemy
- sqlite3

#### **DB** Browser



- It will help us to see the databases being created and edited in real time.
- Link <a href="https://sqlitebrowser.org/">https://sqlitebrowser.org/</a>



#### Connect with database

### Connect with database



- Import sqlite3
- Connect with database
- Create cursor object
- Execute commands