**Data Base**

1. It used to store data and maintains the data.
2. Using Database you get the results easily using a query.
3. This data will be maintain for a longer period of time.
4. There are different type of databases Present in the market
   1. **Relational Database**
      1. You can store a values in the form of rows and column, in the database and table format.
      2. There can be a multiple tables which will be related with each other using primary and foreign key
      3. This data is also known as structure data.
      4. Example:

**MySql**, Oracle, Sql Server, Postgrace etc.

* 1. Document Database
     1. It is use to store a data into a document format and those document are in the form of JSON.
     2. It is not in the structure type and in the table format.
     3. Example:

MongoDB

* 1. Graph Database
     1. The data store in the form of tables, rows. But it will be represented as a graph.
     2. Example:

Neo4J

Database Download and installation

MySql:

<https://dev.mysql.com/downloads/installer/>



Install MySql:

<https://www.youtube.com/watch?v=OM4aZJW_Ojs>

**Important**

Note down the port number (3306), username (root) and password during the Setup.

**SQL (Structure Query Language)**

1. SQL is use to execute a query in the Database.
2. This is the query language which needs to be follow to interact with DB.
3. SQL Has different categories in which the queries are distributed.
   1. **DDL (Data Definition Language)**
      1. Using this you can create, modify and drop a structure of the table and the different database object like table, index, database, view. Procedure, triggers etc.
      2. SQL Operations like CREATE, ALTER, DROP can be performed in this type.
   2. **DML (Data Manipulation Language)**
      1. Using this you can insert, update, delete the records in the tables.
      2. SQL Operation such as INSERT, UPDATE, DELETE can be performed in this type.
   3. **DQL (Data Query Language)**
      1. Using this you can retrieve the records from the Database. There can be clause, Joins used in this retrieval operation.
      2. SQL operations such as SELECT can be perform in this type
   4. **TCL (Transaction Control Language)**
      1. Using this you can make group of queries and it can be manages using in a transaction. This transaction can be successfully completed or it can be reverted.
      2. SQL operation like COMMIT, ROLLBACK, SAVEPOINT in this type
   5. **DCL (Data Control Language)**
      1. Using this you can control which can access what from the database.
      2. You can manage the user permissions.
      3. SQL operation like GRANT, REVOKE is this type.

**Data Types in MYSQL**

<https://www.w3schools.com/mysql/mysql_datatypes.asp>

**DDL (Data Definition Language)**

1. Create database and table in MYSQL