2. Introduction to Databases

Database - stores data in a structured and accessible way, i.e multiple tables with rows and columns

Types of Database

- Flat File Database - stores data in plain text format and consists of a single table. Suitable for a limited number of records. CSV

- SQL - Relational Database. Tables related to one another in some way.

- NoSQL - Non-Relational Database. Not Only SQL.

Relational Database Management Systems (RDBMS)

Programs that enable us to operate our databases, they take instructions we provide from SQL and interpret it creating tables.

- **MySQL** - free code

- **ORACLE database** - own MySQL, expensive, a lot of functionalities, commonly used for large apps in banking sectors

- **PostgreSQL** - free source frequently used for web applications

- **SQLite** - free source

- **Microsoft SQL Server** - not open source, common used databases in business settings for large enterprises.

To interact with the **database:**

- SQL Server Management Studio

- Azure Data Studio

SQL Server - T-SQL