Learnt the basic concept of databases and table and keys.

Learnt the basic commands of SQL: Create table, insert data into tables, update table to replace values or add missing values, delete tables and rows, union, join, trigger, nested queries.

Practically applied the concepts on an example database of a company dealing with clients. The company was a replication of the characters from the tv series The Office and the company was Dundar Miflin.

Learnt the precursor steps of creating ER diagrams from requirements before actually making the database. Applied this acquired knowledge to create ER diagram for the company we were working with previously.

Below is a compilation of the queries performed.

**Queries**

Find all employees

Find all clients

Find all employees ordered by salary

**Introduced the order command**

Find all employees ordered by sex and then by name

Find the first 5 employees in the table

**Introduced limit by command**

Find the first and last name of all employees

Find forename and surname of all employees

**Introduced AS command**

Find out all the different genders

**Introduced the DISTINCT command**

Extract the distinct branch ids stored

Find the number of employees

**Introduced the COUNT function**

Find out how many employees have supervisors

Find the number of female employees born after 1970

**Introduced the WHERE command**

Find the average of all employee salaries

**Introduced the AVG(Average) function**

Find the average salary of all employees who are males

Find the sum of all employee salary

**Introduced the SUM function**

Find out how many males and females there are.

**Introduced the GROUP BY command for aggregation**

Find the total sales of each salesman.

How much money each client spent with the branch?

Find any clients who are an LLC

**Introduced pattern matching using LIKE in WHERE command**

Find any branch suppliers who are in the label business

Find any employee born in October

Find any clients who are schools

**Union and Join Queries**

Find a list of employees and branch name

**Introduced Union command**

Find a list of clients and branch suppliers

Find a list of all money spent and earned by the company

Find all branches and the name of their managers

**Introduced JOIN command**

**Nested Queries**

Get the name of the employees who have sold over 30,000 to a single client

**Introduced using a SELECT statement inside a WHERE statement of a super SELECT**

Find all clients who are handled by the branch that Michael Scott manages

**Triggers**

Prompts should appear and be added to a new Database called test\_triggers when a new employee is added.

3 triggers were created, each specifying a different prompt to be added to the database.