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C H A P T E R 3

SQL Foundations

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AGENDA

- CRUD Concepts

- Data Type

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CRUD

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What is CRUD?

C
Create
Create a new record and save in the database. Or it can refers to creating a new table

R
Read
Get some records from the database.

There are no changes to the data in this operation

U
Update
Updating one or more existing records in the database.

D
Delete
Removing some data from the database table

SQL Keywords

- Are reserved words of SQL queries that serve special functions
- Some most frequently used common keywords are:

SELECT	CREATE	DELETE
UPDATE	INSERT INTO	ORDER BY
DESC	ASC	LIMIT

- Can you guess the functions of these keywords?

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Action Keywords

SQL Keyword	Function	Related CRUD operation
CREATE	Create a new data table	CREATE
INSERT INTO	Insert new records in an existing data table	CREATE
SELECT	Obtain data from a table(s)	READ
UPDATE	Update record(s) in a table	UPDATE
DELETE	Delete records(s) from a table	DELETE

Do you remember our first query?

```
SELECT * FROM movies
```

- It is a Read operation in terms of CRUD!

- Apart from reading the data of the whole table, we can select specific data with condition or even summarize the data by aggregation!

- We will cover these operations in coming chapters

SQL Data Types

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Data Types

- Data types defined the type of data to be stored in a column.

- SQL databases generally offer the below categories of data type

TEXT	**INTEGER**	**DECIMAL**
BOOLEAN	**DATE & TIME**	

- Actual data types and naming vary in different databases

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Examples of different data types

Type	Example Data Types
INTEGER	1, 2, 3, 4, 5
DECIMAL	1.38, 3.49, 999.211
TEXT	"Harry Potter", "Fast and Furious"
DATETIME	2016-08-30 18:47:56.235
BOOLEAN **(There are no boolean type in SQLite)**	0 or 1 (SQLite use Integer) True or False (Other Databases)

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