

Reporting with SQL Part 4 Notes

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1 Differences Between Databases

2 Creating Up-to-the-minute Reports

- Writing Today's date
 - SQLite
 - * **Syntax (Current Date):** DATE("now")
 - * **Syntax (Current Time):** TIME("now")
 - * **Syntax (Current Date Time):** DATETIME("NOW")
 - MySQL
 - * **Syntax (Current Date):** CURDATE()
 - * **Syntax (Current Time):** CURTIME()
 - * **Syntax (Current Date Time):** NOW()
 - Oracle and PostgreSQL
 - * **Syntax (Current Date):** CURRENT_DATE
 - * **Syntax (Current Time):** CURRENT_TIME
 - * **Syntax (Current Date Time):** CURRENT_TIMESTAMP

Exmample:

```
1 SELECT * FROM orders WHERE status = "placed" AND ordered_on = DATE
2 ("now");
```

3 Exercise 1

- Solution included in *exercise_1.sql*

4 Calculating Dates

- **Syntax 1:** `DATE(time string)`
 - NOTE: the only recognized time string format is 'YYYY-MM-DD'
- **Syntax 2:** `DATE(time string, modifier, ...)`

Example:

```
1  DATE("2016-02-01", "-7 days") # 2016-01-25
2
3
4  DATE("2016-02-01", "+7 days") # 2016-02-08
5
6
7  DATE("2016-02-01", "+7 months") # 2016-09-01
8
9
10 DATE("2016-02-01", "+7 years") # 2023-02-01
11
12
13 SELECT COUNT(*) FROM orders WHERE ordered_on
14     BETWEEN DATE("now", "-7 days")
15     AND DATE("now", "-1 day");
16
```

5 Exercise 2

- Solution included in *exercise_2.sql*

6 Formatting Dates For Reporting

- From datetime string to date string
 - **Syntax:** `DATE(datetime string) → date string`
- From datetime string to time string
 - **Syntax:** `TIME(datetime string) → date string`

Example:

```
1  DATE("2015-04-01 23:12:01") # "2015-04-01"
2
3
4  TIME("2015-04-01 23:12:01") # "23:12:01"
5
```

- STRFTIME()
 - Formats date string / time string / datetime string into human readable format
 - **Syntax:** `STRFTIME(format string, time string, modifier)`

Example:

```
1  STRFTIME("%d/%m/%Y", "2015-04-01 23:12:01") # 01/04/2015
2
3
4  STRFTIME("%d/%m/%Y", "2015-04-01 23:12:01", "+1 year") #
   01/04/2016
5
6
7  SELECT *, STRFTIME("%d/%m/%Y", ordered_on) AS UK_date FROM orders;
8
```

7 Exercise 3

- Solution included in *exercise_3.sql*