STRING EXS

```
#### UPPER, LOWER
    Syntax- SELECT UPPER(col1) AS new_col FROM table;
    SELECT UPPER('Hello World');  -- HELLO WORLD
    SELECT LOWER('Hello World');    -- hello world
    SELECT CONCAT('MY FAVORITE BOOK IS ', UPPER(title)) FROM books;

### CONCAT , CONCAT+ALIAS, CONCAT_WS , CONCAT+SUBSTRING+ALIAS
    Syntax - CONCAT(column, anotherColumn)
    SELECT CONCAT(author_fname,'<can enter any string>', author_lname) FROM books;
    SELECT author_fname AS first, author_lname AS last, CONCAT (author_fname, author_lname
) AS fullname FROM books;
    SELECT CONCAT_WS (' - ', title, author_fname, author_lname) FROM books;     - evenly s
paced with a symbol
    SELECT
         CONCAT
            (
            SUBSTRING(title,1,10),
            '...'
        ) AS 'short title'
        FROM books;
    SUBSTRING('Hello World', 1, 4)  -  Hell
    SUBSTRING('Hello World', 7) -  World
    SUBSTRING('Hello World', -3)    -  rld

    SELECT name FROM films;
    SELECT SUBSTRING(name,1,3) AS short_name FROM films;
```

```
-- Concatenate the film names and length from the films table.
SELECT CONCAT(name,": ",length_min) AS film_info FROM films;
```

Result Grid | Filter Rows: Search | Export:

film_info
Blade Runner 2049: 153
Dunkirk: 106
Geostorm: 121
Thor: Ragnarok: 107
Jigsaw: 116
The Death of Stalin: 98
The Lego Ninjago Movie: 101
Murder on the Orient Express: 135
Paddington 2: 88
Breathe: 117
Blade Runner: 127
Victoria and Abdul: 112

2.

```
-- Extract the customers email from the 5th character onwards.
SELECT SUBSTRING(email,5) AS email_short FROM customers;
```

100% 41:9

Result Grid | Filter Rows: Search | Export:

email_short
nb@gmail.com
landy@gmail.com
nks@gmail.com
nter@gmail.com
d@gmail.com
mer@gmail.com
le101@gmail.com

3.

```
-- Select the customers first name in lower case and their last name in upper case
-- for each customer with a last name of 'Smith'.

SELECT LOWER(first_name) AS first_name, UPPER(last_name) AS last_name FROM customers
WHERE last_name = 'Smith';
```

100% 27:15

Result Grid | Filter Rows: Search | Export:

first_name	last_name
john	SMITH
mark	SMITH
NULL	SMITH
stan	SMITH
NULL	SMITH
winston	SMITH

4.

```
-- Select the last 3 letters of each film name from the films table.

SELECT SUBSTRING(name,-3) AS film_name FROM films;
```

100% 51:19

Result Grid | Filter Rows: Search | Export:

film_name
ner
049
the
irk
orm
saw
ess
n 2
lin
vie
rok
dul

5.

```
-- Concatenate the first three letters in the first_name and last_name columns together
-- from the customers table.

SELECT CONCAT(SUBSTRING(first_name,1,3)," ",SUBSTRING(last_name,1,3)) AS short_name
FROM customers;
```

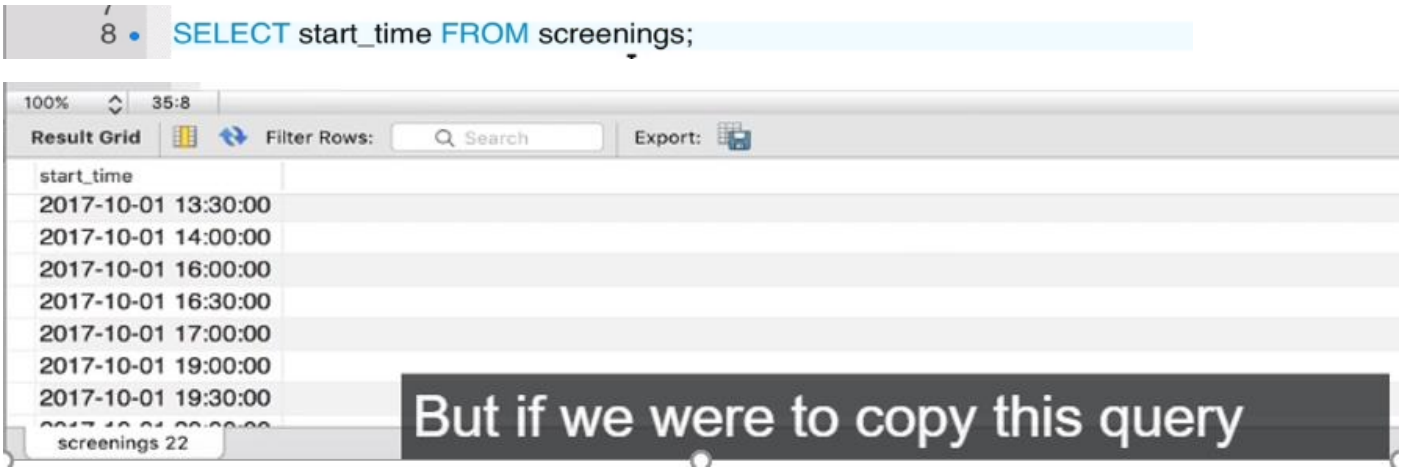
Result Grid | Filter Rows: Search | Export:

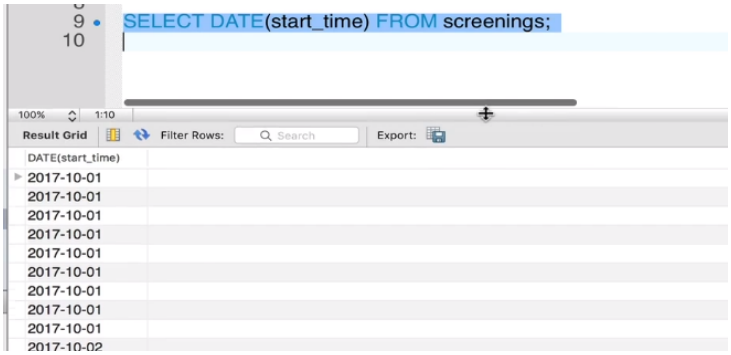
short_name
Tha Dav
Jer Mar
Joh Smi
Mar Wat
Emm Wat
Jav Pas
Cha Har
Mar Smi

DATE FUCTIONS

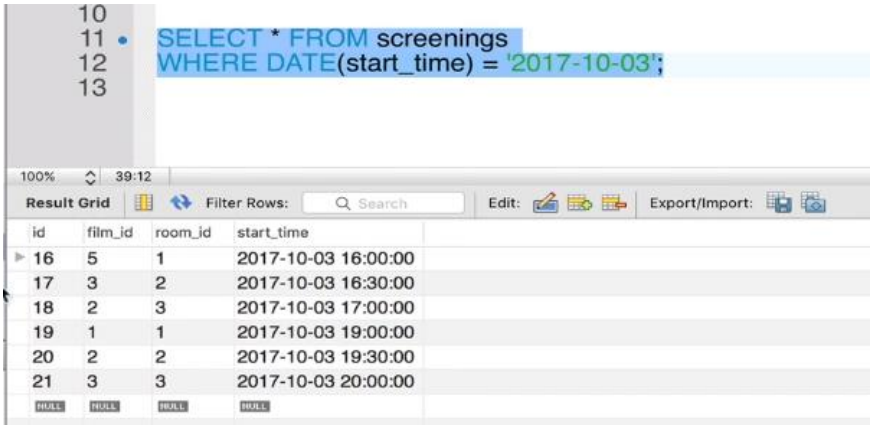
```
#### MYSQL FUNCTIONS
SELECT * FROM screenings
WHERE DATE(start_time) ='2017-10-03';

SELECT * FROM screenings
WHERE MONTH(start_time)='10';

SELECT * FROM screenings
WHERE YEAR(start_time) ='2017' - returns all data of 2017 year
```

data





adding WHERER



```
11 • SELECT * FROM screenings
12   WHERE start_time = '2017-10-03';
13
```

100% 7:12

Result Grid | Filter Rows: Search | Edit: | Export/Import:

id	film_id	room_id	start_time
NULL	NULL	NULL	NULL

->

using BETWEEN AND DATE

```
14 • SELECT * FROM screenings
15   WHERE DATE(start_time) BETWEEN '2017-10-03' AND '2017-10-05';
16
```

100% 1:16

Result Grid | Filter Rows: Search | Edit: | Export/Import:

id	film_id	room_id	start_time
16	5	1	2017-10-03 16:00:00
17	3	2	2017-10-03 16:30:00
18	2	3	2017-10-03 17:00:00
19	1	1	2017-10-03 19:00:00
20	2	2	2017-10-03 19:30:00
21	3	3	2017-10-03 20:00:00
22	3	1	2017-10-04 16:00:00
23	1	2	2017-10-04 16:30:00

MONTH FUNCTIONS

```
12 • SELECT * FROM screenings
13   WHERE MONTH(start_time) = '10';
```

100% 32:13

Result Grid | Filter Rows: Search | Edit: | Export/Import:

id	film_id	room_id	start_time
1	2	1	2017-10-01 13:00:00
2	1	2	2017-10-01 13:30:00
3	2	3	2017-10-01 14:00:00
4	3	1	2017-10-01 16:00:00
5	6	2	2017-10-01 16:30:00
6	3	3	2017-10-01 17:00:00

YEAR

```
10 • SELECT YEAR(start_time) FROM screenings;
11
12
```

100% 1:11

Result Grid | Filter Rows: Search | Export:

YEAR(start_time)
2017
2017
2017
2017
2017
2017
2017

EXs;

1.

```
1
2   -- Select the film id and start time from the screenings table for the date of 20th of October 2017.
3
4 • SELECT film_id, start_time FROM screenings
5   WHERE DATE(start_time) = '2017-10-20';
6
```

100% 39:5

Result Grid | Filter Rows: Search | Export:

film_id	start_time
1	2017-10-20 16:00:00
1	2017-10-20 16:30:00
8	2017-10-20 17:00:00
2	2017-10-20 19:00:00
6	2017-10-20 19:30:00
4	2017-10-20 20:00:00

2.

```
7   -- Select all the data from the screenings table for the start time between the 6th and 13th of
8   -- October 2017.
9
10 • SELECT * FROM screenings
11  WHERE DATE(start_time) BETWEEN '2017-10-06' AND '2017-10-13';
12
```

id	film_id	room_id	start_time
34	1	1	2017-10-06 16:00:00
35	5	2	2017-10-06 16:30:00
36	2	3	2017-10-06 17:00:00
37	4	1	2017-10-06 19:00:00
38	2	2	2017-10-06 19:30:00
39	4	3	2017-10-06 20:00:00
40	2	1	2017-10-07 13:00:00
41	1	2	2017-10-07 13:30:00
42	2	3	2017-10-07 14:00:00

81	7	3	2017-10-12 20:00:00
82	5	1	2017-10-13 16:00:00
83	2	2	2017-10-13 16:30:00
84	8	3	2017-10-13 17:00:00
85	9	1	2017-10-13 19:00:00
86	2	2	2017-10-13 19:30:00
87	9	3	2017-10-13 20:00:00

Query Stats

Execution Plan

3.

```
12
13  -- Select all the data from the screenings table for October 2017.
14
15 • SELECT * FROM screenings
16  WHERE MONTH(start_time) = '10'
17  AND YEAR(start_time) = '2017';
```

100% 31:17

Result Grid | Filter Rows: Search | Edit: | Export/Import:

id	film_id	room_id	start_time
1	2	1	2017-10-01 13:00:00
2	1	2	2017-10-01 13:30:00
3	2	3	2017-10-01 14:00:00
4	3	1	2017-10-01 16:00:00
5	6	2	2017-10-01 16:30:00
6	3	3	2017-10-01 17:00:00
7	4	1	2017-10-01 19:00:00
8	6	2	2017-10-01 19:30:00
9	4	3	2017-10-01 20:00:00