Lesson 10- revisiting data type

1- Character and varcharacter
2- Decimal
3- Float and double
4- Date, time and datetime
5- Create date data
6- Curdate, curtime and now\
7- Formatting dates
8- Date math
9- Working with timestamps
10- Datatype exercises

Data type

Check out this table!

Value	Char(4)	Storage	Varchar(4)	Storage
' '	' '	4 bytes	' '	1 byte
'ab'	'ab '	4 bytes	'ab'	3 bytes
'abcd'	'abcd'	4 bytes	'abcd'	5 bytes
'abcdefg'	'abcd'	4 bytes	'abcdefg'	5 bytes

Decimal

DECIMAL(5, 2)

Total Number Of Digits
↓
DECIMAL(5, 2)
↑
Digits After Decimal

DECIMAL(5, 2)

5 Digits

999.99

2 Digits

```
mysql>
mysql>
mysql> CREATE TABLE items (price DECIMAL(5,2));
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> INSERT INTO items(price) VALUES(7);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO items(price) VALUES(7987654);
Query OK, 1 row affected, 1 warning (0.00 sec)

mysql> INSERT INTO items(price) VALUES(34.88);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO items(price) VALUES(298.9999);
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> INSERT INTO items(price) VALUES(1.9999);
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> INSERT INTO items(price) VALUES(1.9999);
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> SELECT * FROM items;
+--------+
| price  |
+--------+
|   7.00 |
| 999.99 |
|  34.88 |
| 299.00 |
|   2.00 |
+--------+
5 rows in set (0.00 sec)
```

Float and double

But there's also...
FLOAT
and DOUBLE???

Store larger numbers using less space

BUT.....
(and it's a big BUT)

It comes at the cost of precision

Look, I made a table!

Data Type	Memory Needed	Precision Issues
FLOAT	4 Bytes	~7 digits
DOUBLE	8 Bytes	~15 digits

So Which Do I Use?

```
mysql>
mysql> CREATE TABLE thingies (price FLOAT);
Query OK, 0 rows affected (0.01 sec)

mysql> INSERT INTO thingies(price) VALUES (88.45);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM thingies;
+-------+
| price |
+-------+
| 88.45 |
+-------+
1 row in set (0.00 sec)
```

```
mysql> INSERT INTO thingies(price) VALUES (8877665544.45);
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM thingies;
+------------+
| price      |
+------------+
|      88.45 |
|    8877.45 |
| 8877670000 |
+------------+
3 rows in set (0.00 sec)
```

Date and time

DATE
Values With a Date But No Time

'YYYY-MM-DD' Format

TIME
Values With a Time But No Date

'HH:MM:SS' Format

DATETIME
Values With a Date AND Time

'YYYY-MM-DD HH:MM:SS' Format

```
mysql>
mysql> CREATE TABLE people (
    ->   name VARCHAR(100),
    ->   birthdate DATE,
    ->   birthtime TIME,
    ->   birthdt   DATETIME
    -> );
Query OK, 0 rows affected (0.02 sec)
```

```
, 1983-11-11 10:07:35 ) at time 2
mysql> INSERT INTO people (name, birthdate, birthtime, birthdt) VALUES ('Padma', '1983-11-11',
 '10:07:35','1983-11-11 10:07:35');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO people (name, birthdate, birthtime, birthdt) VALUES ('Larry', '1943-12-25',
 '04:10:42','1943-12-25 04:10:42');
Query OK, 1 row affected (0.01 sec)
```

```
mysql>
mysql> SELECT * FROM people;
+-------+------------+-----------+---------------------+
| name  | birthdate  | birthtime | birthdt             |
+-------+------------+-----------+---------------------+
| Padma | 1983-11-11 | 10:07:35  | 1983-11-11 10:07:35 |
| Larry | 1943-12-25 | 04:10:42  | 1943-12-25 04:10:42 |
+-------+------------+-----------+---------------------+
2 rows in set (0.00 sec)
```

Current date and time

```
1  CURDATE() - gives current date
2  CURTIME() - gives current time
3  NOW() gives current datetime
4
5
6
```

```
mysql>
mysql> SELECT CURDATE();
+------------+
| CURDATE()  |
+------------+
| 2017-05-12 |
+------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT CURTIME();
+-----------+
| CURTIME() |
+-----------+
| 04:17:05  |
+-----------+
1 row in set (0.00 sec)
```

```
mysql> SELECT NOW();
+---------------------+
| NOW()               |
+---------------------+
| 2017-05-12 04:17:12 |
+---------------------+
1 row in set (0.00 sec)
```

```
5
6  INSERT INTO people (name, birthdate, birthtime, birthdt) VALUES
7  ('Microwave', CURDATE(), CURTIME(), NOW());
8
9
10
```

```
| name      | birthdate  | birthtime | birthdt             |
+-----------+------------+-----------+---------------------+
| Padma     | 1983-11-11 | 10:07:35  | 1983-11-11 10:07:35 |
| Larry     | 1943-12-25 | 04:10:42  | 1943-12-25 04:10:42 |
| Toaster   | 2017-04-21 | 19:12:43  | 2017-04-21 19:12:43 |
| Microwave | 2017-05-12 | 04:19:36  | 2017-05-12 04:19:36 |
+-----------+------------+-----------+---------------------+
4 rows in set (0.00 sec)
```

```
5
6  INSERT INTO people (name, birthdate, birthtime, birthdt) VALUES
7  ('Microwave', CURDATE(), CURTIME(), NOW());
8
9  DELETE FROM people WHERE name = 'Microwave';
10
```

```
+---------+------------+-----------+---------------------+
| name    | birthdate  | birthtime | birthdt             |
+---------+------------+-----------+---------------------+
| Padma   | 1983-11-11 | 10:07:35  | 1983-11-11 10:07:35 |
| Larry   | 1943-12-25 | 04:10:42  | 1943-12-25 04:10:42 |
| Toaster | 2017-04-21 | 19:12:43  | 2017-04-21 19:12:43 |
+---------+------------+-----------+---------------------+
3 rows in set (0.00 sec)
```

Formatting dates

Formatting
DATES

```
mysql>
mysql>
mysql> SELECT name, birthdate FROM people;
+---------+------------+
| name    | birthdate  |
+---------+------------+
| Padma   | 1983-11-11 |
| Larry   | 1943-12-25 |
| Toaster | 2017-04-21 |
+---------+------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT name, DAY(birthdate) FROM people;
+---------+----------------+
| name    | DAY(birthdate) |
+---------+----------------+
| Padma   |             11 |
| Larry   |             25 |
| Toaster |             21 |
+---------+----------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT name, birthdate, DAY(birthdate) FROM people;
+---------+------------+----------------+
| name    | birthdate  | DAY(birthdate) |
+---------+------------+----------------+
| Padma   | 1983-11-11 |             11 |
| Larry   | 1943-12-25 |             25 |
| Toaster | 2017-04-21 |             21 |
+---------+------------+----------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT name, birthdate, DAYNAME(birthdate) FROM people;
+---------+------------+--------------------+
| name    | birthdate  | DAYNAME(birthdate) |
+---------+------------+--------------------+
| Padma   | 1983-11-11 | Friday             |
| Larry   | 1943-12-25 | Saturday           |
| Toaster | 2017-04-21 | Friday             |
+---------+------------+--------------------+
3 rows in set (0.00 sec)
```

```
+---------+------------+--------------------+
3 rows in set (0.00 sec)

mysql> SELECT name, birthdate, DAYOFWEEK(birthdate) FROM people;
+---------+------------+----------------------+
| name    | birthdate  | DAYOFWEEK(birthdate) |
+---------+------------+----------------------+
| Padma   | 1983-11-11 |                    6 |
| Larry   | 1943-12-25 |                    7 |
| Toaster | 2017-04-21 |                    6 |
+---------+------------+----------------------+
3 rows in set (0.00 sec)
```

```
ERROR 1582 (42000): Incorrect parameter count in the call to native function 'DAYOFYEAR'
mysql> SELECT name, birthdate, DAYOFYEAR(birthdate) FROM people;
+---------+------------+----------------------+
| name    | birthdate  | DAYOFYEAR(birthdate) |
+---------+------------+----------------------+
| Padma   | 1983-11-11 |                  315 |
| Larry   | 1943-12-25 |                  359 |
| Toaster | 2017-04-21 |                  111 |
+---------+------------+----------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT name, birthtime, DAYOFYEAR(birthtime) FROM people;
+---------+-----------+----------------------+
| name    | birthtime | DAYOFYEAR(birthtime) |
+---------+-----------+----------------------+
| Padma   | 10:07:35  |                 NULL |
| Larry   | 04:10:42  |                 NULL |
| Toaster | 19:12:43  |                 NULL |
+---------+-----------+----------------------+
3 rows in set, 3 warnings (0.00 sec)
```

```
3 rows in set, 3 warnings (0.00 sec)

mysql> SELECT name, birthdt, DAYOFYEAR(birthdt) FROM people;
+---------+---------------------+--------------------+
| name    | birthdt             | DAYOFYEAR(birthdt) |
+---------+---------------------+--------------------+
| Padma   | 1983-11-11 10:07:35 |                315 |
| Larry   | 1943-12-25 04:10:42 |                359 |
| Toaster | 2017-04-21 19:12:43 |                111 |
+---------+---------------------+--------------------+
3 rows in set (0.01 sec)
```

```
+---------+---------------------+--------------------+
3 rows in set (0.01 sec)

mysql> SELECT name, birthdt, MONTH(birthdt) FROM people;
+---------+---------------------+----------------+
| name    | birthdt             | MONTH(birthdt) |
+---------+---------------------+----------------+
| Padma   | 1983-11-11 10:07:35 |             11 |
| Larry   | 1943-12-25 04:10:42 |             12 |
| Toaster | 2017-04-21 19:12:43 |              4 |
+---------+---------------------+----------------+
3 rows in set (0.00 sec)
```

```
+---------+---------------------+----------------+
3 rows in set (0.00 sec)

mysql> SELECT name, birthdt, MONTHNAME(birthdt) FROM people;
+---------+---------------------+--------------------+
| name    | birthdt             | MONTHNAME(birthdt) |
+---------+---------------------+--------------------+
| Padma   | 1983-11-11 10:07:35 | November           |
| Larry   | 1943-12-25 04:10:42 | December           |
| Toaster | 2017-04-21 19:12:43 | April              |
+---------+---------------------+--------------------+
3 rows in set (0.01 sec)
```

```
+---------+---------------------+--------------------+
3 rows in set (0.01 sec)

mysql> SELECT name, birthtime, HOUR(birthtime) FROM people;
+---------+-----------+-----------------+
| name    | birthtime | HOUR(birthtime) |
+---------+-----------+-----------------+
| Padma   | 10:07:35  |              10 |
| Larry   | 04:10:42  |               4 |
| Toaster | 19:12:43  |              19 |
+---------+-----------+-----------------+
3 rows in set (0.00 sec)

mysql> SELECT name, birthtime, HOUR(birthtime) FROM people;
```

```
+---------+-----------+-----------------+
3 rows in set (0.00 sec)

mysql> SELECT name, birthtime, MINUTE(birthtime) FROM people;
+---------+-----------+-------------------+
| name    | birthtime | MINUTE(birthtime) |
+---------+-----------+-------------------+
| Padma   | 10:07:35  |                 7 |
| Larry   | 04:10:42  |                10 |
| Toaster | 19:12:43  |                12 |
+---------+-----------+-------------------+
3 rows in set (0.00 sec)
```

```
14
15 "2017-04-21"
16 MONTHNAME DAY YEAR
17 "April 21 2017"
18
```
16:10   Text   Spaces: 4

testing
book_code.sql
book_data.sql
exercises.sql
first_file.sql
like.sql

```
mysql>
mysql> SELECT CONCAT(MONTHNAME(birthdate), ' ', DAY(birthdate), ' ', YEAR(birthdate)) FROM peo
ple;
+------------------------------------------------------------------------+
| CONCAT(MONTHNAME(birthdate), ' ', DAY(birthdate), ' ', YEAR(birthdate)) |
+------------------------------------------------------------------------+
| November 11 1983                                                       |
| December 25 1943                                                       |
| April 21 2017                                                          |
+------------------------------------------------------------------------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> SELECT DATE_FORMAT('2009-10-04 22:23:00', '%W-%M-%Y');
+------------------------------------------------+
| DATE_FORMAT('2009-10-04 22:23:00', '%W-%M-%Y') |
+------------------------------------------------+
| Sunday-October-2009                            |
+------------------------------------------------+
1 row in set (0.00 sec)

mysql>
```

```
+-----------------------------------+
1 row in set (0.00 sec)

mysql> SELECT DATE_FORMAT(birthdt, '%W') FROM people;
+---------------------------+
| DATE_FORMAT(birthdt, '%W') |
+---------------------------+
| Friday                    |
| Saturday                  |
| Friday                    |
+---------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT DATE_FORMAT(birthdt, 'Was Born On A %W') FROM people;
+-----------------------------------------+
| DATE_FORMAT(birthdt, 'Was Born On A %W') |
+-----------------------------------------+
| Was Born On A Friday                    |
| Was Born On A Saturday                  |
| Was Born On A Friday                    |
+-----------------------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT DATE_FORMAT(birthdt, '%m/%d/%y') FROM people;
+-----------------------------------+
| DATE_FORMAT(birthdt, '%m/%d/%y')  |
+-----------------------------------+
| 11/11/83                          |
| 12/25/43                          |
| 04/21/17                          |
+-----------------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT DATE_FORMAT(birthdt, '%m/%d/%Y') FROM people;
+-----------------------------------+
| DATE_FORMAT(birthdt, '%m/%d/%Y')  |
+-----------------------------------+
| 11/11/1983                        |
| 12/25/1943                        |
| 04/21/2017                        |
+-----------------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT DATE_FORMAT(birthdt, '%m/%d/%Y at %h:%m') FROM people;
+------------------------------------------------+
| DATE_FORMAT(birthdt, '%m/%d/%Y at %h:%m')      |
+------------------------------------------------+
| 11/11/1983 at 10:11                            |
| 12/25/1943 at 04:12                            |
| 04/21/2017 at 07:04                            |
+------------------------------------------------+
3 rows in set (0.00 sec)
```

Date math

```
21  DATE ARITHMETIC
22  ================
23  DATEDIFF
24  DATE_ADD
25  +/-
```

```
mysql>
mysql>
mysql> SELECT * FROM people;
+---------+------------+-----------+---------------------+
| name    | birthdate  | birthtime | birthdt             |
+---------+------------+-----------+---------------------+
| Padma   | 1983-11-11 | 10:07:35  | 1983-11-11 10:07:35 |
| Larry   | 1943-12-25 | 04:10:42  | 1943-12-25 04:10:42 |
| Toaster | 2017-04-21 | 19:12:43  | 2017-04-21 19:12:43 |
+---------+------------+-----------+---------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT DATEDIFF(NOW(), birthdate) FROM people;
+----------------------------+
| DATEDIFF(NOW(), birthdate) |
+----------------------------+
|                      12215 |
|                      26781 |
|                          0 |
+----------------------------+
3 rows in set (0.00 sec)
```

```
+----------------------------+
3 rows in set (0.00 sec)

mysql> SELECT name, birthdate, DATEDIFF(NOW(), birthdate) FROM people;
+---------+------------+----------------------------+
| name    | birthdate  | DATEDIFF(NOW(), birthdate) |
+---------+------------+----------------------------+
| Padma   | 1983-11-11 |                      12215 |
| Larry   | 1943-12-25 |                      26781 |
| Toaster | 2017-04-21 |                          0 |
+---------+------------+----------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT birthdt FROM people;
+---------------------+
| birthdt             |
+---------------------+
| 1983-11-11 10:07:35 |
| 1943-12-25 04:10:42 |
| 2017-04-21 19:12:43 |
+---------------------+
3 rows in set (0.00 sec)
```

```
+---------------------+
3 rows in set (0.00 sec)

mysql> SELECT birthdt, DATE_ADD(birthdt, INTERVAL 1 MONTH) FROM people;
+---------------------+-------------------------------------+
| birthdt             | DATE_ADD(birthdt, INTERVAL 1 MONTH) |
+---------------------+-------------------------------------+
| 1983-11-11 10:07:35 | 1983-12-11 10:07:35                 |
| 1943-12-25 04:10:42 | 1944-01-25 04:10:42                 |
| 2017-04-21 19:12:43 | 2017-05-21 19:12:43                 |
+---------------------+-------------------------------------+
3 rows in set (0.00 sec)
```

```
+---------------------+-------------------------------------+
3 rows in set (0.00 sec)

mysql> SELECT birthdt, DATE_ADD(birthdt, INTERVAL 10 SECOND) FROM people;
+---------------------+---------------------------------------+
| birthdt             | DATE_ADD(birthdt, INTERVAL 10 SECOND) |
+---------------------+---------------------------------------+
| 1983-11-11 10:07:35 | 1983-11-11 10:07:45                   |
| 1943-12-25 04:10:42 | 1943-12-25 04:10:52                   |
| 2017-04-21 19:12:43 | 2017-04-21 19:12:53                   |
+---------------------+---------------------------------------+
3 rows in set (0.00 sec)
```

```
+---------------------+---------------------------------------+
3 rows in set (0.00 sec)

mysql> SELECT birthdt, DATE_ADD(birthdt, INTERVAL 3 QUARTER) FROM people;
+---------------------+---------------------------------------+
| birthdt             | DATE_ADD(birthdt, INTERVAL 3 QUARTER) |
+---------------------+---------------------------------------+
| 1983-11-11 10:07:35 | 1984-08-11 10:07:35                   |
| 1943-12-25 04:10:42 | 1944-09-25 04:10:42                   |
| 2017-04-21 19:12:43 | 2018-01-21 19:12:43                   |
+---------------------+---------------------------------------+
3 rows in set (0.00 sec)
```

```
3 rows in set (0.00 sec)

mysql> SELECT birthdt, birthdt + INTERVAL 1 MONTH FROM people;
+---------------------+----------------------------+
| birthdt             | birthdt + INTERVAL 1 MONTH |
+---------------------+----------------------------+
| 1983-11-11 10:07:35 | 1983-12-11 10:07:35        |
| 1943-12-25 04:10:42 | 1944-01-25 04:10:42        |
| 2017-04-21 19:12:43 | 2017-05-21 19:12:43        |
+---------------------+----------------------------+
3 rows in set (0.00 sec)
```
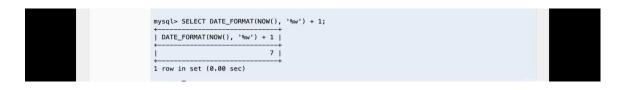
```
3 rows in set (0.00 sec)

mysql> SELECT birthdt, birthdt -  INTERVAL 5 MONTH FROM people;
+---------------------+---------------------------+
| birthdt             | birthdt -  INTERVAL 5 MONTH |
+---------------------+---------------------------+
| 1983-11-11 10:07:35 | 1983-06-11 10:07:35       |
| 1943-12-25 04:10:42 | 1943-07-25 04:10:42       |
| 2017-04-21 19:12:43 | 2016-11-21 19:12:43       |
+---------------------+---------------------------+
3 rows in set (0.01 sec)
```

```
3 rows in set (0.01 sec)

mysql> SELECT birthdt, birthdt + INTERVAL 15 MONTH + INTERVAL 10 HOUR FROM people;
+---------------------+------------------------------------------------+
| birthdt             | birthdt + INTERVAL 15 MONTH + INTERVAL 10 HOUR |
+---------------------+------------------------------------------------+
| 1983-11-11 10:07:35 | 1985-02-11 20:07:35                            |
| 1943-12-25 04:10:42 | 1945-03-25 14:10:42                            |
| 2017-04-21 19:12:43 | 2018-07-22 05:12:43                            |
+---------------------+------------------------------------------------+
3 rows in set (0.00 sec)
```

Adding Timestamps to our table

The DATETIME type is used for values that contain both date and time parts. MySQL retrieves and displays
DATETIME values in 'YYYY-MM-DD HH:MM:SS' format. The supported range is '1000-01-01 00:00:00' to '9999-
12-31 23:59:59'.

The TIMESTAMP data type is used for values that contain both date and time parts. TIMESTAMP has a range of
'1970-01-01 00:00:01' UTC to '2038-01-19 03:14:07' UTC.

```
28
29  TIMESTAMPS
30  ==========       I
31
32  CREATE TABLE comments (
33      content VARCHAR(100),
34      created_at TIMESTAMP DEFAULT NOW()
35  );
```

```
mysql>
mysql>
mysql>
mysql> CREATE TABLE comments (
    ->     content VARCHAR(100),
    ->     created_at TIMESTAMP DEFAULT NOW()
    -> );
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>
mysql>
mysql> INSERT INTO comments (content) VALUES('lol what a funny article');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO comments (content) VALUES('I found this offensive');
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
mysql> SELECT * FROM comments;
+--------------------------+---------------------+
| content                  | created_at          |
+--------------------------+---------------------+
| lol what a funny article | 2017-04-21 20:26:36 |
| I found this offensive   | 2017-04-21 20:26:46 |
+--------------------------+---------------------+
2 rows in set (0.00 sec)
```

```
mysql> INSERT INTO comments (content) VALUES('skjdkasdja');
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
mysql> SELECT * FROM comments;
+--------------------------+---------------------+
| content                  | created_at          |
+--------------------------+---------------------+
| lol what a funny article | 2017-04-21 20:26:36 |
| I found this offensive   | 2017-04-21 20:26:46 |
| skjdkasdja               | 2017-04-21 20:27:28 |
+--------------------------+---------------------+
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM comments ORDER BY created_at;
+-----------------------+---------------------+
| content               | created_at          |
+-----------------------+---------------------+
| lol what a funny article | 2017-04-21 20:26:36 |
| I found this offensive   | 2017-04-21 20:26:46 |
| skjdkasdja               | 2017-04-21 20:27:28 |
+-----------------------+---------------------+
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM comments ORDER BY created_at DESC;
+-----------------------+---------------------+
| content               | created_at          |
+-----------------------+---------------------+
| skjdkasdja               | 2017-04-21 20:27:28 |
| I found this offensive   | 2017-04-21 20:26:46 |
| lol what a funny article | 2017-04-21 20:26:36 |
+-----------------------+---------------------+
3 rows in set (0.00 sec)
```

```
38
39  CREATE TABLE comments2 (
40      content VARCHAR(100),
41      changed_at TIMESTAMP DEFAULT NOW() ON UPDATE CURRENT_TIMESTAMP
42  );
43
```

```
38
39  CREATE TABLE comments2 (
40      content VARCHAR(100),
41      changed_at TIMESTAMP DEFAULT NOW() ON UPDATE NOW()|
42  );
43
```

```
mysql> CREATE TABLE comments2 (
    ->     content VARCHAR(100),
    ->     changed_at TIMESTAMP DEFAULT NOW() ON UPDATE CURRENT_TIMESTAMP
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
```

```
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> INSERT INTO comments2 (content) VALUES('skjdkasdja');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO comments2 (content) VALUES('lololol');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM comments2;
+------------+---------------------+
| content    | changed_at          |
+------------+---------------------+
| skjdkasdja | 2017-04-21 20:30:18 |
| lololol    | 2017-04-21 20:30:25 |
+------------+---------------------+
2 rows in set (0.00 sec)
```

```
mysql> INSERT INTO comments2 (content) VALUES('I LIKE CATS AND DOGS');
Query OK, 1 row affected (0.00 sec)

mysql> ▮
```

```
mysql> SELECT * FROM comments2;
+----------------------+---------------------+
| content              | changed_at          |
+----------------------+---------------------+
| skjdkasdja           | 2017-04-21 20:30:18 |
| lololol              | 2017-04-21 20:30:25 |
| I LIKE CATS AND DOGS | 2017-04-21 20:30:45 |
+----------------------+---------------------+
```

```
mysql>
mysql>
mysql> UPDATE comments2 SET content='THIS IS NOT GIBBERISH' WHERE content='skjdkasdja';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> ▮
```

```
mysql> SELECT * FROM comments2;
+-----------------------+---------------------+
| content               | changed_at          |
+-----------------------+---------------------+
| THIS IS NOT GIBBERISH | 2017-04-21 20:33:02 |
| lololol               | 2017-04-21 20:30:25 |
| I LIKE CATS AND DOGS  | 2017-04-21 20:30:45 |
+-----------------------+---------------------+
```

```
mysql> SELECT * FROM comments2 ORDER BY changed_at;
+----------------------+----------------------+
| content              | changed_at           |
+----------------------+----------------------+
| lololol              | 2017-04-21 20:30:25  |
| I LIKE CATS AND DOGS | 2017-04-21 20:30:45  |
| THIS IS NOT GIBBERISH| 2017-04-21 20:33:02  |
+----------------------+----------------------+
3 rows in set (0.00 sec)
```

Exercise

Print Out The Current Time

```
mysql>
mysql>
mysql> SELECT CURTIME();
+-----------+
| CURTIME() |
+-----------+
| 16:08:13  |
+-----------+
1 row in set (0.01 sec)
```

Print Out The Current Date (but not time)

```
mysql> SELECT CURDATE();
+------------+
| CURDATE()  |
+------------+
| 2017-04-22 |
+------------+
1 row in set (0.00 sec)
```

Print Out The Current Day Of The Week

(The Number)

```
mysql> SELECT DAYOFWEEK(CURDATE());
+----------------------+
| DAYOFWEEK(CURDATE()) |
+----------------------+
|                    7 |
+----------------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT DAYOFWEEK(NOW());
+------------------+
| DAYOFWEEK(NOW()) |
+------------------+
|                7 |
+------------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT DATE_FORMAT(NOW(), '%w') + 1;
+------------------------------+
| DATE_FORMAT(NOW(), '%w') + 1 |
+------------------------------+
|                            7 |
+------------------------------+
1 row in set (0.00 sec)
```

Print Out The Current
Day Of The Week
(The Day Name)

```
mysql>
mysql>
mysql> SELECT DAYNAME(NOW());
+----------------+
| DAYNAME(NOW()) |
+----------------+
| Saturday       |
+----------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT DATE_FORMAT(NOW(), '%W');
+--------------------------+
| DATE_FORMAT(NOW(), '%W') |
+--------------------------+
| Saturday                 |
+--------------------------+
1 row in set (0.00 sec)
```

Print out the current
day and time using
this format:
mm/dd/yyyy

```
mysql> SELECT DATE_FORMAT(CURDATE(), '%m/%d/%Y')
    -> ;
+-----------------------------------+
| DATE_FORMAT(CURDATE(), '%m/%d/%Y') |
+-----------------------------------+
| 04/22/2017                        |
+-----------------------------------+
1 row in set (0.00 sec)
```

Print out the current
day and time using
this format:
January 2nd at 3:15
April 1st at 10:18

```
mysql> SELECT DATE_FORMAT(NOW(), '%M %D');
+---------------------------+
| DATE_FORMAT(NOW(), '%M %D') |
+---------------------------+
| April 22nd                |
+---------------------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT DATE_FORMAT(NOW(), '%M %D at %h:%i');
+------------------------------------+
| DATE_FORMAT(NOW(), '%M %D at %h:%i') |
+------------------------------------+
| April 22nd at 04:15                |
+------------------------------------+
1 row in set (0.00 sec)
```

Create a tweets table
that stores:

- The Tweet content
- A Username
- Time it was created

```
mysql>
mysql>
mysql> CREATE TABLE tweets (
    ->    content VARCHAR(140),
    ->    username VARCHAR(20),
    ->    created_at TIMESTAMP DEFAULT NOW()
    -> );
Query OK, 0 rows affected (0.06 sec)
```

problems.sql
```
mysql> INSERT INTO tweets (content, username) VALUES
    -> ('this is my first tweet', 'coltscat');
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM tweets;
+------------------------+----------+---------------------+
| content                | username | created_at          |
+------------------------+----------+---------------------+
| this is my first tweet | coltscat | 2017-04-22 16:17:36 |
+------------------------+----------+---------------------+
1 row in set (0.00 sec)
```

problems.sql
```
mysql> INSERT INTO tweets (content, username) VALUES ('this is my second tweet', 'coltscat');
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM tweets;
+-------------------------+----------+---------------------+
| content                 | username | created_at          |
+-------------------------+----------+---------------------+
| this is my first tweet  | coltscat | 2017-04-22 16:17:36 |
| this is my second tweet | coltscat | 2017-04-22 16:17:55 |
+-------------------------+----------+---------------------+
2 rows in set (0.00 sec)
```