

Data Types

There's More to Discuss!

Storing Text

VARCHAR

CHAR

What's The Difference?

CHAR has a fixed length

Char(3) -> Only 3 Characters "Allowed"

The length of a CHAR column is fixed to the length that you declare when you create the table. The length can be any value from 0 to 255. When CHAR values are stored, they are right-padded with spaces to the specified length. When CHAR values are retrieved, trailing spaces are removed unless the PAD_CHAR_TO_FULL_LENGTH SQL mode is enabled.

CHAR is faster for fixed length text

State Abbreviations: CA, NY

Yes/No Flags: Y/N

zip codes: 59715, 94924

Otherwise...

USE

VARCHAR

Here's A 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

NUMBERS

INT

WHOLE NUMBERS

DECIMAL

DECIMAL(13, 2)

Total Number Of Digits



DECIMAL(5, 2)



Digits After Decimal

DECIMAL(5, 2)

5 Digits



999.99



2 Digits

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

Another Table

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

So Which Do I Use?

On To Dates & Times

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

I Typically Use
DATETIME

Let's Try It Out!

Some Useful Date Functions

Formatting DATES

DATE

MATH

TIMESTAMPS?!

YOUR
TURN

What's a good
use case for

CHAR?

(just make one up)

Fill In The Blanks

```
CREATE TABLE inventory (  
    item_name _____,  
    price _____,  
    quantity _____  
);
```

(price is always < 1,000,000)

What's the
difference between
DATETIME and TIMESTAMP?

Print Out The
Current Time

Print Out The Current
Date (but not time)

Print Out The Current Day Of The Week

(The Number)

Print Out The Current Day Of The Week

(The Day Name)

Print out the current
day and time using
this format:

mm/dd/yyyy

Print out the current
day and time using
this format:

January 2nd at 3:15

April 1st at 10:18

Create a tweets table that stores:

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

Pat Yourself
On The
Back