

working with
knex

Week 4, Day 2

Why not just use string queries?

Implementation lock in.

No migrations.

Poor security.

There are a lot of
different SQL
implementations.

PostgreSQL

MSSQL

MySQL

MariaDB

SQLite3

Oracle

The database details are hidden from us.

knex

PostgreSQL

MySQL

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Oracle

Version control for
database **schema**.

Create table 'urls'.

0 urls			
	id	short	long

migrations

Create table 'urls'.

0	urls		
	id	short	long

Create table 'users'.

1	users	
	id	username

Create table 'urls'.

0	urls		
	id	short	long

Create table 'users'.

1	users	
	id	username

Alter table 'users'.

2	users		
	id	email	password

Create table 'urls'.

0	urls		
	id	short	long

Create table 'users'.

1	users	
	id	username

Alter table 'users'.

2	users		
	id	email	password

Alter table 'urls'.

3	urls			
	id	short	long	user_id

Create table 'urls'.

0	urls		
	id	short	long

```
knex.schema.createTable('urls', (table) => {  
  table.increments();  
  table.string('short');  
  table.string('long');  
});
```

Create table 'users'.

1		users
	id	username

```
knex.schema.createTable('users', (table) => {  
  table.increments();  
  table.string('username');  
});
```

Alter table 'users'.

users			
2	id	email	password

```
knex.schema.table('users',(table) => {  
  table.dropColumn('username');  
  table.string('email');  
  table.string('password');  
});
```

Alter table 'urls'.

3	urls			
	id	short	long	user_id

```
knex.schema.table('urls', (table) => {  
  table.integer('user_id').unsigned();  
  table.foreign('user_id').references('users.id');  
});
```

SQL Injection

Refactor **TinyApp** to use **knex** library for storage of users and urls.

**What about
migrations?**

Let's review.

Three major benefits of using a library like knex?

What is the most important thing to consider when using migrations?

If you have already committed
a migration to version control.

Do not change it.

