**W3D2**

**Creating a New Rails Project**

**Step 1:** confirm Rails is installed: gem install rails -v '5.1.2'

**Step 2:** Generate a new Rails project (this makes new folder, uses Postgres) rails new demo\_project --database=postgresql

**Step 3:** Add these to Gemfile (under development group) group :development do  
  # Run 'bundle exec annotate' in Terminal to add helpful comments to models.  
  gem 'annotate'  
  # These two give you a great error handling page.  
  # But make sure to never use them in production!  
  gem 'better\_errors'  
  gem 'binding\_of\_caller'  
  gem 'byebug'  
  gem 'pry-rails'  
end

**Step 4:** In Terminal, navigate to the project folder, run bundle install

**Switch from SQLite to Postgres:**

**Step 1:** Delete .sqlite3 files in db/

**Step 2:** In Gemfile, replace gem 'sqlite3' with gem 'pg'

**Step 3:** run bundle install in terminal

**Step 4:** go to config/database.yml , change default environment to

default: &default  
  adapter: postgresql  
  pool: 5  
  timeout: 5000

**Step 5:**  Make a new database, name it like this:

development:  
  <<: \*default  
  database: project\_name\_development

**Step 6:  bundle exec rails db:create**

**Step 7:** if there are migrations: bundle exec rails db:migrate

**Step 8:** if there are seeds: bundle exec rails db:seed

**Migrations:**

Migration: a file of Ruby code that describes changes applied to a database.

-Can create or drop tables

- Can add/remove columns from a table

-Each new batch of changes to a DB is written to a new migration file, which goes to repository

-ActiveRecord can handle migrations

-A migration is an extension of ActiveRecord::Migration class

**Generate Migrations**

1. In Terminal: $ rails generate migration AddPartNumberToProducts

2. Go into db/migrate directory in the project folder; each migration class has its own file

3. The name of the migration file (not in CamelCase) should match the second half of the filename

4. This makes a migration like this:

5. class AddPartNumberToProducts < ActiveRecord::Migration[5.1]  
  def change  
  end  
end

**Use the change method**

1. Usually, will be one of the first things you add to a class, so set it up early:

2. class CreateProducts < ActiveRecord::Migration[5.1]  
  def change  
    create\_table :products do |t|  
      t.string :name  
      t.text :description  
      t.timestamps  
    end  
  end  
End

**Create\_table Migration Method**