Gemfile and Gemfile.lock in Ruby

Gemfile

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A Gemfile is a file we create which is used for describing gem dependencies for Ruby programs. A gem is a collection of Ruby code that we can extract into a "collection" which we can call later. It lets you specify which gems you want to use, and which versions of these gems to use.

Example of a simple Gemfile :

```
source 'https://rubygems.org'

gem 'nokogiri'
gem 'rails', '3.0.0.beta3'
gem 'rack',  '>=1.0'
gem 'thin',  '~>1.1'
```

Gemfile.lock

The `Gemfile.lock` file is where Bundler records the exact versions that were installed. This way, when the same library/project is loaded on another machine, running `bundle install` will look at the `Gemfile.lock` and install the exact same versions, rather than just using the `Gemfile` and installing the most recent versions.

Bundler provides a consistent environment for Ruby projects by tracking and installing the exact gems and versions that are needed. Bundler is an exit from dependency hell, and ensures that the gems you need are present in development, staging, and production. Starting work on a project is as simple as bundle install .

Running different versions on different machines could lead to broken tests, etc. Never directly edit the lock file.

Example of a Gemfile.lock :

```
GEM
  remote: https://rubygems.org/
  specs:
    actioncable (5.2.1)
      actionpack (= 5.2.1)
      nio4r (~> 2.0)
      websocket-driver (>= 0.6.1)
    actionmailer (5.2.1)
      actionpack (= 5.2.1)
      actionview (= 5.2.1)
      activejob (= 5.2.1)
      mail (~> 2.5, >= 2.5.4)
      rails-dom-testing (~> 2.0)
    actionpack (5.2.1)
      actionview (= 5.2.1)
      activesupport (= 5.2.1)
      rack (~> 2.0)
      rack-test (>= 0.6.3)
      rails-dom-testing (~> 2.0)
      rails-html-sanitizer (~> 1.0, >= 1.0.2)
    actionview (5.2.1)
      activesupport (= 5.2.1)
      builder (~> 3.1)
      erubi (~> 1.4)
      rails-dom-testing (~> 2.0)
      rails-html-sanitizer (~> 1.0, >= 1.0.3)
    activejob (5.2.1)
      activesupport (= 5.2.1)
      globalid (>= 0.3.6)
    activemodel (5.2.1)
      activesupport (= 5.2.1)
    activerecord (5.2.1)
      activemodel (= 5.2.1)
      activesupport (= 5.2.1)
      arel (>= 9.0)
    activestorage (5.2.1)
      actionpack (= 5.2.1)
      activerecord (= 5.2.1)
      marcel (~> 0.3.1)

PLATFORMS
  ruby

DEPENDENCIES
  bootsnap (>= 1.1.0)
  byebug
  capybara (>= 2.15)
  chromedriver-helper
  coffee-rails (~> 4.2)
  jbuilder (~> 2.5)
  listen (>= 3.0.5, < 3.2)
  puma (~> 3.11)
  rails (~> 5.2.1)
  rspec-rails

RUBY VERSION
   ruby 2.5.1p57
```

```
BUNDLED WITH
   1.16.3
```

Ruby