

Ruby On Rails

Installation Guide

Installing Ruby On Rails on Windows PCs

Class Material for Prof. Ronald Mak

CMPE 131 Software Engineering I, Spring 2017

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Rev 1.0.3
January 26, 2017

Note:

The following guide was tested on machine running Windows 8.1 Professional 64-bit and Windows 10 Professional 64-bit. It should work on any machine that runs on modern Windows Operating System.

You may follow [this](#) video tutorial. However, you may receive “SSL_connect” error. If you received “SSL_connect” error after creating your Website or while trying to start your server, please read Chapter 3.1, Generate a new Rails Application.

If you received “SSL Certificate Error” while installing Rails or pull updates from RubyGems.org, please read Chapter 2.4, Change RubyGems' Source.

```
#include <std_disclaimer.h>

/*
 *
 * Anyone including myself are not responsible for bricked computer,
 * dead hard drives, thermonuclear war, or you getting fired
 * because the installation failed. Please do some research if you
 * have any concerns about all the installation files required in this
 * guide before installing it! YOU are choosing to make these
 * modifications, and if you point the finger at us for messing up
 * your machine, we will laugh at you.
 *
 * I do not own, modify, or host any of the files included in this
 * installation guide.
 *
 */
```

Chapter 1. Obtaining Required Files

If you already have a copy of Ruby and Rails installed on your machine, it is recommended to remove them from your machine. To begin, determine your Windows Architecture and obtain the URL to the files from correct table below.

Table 1.1. Required files for 32-bits Operating System

File	File Name
Ruby 2.2.3 Installer	rubyinstaller-2.2.3.exe
Development Kit	DevKit-mingw64-32-4.7.2-20130224-1151-sfx.exe
Node.JS	node-v4.6.0-x86.msi

Table 1.2. Required files for 64-bits Operating System

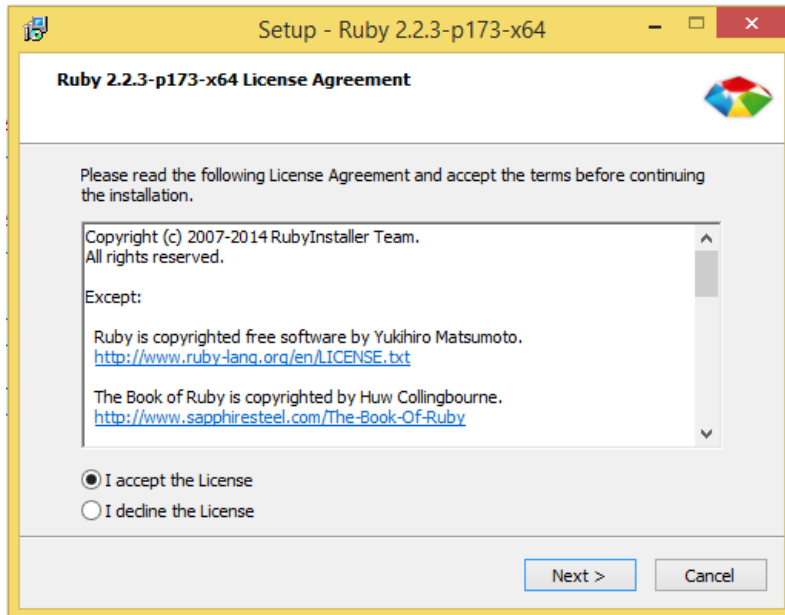
File Name	File Name
Ruby 2.2.3 Installer	rubyinstaller-2.2.3-x64.exe
Development Kit	DevKit-mingw64-64-4.7.2-20130224-1432-sfx.exe
Node.JS	node-v4.6.0-x64.msi

Note: It is highly recommended to use Ruby 2.2.3 instead of other version available.

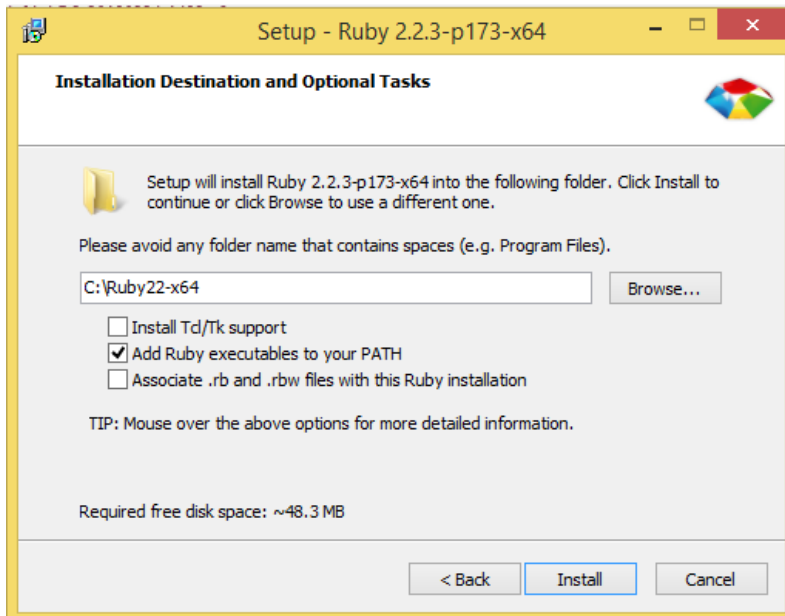
Chapter 2. Installation

2.1 Ruby Installation

Run the Ruby Installer and the following screen should show up. Accept the license agreement and proceed to the next step by pressing the “Next” button.

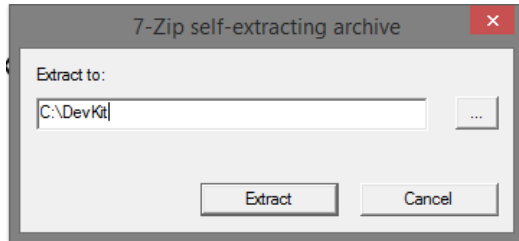


Check “Add Ruby executables to your PATH” and complete the installation by pressing the “Install” button.



2.2 DevKit Installation and Setup

The download is a self-extracting archive. When you execute the file, it'll ask you for a destination for the files. Enter a path that has no spaces in it. I recommend something simple, like `C:\DevKit\`. Click "Extract" and wait until the process is finished.



Next, you need to initialize the DevKit and bind it to your Ruby installation. Open your favorite command line tool and navigate to the folder you extracted the DevKit into.

```
cd C:\DevKit
```

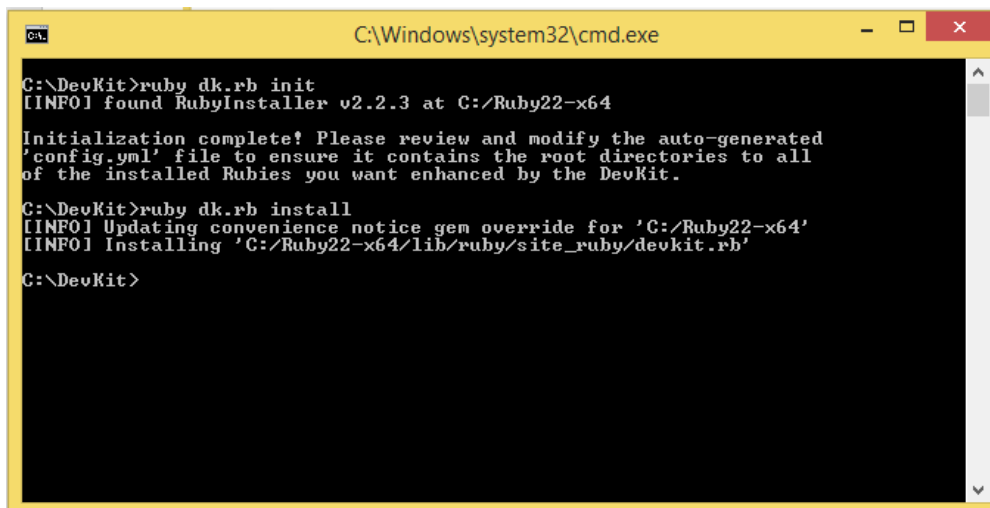
Auto-detect Ruby installations and add them to a configuration file for the next step.

```
ruby dk.rb init
```

Install the DevKit, binding it to your Ruby installation.

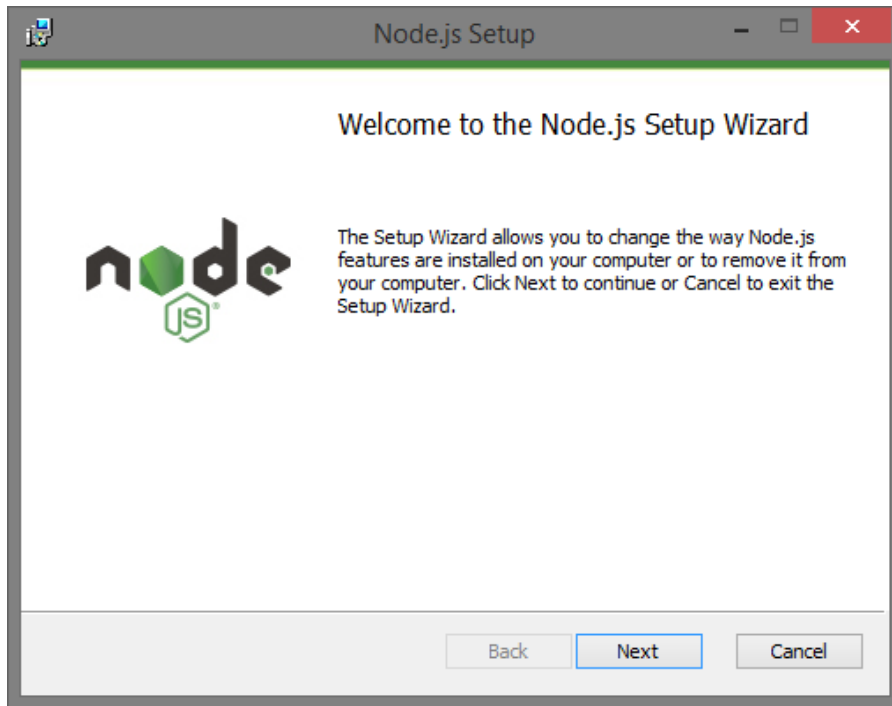
```
ruby dk.rb install
```

A similar output as shown in the command line tool shows that the binding process is completed successfully without any error.

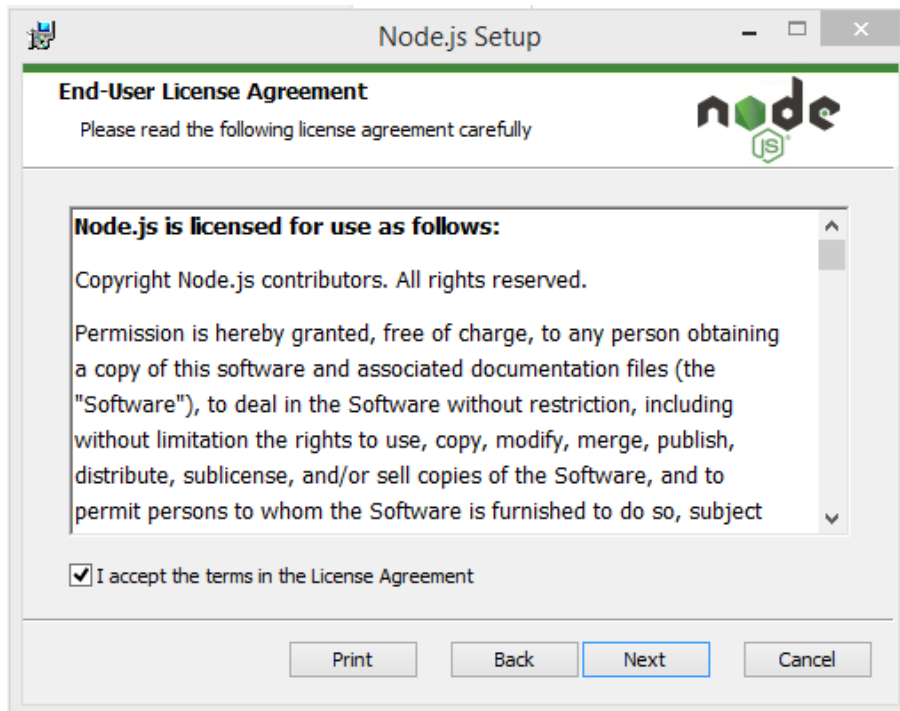


2.3 Node.JS Installation

Run the Ruby Installer and the following screen should show up.



Accept the license agreement and proceed to the next step by pressing the "Next" button.



Complete the installation by going through each steps.

2.4 Change RubyGems' Source

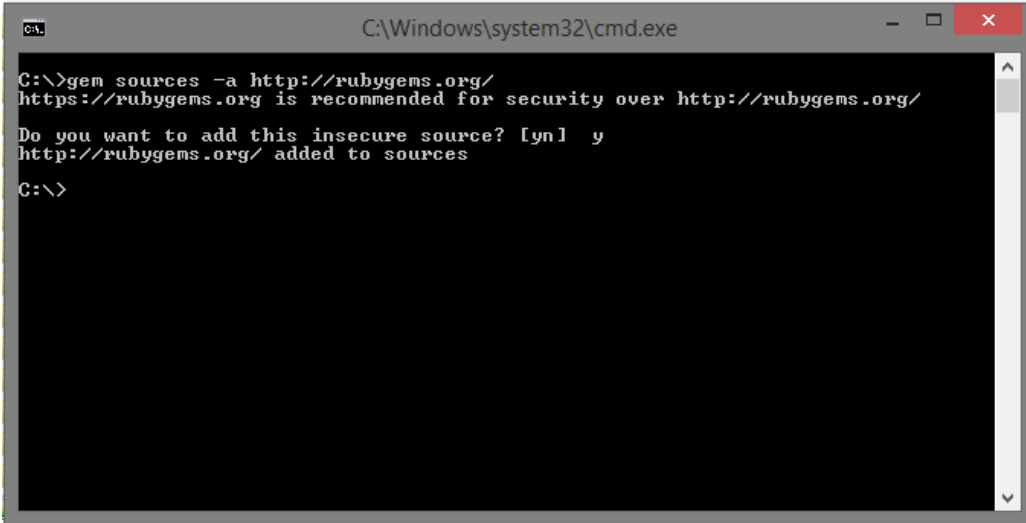
To avoid receiving SSL error when trying to install Rails or pull updates from RubyGems, open your favorite command line tool and enter the following commands below.

```
gem sources -r https://rubygems.org/  
gem sources -a http://rubygems.org/
```

A similar output as shown below will be generated from the command line tool after you inputted the second command.

Input the character `y` to the command line tool to add `http://rubygems.org/` to sources.

Note: The screenshot below shows the second command only. Please run both of the commands.



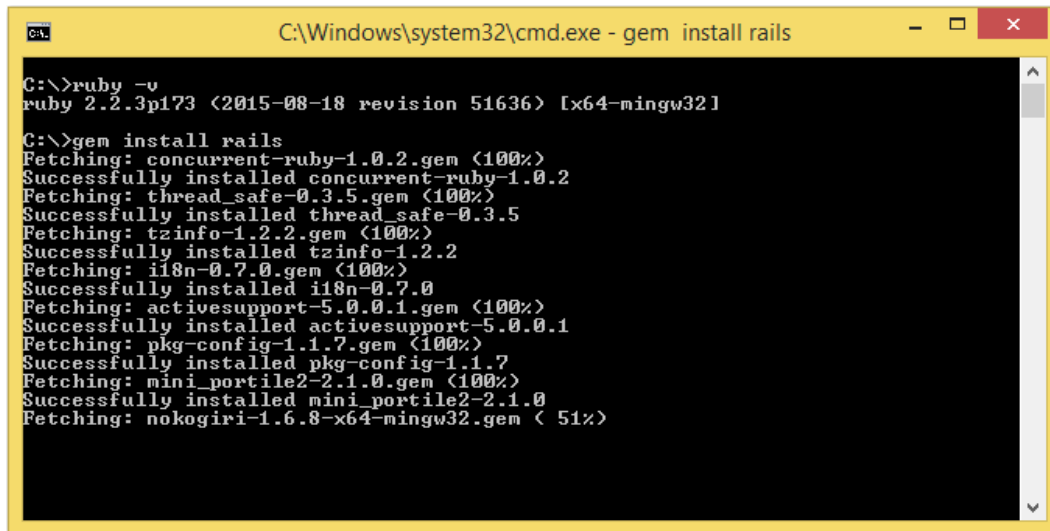
```
C:\Windows\system32\cmd.exe  
C:\>gem sources -a http://rubygems.org/  
https://rubygems.org is recommended for security over http://rubygems.org/  
Do you want to add this insecure source? [n] y  
http://rubygems.org/ added to sources  
C:\>
```

2.5 Rails Installation

Open your favorite command line tool and insert the following command below.

```
gem install rails
```

A similar output as shown below will be generated from the command line tool.



```
C:\Windows\system32\cmd.exe - gem install rails

C:\>ruby -v
ruby 2.2.3p173 (2015-08-18 revision 51636) [x64-mingw32]

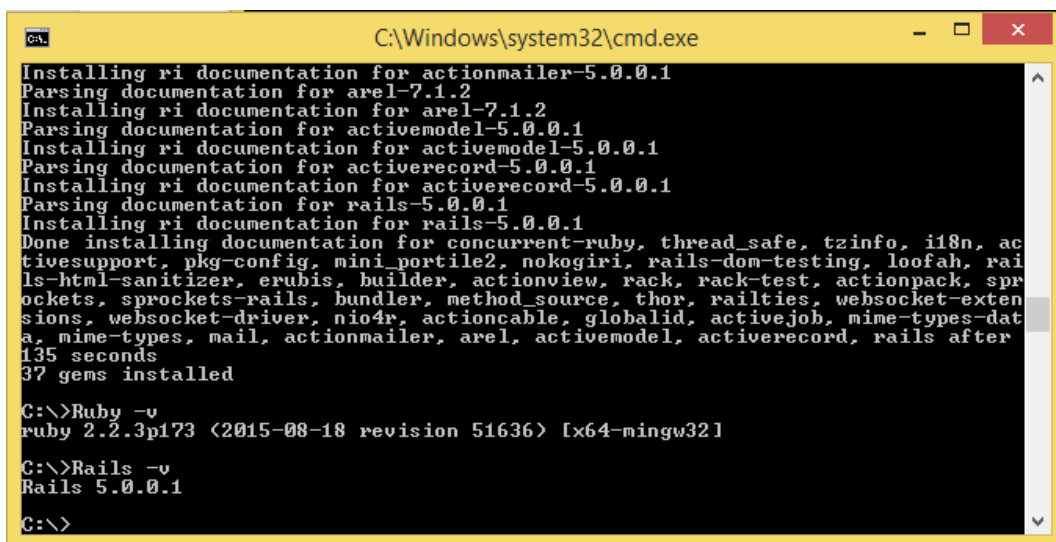
C:\>gem install rails
Fetching: concurrent-ruby-1.0.2.gem (100%)
Successfully installed concurrent-ruby-1.0.2
Fetching: thread_safe-0.3.5.gem (100%)
Successfully installed thread_safe-0.3.5
Fetching: tzinfo-1.2.2.gem (100%)
Successfully installed tzinfo-1.2.2
Fetching: i18n-0.7.0.gem (100%)
Successfully installed i18n-0.7.0
Fetching: activesupport-5.0.0.1.gem (100%)
Successfully installed activesupport-5.0.0.1
Fetching: pkg-config-1.1.7.gem (100%)
Successfully installed pkg-config-1.1.7
Fetching: mini_portile2-2.1.0.gem (100%)
Successfully installed mini_portile2-2.1.0
Fetching: nokogiri-1.6.8-x64-mingw32.gem ( 51%)
```

To verify that you have successfully installed both Ruby and Rails, enter the following command.

```
Ruby -v
```

```
Rails -v
```

A similar output as shown below will be generated from the command line tool.



```
C:\Windows\system32\cmd.exe

Installing ri documentation for actionmailer-5.0.0.1
Parsing documentation for arel-7.1.2
Installing ri documentation for arel-7.1.2
Parsing documentation for activemodel-5.0.0.1
Installing ri documentation for activemodel-5.0.0.1
Parsing documentation for activerecord-5.0.0.1
Installing ri documentation for activerecord-5.0.0.1
Parsing documentation for rails-5.0.0.1
Installing ri documentation for rails-5.0.0.1
Done installing documentation for concurrent-ruby, thread_safe, tzinfo, i18n, ac
tivesupport, pkg-config, mini_portile2, nokogiri, rails-dom-testing, loofah, rail
s-html-sanitizer, erubis, builder, actionview, rack, rack-test, actionpack, spr
ockets, sprockets-rails, bundler, method_source, thor, railties, websocket-exten
sions, websocket-driver, nio4r, actioncable, globalid, activejob, mime-types-dat
a, mime-types, mail, actionmailer, arel, activemodel, activerecord, rails after
135 seconds
37 gems installed

C:\>Ruby -v
ruby 2.2.3p173 (2015-08-18 revision 51636) [x64-mingw32]

C:\>Rails -v
Rails 5.0.0.1

C:\>
```

Note: Please close all the command line tool windows on your desktop before proceeding to Chapter 3.

Chapter 3. Create a Rails Application

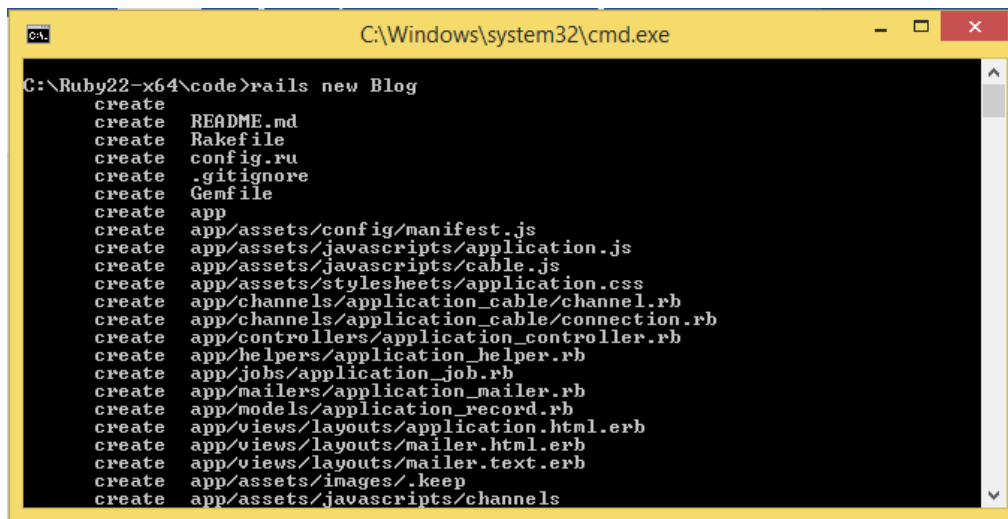
To create your website, it is highly recommending to create a folder name `Code` in the Ruby file directory. The purpose the folder `Code` is to store all your source code folder. The Ruby folder location may vary depending on your Operating System Architecture.

3.1 Generate a new Rails Application

To create a sample application named `Blog`, enter the following command to command line tool.

```
Rails new Blog
```

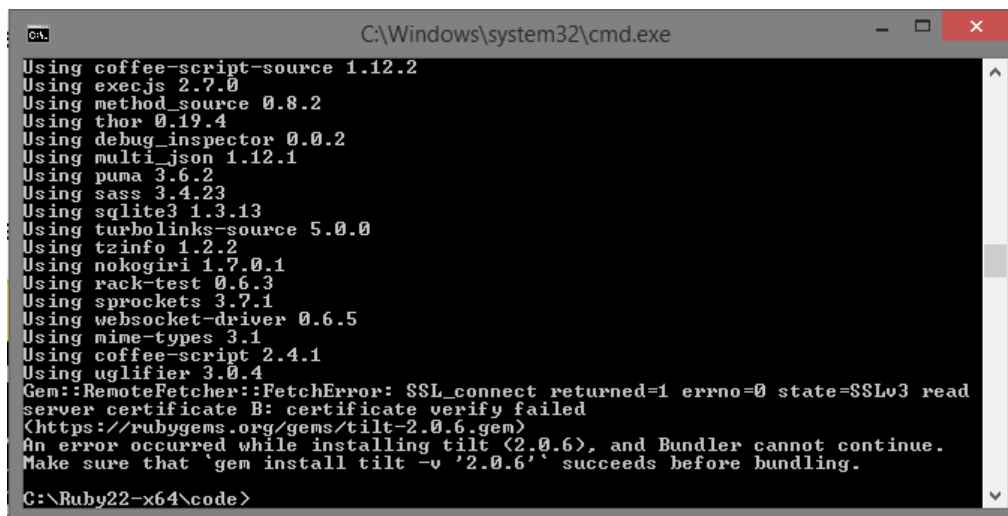
A similar output as shown below will be generated from the command line tool.



```
C:\Windows\system32\cmd.exe

C:\Ruby22-x64\code>rails new Blog
create
create  README.md
create  Rakefile
create  config.ru
create  .gitignore
create  Gemfile
create  app
create  app/assets/config/manifest.js
create  app/assets/javascripts/application.js
create  app/assets/javascripts/cable.js
create  app/assets/stylesheets/application.css
create  app/channels/application_cable/channel.rb
create  app/channels/application_cable/connection.rb
create  app/controllers/application_controller.rb
create  app/helpers/application_helper.rb
create  app/jobs/application_job.rb
create  app/mailers/application_mailer.rb
create  app/models/application_record.rb
create  app/views/layouts/application.html.erb
create  app/views/layouts/mailer.html.erb
create  app/views/layouts/mailer.text.erb
create  app/assets/images/.keep
create  app/assets/javascripts/channels
```

You may or may not receive “`SSL_connect`” error, as shown in the screenshot below.

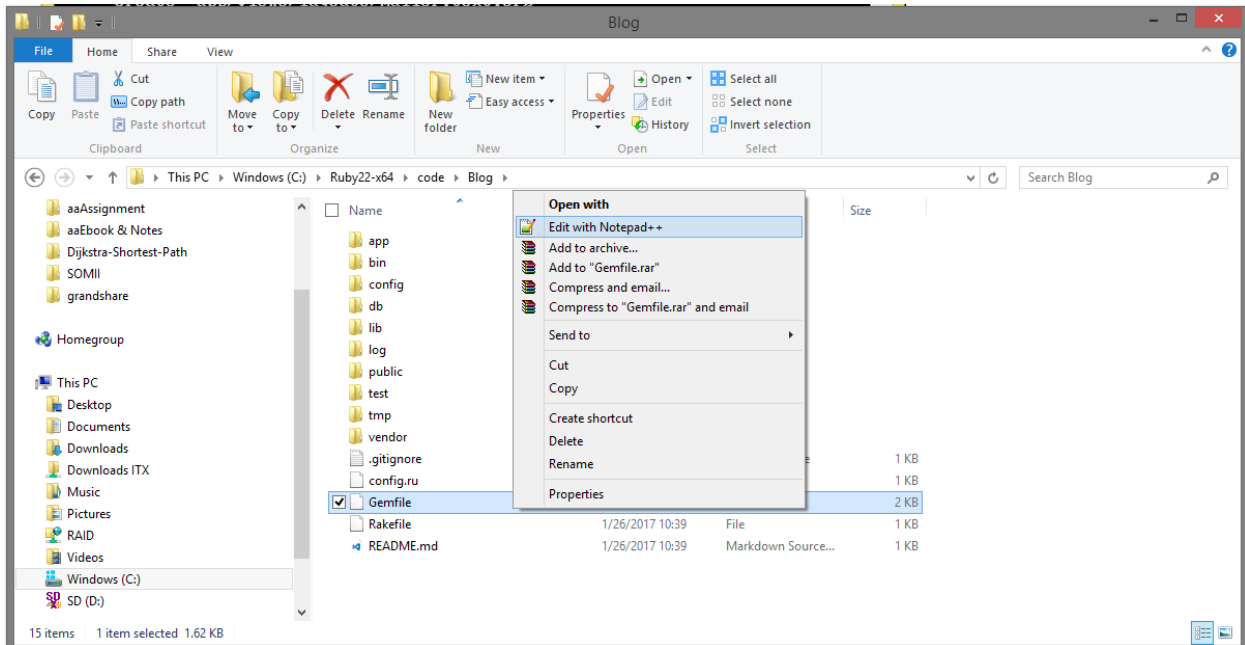


```
C:\Windows\system32\cmd.exe

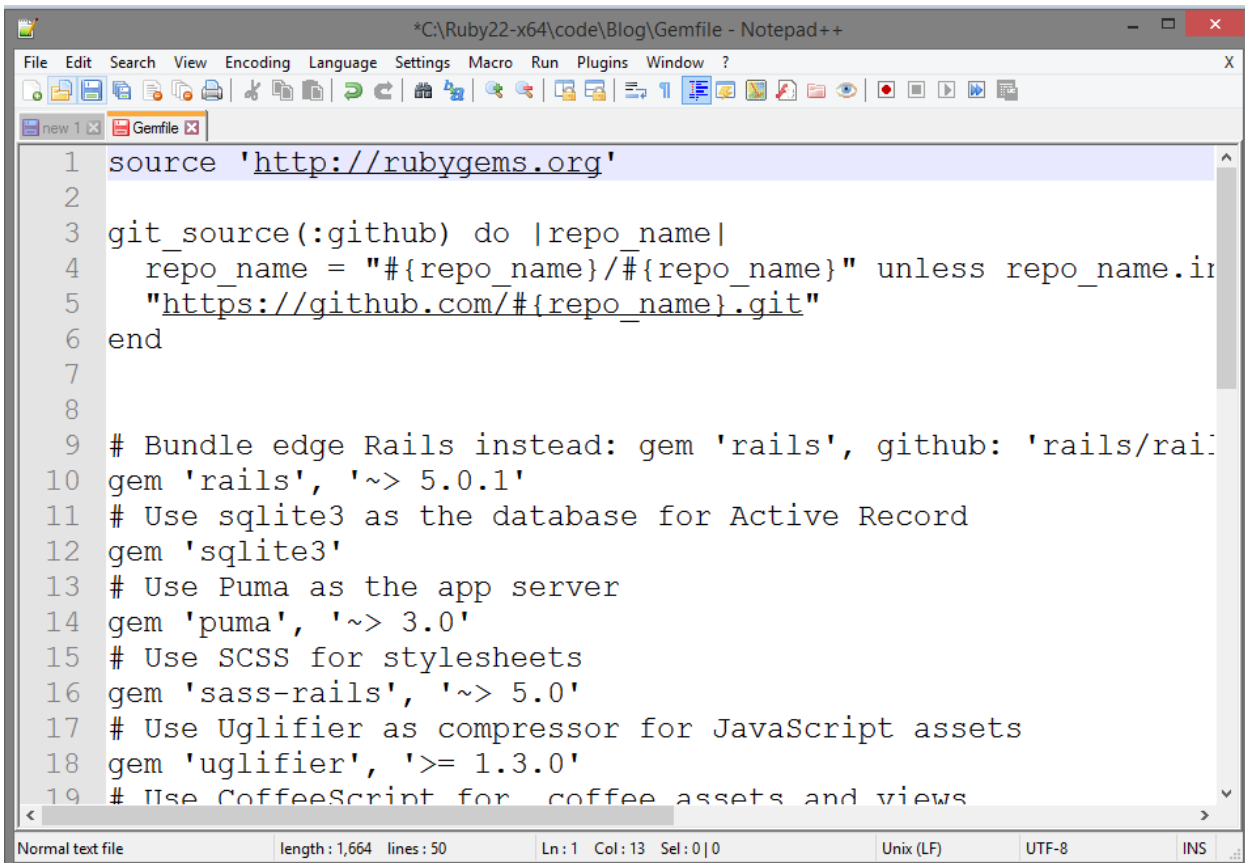
Using coffee-script-source 1.12.2
Using execjs 2.7.0
Using method_source 0.8.2
Using thor 0.19.4
Using debug_inspector 0.0.2
Using multi_json 1.12.1
Using puma 3.6.2
Using sass 3.4.23
Using sqlite3 1.3.13
Using turbolinks-source 5.0.0
Using tzinfo 1.2.2
Using nokogiri 1.7.0.1
Using rack-test 0.6.3
Using sprockets 3.7.1
Using websocket-driver 0.6.5
Using mime-types 3.1
Using coffee-script 2.4.1
Using uglifier 3.0.4
Gem::RemoteFetcher::FetchError: SSL_connect returned=1 errno=0 state=SSLv3 read
server certificate B: certificate verify failed
(https://rubygems.org/gems/tilt-2.0.6.gem)
An error occurred while installing tilt (2.0.6), and Bundler cannot continue.
Make sure that 'gem install tilt -v '2.0.6'' succeeds before bundling.

C:\Ruby22-x64\code>
```

It is recommended to not to skip the steps below even if you are not having “`SSL_connect`” error. To resolve this error, navigate to the root of your source code and open “`Gemfile`” using your preferred text editor. A sample screenshot of the opening `Gemfile` is shown below.



After opening the Gemfile, replace “https” with “http” (line 1) and save the file. The “SSL_connect” should be resolved now.

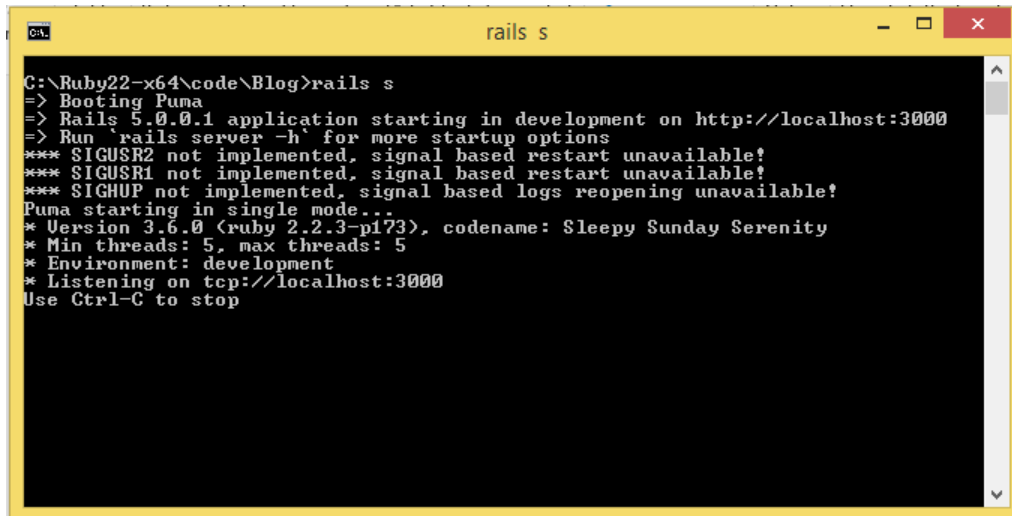


3.2 Start your server

To start the Web Server, navigate to the folder of your code and run the follow command below.

Rails s

A similar output as shown below will be generated from the command line tool.



```
C:\Ruby22-x64\code\Blog>rails s
=> Booting Puma
=> Rails 5.0.0.1 application starting in development on http://localhost:3000
=> Run `rails server -h` for more startup options
*** SIGUSR2 not implemented, signal based restart unavailable!
*** SIGUSR1 not implemented, signal based restart unavailable!
*** SIGHUP not implemented, signal based logs reopening unavailable!
Puma starting in single mode...
* Version 3.6.0 (ruby 2.2.3-p173), codename: Sleepy Sunday Serenity
* Min threads: 5, max threads: 5
* Environment: development
* Listening on tcp://localhost:3000
Use Ctrl-C to stop
```

Insert the URL in your Web Browser based on what you have seen from the command prompt to visit your website. From the result above, localhost:3000 is the path to my website.

A similar output as shown below will be generated from the command line tool.



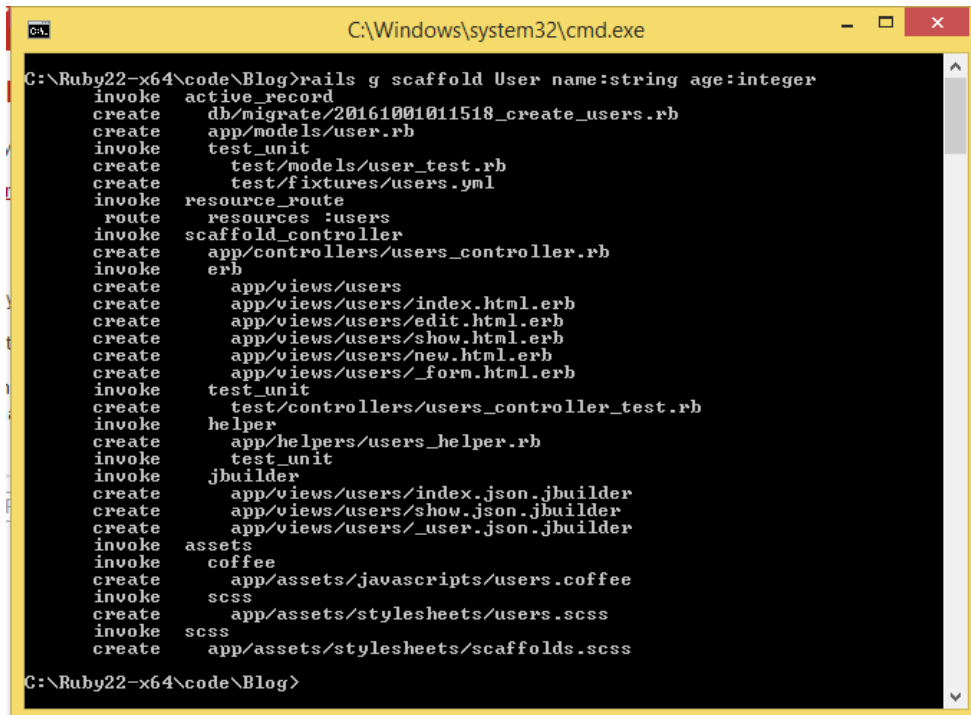
3.3 Generate a simple MVC

To verify that Ruby and Rails were installed correctly without any errors, use the command `scaffold` generate a simple set of a model, views, and controller for Rails Application.

```
Rails g scaffold User name:string age:integer
```

A similar output as shown below will be generated from the command line tool.

Note: A second command line tool window is opened to prevent termination of local Web Server.



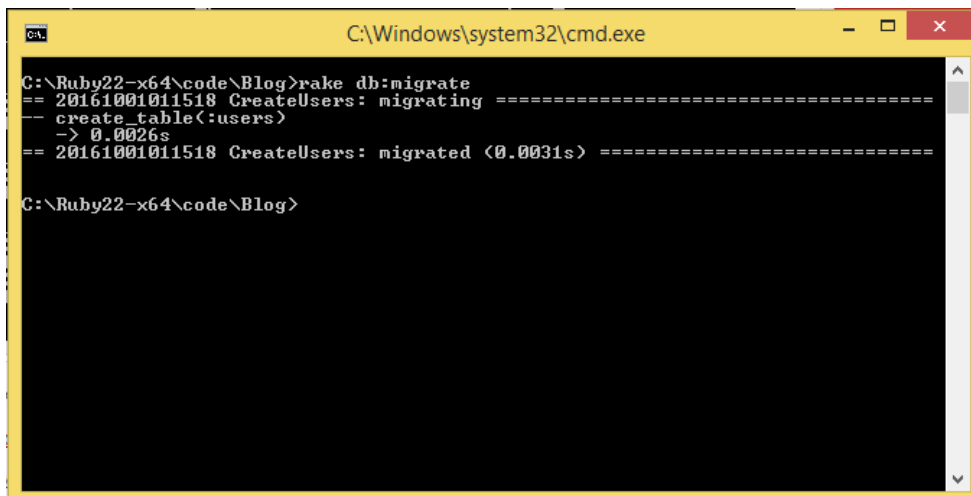
```
C:\Windows\system32\cmd.exe

C:\Ruby22-x64\code\Blog>rails g scaffold User name:string age:integer
  invoke  active_record
  create  db/migrate/20161001011518_create_users.rb
  create  app/models/user.rb
  invoke  test_unit
  create  test/models/user_test.rb
  create  test/fixtures/users.yml
  invoke  resource_route
  route   resources :users
  invoke  scaffold_controller
  create  app/controllers/users_controller.rb
  invoke  erb
  create  app/views/users
  create  app/views/users/index.html.erb
  create  app/views/users/edit.html.erb
  create  app/views/users/show.html.erb
  create  app/views/users/new.html.erb
  create  app/views/users/_form.html.erb
  invoke  test_unit
  create  test/controllers/users_controller_test.rb
  invoke  helper
  create  app/helpers/users_helper.rb
  invoke  test_unit
  invoke  jbuilder
  create  app/views/users/index.json.jbuilder
  create  app/views/users/show.json.jbuilder
  create  app/views/users/_user.json.jbuilder
  invoke  assets
  invoke  coffee
  create  app/assets/javascripts/users.coffee
  invoke  scss
  create  app/assets/stylesheets/users.scss
  invoke  scss
  create  app/assets/stylesheets/scaffolds.scss

C:\Ruby22-x64\code\Blog>
```

Run the command `rake db:migrate` to migrate the database generated by the command `scaffold` to local database server.

A similar output as shown below will be generated from the command line tool.



```
C:\Windows\system32\cmd.exe

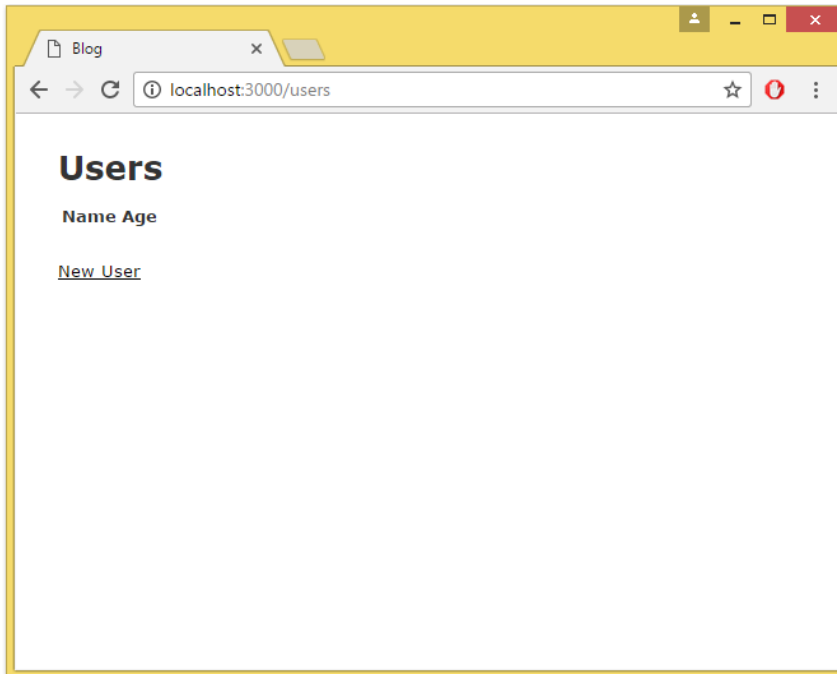
C:\Ruby22-x64\code\Blog>rake db:migrate
== 20161001011518 CreateUsers: migrating =====
-- create_table(:users)
   -> 0.0026s
== 20161001011518 CreateUsers: migrated (0.0031s) =====

C:\Ruby22-x64\code\Blog>
```

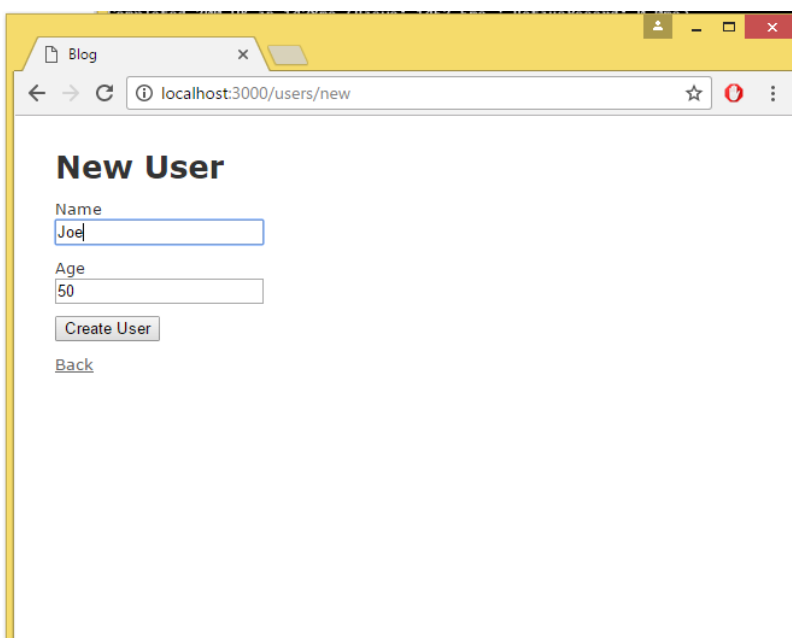
Navigate to the index page of newly generated page by entering the path at your browser.

localhost:3000/users

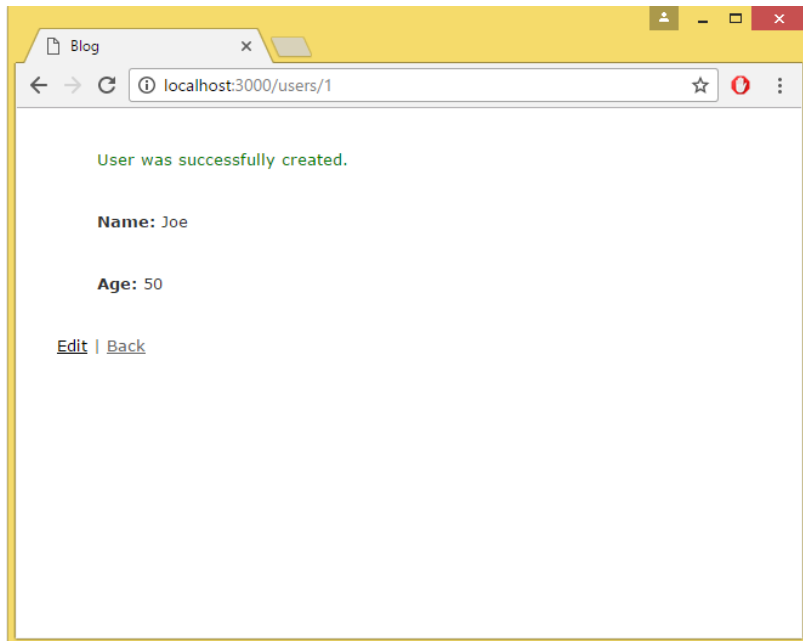
The index page of Users will be generated as shown in the screenshot below.



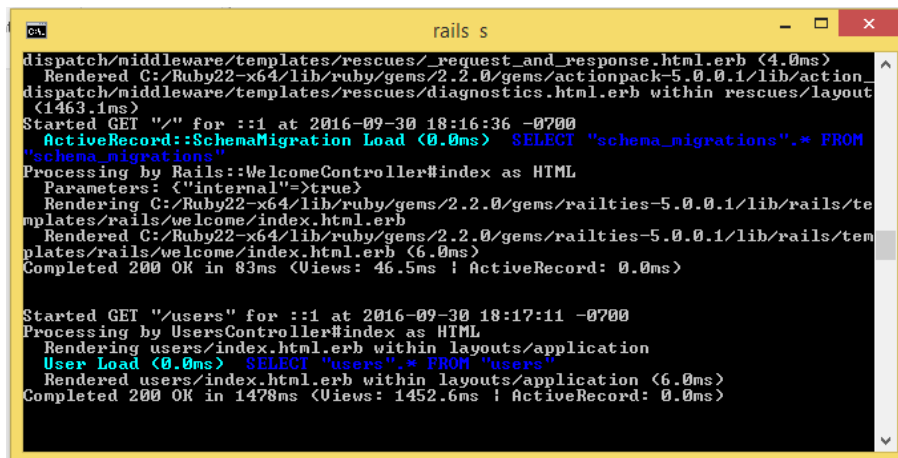
To make sure that the application is working and does not throw any error when new data are committed to the database, press the link "New User" to insert a new sample data set. A form will be rendered. Populate the form with any sample data that you prefer and press "Create User". A screenshot of the form with sample data is attached below.



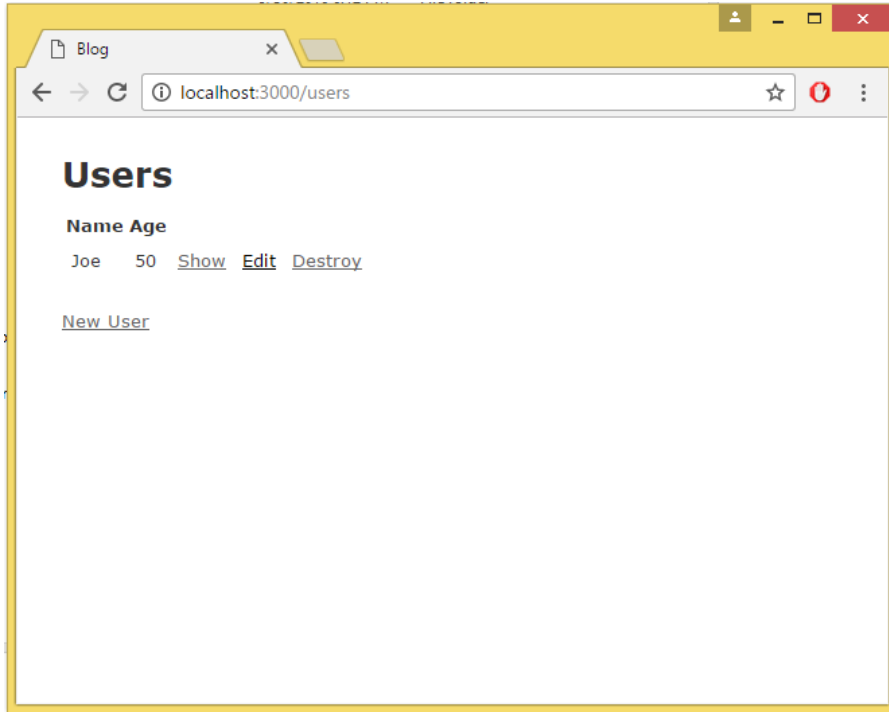
An alert message "User was successfully created" will be shown on the screen if the data is inserted into the database. A screenshot of the alert message is attached below.



To redirect to the index page of Users, press the "Back" button. By looking at the screenshot of the Command Line Tool, we can see that the Users index page was being rendered.



Picture below shows a picture of Users index page with the data that populated in the form earlier.



The End!