SHEEPDOG DEFENSE GROUP

Developer's Manual

Ver. 1.4

Revision History

Date	Description	Version	Author
4/25/2019	Update installation for Debian, development setup, and format.	1.1	Phong Nguyen
4/27/2019	Update Ruby on Rails framework, Git installation for MacOS and Heroku deployment	1.2	Muoi Pham
4/29/2019	Update setup bitbucket and clone repo to local machine	1.3	Phong Nguyen
5/6/2019	Update format and ruby on rails installation on Debian	1.4	Phong Nguyen

Table of Contents

1. Introduction

1.1 Purpose

This document provide information and instruction to future developers on how to maintain and continue to develop or update the Sheepdog Defense Group website.

1.2 Project Overview

The objective of Sheepdog is to provide a website to simplify the registration and purchase process for customers and class organization for the Administrator. It provides necessary document and login page for the Guards as well as holds their personal information. The project will provide a web interface for Administrator, Guards, and customers to enter data, retrieve documents and information.

1.3 Documentation Overview

Section 2: Ruby on Rails installation
Section 3: Development setup
Section 4: Deployment
Section 5: Resources
Section 6: Glossary

2.   Installation

2.1   Ruby on Rails

2.1.1   Install on Debian with RVM

Install dependencies for RVM:

```
sudo apt update
sudo apt install git curl libssl-dev libreadline-dev zlib1g-dev autoconf
bison build-essential libyaml-dev libreadline-dev libncurses5-dev libffi-dev
libgdbm-dev
```

Add GPG key and install RVM:

```
gpg --keyserver hkp://keys.gnupg.net --recv-keys
409B6B1796C275462A1703113804BB82D39DC0E3
7D2BAF1CF37B13E2069D6956105BD0E739499BDB
curl -sSL https://get.rvm.io | bash -s stable
```

Run this in terminal to use RVM:

```
source ~/.rvm/scripts/rvm
```

>   Recommend using ***Run command as a login shell*** in Terminal Preferences => User
Profile => Command

Install ruby:

```
rvm install 2.5.1
rvm use 2.5.1 --default
```

Install rails:

```
gem install rails
```

Install bundler to manage dependencies:

```
gem install bundler -v 2.0.1
```

Verify installation:

```
ruby -v
```

>   Should be **ruby 2.5.1p57**

```
rails -v
```

>   Should be

```
bundle -v
```

>   Should be **Bundler version 2.0.1**

Install Javascript runtime:

```
sudo apt-get install nodejs
```

2.1.2   Install on MacOS

Install homebrew (package manager for macOS):

```
ruby -e "$(curl -fsSL
```

https://raw.githubusercontent.com/Homebrew/install/master/install)"

Installing Ruby

```
brew install rbenv ruby-build
rbenv install 2.6.1
rbenv global 2.6.1
ruby -v
```

Installing Rails:

```
gem install rails -v 5.2.2
```

Setting up a database:

```
brew install sqlite3
```

2.2   Git
2.2.1   Debian
Update package index:

```
sudo apt update
```

Install git:

```
sudo apt install git
```

Verify installation:

```
git --version
```

2.2.2   MacOS
Using homebrew to install git

```
brew install git
```

2.3   Bitbucket
2.3.1   Add public key to Bitbucket Cloud
Get your ssh key:

Debian: `cat ~/.ssh/id_rsa.pub`

MacOS: `pbcopy < ~/.ssh/id_rsa.pub`

Replace **~/.ssh/id_rsa.pub** with your public key file.

On Bitbucket, click on avatar => View profile => Settings => SSH keys under Security tab => Add key.

(See direction on Bitbucket on how to generate your ssh key if you don't have one)

3. Development Setup

3.1   Source code

Get the source code from bitbucket:

```
git clone git@bitbucket.org:mhsouthworth/sheepdog.git
```

Set up environment variable:cd

Create **local_env.yml** in ~/**sheepdog/config**. It should look like this:

```
sheepdog/config/local_env.yml
```

Add **config/local_env.yml** to **.gitignore**.

Login to Heroku ~> Go to Settings ~> Config Vars, copy these variables to your **local_env.yml**:

- `STRIPE_SECRET_KEY`
- `STRIPE_PUBLISHABLE_KEY`
- `SENDGRID_API_KEY`
- `SENDGRID_USERNAME`
- `SENDGRID_PASSWORD`
- `SENDER_EMAIL`
- `RECEIVER_EMAIL`

Example:

```
STRIPE_PUBLISHABLE_KEY: 'stripe-publishable-key'
```

Run these in your terminal (on MacOS) or copy to .bashrc (on Debian):

```
export KEY-NAME=KEY-CODE
```

- S3_BUCKET_NAME
- AWS_ACCESS_KEY_ID
- AWS_SECRET_ACCESS_KEY
- AWS_REGION
- AWS_ENDPOINT

Example:

```
export AWS_REGION=us-east-2
```

NOTE: use Stripe test keys instead of live keys from heroku if you want to test Stripe.

Install dependencies:

In project folder, run:

```
bundle install
```

If `bundle install` fails while installing **pg (1.1.3)**:

```
sudo apt-get install libpq-dev
```

Then run:

```
bundle install
```

3.2   Local server

Start the server:

```
rails server
```
or
```
rails s
```

In your browser, go to:

```
localhost:3000
```

Test account on main site:

m@gmail.com
27011095

Test account on admin portal:

admin@example.com
password

4. Deployment

Install Heroku CLI on MacOS:

```
brew tap heroku/brew && brew install heroku
```

Install Heroku CLI on Debian 9:

```
curl https://cli-assets.heroku.com/install-ubuntu.sh | sh
```

Verify installation:

```
heroku --version
```

Login to heroku from terminal with your email and password:

```
heroku login -i
heroku: Enter your login credentials
Email: me@example.com
Password: ***************
Two-factor code: ********
Logged in as me@heroku.com
```

Deploy your application on Heroku. Make sure you are in the directory that contains your Rails app, then create an app on Heroku:

```
heroku create
```

Or add existing Heroku app to git remote. Find Heroku app name:

```
heroku list
```

Add the git remote:

```
heroku git:remote -a PROJECT_NAME -r heroku
```

        -a parameter defines the name of your project.git p

        -r parameter defines the name of git remote. Default is heroku.

Deploy code:

```
git push heroku master
```

Migrate database:

```
heroku run rake db:migrate
```

Run application:

```
heroku open
```

5. Resources

Quick Tutorial for Ruby on Rails: https://www.youtube.com/watch?v=pPy0GQJLZUM

Ruby on Rails Guide: https://guides.rubyonrails.org/

Ruby on Rails API: https://api.rubyonrails.org/

Ruby on Rails Installation on MacOS: https://gorails.com/setup/osx/10.14-mojave

Stripe API: https://github.com/stripe/stripe-ruby

FullCalendar: https://github.com/bokmann/fullcalendar-rails

Paperclip File Attachment Management: https://github.com/thoughtbot/paperclip

Sendgrid API: https://github.com/sendgrid/sendgrid-ruby

Uploading Files to AWS S3 in Ruby: https://devcenter.heroku.com/articles/paperclip-s3

ActiveAdmin: https://activeadmin.info/documentation.html

Deploy to Heroku: https://devcenter.heroku.com/articles/getting-started-with-rails5

6. Glossary

See Glossary document.