CS23710 Weblog

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Overview

Using Ruby 2.3.1, Rails 4.2.6.

The weblog application uses the Model View Controller architecture. This means that the website is dictated by the user, who then triggers the controllers in order to edit the model in some way. This edition is then reflected through the change to the respective relevant view.
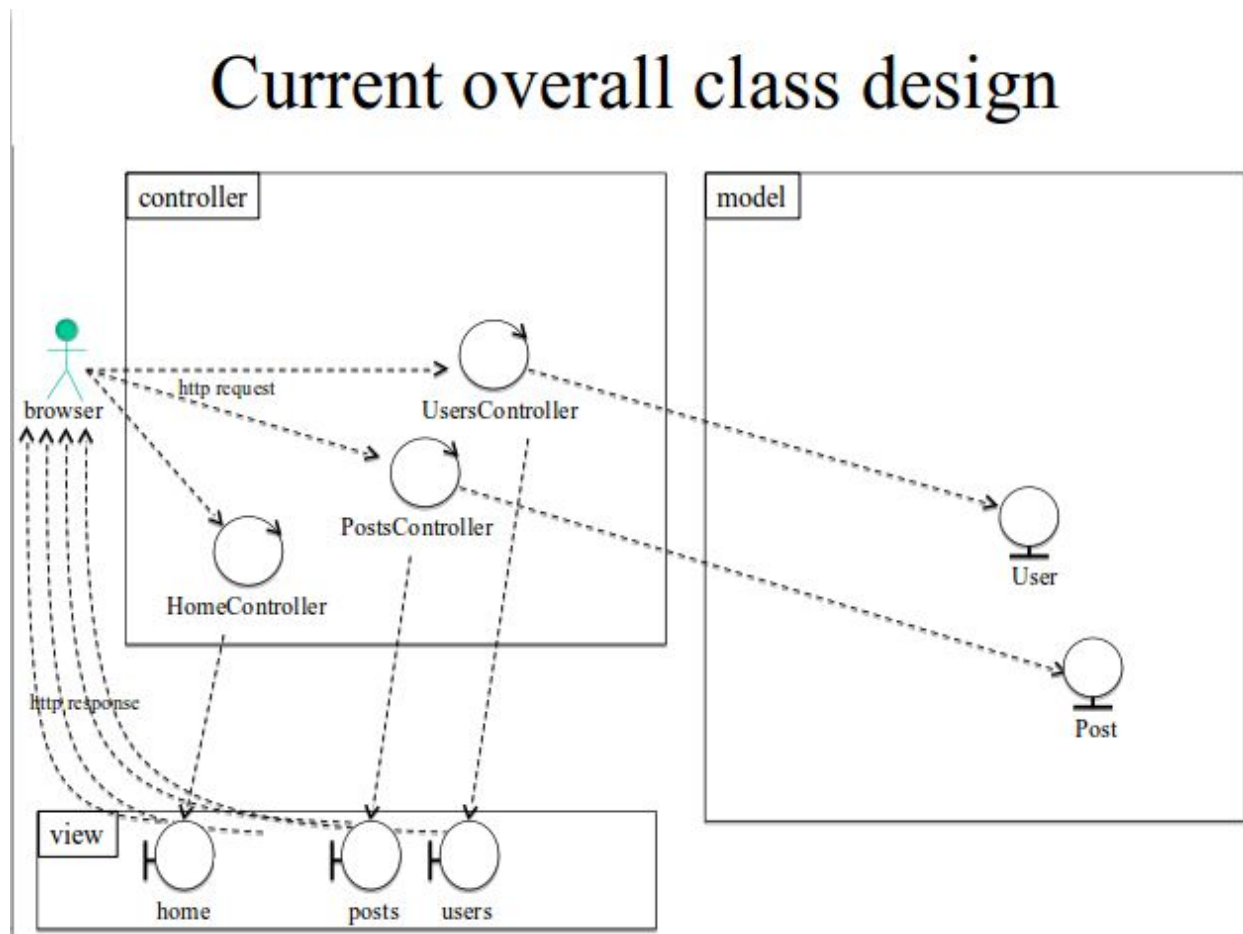
UML

Current overall class design

Diagram 1.1 - UML showing the Model View Controller (Model 2 variant)

Elaboration

Controller

The controller is essentially the wall of safety between what they can do and what the website admin(s) want them to do, as opposed to being able to directly manipulate the back end. In the weblog, we utilize three controllers in order to modify our models (excluding the login static pages such as the application and session controller).

We have the following controller files:

- Users_controller.rb
- Posts_controller.rb
- Home_controller.rb

The first controller to mention is the 'home' controller. This one is simple; it provides a homepage for the user and has no related model as it only gives a way for the user to navigate to the posts or user controllers. The second controller we have is the 'users' controller. If we were to create/read/update/delete (CRUD) a user, this controller contains the methods and definitions to tell Rails how to modify the 'users' model and consequently our 'users' table in the database. Finally, we have the 'posts' controller, which essentially does the exact same thing, however it controls (allows CRUD operations on) the 'post' model and it's respective table in the database.

Model

The model is the definition of the entity that will be modified throughout the lifetime of the Weblog. In this case, it is the user and post as there will be many users and posts that will be created; which all need to be of the same format in order to have consistency within the database.

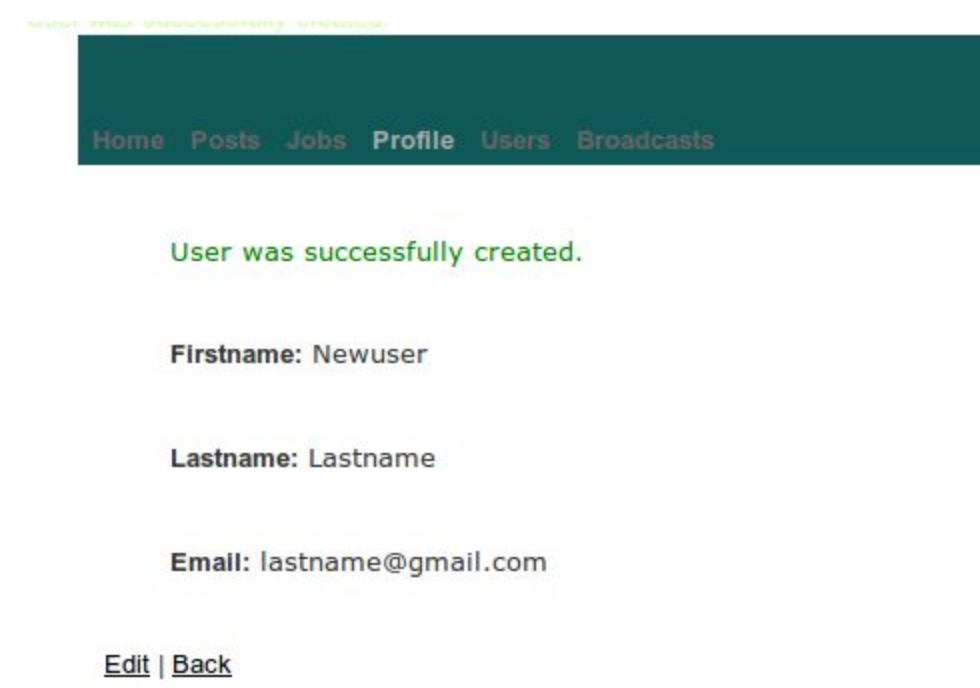The two model files we have are:

- User.rb
- Post.rb

In context, this means that when a new user or post is created, they will have the same attributes (e.g first name, surname and email, with the email being of the correct format) however their respective values will be different. Once the model is modified, the change will be reflected in the database. In the weblog, as there can be potentially hundreds of

posts, pagination is used to show a certain per page. The number per page is defined in the models.

View

The view is the end product of the request the user has made. Once the changes have been made, there will be an HTTP response with the page that has been defined for each modification that has been made. In this case, if we create a new user, we will be presented with a confirmation page showing whether it was successful or not. This is one of the "views" for 'user'.

The same confirmation page is present for posts.

Each page that the user sees is a view file.

The view files for posts and users that we have are:

- Index.html.erb
- Edit.html.erb
- Show.html.erb
- New.html.erb

For the home page, there is only:

- Home.html.erb