Architecture Report

Introduction

Content of this report describes key architectural elements of Social Community - a web-based platform for municipalities and their citizens. In next chapters of this report main technologies used, logical architecture and physical architecture of the project will be briefly explained.
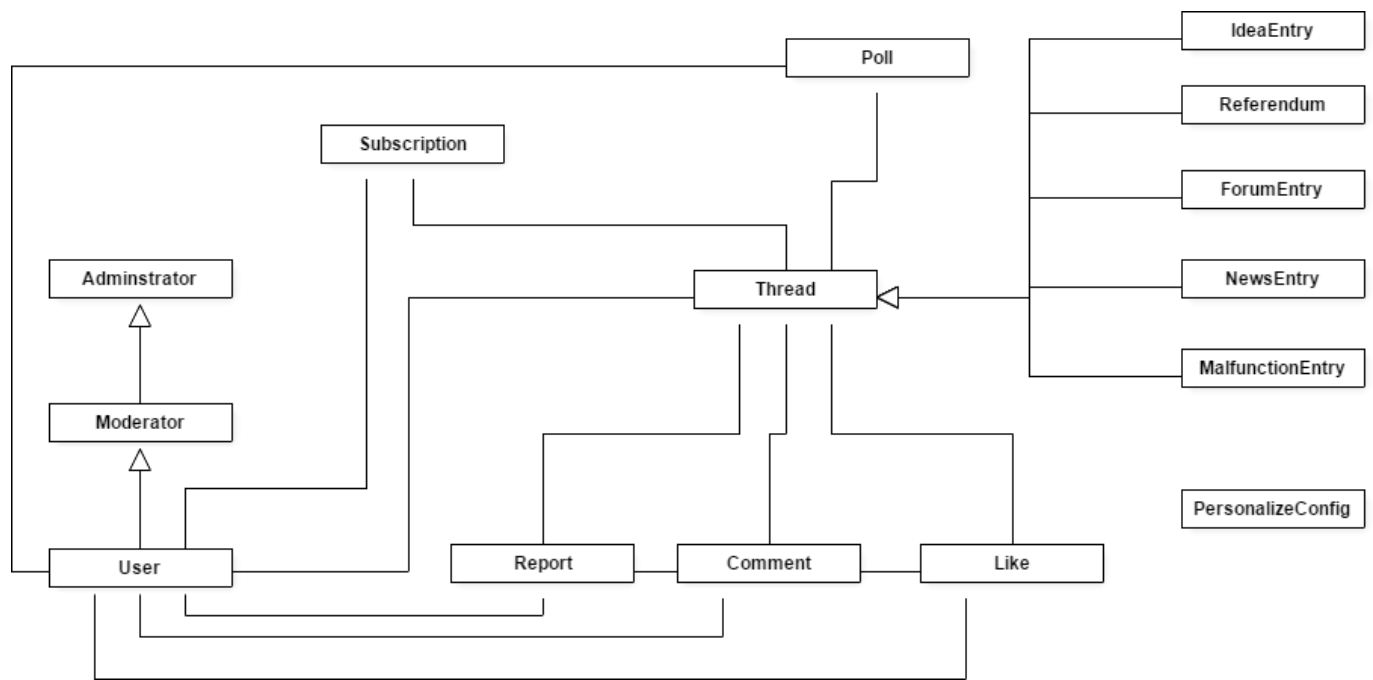
Technological architecture

This project is divided in three essentials parts: API, a web application, android client and a deployment service. To develop the API, the technologies used will be Laravel and MySQL. For the Web application Laravel, VueJS and Sass. For the android client we will use Sass, Ionic. For deployment, Laravel Forge and a server with root access (Ubuntu), for example Linode.
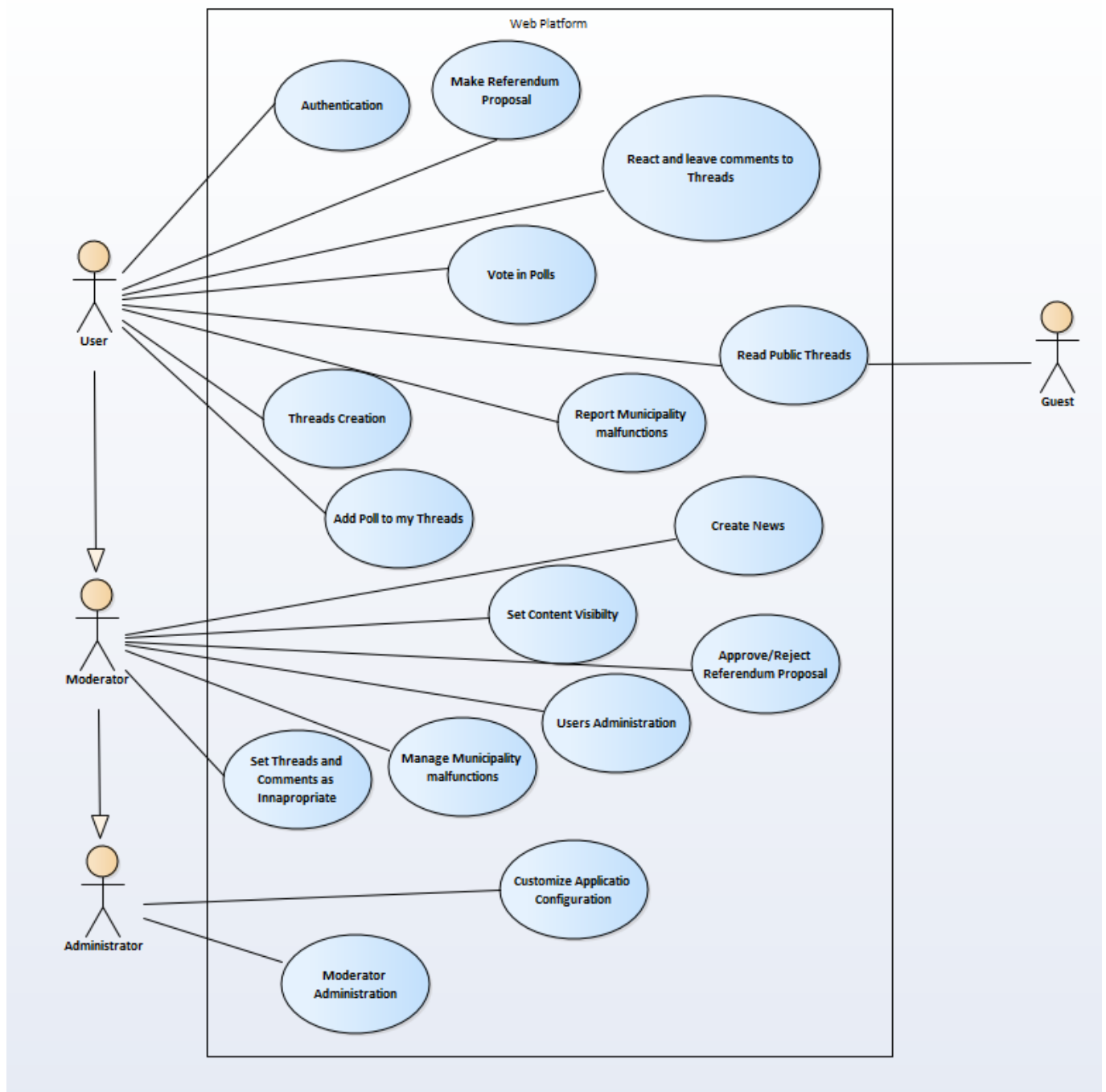
- Laravel is a modern and stable Web development framework (based on PHP). It uses the MVC pattern, includes Eloquent ORM (ActiveRecord) and Blade a simple and flexible templating engine. It also has avaible multiple services that value simplicity, a good and fast growing support community, with lot of third-party extensions.
- MariaDB is an enhanced, drop-in replacement for MySQL. MariaDB is used because it is fast, scalable and robust, with a rich ecosystem of storage engines, plugins and many other tools make it very versatile for a wide variety of use cases.
- VueJS is a javascript framework based on AngularJS allowing dual bind interaction between html and javascript. It also allow the construction of components that can be reused several times with or without interaction between them.
- Ionic is a javascript framework built above AngularJS. Once is a web based platform it follows web UI guidelines which allow to reuse a lot of the UI code of the webpage and easily deploy natively to Android using PhoneGap or Cordova.
- Sass is the most mature, stable, and powerful professional grade CSS extension language in the world.

Logical architecture

Class Diagram

Use Cases

Physical architecture

References

- https://laravel.com/docs/5.3
- https://laravel.com/docs/5.3/eloquent
- https://laravel.com/docs/5.3/blade
- https://vuejs.org
- http://ionicframework.com
- https://forge.laravel.com
- https://www.linode.com