

CodeHub

**Online Communication Platform
Software Requirements Specification
For Web Application**

Version 1.0

CodeHub	Version: 1.0
Software Requirements Specification	Date: 03/11/2020
CodeHub-Spec-Sheet.pdf	

Revision History

Date	Version	Description	Author
03/11/2020	1.0	First Version of CodeHub	Rehman Arshad Jorge Quiroz

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Software Requirements Specification

1. Introduction

The following section provides an overview of the derived Software Requirements Specification (SRS) for the subject Online Communication Platform, intended for a software application named 'CodeHub'. Furthermore, the purpose of the document is presented and its intended audience outlined. The scope of the project specified by the document is given with a particular focus on what the resultant software will do.

1.1 Purpose

The purpose of this software requirement specification is to provide a detailed description of the Online Communication Platform. The document will cover the overview of the software, explain its underlying purpose and various other technical dependencies of it including the features of the system, interfaces, what the system will do, the constraints under which it must operate and how the system will react to external stimuli.

1.2 Scope

CodeHub is to provide an online communication platform for developers to come together, bring their ideas and collaborate with one another on trending projects. The main feature is for users to find other developers that share similar interests in which they may collaborate on projects together hosted on the platform. It has a reputation system that can reward and penalize users, similar to StackOverflow and Yelp. Users can form development teams in an Agile development environment, it can be used to vote members into groups and mark their progression.

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1.3 Definitions, Acronyms, and Abbreviations

Abbreviation:	Definition:
SRS	Software Requirement Specification
OCP	Online Communication Platform
DB	Database
ER	Entity Relationship
Visitor	User with the least amount of privileges. Users who are not registered and logged in. Visitors can only view Posts.
OU	Ordinary Users, a group of registered users with moderate privileges, and a reputation score from (1-24). They can login, create Posts. They update Posts, and their own delete Posts.
VIP	VIP Users are (OU). but with a higher reputation score (25-30), and privileges. They can login, create Posts. They update Posts, and their own delete Posts. However, unlike (OU), VIP's can vote for the democratic (SU).
SU	Super User, there can only be 2 Super Users in the entire system. One is the developer, and the other is democratically elected by all the (VIP)'s. Super Users can login, create Posts. They can update posts, and delete other people's Posts. They can assign (VIP)'s to moderate Groups, and they can approve registration, put (OU)'s on a blacklist.

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1.4 References

1. In the project directory: CodeHub/app/blueprint_imports.txt
2. Documentation: <https://pypi.org/project/flask-censor/>
3. Working CRUD methods:
<https://github.com/rehman000/CSC-32200-Software-Engineering>
4. Specifications Sample: http://www-cs.engr.ccny.cuny.edu/~csjie/322/spec_sample.pdf

1.5 Overview

So far, in this section of the SRS, we've introduced the purpose, scope and definitions of the proposed software system that will be designed. In the following sections, we will go more in depth about the specifics of the system such as the requirements, assumptions, dependencies and any supplementary details. The SRS will be organized as follows:

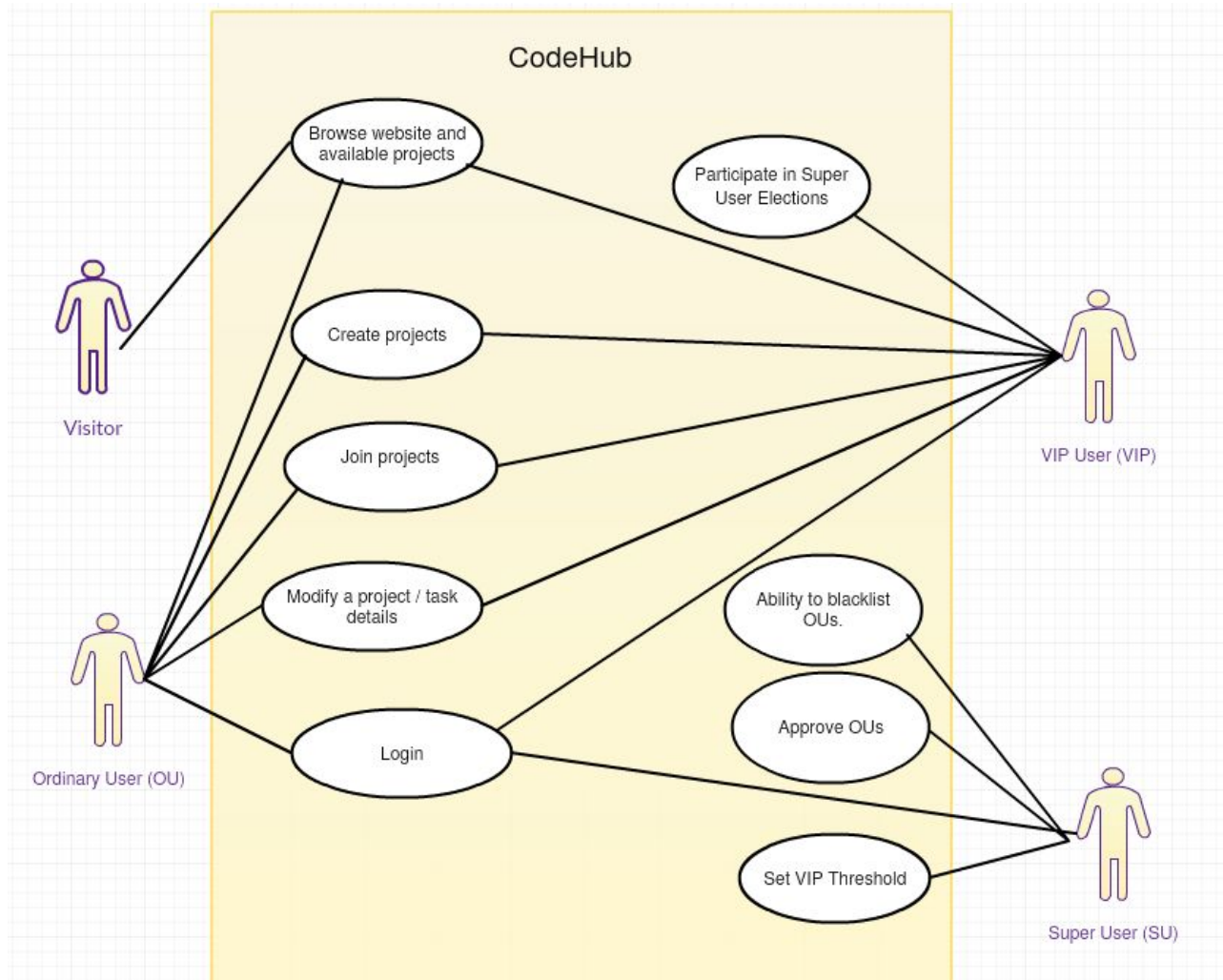
- **Introduction:** We introduce the purpose, scope and definitions of CodeHub.
- **Overall Description:** We will show how the platform will work and what each entity does in the OCP through the use of the use-case model.
- **Specific Requirements:** The specifications of the OCP will be explored more in-depth, with explanations of each part of the use-case model and how they fit into the entire system.
- **Supporting Information:** This section will include any supporting information that will make the SRS easier to access.

2. Overall Description

A use-case model will be provided in this section in order to outline the different features and users of the system. These features and users will be illustrated in a use-case diagram and explained in further detail when necessary further on.

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2.1 Use-Case Model Survey



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2.2 Assumptions and Dependencies

1. This application is Web based.
2. Strong Internet connection is necessary for properly being able to login, and make posts. Thus internet connection is required.
3. When the user makes a mistake, the user will be able to go back and forth within the browser to correct.
4. There will be visual feedback, embedded within the GUI of the application.
5. Customer's credentials and personal info will be securely protected and monitored.
6. The web server, where the application is deployed is able to handle multiple application instances, if multiple users were visiting the site at the same time.

*For a more detailed list of imports please refer to '**blueprints_imports.txt**' located in the project directory:

CodeHub/app/blueprint_imports.txt

3. Specific Requirements

This section contains a detailed analysis of the functionalities found available in CodeHub.

3.1 Use-Case Reports

- **3.1.1 -- Visitors: (Reputation Score: 1-24)**
 - Use-Case: Can view current available and trending projects on home page
 - Description: The display will show all the posts stored in the database, queried in descending order so that the newest post will be on the top. As visitors, they could press the Register button to get a new account.
- **3.1.2 -- Ordinary Users: (Reputation Score: 1-24)**
 - Use-Case: Login.
 - Description: Once the users create their own account, they are able to login based on their email and password. Also once they're logged in they will no longer see the login, and register buttons. Those links will be replaced with logout, account, and new post.
 - Use-Case: Can view, create, update, and join projects.
 - Description: After logging in they will be able to see links for their account, where they can upload a profile picture, and even update their email and username.

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- *Passwords cannot be reset here! For security reasons!* As an added measure the account link is only accessible if you're logged in. Visitors cannot access this route by modifying the url. Same rule applies to the new post link, this allows an Ordinary User to create posts, which the user can update, and delete.
- **3.1.3 -- VIP Users: (Reputation Score: 25+)**
 - Can do everything an Ordinary User can do but can also participate in elections to democratically elect Super User.
 - Description: There will be a page available only to VIP's where they can access the election poll. They can vote for themselves or any other VIP.

3.2 Supplementary Requirements

1. Super Users will have the ability to blacklist (OU) Ordinary Users.
2. Can approve or reject registration
3. Can Place Users on blacklist
4. If given a complaint, SU can punish OU, or if the complaint has merit, then the Super User can punish the whole Group, or put everyone involved in a blacklist.
5. Assigns VIP's to evaluate a group upon closure.

4. Supporting Information

This Software Requirement Specification includes:

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