Team C

The Hive

Software Requirements Specification For Online Project Management System

Version 1.0

Linda Wong
Niharika Alam
Alexandria Guo
Michael Mayaguari

Revision History

Date	Version	Description	Author
3/16/2020	1	Initial Plan	Team C

Table of Contents

Introduction **4**

- Purpose 4
- Scope 4
- Definitions, Acronyms, and Abbreviations 5
- References 6
- Overview 6

Overall Description **6**

- Use-Case Model Survey 7
- Assumptions and Dependencies 7

Specific Requirements **8**

- Use-Case Reports 8
- Supplementary Requirements 9

Supporting Information **9**

Software Requirements Specification

1. Introduction

The Hive is a multi-user system built to help facilitate grouping people with similar interests and/or skill-set to collaborate together on a project. This is achieved by a web interface that connects users from across the world that share similar interests and inspire others with the projects already created.

1.1 Purpose

The purpose of this document is to describe the features, subsystems, and constraints of *The Hive*. This document will outline who can interact with the system and how. It will also delineate all the aspects of the system - functional and non-functional.

1.2 Scope

The Hive is a web application that mimics a project manager, which simplifies the process of collaborating on projects and scheduling meetings with a group of like-minded people. The purpose of this system is to provide easy communication between different types of users, and create a convenient application for people to connect through similar interests.

The system includes two subsystems: unregistered and registered user subsystems.

- Unregistered user subsystem: All users can access this subsystem, no need to login. This subsystem is available to all registered users listed below and visitors. The subsystem showcases the top 3 rated projects, top 3 rated OU profiles and SU profiles, and can surf around to find more OU/VIP profiles and projects.

- Registered user subsystem: Only registered users can access this subsystem, users need to be logged in. This subsystem allows all registered users to give initial reputation scores to new registered users they referenced, form a group with other registered users, place other OUs in their white/black box, and complain or compliment to a SU about a group or OU. For the groups formed, there are two subsystems of their own.
    - Group/Team subsystem allows each member of the group to moderate evaluations (warnings or praises) and tasks, post updates, schedule meet-ups with other group members, and vote for a member's dismissal from the group.
    - Public subsystem allows users not in the group/team to view public information about a group.

There are also two other subsystems for VIPs and SUs.

- VIP subsystem allows VIP users to evaluate and determine a reputation score for groups, and vote for a democratic SU.
- SU subsystem allows the two SUs to assign VIPs to groups for evaluation upon closing of the group, moderate reputation scores of all registered users (complaints, compliments, appeals), and accept/deny new users to be registered or not.

1.3 Definitions, Acronyms, and Abbreviations

Abbreviation | Term	***Definition***
API	Application Program Interface
Back-End	The term “back-end” means the server, application and database that work behind the scenes to deliver information to the user.
ER Diagram	The ER or (Entity Relational Model) is a high-level conceptual data model diagram.
Front-End	The term “front-end” refers to the user interface.
Ordinary User (OU)	All self registered users who are approved by SU, need login.
Prototype	A first, typical or preliminary model of something, especially a machine, from which other forms are developed or copied.
Python	An interpreted, high-level, general-purpose programming language.
RDBMS	Relational Database Management System
System	a set of things working together as parts of a mechanism or an interconnecting network.

SQL	Scripted Query Language
Subsystem	Group of interconnected and interactive parts that performs an important job or task as a component of a larger system
Super User (SU)	One founding SU who initializes the system; one democratic SU who is voted by VIPs
VIP	OUs whose reputation scores exceed a threshold set by SU
Visitor	All non-registered users or users that have not logged into the system

1.4 References

Classical and Object-Oriented Software Engineering, 8th edition, Stephen R. Schach, McGraw-Hill, 2010

1.5 Overview

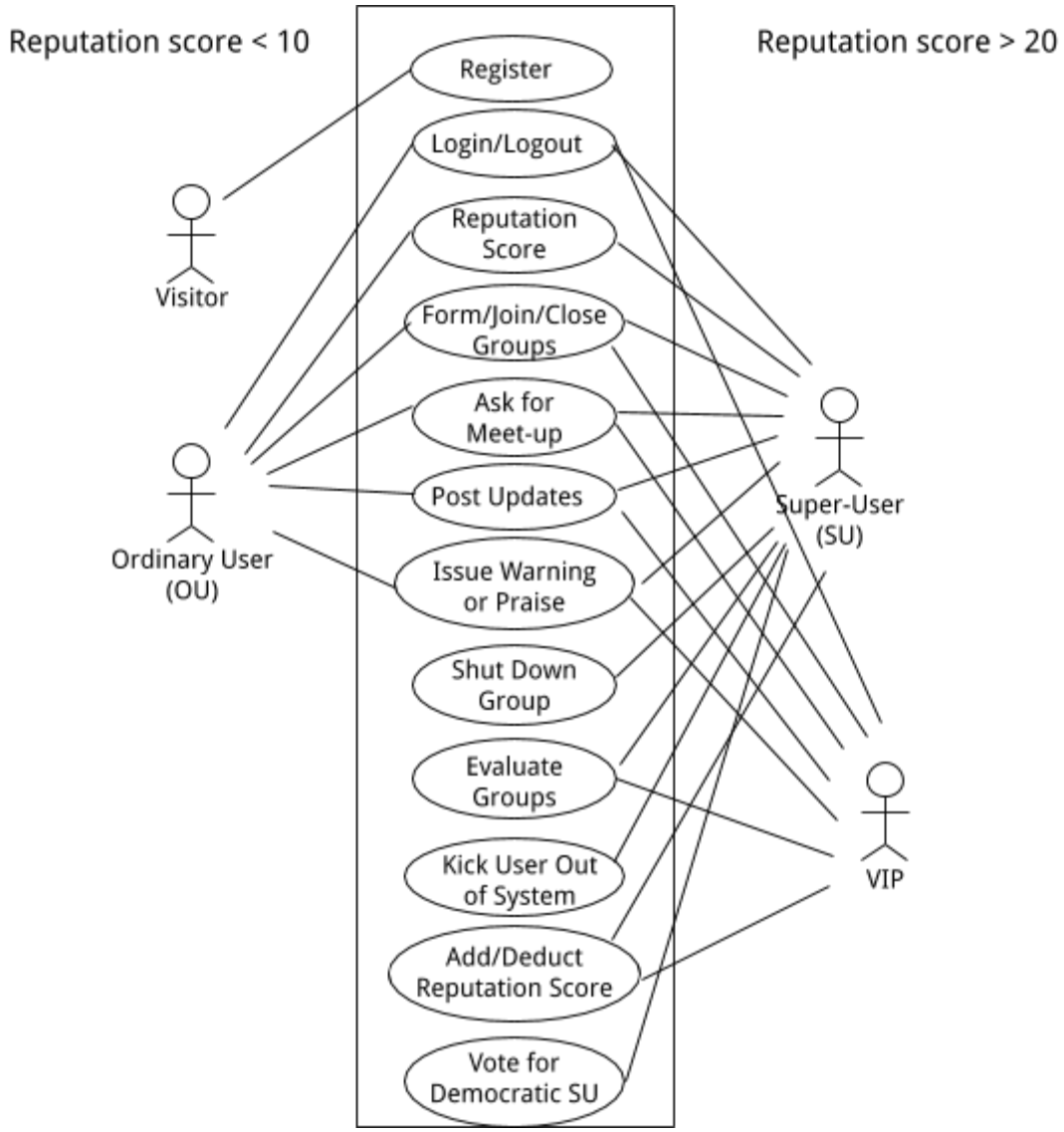
This specification report is made up of 4 components:

1. The first component will address the structure of this document and relevant terms about tools that will be used.
2. The second component goes in detail about the features of the project application which will be represented through the use-case model. Assumptions and dependencies will also be covered.
3. In the third component, specific requirements will be discussed which comprise of the use-case reports and supplementary requirements.
4. Lastly, the fourth component provides prototypes and any additional supporting visuals of the product.

2. Overall Description

This section describes the functions for this project and its important features. These features will be illustrated in the use-case diagram. Assumptions and dependencies regarding users and system components will also be covered.

2.1 Use-Case Model Survey



2.2 Assumptions and Dependencies

Prerequisites for all users:

- It is assumed that all users will be accessing the project management application through a graphical user interface. The user needs to have experience navigating through the interface and features supporting the application.

- All users who plan to register for an account agree to supply essential information (ex: username, full name, email for verification, interests, password, etc) for identification and verification of the account.
- All users are in agreement with terms and conditions(regarding the reputation scores and being placed in the whitebox/black box).

System requirements:

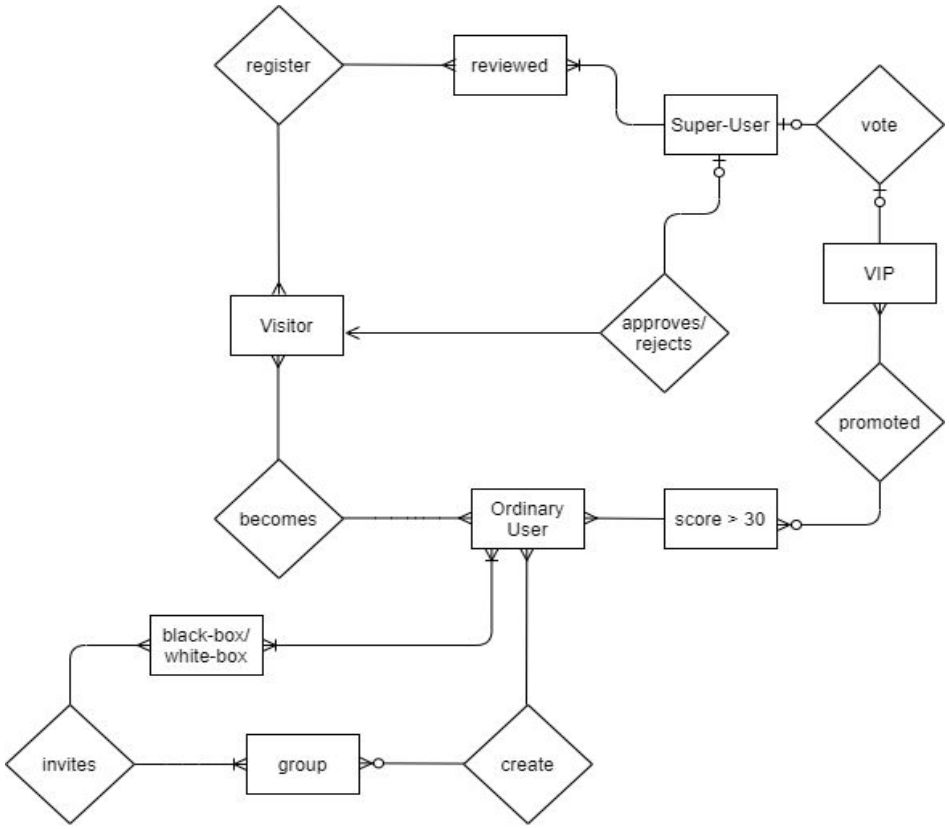
- All registered users initially start off with ordinary user status.
- New users will enter credentials that do not already exist in the database(the system should not have duplicate users).

3. Specific Requirements

3.1 Use-Case Reports

All registered users have access to a log-in page that takes them to different screens based on their roles:

- Visitors: They have access to the top 3 rated projects and can view profiles of registered users. They can also view public information provided by the groups.
- Ordinary Users (OU): Users who are registered, upon approval by a SU, and have login credentials to the system. OUs have less than 30 reputation points. They can join groups and access private information in the groups they are a part of.
- VIP: OUs whose reputation exceeds 30 points. VIPs have all access of OUs
- Super-User (SU): There are two SUs in the system: the owner of the system (Team C) and one democratic SU voted by the VIPs. They can decide to shut down any group or remove any OU from the entire system if they do not follow community guidelines. They have the authority to deduct or increase the reputation score of any user.



3.2 Supplementary Requirements

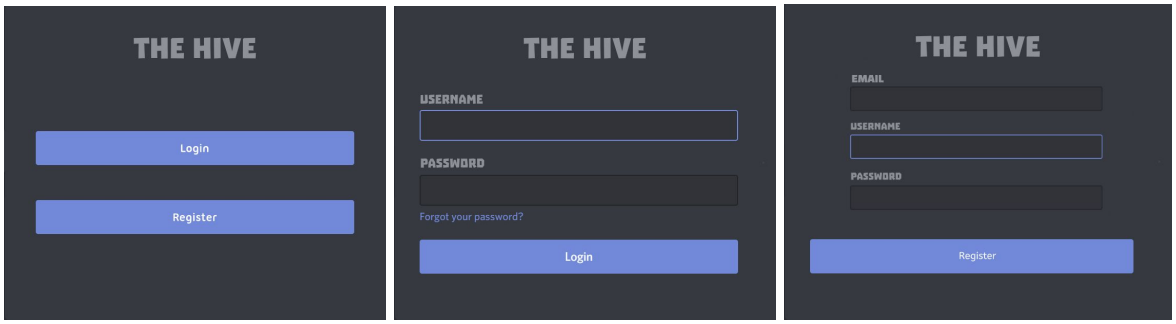
- Creating database using SQL
- Registered users can create polls in groups to specify meeting time for all members.
- Meetings are scheduled and the number of missed scheduled meetings will be tracked for all members.
- Each group member has a track record for the number of completed tasks, which is the basis for group warnings and the appeals of affected group members.
- Users will be able to see their reputation score
- System keeps a list of offensive words, which will be automatically censored if mentioned in a message sent by a registered user

4. Supporting Information

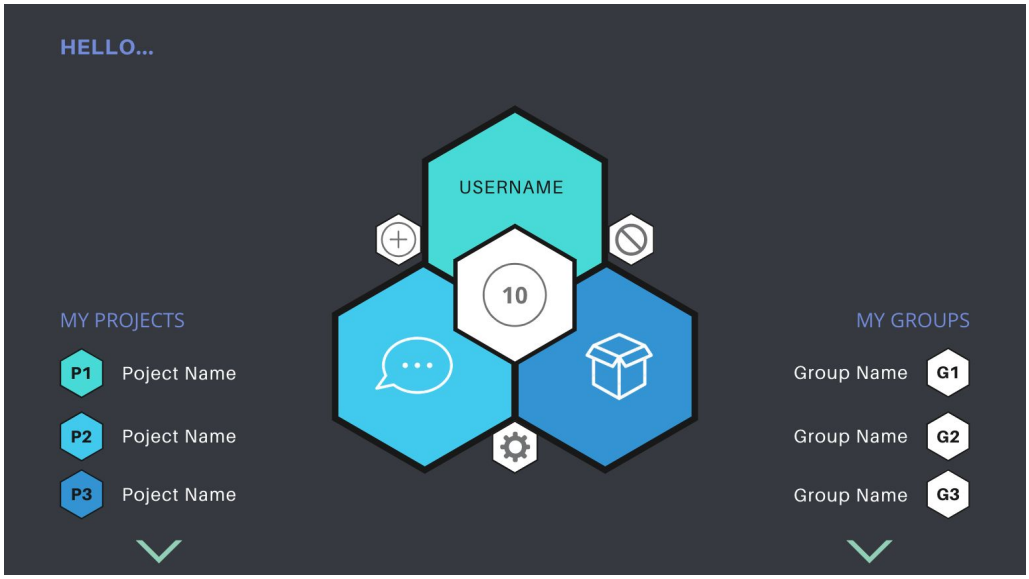
For supporting information, we created the user-interface prototype for each user: Visitors, Ordinary Users, VIPs, and Super-Users. We used photoshop to create these prototypes, which are used as a basis to understand what each user will experience on The Hive. These are all rough drafts and the actual product may differ from the images below.

Visitor's Page:

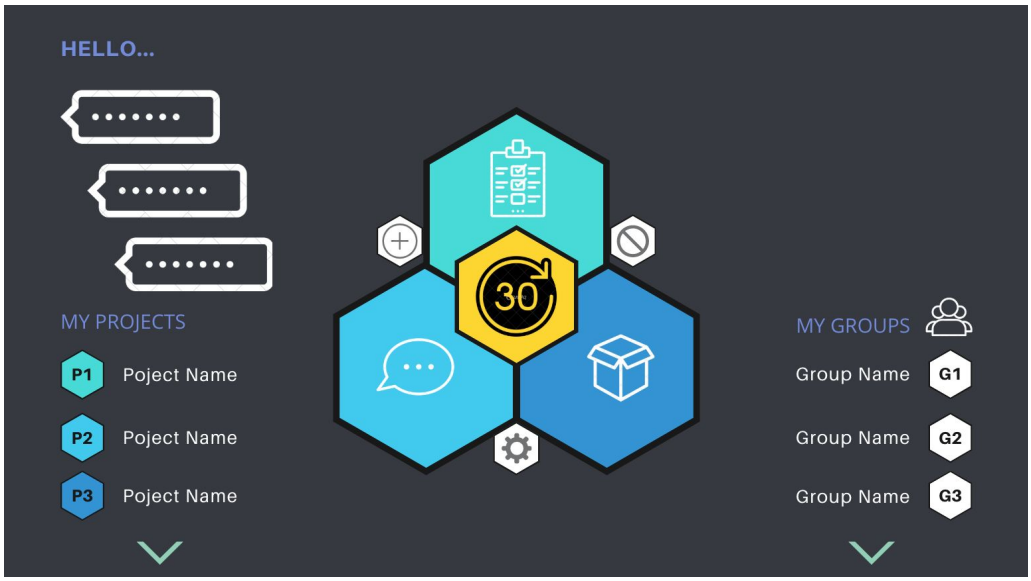
Login/Registration Page:



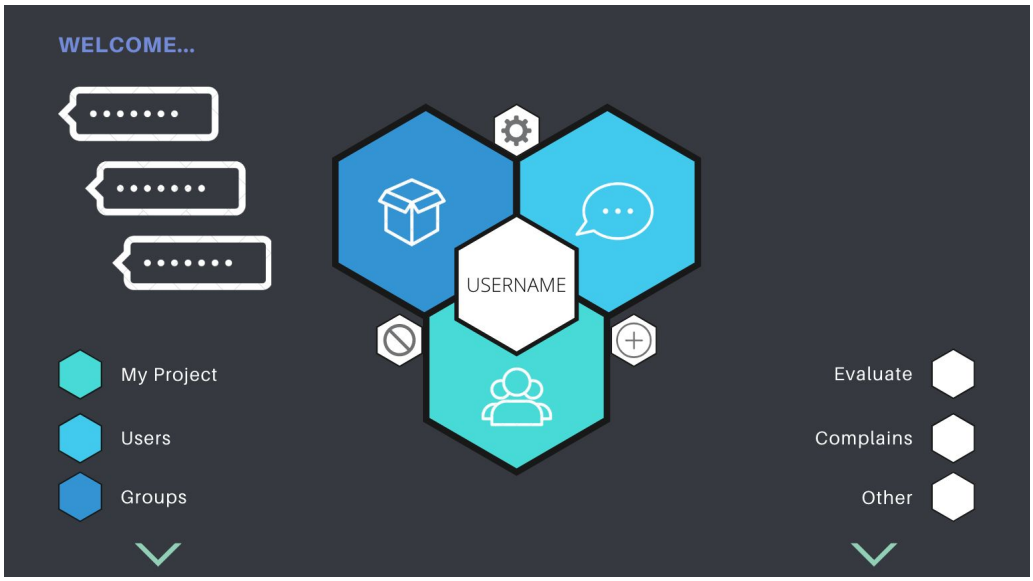
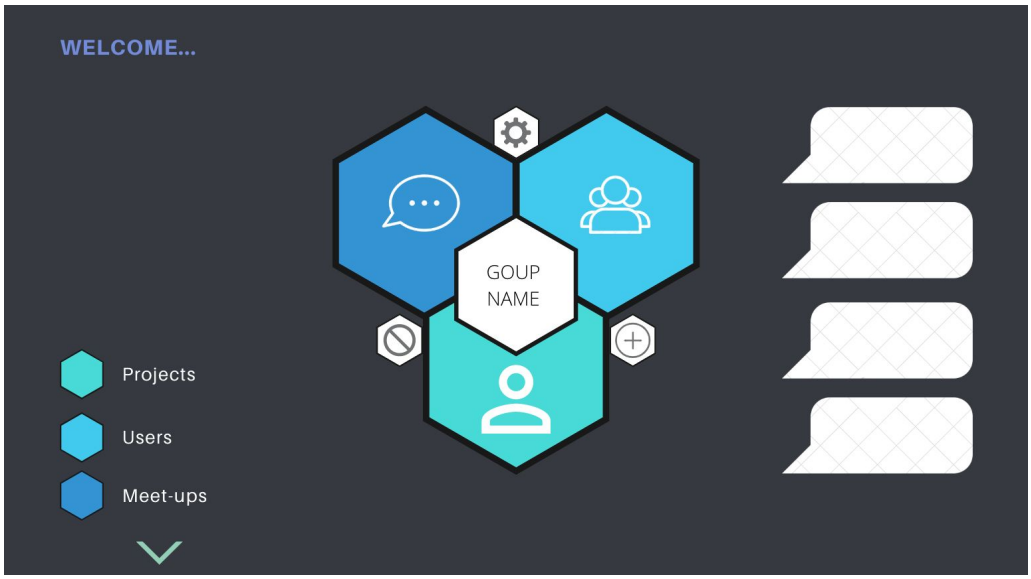
Ordinary User (OU):



VIP:



Super User (SU):



Group Page: