

**Software Development Proposal**  
for  
LogBlock — programming social media service

Prepared by Hung K. Ngu

*Viet Nam National University Ho Chi Minh City, University of Science*  
*Introduction to Software Engineering*  
**Group 01**

17. October 2024

# Contents

<b>Revision History</b>	<b>1</b>
<b>1 Introduction</b>	<b>2</b>
1.1 Purpose . . . . .	2
1.2 Intended Use . . . . .	2
1.3 Development Team Information . . . . .	2
<b>2 Overall Description</b>	<b>3</b>
2.1 Service overview . . . . .	3
2.2 User Classes and Characteristics . . . . .	3
2.3 Operating Environment . . . . .	4
2.4 Constraints . . . . .	4
2.5 Abstract Functional Requirements . . . . .	4
2.5.1 User Profile Management . . . . .	4
2.5.2 Abstract User Cross Interactions . . . . .	4
2.5.3 Content Sharing Block (Post) . . . . .	4
2.5.4 Content Feed, Exploration and Interaction . . . . .	5
2.5.5 Expert Requirements . . . . .	5
2.5.6 Administrator Requirements . . . . .	5
2.5.7 Real Time Interaction . . . . .	5

# Revision History

Revision	Date	Author(s)	Description
1.0	10.12.2024	Hung K. Ngu	Basic social media services
1.1	10.16.2024	Hung K. Ngu	Programming-centralized design descriptions and development model

# Chapter 1

## Introduction

LogBlock is an online social media Service platform with a programming media sharing central view. The platform provides an easier and user-friendly means for both new and senior developers to share their open contributions without compromising too much on reachability of contents.

### 1.1 Purpose

The LogBlock Software Requirements Proposal is addressed to general team development members and business officers. The specification provides high-level abstracted views on the Service's functional operations as well as initial descriptions on the system's constraints.

### 1.2 Intended Use

The proposal and occasional feature references in this document should be viewed as the descriptions of the software Services the system is expected to provide to users and the constraints under which it must operate.

Although some technical details may be included, this document **does not** enforces the inclusion of the defined implementation guides and should only act as a guidance to the desired outcomes of the system.

Albeit usually up-to-date, consumers of this document should note that due to the ever-changing requirements as well as the production model of the development organization, minors changes are introduced to accomodate with the needed alternation associated in each development cycle's retrospective. It is advised that consumers of this document practice **revision** of changes in known interval.

### 1.3 Development Team Information

- **Team Leader, Project Manager:** Hung K. Ngu (22127134) (nkhung22@clc.fitus.edu.vn)
- **Executive Officer, Business Analyst:** Long T. Tran (22127249) (ttlong221@clc.fitus.edu.vn)
- **Back-End Implementation Personel:** An C. Trinh (22127004) (tcan22@clc.fitus.edu.vn)
- **Front-End Implementation Personel:** Cuong Ng. N. Tran (22127048) (tnncuong22@clc.fitus.edu.vn)
- **Quality Assurance Personel:** Long T. T. Nguyen (22127247) (nttlong22@clc.fitus.edu.vn)

## Chapter 2

# Overall Description

### 2.1 Service overview

The LogBlock Social Media Service (hence forward will be referenced as the Service) is a multi-media platform for **programming-based** content distributions, with a focus on appealing interfaces and ease of access to code block **authoring tools** for interactive guides, code snippets. The Service aims to provide a personal profile space for content storage, while also encouraging **visibility** of knowledge via tailored exploration functionalities based on posts interaction. On a post-level, we provides a community-building scheme, allowing users to comment and react, share the content they are seeing, while also allowing **Experts** to recommend alternative solutions to the original posts.

### 2.2 User Classes and Characteristics

**Targeted Users:** the Service is open to public usage, and partition users based on functional requirements as well as contributions to the platform. The intended user classes include four main classes: *Guests, Registered user, Experts and Administrators*.

**Guest** class provides a mean for public, new-come users to access shared content on the platform without explicitly register an operational account. Albeit the class is contrained to various functions of the Service, including: the ability to *post*, the ability to generate interactions with posts via commenting and reaction and limited view of other registered user profiles.

**Registered** class is considered to be the main targeted consumer of the platform. Registered users are generated through the platform's *authentication system* and should be consistent until the End Of Support (EOS) of such Service. Registered user can access almost all services provided by the platform as they are the targeted audience, and in turn, the platform is designed to best accomodate the changing needs and scalability of this user base.

**Expert** class inherents all functionalities of the Registered class and provides a way for the platform administration to demonstrate *verifiable* and *trusted content*, as well as providing functionalities for expert individuals to reach their targeted audience in a controllable manners by means of higher post visibility and **Expert Suggested Solution**.

**Administrator** class is the gateway for the social developement team and moderators associated with the users' business organization to access the platform and uses tools that provide administration capabilities in order to enforce the Terms of Service of public usage. The administrator class also provides a mean for public users to flag and directly send reports to the moderating sections, allowing the ability to quickly identify and resolve issues of other users.

## 2.3 Operating Environment

The platform primary operating is **Web Browsers**, offering extensibilities and incorporating OS features for ease of usage of the platform. The choice of platforms reflects the needs reach the maximum number of users while offering backwards compatibilities with user on older software or hardwares.

## 2.4 Constraints

The platform should respect Privacy and Data Protection. All user data must be securely stored, adhering to relevant privacy regulations (GDPR, CCPA).

The platform should not promote hazardous contents and should not provide intervention methods to steer naratives or spread conspiracy.

The system should handle large volumes of users and content uploads with minimized performance degradation. The system should provides a mean for administrator to monitor uptime and be notified of downtime as soon as possible.

Based on the choice of Operating Environment, the design of User Interaction, User Experience should be consistent across different devices and browsers, offering Cross-Platform Compatibility.

## 2.5 Abstract Functional Requirements

### 2.5.1 User Profile Management

The standard view of the service can be consumed by Users of all classes. Users are, by default, participating in by the **Guest** role, which has limited views and can only access posts which are shared by the it's unique address. The main targeted audience is **Registered Users**. Registered Users is associated with a unique **Handle** to identify users on the platform. An account is also included with each Handle.

Registered Users can tailor a **personal profile** page to their liking with the tools provided by the platform, including a biography section, public relation connection statistic and a posts history to view the Registered User's **previously published posts**. Registered User is the majority targeted audience for many operations of the platform, allowing development to focus on improving the user experience of the specific class.

### 2.5.2 Abstract User Cross Interactions

The platform provides a **Follow/Unfollowing** button for external Registered users to subscribe to the targeted profile. Additionally, the platform provides a **Message** button for external Registered users to directly message the recipient profile privately. Subsequently, it also introduce a **Block/Report** button for External Registered users to report, isolate unwanted or harmful contents and notify the moderation team.

### 2.5.3 Content Sharing Block (Post)

Content Blocks are the main content unit within the platform, offering extensive **authoring tools** for Registered Users to leverage the platform and share educational works. With code-block as the main formula, content blocks (posts) should be visually appealing, but not obstructive and should corresponds to the flexible design of the platform. The content block should be able to display original user's description, code block, as well as salient attachment through Markdown rendering. Additionally, External Registered users can like,

share and save content blocks. External Registered users can comment on the content blocks, creating a sub-thread within the content block.

#### 2.5.4 Content Feed, Exploration and Interaction

News Feed acts as a gateway for External Registered Users content to be promoted to connected Registered users. Though limited, Registered Users can leverage News Feed to filter out only **connected organization** for trusted and reliable contents. News Feed also features a block for advertiser to place their contents, creating a business scheme for the service.

Registered Users can explore trending posts outside of own's connection through the Explorations page. Exploration posts is updated and sorted based on **real time interaction rate, tags** within an interval. The specific period is determined by the Administration team.

Registered Users can explore or connect with known associates through the **search function**. The search function should be viewed as the main source of specific content searching, and should find corresponding results based on **display name** and **User Handle**.

#### 2.5.5 Expert Requirements

Experts class is a verifiable method for the operation team to introduce **affiliation** with individuals who have expertise in their respective fields, allowing them to perform more publicly visible actions by encouraging their posts' visibility. Experts privilege can only be leveraged by the administration team. Expert class allows individuals to directly submit a publicly available **Expert Suggested Solution** in External Registered User Posts, which other Registered Users who visit the posts can also see and **upvote or downvote**. The original posting Registered User then can choose to **accept the changes or disregard it**.

#### 2.5.6 Administrator Requirements

Administrators is the main operational class for the moderation team. It must have the ability to **monitor, flag, and remove** hazardous content. Administrators can issue warnings, suspend or ban accounts, and respond to flagged content in order to provide a human interaction resolution rather than relying on automatic flagging system.

#### 2.5.7 Real Time Interaction

Real Time Interaction is a mean for the platform to provides up-to-date user-subscribed content status. Real Time Interaction notify the Registered User through **emails**. Delivered content catalog can be Received Messages, New Connection Posts or Critical Action needed in User Profile Management.