# SOFTWARE REQUIREMENTS SPECIFICATION

## for

# $Project\ No-4$ Lost and Found for NITC

## Version 2.0

Prepared by Group no. 4 1.Navin Kumar Das(M200363CS) 2.Palash Jat(M200414CS) 3.Pranaya Sahu(M200418CS) 4.Pritam Kumar(M200286CS)

Course: CS6103D Software Systems Lab

Submission date: 11.12.2020

# **Contents**

1	Intr	oduction	4
	1.1	Purpose	4
	1.2	Intended Audience and Reading Suggestions	4
	1.3	Project Scope	4
	1.4	Definitions, Acronyms and Abbreviations	4
	1.5	References	5
	1.6	Overview	5
2	Ove	rall Description	6
	2.1	Product Overview	6
	2.2	Product Functionality	6
	2.3	Design and Implementation Constraints	6
	2.4	Operating Environment	6
3	Spe	cific Requirements	8
	3.1	External Interface Requirements	8
		3.1.1 User Interfaces	8
		3.1.2 Hardware Interfaces	8
		3.1.3 Software Interfaces	8
	3.2	Functional Requirements	8
4	Oth	er Nonfunctional Requirements	9
	4.1	·	9
	4.2	<u>.</u>	9
	4.3		9
			9
		4.3.2 Availability:	9
		4.3.3 Correctness:	9
		4.3.4 Flexibility:	0
		4.3.5 Interoperability:	0
		4.3.6 Maintainability:	0
		4.3.7 Portability:	0
		4.3.8 Reliability:	0
		4.3.9 Reusability:	0
		4.3.10 Robustness:	0
		4.3.11 Testability:	0
		4.3.12 Usability:	1

## 1 Introduction

Lost and Found for NITC is a web application. The Lost and Found web application is to ensure all lost items are returned to their rightful owner in a timely and efficient manner

## 1.1 Purpose

The purpose of this SRS is show quick overview of functionalities of Lost and Found web application . This SRS contain user case diagram which help us to understand aspect of admin and user.

## 1.2 Intended Audience and Reading Suggestions

- 1. This document is intended for developers of the system, project managers and tester of the system to gain knowledge about various aspects of the software system..
- 2. This document need not be read sequentially; users are encouraged to jump to any section they find relevant.

## 1.3 Project Scope

The purpose of Lost and found for NITC is to ease NITC managements, NITC faculties, NITC Students to use a convenient and easy-to-use application for finding his or her lost belongings in time.

## 1.4 Definitions, Acronyms and Abbreviations

User: Reviewer or Author

Author: Who create an account into Lost and Found and put its request for lost belongings.

Database: Collection of all the information monitored by this system.

Reader: Anyone visiting the site to see items.

Software Requirement Specification: A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.

## 1.5 References

- 1. https://www.tutorialspoint.com/ruby-on-rails/index.html
- 2. Setup ruby on rails framework https://gorails.com/setup/
- 3. https://www.youtube.com/watch?v=pPy0GQJLZUMt=835s

## 1.6 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's software, and the functional and data requirements of the product. General description of the project is discussed in section 2 of this document. Section 3 gives the functional requirements, data requirements and constraints and assumptions made while designing the Web application. It also gives the user viewpoint of product. Section 3 also gives the specific requirements of the product. Section 3 also discusses the external interface requirements and gives detailed description of functional requirements. Section 4 is for supporting information.

# 2 Overall Description

#### 2.1 Product Overview

This product is developed as part of project on ROR. Developed product is a standalone product and is not part of any previous products.

## 2.2 Product Functionality

A Register forum is provided to user .A user can register by providing details like user name, password, gender, date of birth, email id, and phone number. A user can post lost and found details of item. All users can view the post and can request for more details. > TO DO:

- 1.Register User
- 2.Accept Lost and Found Details from User
- 3. Show abstract details of lost and found items
- 4. Show more specific details of displayed item if user request

## 2.3 Design and Implementation Constraints

The product is developed using Ruby On Rails technology, and in MVC architecture. For version control system Git is used. For database 'MySQL' version 5.7.27 or higher must be used.

## 2.4 Operating Environment

Operating environment for the Lost and Found system is as listed below.

- 1. Windows(95 or Superior)
- 2. Linux (Any Flavour of Linux os)
- 3. MacOs

Supported Web Browser

- 1.Microsoft Edge
- 2.Chrome Web Browser

## $3. \\ Mozilla \ Firefox$

Web Server with Ruby on Rails support

# 3 Specific Requirements

## 3.1 External Interface Requirements

#### 3.1.1 User Interfaces

The system shall provide a help link from each displayed web page to explain how to use that page

Software should provide easy way to communicate and display that post on web site.

#### 3.1.2 Hardware Interfaces

Operating system:Linux,windows,UNIX,MAC OS X.

RAM: 256 MB or more. Hard drive: 100 GB or more Internet or LAN connections

#### 3.1.3 Software Interfaces

Client or application on internet: Web Browser, Operating System (Linux, Windows, Unix, etc.

Web Server: WEBrick

Database Server: DB2, Operating System Embarcadero ER Studio MySQL Software

interface (to OS, DBMS and other software) Use a specific application packages.

Software Development Methodologies: Agile, Scrum, Kamban, Rup

## 3.2 Functional Requirements

User must be able to register for the application through valid email id. Profile gets activated after verifying mail id. The users Email id will be the unique identification of his/her account on Lost and found Application.

User should able to post the lost items detail and check the post status ,if other users comment in the post or not

Other Users can view the post of user and the detail of lost item is less than request more details in item.

# 4 Other Nonfunctional Requirements

\*\*

## 4.1 Performance Requirements

The system must be interactive and the delays involved must be less .So in every actionresponse of the system, there are no immediate delays. In case of opening windows forms, popping error messages and saving the settings or sessions there is delay much below 2 seconds. In case of opening databases, accessing profiles, creating a post for found and lost there are no delays and the operation is performed in less than 2 seconds TODO: Provideation your idea. You may also take opinion of your project owner for this.

## 4.2 Safety and Security Requirements

Information transmission should be securely transmitted to server without any changes in information. Profile gets activated after verifying mail id As the system provide the right tools for found or lost post, it must be made sure that the system is reliable in its operations and for securing the sensitive details

## 4.3 Software Quality Attributes

#### 4.3.1 Adaptability:

so the design can accommodate likely future changes that allows developer to modify existing software to match user demands

#### 4.3.2 Availability:

The maintenance period should be pre scheduled and short. If the internet service gets disrupted while sending information to the server, the information can be send again for verification

#### 4.3.3 Correctness:

The correctness of all the operations is tested that are actually expected from the system.

#### 4.3.4 Flexibility:

The system is internally developed; any changes to the environments will also be internally developed and tested as needed. Level of effort would rely on the work being done at that time.

#### 4.3.5 Interoperability:

Not applicable – this will be an internally developed system

#### 4.3.6 Maintainability:

The document should be easy for the users who execute the system day to day, for the developers who wish to edit or develop further, and for the personnel who is in charge of the maintenance.

#### 4.3.7 Portability:

This is a web based tool and should be available in all framework or browser

#### 4.3.8 Reliability:

The system should work reliably, with automatic backup and recovery features. In case of unexpected termination of a session, the unsaved data should be recovered without loss and displayed to the respective users for saving into the system or continuing with the work. At any time, audit file and all db and mailing information are required to be updated in the backup.

#### 4.3.9 Reusability:

reusability is the use of existing assets in some form within the software product development process; these assets are products and by-products of the software development life cycle and include code, software components, test suites, designs and documentation

#### 4.3.10 Robustness:

A software is robust, if any exception raised during its execution, in any architecture and with any initial state, is caught by some exception handle

#### 4.3.11 Testability:

Testability refers to the degree that any module, requirements, subsystem or other component of your architecture can be verified as satisfactory or not. In Lost and Found system testability is ensured by admin.

## 4.3.12 Usability:

The GUI should be easy to learn and use by users of any technical background. A built-in help feature should be available in all pages, to guide the users with the available functions on that page. An easy to understand documentation should be provided with the system. System should support several languages.

# 5 Appendix A - Activity Log

Section 1. contributed by Navin Kumar Das.

Section 2. contributed by Palash Jat.

Section 3. contributed by Pranaya Sahu.

Section 4. contributed by Pritam Kumar