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Лабораторна робота No2

з дисципліни

"Проектування інформаційних систем"

Опис передпроектної докуметації

(Software requirement specification)

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Мета роботи: вивчити основні етапи створення передпроектної документації (SRS).

Задача: використати приклад SRS для створення передпроектної документації згідно індивідуальної теми для виконання лабораторних робіт.

Завдання:

1. Вивчити вимоги до передпроектної документації.

2. Скласти опис передпроектної документації для об'єкта проектування.

3. Скласти 5-7 приймальних тестів для ПО об'єкта проектування.

4. Оформити технічне завдання згідно опис передпроектної документації (використовувати рекомендації IEEE 830).

CovidFlatfy App

Software Requirements Specification Version 1.0

23.12.2020

Kondratiuk Taras

Revision History

Name	Date	Reason for changes	Version
Kondratiuk T.Y.	2020-12-23	Document creation	1.0

Document Approval

Signature	Name	Title	Date
	Kondratiuk T.Y.		2020-12-23

1. Introduction

1.1 Purpose

The purpose of this SRS is to define functional and nonfunctional requirements, use cases that describe user interactions with the application to provide them with a perfect experience.

1.2 Document Conventions

- Application - "CovidFlatfy" app, a main object of this SRS.
- End User - any person who uses the application.
- Functional Requirements - requirements for a special feature: how it works, where stores data, how provides user experience.
- Nonfunctional Requirements - requirements that can not be described as a feature, for example Security requirements.
- Front-end - part of the application end user interacts with.
- Back-end - server-side of the application. Can not be seen by the end user, main calculations happen there.
- FAQ - frequently asked questions.
- Software Requirements Specification - a document which completely describes all of the functions of a proposed system and constraints under which it must operate.

➜ **X. Bold Text** - name of the paragraph
➜ **X.X Bold Text** - name of the subparagraph
➜ ➜*Italic Text* - name of the resource

1.3 Intended Audience and Reading Suggestions

This document is written for developers, designers, marketing staff, testers and managers. Rest of the documents contain requirements for the application, its features and implementation details. Document is divided into paragraphs and subparagraphs which can be easily reached via Table of Contents.

1.4 Project Scope

The application name is "CovidFlatfy". Its main purpose is to compete with existing covid cases tracking apps. The application itself is an app for Android and iOS devices which can also synchronize with the web version of the app. The main benefit of the app is that it provides intuitive user experience and allows users to minimize their taps on the screen. The application will be able to map covid cases addresses with flats from flatfy api

1.5 References

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.

2. Overall Description

2.1 Product Perspective

The application fulfills user needs in a way of providing intuitive user experience and providing an ability to quickly see the current state of pandemia.

2.2 Product Features

1. Start job to join covid cases with flats.
2. Get last listing
3. Get all listings for today

2.3 Operating Environment

Back-end of the app will be put into containers and launched at google cloud platform. redis will be used as a main storage system. Front-end part of the application can be launched at Android devices and iOS devices.
Minimal Android version requirement - Android API 24.
Minimal iOS version requirement - iOS 11.0.

2.4 Design and Implementation Constraints

Back-end part programming language - Scala
Android part programming language - Kotlin
iOS part programming language - Swift
Web version programming language - JavaScript
Database - Redis
Connection between front-end part and back-end part will be via REST architecture.

2.5 User Documentation

Documentation for end users will be in the form of a web page and tutorial right inside the app. Also it will be a web page with FAQ.

3. Specific Requirements

3.1 External Interfaces

3.1.1 Software Interfaces

The mobile device has to have an iOS or Android operating system. Minimal requirements for operating systems see in 2.4. Also to obtain full functionality of the app it is necessary for device to have connection with the Internet to synchronize user's data.

3.1.2 Hardware Interfaces

Hardware interface is represented in the form of a mobile device or personal computer. It is a must for mobile device to support touch input.

3.2 Functional Requirements

3.2.1 Start job

User enters the app and sees a "run job" button in the upper right corner. After the user presses the button new job that fetches flats from flatfy api and joins them with covid cases data starts running

3.2.2 Get last listing

User enters the app and sees last listing

3.2.3 Get listings for today

User can set listings filter by last one or by all for this day

3.2.4 Settings

There are several parameters which can be managed in settings: theme, notifications. Theme color parameter specifies what theme is used in the app right now, there are two options: light and dark. Notification parameter is represented as a switch which turns on or turns off the alert.

3.3 Performance Requirements

The app itself does not have specific performance requirements except working smoothly and not to exit suddenly. There are requirements to the server which contains data and is responsible for running jobs. It is necessary for the server to run jobs fast.

3.4 Availability Requirements

The app is absolutely free and can be downloaded via Google Play or App Store.

3.5 Portability Requirements

The app is ported to different systems as was mentioned above: Android, iOS, Web.

3.6 Maintainability Requirements

The app is always maintained and supported. New versions of the app will be supplied once two months.

4. Tests

The main goal	Preliminary requirements	Steps to perform the test	Expected result	Steps to revert the test
Run job	The app is installed to the mobile device	Open the app; Press the button "Run Job";	job result is displayed onto main screen	its idempotent
get list of results	The app is installed to the mobile device; The job was ran previously	Open the app; See the main screen	list of results is present on screen	-
get listings for today	The app is installed to the mobile device; The job was ran previously	Open the app; Set listings format from latest to daily	daily listings are displayed on main screen	set listings format back to latest