Software Requirements Specification

*SRS-IEEE-STD-830-1998*

A screenshot of a computer

Description automatically generated with low confidence

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**1 Introduction**

**1.1 Purpose**

The purpose of this document is to specify the critical information about the requirements and everything related to the development of the SWIGGI mobile phone application for both Apple and Android devices, the document provides anyone who reads it with the ability to fully understand the development of the application and improve it in the future.

**1.2 Scope**

The document characterizes the SWIGGI application that will be free to download and use. The main purpose of the application is to display information to the user, such as short life stories (birth/death dates locations and family trees), and the ability to take a tour and see the houses of Jews and the camps and killing sites where they were sent to during the Holocaust, the user can light a candle for their memory. The application also presents statistics about Jews during the same period.

**1.3 Definitions**

* **Flutter :** A framework written in the Dart language, it is an open-source framework by Google for building multi-platform applications from a single codebase.
* **Visual Studio Code (VS Code) :** is a free source-code editor developed by Microsoft for Windows, Linux, and macOS. It provides developers with a lightweight and customizable platform to write, debug, and deploy code across various programming languages and frameworks.
* **MySQL :** A free and open-source relational database management system (RDBMS) in widespread use.
* **Google Maps :** A computer program that displays a three-dimensional representation of the Earth based mainly on satellite imagery.
* **Dart :** is a programming language developed by Google. It is a class-based, object-oriented language that can be used for both client-side and server-side programming. Dart was primarily designed to be used with Google's Flutter framework
* **SWIGGI :** A technology that allows locating houses where people, Jews and non-Jews, lived in the 19th and 20th centuries.
* **Simon Wiesenthal :** The Nazi hunter who dedicated his life to locating Nazis and their helpers and bringing them to justice (1908-2005).
* **Holocaust :** The systematic, state-sponsored persecution and murder of six million Jews by the Nazi regime and its allies and collaborators.
* **Deportation maps :** Maps showing to which camps and killing sites the Jews were sent.
* **Commemorative limbs :** Pages that commemorate the memory of Holocaust victims and provide additional information about them.

**1.4 References**

* The requirements specification was written in accordance with the IEEE standard STD-IEEE-SRS-830-1998.  
  Location: <http://www.math.uaa.alaska.edu/~afkjm/cs401/IEEE830.pdf>
* The requirements specification was written under the SRS Template - organized by objects.

**1.5 General overview**

The mobile phone application will be a user-friendly way for people all over the world to access SWIGGI 's database and research the demographics of the Jews before and during the Holocaust, commemorate the murdered and pass on important information to future generations. The application will provide access to SWIGGI's commemorative limbs and Simon Wiesenthal Holocaust Deportation Maps. The intellectual property of SWIGGI will belong to SWIGGI and the application will refer to their sources of information and perhaps in the future, additional sources of information that are not physically in their possession.

**2 General Description**

**2.1 Product Perspective**

In the application, the user can mainly see marked houses on a map where Jews who died or were murdered in Holocaust lived or camps and killing sites .  
 Upon clicking on a marked house, the exact location of the house and information will appear (if it’s available) about the people who lived in the house. It is possible to search for a specific house by certain details (first or last name, street, year of birth or death, gender, house number).

In addition to short story, the application gives the ability to light a candle in their memory. The user can also see family trees and even statistics for people who died or were murdered during that period.

**2.1.1 System functions**

The application is intended for the Android and iOS operating systems. The information is stored in an organized manner in MySQL, and Google Earth is used to display the map and enable street view.

**Display location information on a map**: the application should be able to display location data on a map using Google Maps API.

**Search for specific locations**: the user should be able to search for specific locations and the application should be able to display them on the map.

**Get directions**: the user should be able to get directions from one location to another using Google Maps API.

**Display user location**: the application should be able to display the user's current location on the map.

**Display marked houses** : the application should be able to display nearby marked locations based on the user's current location, and in the zoom out map.

**Filter locations** : the user should be able to filter locations on the map based on different criteria, such as distance, ratings, or categories.

**Display life stories and family tree**: The application should display reliable information (if available) about the person that the user chooses to read about.

**Light a candle:** The application should provide the user with the ability to light a candle within the application.

**Map tours:** The application should display the world map with the ability to zoom in on houses and streets based on what the user types (country/name/street/house/village or city)and to get directions.

**2.1.2 User characteristics**

Age range: The application is suitable for users of all ages.

Technical expertise: The application is designed for users with basic technical knowledge of smartphones and mobile applications.

Language proficiency: The application is available in English.

Education level: The application does not require any specific education level or background knowledge to use, and is suitable for all levels of education.

**2.1.3 Hardware Interfaces**

The application is designed for smartphones with iOS or Android operating systems.

**2.1.4 Software Interfaces**

The application will be written in dart programming language in flutter environment.

**2.1.5 Communication Interfaces**

An internet connection is required to download the application and using the map. Other information and statistics do not require an internet connection.

**2.1.6 Memory constraints**

Memory constraints will be optimized to ensure smooth performance on mobile devices.

**2.1.7 Operations**

* Perform a search in the database
* View statistics
* Map’s tour
* View life stories and family trees
* Light a candle

**2.1.8 Specific Site Requirements**

Specific site requirements include access to a stable internet connection, and GPS capabilities for location-based services.

**2.2 Product functionality**

Not specified

**2.3 User characteristics**

The SWIGGI mobile application is designed for a diverse range of users, including genealogists, historians, educators, and the general public. Users will be expected to have basic knowledge of how to use a mobile application and be comfortable with internet browsing and searching.

**2.4 Constraints**

**2.4.1 Hardware and software limitations**

Smartphones with Android and iOS operating systems.

**2.4.2 Interface with other software**

There is no integration with other software.

**2.4.3 Concurrent activity**

The application should not perform concurrent operations.

**2.4.4 Reliability requirements**

The information displayed must be reliable as it pertains to history.

**2.4.5 Security and safety**

No one except the owners of the application will have the ability to change information. The application only allows users to view information.

**2.4.6 Application criticality**

The request is not critical, but it is important that the history and the difficult period passed by the Jewish people be presented in an organized and convenient way so that as many people as possible learn about those who suffered in the Holocaust.

**2.5 Assumptions and dependencies**

The SWIGGI mobile application assumes that users have access to a stable internet connection and GPS capabilities. The application relies on the availability of accurate and reliable historical data. The development of the application is dependent on the availability of technical expertise and resources.

**2.6 Requirements allocation**

The requirements for the SWIGGI mobile application will be allocated to the development team responsible for designing and implementing the application. The team will include software developers, UI/UX designers, and quality assurance personnel. The project manager will oversee the allocation of resources and ensure that the development process adheres to the requirements outlined in this report.

**3 Specific Requirements**

**3.1 External Interface Requirements**

**3.1.1 User Interface**

The user interface of the mobile application shall be designed with a user-friendly and intuitive interface for easy navigation by users. The interface shall be designed with the SWIGGI brand colors and logo. The interface shall include the following features:

* Search functionality for locating houses of interest.
* Display of houses with occupants' information and family trees where available.
* Display of commemorative pages and deportation maps.
* Access to educational programs and commemorative tours.

**3.1.2 Hardware Interface**

* + - Touchscreen: The application must be designed to work with the touch input provided by the user.
    - Power management: The application should be designed to consume as little power as possible to prolong the device's battery life.
    - The system shall support mobile devices running iOS or Android operating systems
    1. **Software Interface**

1. The app shall run on the following operating systems:

* Android version
* iOS

1. The app shall be compatible with the following devices:

* Android smartphones and tablets
* iPhones and iPads

1. The system shall interface with the following software systems:

* Google Maps for location mapping and directions
* External sources of information for additional data where necessary

**3.1.4 Communication Interface**

* GPS: The application may use the device's GPS to determine the user's location.
* Wi-Fi/Cellular connectivity: The application may use the device's Wi-Fi or cellular connectivity to connect to the internet and do the map’s tour.

**3.2 Functional Requirements**

**3.2.1 User Type 1: Programmer**

* + The ability to access the system's source code for maintenance and updates.
  + The ability to integrate new features and functionalities into the system.

**3.2.2 User Type 2: Reviewer**

* + The ability to review and approve new data and information uploaded onto the system.
  + The ability to provide feedback and suggestions for improvement.

**3.3 Performance Requirements**

The system shall have the following performance requirements:

* The system shall be available for use 24/7.

**3.4 Design Constraints**

The system shall adhere to the following design constraints:

* + - The system shall be designed with a mobile-first approach to optimize for mobile devices.
    - The system shall comply with SWIGGI's brand guidelines and standards.
    - The system shall be designed to accommodate future feature updates and enhancements.

**3.5 Software System Attributes**

* **Reliability :** The system shall have a maximum failure rate of 0.01%.
* **Availability :**the system will be temporary 24/7.
* **Security :** no need for security. No personal information is used, all data and information are exposed to the rule.
* **Usability:** The system shall be designed with a user-friendly interface for easy navigation by users.
* **Maintainability:** The system shall be designed for easy maintenance and updates.

**3.6 others Requirements**

The system shall comply with all relevant laws and regulations regarding data privacy, security, and accessibility. The system shall also include an end-user license agreement and terms of service for users to agree to before using the system.