



Language Translator(LTR)

Software Requirements Specification (SRS) Document

Sprint Implementation

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Software Requirements Specification

1. Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references, and overview of the SRS. Translation is the process of conveying a written source language text clearly, completely, accurately, and appropriately in a target language. Translation allows information to be transferred across languages, expanding accessibility of the information.

1.1 Purpose

The Language Translator is a application through this application we can translate the source language to the target language. Our purpose system is that , here we have two side one is server site and other one is client site. First the client send the request to server for translating the language after that the server gives the respond to the client. Here, we can translate English language to German and Hindi language. So English is the source language, German and Hindi are the target language. In server after login using the user name and password, there is option for add language, modify and delete.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters, and goals. This document describes the project's target audience and its user interface, hardware, and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in lifecycle (SDLC) processes

1.2 Scope

Primarily, the scope of the language translator is that develop a system which able to conversion between two languages. It provides easy and simple for translation. It endows good experience for the user. It translates almost three to four languages.

This SRS is also aimed at specifying requirements of software to be developed but it can also be applied to assist in the selection of in-house and commercial software products. The standard can be used to create software requirements specifications directly or can be used as a model for defining a organization or project specific standard. It does not identify any specific method, nomenclature or tool for preparing an SRS.

1.3 Definitions, Acronyms, and Abbreviations

Server Site	
Client Site	
Language Translator	

1.4 References

The references are:

1. <https://www.geeksforgeeks.org/tcp-server-client-implementation-in-c>
2. <https://www.javatpoint.com/file-handling-in-c>

1.5 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, 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, system features and constraints made while designing the system. Section 3 also discusses the external interface requirements and gives detailed description of functional requirements. Section 4 is for supporting information.

2. Overall Description

The Language Translator application is implemented with C language examined Socket Programming to establish a connection between Server and Client in which it basically translate the text from source language to target Language. In a connection-oriented client-to-server model, the socket on the server process waits for requests from a client. To do this, the server first establishes (binds) an address that clients can use to find the server. When the address is established, the server waits for clients to send a message. After receiving the message from the client to translate the language for a particular word the server will perform the task and send back the response to the client. It further performs modification of words and their meaning, appending a new word and deleting a word in server side. It further describes the major features and a brief description of each of the proposed system.

3. Specific Requirements

The specific requirements are –

3.1 Functionality

Introduction–

This subsection contains the requirements for the LANGUAGE TRANSLATOR. These requirements are organized by the features discussed in the case study provided to us. Features from case study are then refined into use case diagrams and to sequence diagram to best capture the functional requirements of the system.

3.1.1 Login

- A. Server Mode :
- B. Client Mode :

3.1.2 Server Mode:

3.1.2.1 Login_Functionality : To verify that you are admin or not it will ask for the user id and password from the admin to give the access to server side . so login requires that the user have (1) a user ID and (2) a password

3.1.2.2 Add_New_Language and New_Word : From the server side we can add different language to our file . it will first ask for the source language then it will ask for our desire language(English). next it will ask about the new word we want to append then ask for its meaning and it successfully append a new word in our desire language to our file

3.1.2.3 Edit_Words :you give the path of your source file then it will ask for your desire word you want to edit then ask for the new word you want to replace then it will successfully replace the the old word with the new desire word

3.1.2.4 Delete_Words: you give the path of your source file then it will ask for your desire word you want to delete then it will successfully delete the desire word from your file.

3.1.3 Client Mode:

1. Translate_Word :We send a word from the client side to convert it to another language by comparing with the source language it will return that particular word in our desire language if that word is present in our file.

3.2 System Features

3.2.1 Reliability & Availability

The system is available when the client requests for server. The system is available 24/7.

3.2.2 Performance

The system will work on the user's terminal. The performance shall depend upon of the client server connection and the internet connection .

3.2 Security

3.2.1 Login

For the server side it first verify that you are admin or not it will ask for the user id and password from the admin to give the access to server side . so login requires that the user have (1) a user ID and (2) a password and from the client side client can login to translate a word

3.2.2 Supportability

The system is easy to maintain.

3.3 Design Constraints

The language translator is built using only C language file handling and socket programming which puts certain limitation to the visual appeal of the software.

3.4 Usability

The Language translator application used to translate particular word from source language to target language, and it also fetch the word usage for a given word in sentences.

3.5 Interfaces

There are many types of interfaces as such supported by the language translator application system namely : Software Interface and Hardware Interface.

3.5.1 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system.
Various interfaces for the product could be

1. Touch screen/Monitor with 8 GB RAM
2. Keypad
3. Continuous battery backup
4. Interface that connects the device to admin's server.

3.5.2 Software Interfaces

- 1 Any Linux operating system.
- 2 Programming Language : C Language
- 3 The final application must be packaged in a set up program, so that the application can be easily installed on machines.

4. Supporting Information

Please refer the following document:

Case study 7 Language Translator