

Software Requirements Specification (SRS)

English to Hindi Language Translator Web Application

1. Introduction

Purpose: This document specifies requirements for an English to Hindi Language Translator Web Application using NLP.

Scope: The system translates English text into Hindi using a pre-trained NLP model.

Definitions: NLP – Natural Language Processing, NMT – Neural Machine Translation.

2. Overall Description

The application is a web-based system built using Python Flask and deployed on Render. It accepts English input and produces Hindi translation.

3. Functional Requirements

- User can enter English text
- System translates text using Helsinki-NLP/opus-mt-en-hi
- System displays translated Hindi text
- Error handling for invalid input

4. Non-Functional Requirements

- Response time < 5 seconds
- User-friendly interface
- Reliable and scalable system

5. System Architecture

Browser → Flask Server → NLP Model → Response

6. Deployment

The application is deployed on Render cloud platform.

7. Future Enhancements

- Multi-language support
- Speech-to-text translation