

SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

Project Title: English to Hindi Language Translator Web App

Model Used: Helsinki-NLP/opus-mt-en-hi

Backend: Python Flask

Deployment: Render

1. Introduction

1.1 Purpose

Develop a web-based English to Hindi Language Translator using NLP model Helsinki-NLP/opus-mt-en-hi.

1.2 Scope

- Accept English text input
- Translate input text into Hindi
- Display translated Hindi text
- Provide simple UI
- Accessible via browser
- Deploy on Render

1.3 Definitions

Term	Meaning
NLP	Natural Language Processing
MT	Machine Translation
Flask	Python Web Framework
API	Application Programming Interface
UI	User Interface
SRS	Software Requirement Specification

2. Overall Description

Standalone web application using HuggingFace NLP model and Flask backend.

3. Functional Requirements

- User enters English text
- System translates to Hindi
- Display translated Hindi text
- Handle empty input
- Accessible via browser

4. Non-Functional Requirements

- Response time \leq 5 seconds
- No user data stored

- Simple UI
- Reliable translation
- 24x7 Availability

5. System Architecture

User → Web Interface → Flask Server → NLP Model → Output

6. Future Enhancements

- Speech to Text
- Hindi to English Translation
- Multi-language support
- Voice output