

Submission Guide: SMT with BLEU Evaluation

Group 5 | NLP Assignment 2

1. Team Members

Name	Student ID	Role	Contribution
Karan Sharma	2024AB05145	Documentation, Testing & Visualization	100%
Neerumalla Kavitha	2024AA05879	Data Preprocessing & N-gram Analysis	100%
Selva Pandian S	2023AC05005	Backend API & Model Integration	100%
Shikhar Nigam	2024AA05691	Frontend Development & UI/UX	100%
Suraj Anand	2024AA05731	System Architecture & BLEU Implementation	100%

2. Project Documents

Here are the files you need to check:

Implementation Report (Task A)

File Path: `report.pdf` This report explains how we built the project. It covers:

- How we calculated the BLEU score.
- The problems we faced and how we solved them.
- Screenshots of the application.

Quality Improvement Strategy (Task B)

File Path: `task_b_quality_improvement.pdf` (In the root folder) This document explains our ideas on how to improve duplicate translation quality.

Literature Survey (Part 2)

File Path: `part2_literature_survey.pdf` (In the root folder) This is a survey of different ways to evaluate Machine Translation systems.

Application Screenshots

Folder Path: `results/output` These are screenshots showing the application results.

Live Demo

Link: <https://nlpsmt.vercel.app/> You can check out the live version of the project here.

3. Code Files

app.py

File Path: `app.py` This is the main Python code. It handles the website and the BLEU score logic.

automated_evaluation.py

File Path: `automated_evaluation.py` We wrote this script to test the system automatically with different languages.

index.html

File Path: `templates/index.html` This is the HTML file for the website. It also has the JavaScript for file uploads.

4. How to Run

1. Install the requirements: `pip install -r requirements.txt`
2. Run the app: `python app.py`
3. Open `http://localhost:5000` in your browser