

## Assignment 2: AI-Powered Translation Plugin for Word Processing Applications

This assignment is an **AI-powered translation plugin** designed for seamless integration into **Microsoft Word, LibreOffice Writer, and Google Docs** as an **add-in**. The application enhances the writing experience by enabling users, particularly students, to **translate text between multiple languages** directly within their preferred word processing environment.

### Key Features:

#### 1. Multi-Platform Support:

- Available as an add-in for **Microsoft Word, LibreOffice Writer, and Google Docs**, allowing students to choose their preferred platform.

#### 2. Sidebar-Based User Interface:

- A convenient sidebar allows users to **set translation preferences** without leaving their document.
- Users can select:
  - **Source language** (input language).
  - **Target language** (desired translation output).
  - **OpenAI translation model** (e.g., GPT-4, specialized translation models).
  - **Temperature setting** (controls randomness and creativity of the translation output).

#### 3. AI-Powered Translation:

- Utilizes **OpenAI models** for translation, ensuring high-quality, context-aware translations.
- Supports **customizable translation settings** to adapt to different academic and professional writing styles.

#### 4. Real-Time Translation Assistance:

- Users can translate selected text instantly or translate the entire document based on their settings.

#### 5. User-Friendly Experience:

- Intuitive interface designed for ease of use.
- Seamless integration into word processors without disrupting workflow.

This plugin leverages **Natural Language Processing (NLP) and AI translation models** to provide accurate, customizable, and efficient translation services directly within word processing applications.

### Submission:

- **Source code and README.md (Usage guideline)** are compressed in **<MSSV>.zip**