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