

Model Development Phase Template

Date	29 Jan 2026
Team ID	LTVIP2026TMIDS91514
Project Title	TransLingua: AI-Powered Multi-Language Translator
Maximum Marks	5 Marks

Feature Selection Report Template

In this phase, important features required for language translation are identified and evaluated. Each feature is analyzed based on its relevance to improving translation accuracy and contextual understanding. Features that directly contribute to effective language translation are selected, ensuring transparency and efficiency in model development.

Feature	Description	Selected (Yes/No)	Reasoning
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Text_ID	Unique identifier for each text input	No	It is only used for identification and does not affect translation quality.
Source_Language	Language of the input text	Yes	Required to identify the language from which translation is performed.
Target_Language	Language to which text is translated	Yes	Essential for generating the correct translated output.
Input_Text	Original text provided by the user	Yes	Core feature required for translation processing.
Token_Length	Number of tokens in input text	Yes	Helps manage model input limits and optimize processing.

Word_Embeddings	Numerical representation of text	Yes	Captures semantic meaning and improves translation accuracy.
Sentence_Context	Contextual meaning of sentences	Yes	Ensures meaningful and grammatically correct translations.
Stopwords	Common words in text	No	Removing stopwords helps reduce noise without affecting meaning.
Special_Characters	Symbols and punctuation	No	These do not contribute significantly to translation accuracy.
Translated_Text	Generated output text	Yes	Target variable required to evaluate translation performance.

Conclusion

The selected features focus on linguistic content, contextual understanding, and language identification, which are crucial for effective AI-based translation. Non-essential features such as identifiers and symbols are excluded to improve efficiency and model performance.