

Model Development Phase Template

Date	15 March 2024
Team ID	739890
Project Title	Bookmate: A Chatbot Companion For Book Recommendations
Maximum Marks	10 Marks

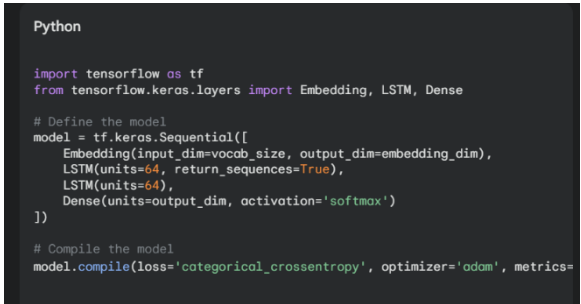
Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):

Paste the screenshot of the model training code

Model Validation and Evaluation Report (5 marks):

Model	Summary	Training and Validation Performance Metrics
Model 1	Deep Learning Model (e.g., RNN, Transformer) Leverages deep learning techniques to capture complex patterns in text data (book descriptions, reviews). Can potentially provide more accurate and personalized recommendations. Requires significant computational resources and data.	 <pre> Python import tensorflow as tf from tensorflow.keras.layers import Embedding, LSTM, Dense # Define the model model = tf.keras.Sequential([Embedding(input_dim=vocab_size, output_dim=embedding_dim), LSTM(units=64, return_sequences=True), LSTM(units=64), Dense(units=output_dim, activation='softmax')]) # Compile the model model.compile(loss='categorical_crossentropy', optimizer='adam', metrics= </pre>

Model 2	<p>Rasa NLU Model is a cutting-edge library designed to build robust natural language understanding (NLU) pipelines. It excels at intent classification and entity extraction, key components in creating intelligent chatbots and virtual assistants.</p>	<pre>nlu: - intent: recommend_book examples: - recommend a book - suggest a good book - I need a book recommendation - intent: search_book examples: - find a book by [author] - what books are there on [topic] - is there a book about [subject] - intent: provide_book_info examples: - tell me about [book_title] - what's the plot of [book_title] - intent: express_preference examples: - I like [genre] books - I prefer [author]'s books - I'm looking for a [mood] book</pre>
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