Model Optimization and Tuning Phase Report

Date	15 March 2024
Team ID	SWTID1720188483
Project Title	Nutrition App Using Gemini Pro : Your Comprehensive Guide To Healthy Eating And WellBeing
Maximum Marks	10 Marks

Model Optimization and Tuning Phase

The Model Optimization and Tuning Phase involves refining machine learning models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

Fine-Tuning Documentation (6 Marks):

In this case we are dealng

Model	Fine Tuning	Optimal Values
Temperature		Temperature around 0.5 or a top-p value around 0.7. This is often a good starting point for balanced outputs.

Top K Sampling		Creativity: Higher k values (100+) encourage exploration and potentially more surprising outputs. Coherence: Lower k values (1-10) promote focus and potentially more grammatically correct and consistent text.

Performance Metrics Comparison Report (2 Marks):

Model	Optimized Metric
Pre-trained Generative AI Models from Google AI Like BERT (Bidirectional Encoder Representations from Transformers).	

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
Pre-trained Generative AI Models from Google AI	The pre-trained Generative AI models accessible through APIs or libraries can help the user to convert various NLP tasks, potentially including text generation when combined with other techniques.