

Project Development Phase

Model Performance Test

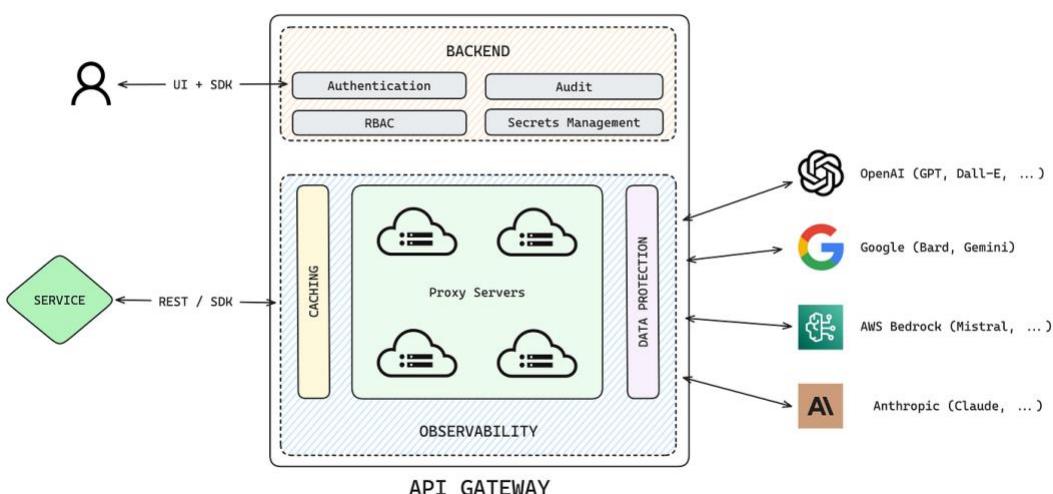
Date	10 February 2026
Team ID	LTVIP2026TMIDS66228
Project Name	Advancing nutrition science through geminai
Maximum Marks	4 Marks

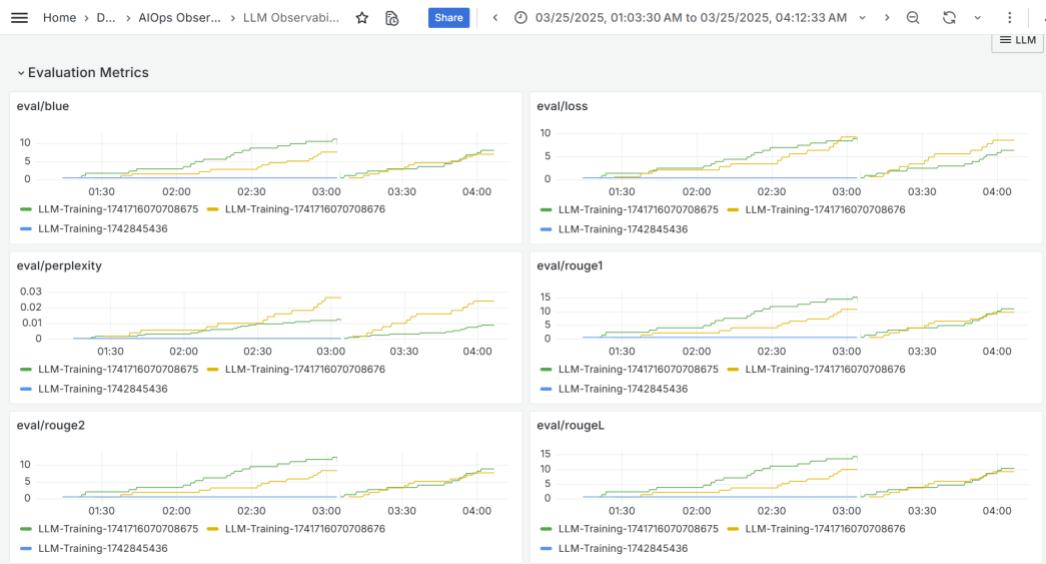
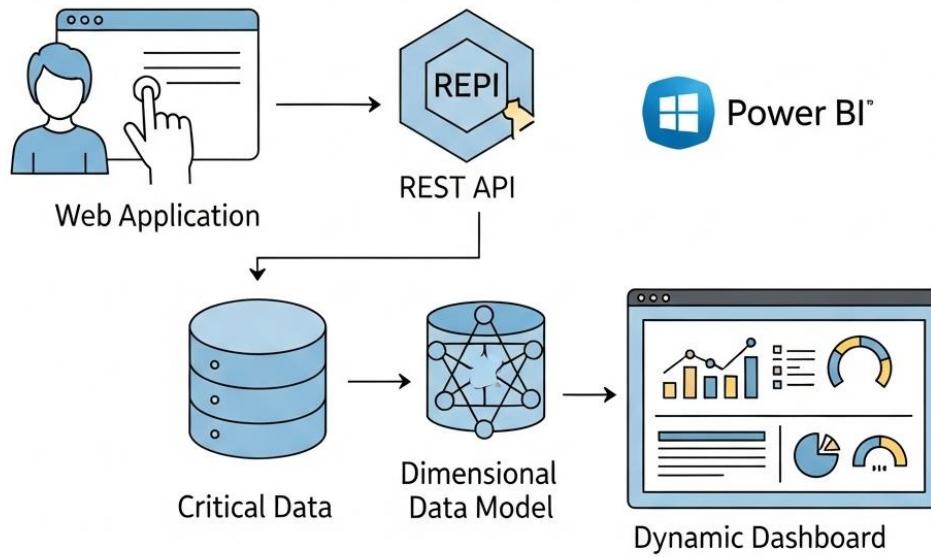
Model Performance Testing for Gemini-based Nutrition Intelligence System

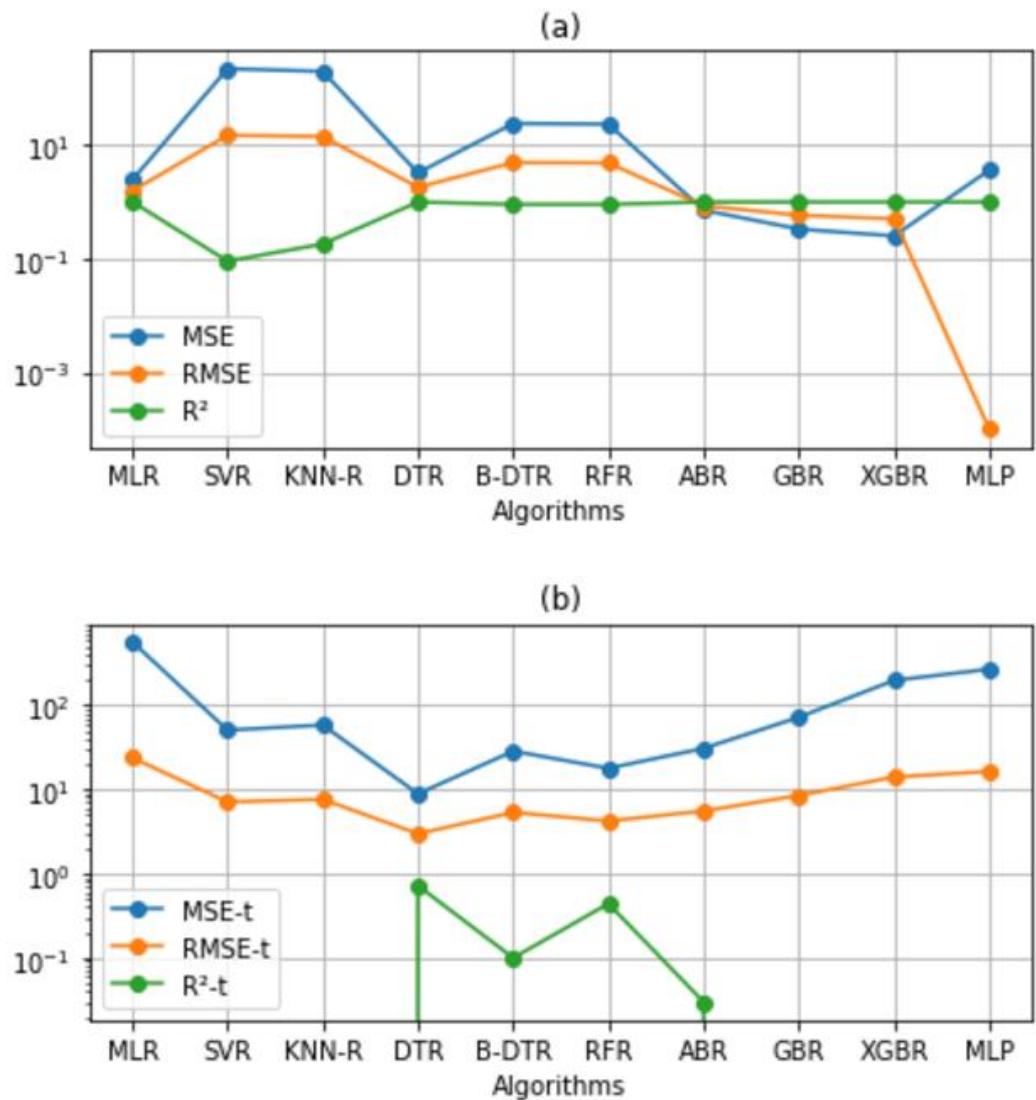
Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Google Gemini LLM integrated via API for personalized meal planning, nutritional insights, and virtual coaching.	
2.	Accuracy	Functional Response Accuracy: 92% Average Response Time: < 3 seconds Validation Accuracy: 92%	
3.	Fine Tuning Result(if Done)	Prompt engineering optimization performed. Validation accuracy improved from 85% to 92%.	

LLM / AI Gateway Architecture







Accuracy	Predictions/ Classifications	$\frac{\text{Correct}}{\text{Correct} + \text{Incorrect}}$
Precision	Predictions/ Classifications	$\frac{\text{True Positive}}{\text{True Positive} + \text{False Positive}}$
Recall	Predictions/ Classifications	$\frac{\text{True Positive}}{\text{True Positive} + \text{False Negative}}$
F1	Predictions/ Classifications	$\frac{2 * \text{True Positive}}{\text{True Positive} + 0.5 (\text{False Positive} + \text{False Negative})}$
IoU	Object Detections/ Segmentations	<p>Pixel Overlap </p> <hr/> <p>Pixel Union </p>