Model	Settings	LearningRate Multiplier 1	Epochs 1	BatchSize 1	LearningRate Multiplier 2	Epochs 2	BatchSize 2
Gemini 1.5 Flash 001	Setting 4	0.5	1	8	2	1	4

Before Fine Tuning

Overall Accuracy: 35.00%

Correct Cases: 7/20

Setting1

Overall Accuracy: 20.00%

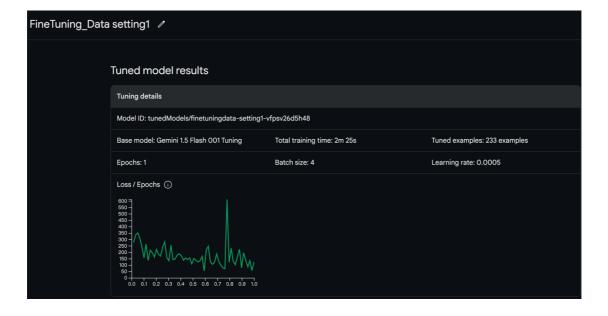
Correct Cases: 4/20

Loss Curve:

- Loss decreases quickly during the initial phase (0–0.2 epoch) but stabilizes early with minimal fluctuations.
- Final loss converges around **50**, indicating stable but insufficient optimization.

Analysis:

- The learning rate is too small, resulting in slow optimization. While the curve is stable, the model fails to effectively learn features from the dataset.
- This under-optimization reflects in the poor accuracy (20%).



Setting2

Overall Accuracy: 35.00%

Correct Cases: 7/20

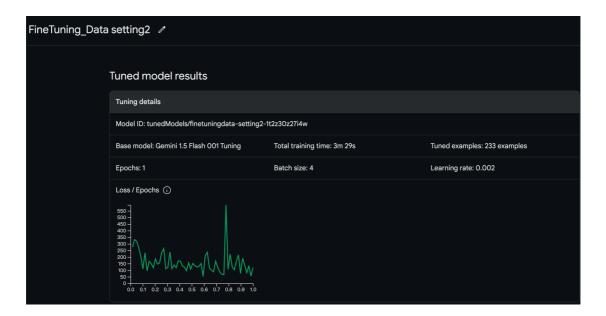
Loss Curve:

• Loss drops rapidly in the early phase (0–0.2 epoch), but significant fluctuations occur later, with peaks reaching nearly 550.

• Final loss converges at a value similar to Setting 1, but with much higher volatility during training.

Analysis:

- The learning rate of 0.002 is too high, leading to instability in the optimization process. The large parameter updates cause fluctuations and hinder effective convergence.
- This instability results in no improvement in accuracy (35%), as the model likely overfits or struggles to generalize.



Overall Result

1.	8	C D	E	P	6	- R		1
insoN0	Patient Conditions	ect Diagneest Tree	Result Before Fine-tuning	Respo	Result After Fine-tuning (Set 1)	Response of Engine After Fine-tuning (Set 2)	Result After Fine-tuning (Set 2)	
- 1	1.42-year-old man with no	krCerebral Itimely in	Malaria	Correct	Meningitis	Freeg	Chagas Disease	Frong
2	2 73-year-old female obese	smSepsis IV fluid	Dysphagia secondary to esophageal adenocarcinosa	Freeg	Esophagnal cancer	Freeg	Sepsis with Multiorgan Dysfunction Syndrome	Correct
- 3	3 69 yo f patient, Caucasian	type I reclatibioti	Perforated appendicitis with abscess	Frong	Perforated Appendicitis with Retroperitonnal Abscess	Frong	Retroperitoneal Gas Gangrene	Frong
- 4	17 yo P patient, territori	alSeptic arteurgery,	Septic arthritis	Frong	Septic Arthritis	Frong	Septic Arthritis	Frong
- 5	3 49 yo M patient with a his	te sepsis, ce antibiot	Necrotizing functitis	Frong	Alcohol-induced Septic Shock with Endocarditis	Frong	Infective Endocurditis	Frong
- 6	5 65 yo F patient, type I di	aksalmonelli antibiot	Salmonella mycotic aneurysm	Frong	Salmonella Mycotic Aneurysm	Frong	Mycotic Aurtic Aneuryom due to Salmonella Choleraesuis	Frong
7	7 76 yo. M patient, ED setti	ng indigest/prokineti	Vasovagal syncope	Frong	Vasovagal Syncope	Frong	Syncope	Frong
- 8	\$ 41-year-old Rispanic male,	curosepsis Broad spe	Fournier's gangrene	Frong	Septic Shock (complication of UTI)	Frong	Epididyme-architis	Frong
- 9	3 A 39-year-old male with a	hiSeptic artistraveno	MSSA bacteromia with bilateral septic shoulder arthritis and pulmon	Correct	MSSA bacteromia with septic embolus in the right lung	Correct	MSSA Bacterenia with Septic Embolism in the Right Lung	Current
10	A 68-year-old Chinese male	glienophagos Fluid ye	Rickettsial infection-induced HLH with MODS	Correct	Hemophagnertic Lymphobisticertosis (HLH)	Correct	HLH with Waltiple Organ Dysfunction Syndrome	Correct
- 11	l la a 20-year-old female pe	tiperiorbit antibioti	Orbital emphysems	Freeg	Orbital emphysemo	Frong	Orbital Emphysema	Frong
12	An 82-year-old man, prese	nteardio-en thromboly	Posterior Circulation Stroke Due to Persistent Trigoninal Artery	Freez	Vertebrobasilar Insufficiency (VBI)	Frong	Vertebrobasilar Inferet/Stroke	Frong
13	A 16-year-old girl, who he	d UC re-actisteroids.	ANCE-associated vasculitis (microscopic polyangiitis)	Vrong	ANCA-Associated Vasculitis Odicroscopic Polyangiitis)	Frong	Ancer-Associated Vasculitis	Vrong
14	15-rear-old, previously be	alviral myselativiral	Influenza A - associated myopericarditis	Vrong	Myocarditia	Frong	Myocarditis (Viral)	Vrong
15	The patient was a 53 year	ol Pseudomor Cigroflo	Presdoman seruginous infection	Correct	Myxedena Cons	Frong	Myxedena Cona with C	Frong
16	A 54 year old man with 40	pe Intrabull (Conservat	Intraballous hasmorrhage in a patient with underlying COFD	Correct	Acute COPD Exacerbation with Secondary Pulmonary Infection	Frong	Preumonia with Acute COFD Enscerbation and Intrabullous Hemorrhage	Correct
17	7 45-year-old woman, normal	we sexual dismedicine	Sexual arousal disorder	Correct	Sexual Arousal Disorder related to Galcanegumab Treatment	Correct	Sexual Arousal Dixorder due to Galcanegumab	Correct
18	\$ 51-year-old peliceman cone	ulunprovokedElerate t	Renal cell carcinoma, clear cell type	Frong	Ronal Cell Carcinoma (BCC) with Metastasis to the Suprarenal Gland	Frong	Renal Cell Carcinoma with Metastasis	Frong
19	An 85-year old man was red	ecNOH Midodrine	Neurogenic orthostatic hypotension (sGEO)	Frong	Neurogenic Orthostatic Hypotension (sOH)	Frong	Neuropeais Orthostatic Hypotension (sOH)	Correct
20	A 22-year-old male with no	sCarotid Si Assid to	Corotid sinus hopersensitivity	Correct	Corotid Sinus Hypersensitivity	Correct	Corotid Sinus Hypersensitivity	Current