Model Development Phase Template

Date	15 March 2024
Team ID	739724
Project Title	Analysis of amazon cell phone reviews
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	Building the model to perform the perfect predtion to analyse the reviews.	`[ ] model=Sequential()`
		
		Adding Output Layer
		
		`[ ] model.add(Dense(2000,activation="relu"))`
		`model.add(Dense(1000,activation="relu"))`
		`model.add(Dense(1,activation="sigmoid"))`
		
		compile the model
		
		`[ ] model.compile(optimizer="adam",loss="binary_crossentropy",metrics=["accuracy"])`
		
		Training the Model
		
		`model.fit(x_train,y_train,batch_size=32,epochs=10)`
		
		Epoch 1/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 8s 3ms/step - accuracy: 0.8887 - loss: 0.2748
		Epoch 2/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 8s 3ms/step - accuracy: 0.9427 - loss: 0.1417
		Epoch 3/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 4s 3ms/step - accuracy: 0.9766 - loss: 0.0630
		Epoch 4/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 5s 3ms/step - accuracy: 0.9917 - loss: 0.0278
		Epoch 5/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 5s 3ms/step - accuracy: 0.9947 - loss: 0.0163
		Epoch 6/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 4s 3ms/step - accuracy: 0.9963 - loss: 0.0110
		Epoch 7/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 5s 3ms/step - accuracy: 0.9964 - loss: 0.0125
		Epoch 8/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 5s 3ms/step - accuracy: 0.9978 - loss: 0.0072
		Epoch 9/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 4s 3ms/step - accuracy: 0.9979 - loss: 0.0085
		Epoch 10/10
		1488/1488 ━━━━━━━━━━━━━━━━━━━━ 4s 3ms/step - accuracy: 0.9979 - loss: 0.0069
		<keras.src.callbacks.history.History at 0x7fe3e3bf0940>
		
		`#this will save your model weights`
		`#and h5 is the extension for keras`
		`model.save('cellphone.h5')`