

Project Development Phase

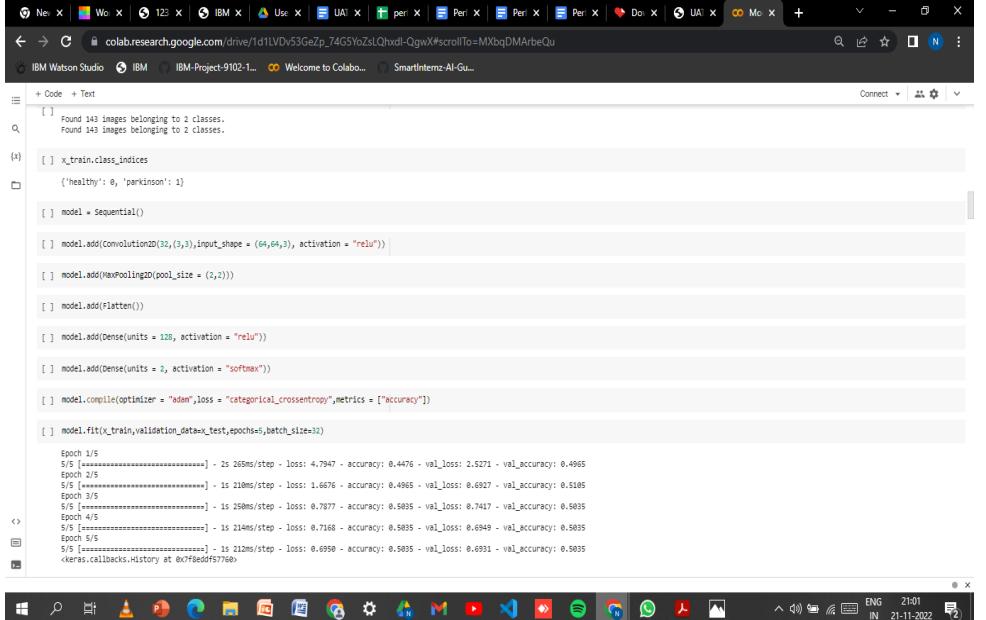
Model Performance Test

Date	19 November 2022
Team ID	PNT2022TMID09607
Project Name	Project - Detecting Parkinson's Disease Using Machine Learning
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p>Regression Model: MAE - , MSE - , RMSE - , R2 score -</p> <p>Classification Model: Confusion Matrix – [25 , 5 , 9 , 21], Accuracy Score – 78% & Classification Report -</p>	<pre> [] print(classification_report(y_test,predictions)) precision recall f1-score support 0 0.74 0.83 0.78 30 1 0.81 0.70 0.75 30 accuracy 0.77 60 macro avg 0.77 0.77 0.77 60 weighted avg 0.77 0.77 0.77 60 </pre>

2.	Tune the Model	<p>Hyper parameter Tuning - Validation Method -</p>	 <pre> [] Found 143 images belonging to 2 classes. [] Found 143 Images belonging to 2 classes. [] x_train,class_indices [] {'healthy': 0, 'parkinson': 1} [] model = Sequential() [] model.add(Convolution2D(32,(3,3),input_shape = (64,64,3), activation = "relu")) [] model.add(MaxPooling2D(pool_size = (2,2))) [] model.add(Flatten()) [] model.add(Dense(units = 128, activation = "relu")) [] model.add(Dense(units = 2, activation = "softmax")) [] model.compile(optimizer = "adam",loss = "categorical_crossentropy",metrics = ["accuracy"]) [] model.fit(x_train,validation_data=x_test,epochs=5,batch_size=32) Epoch 1/5 5/5 [=====] - 2s 265ms/step - loss: 4.7947 - accuracy: 0.4476 - val_loss: 2.5271 - val_accuracy: 0.4905 5/5 [=====] - 1s 210ms/step - loss: 1.6676 - accuracy: 0.4966 - val_loss: 0.6927 - val_accuracy: 0.5105 Epoch 3/5 5/5 [=====] - 1s 250ms/step - loss: 0.7877 - accuracy: 0.5035 - val_loss: 0.7417 - val_accuracy: 0.5035 5/5 [=====] - 1s 250ms/step - loss: 0.7168 - accuracy: 0.5035 - val_loss: 0.6949 - val_accuracy: 0.5035 Epoch 5/5 5/5 [=====] - 1s 214ms/step - loss: 0.6998 - accuracy: 0.5035 - val_loss: 0.6931 - val_accuracy: 0.5035 <keras.callbacks.History at 0x7f8ed0777e0> </pre>
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