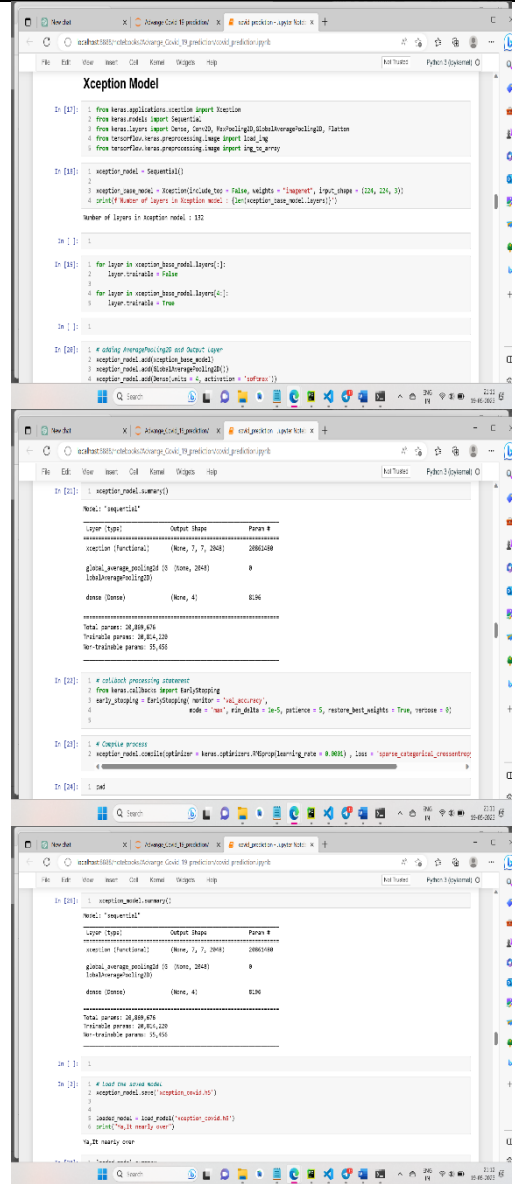


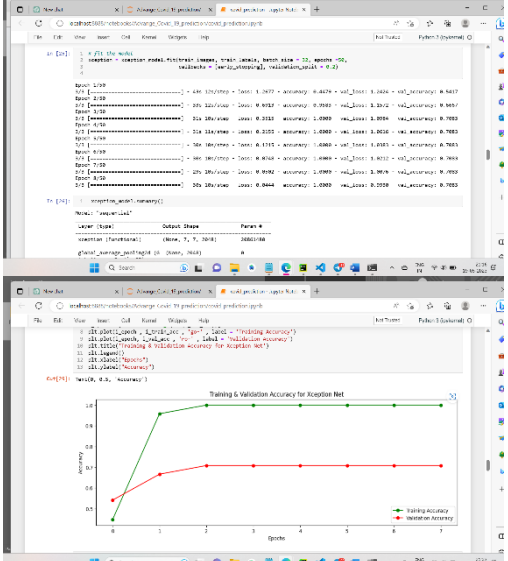
Project Development Phase Model Performance Test

Date	18 May 2023
Team ID	NM2023TMID00069
Project Name	Project : COVID-19 Detection from Lung X-rays with Deep Learnings

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Model Summary	<p>The Xception model:</p> <p>It is a deep convolutional neural network (CNN) architecture designed for image classification tasks. It utilizes depth wise separable convolutions, which separate spatial and channel-wise filtering, reducing computational complexity. The model achieves state-of-the-art performance on various benchmark datasets. It consists of several blocks of separable convolutions with batch normalization and activation functions. The architecture features skip connections that facilitate gradient flow and information propagation. Xception's building blocks are highly efficient and have a large receptive field. The model is trained end-to-end on large-scale image datasets. It has around 22 million trainable parameters. The Xception architecture has inspired subsequent neural network designs. It has been</p>	 <p>The first screenshot shows the initial setup of the Xception model, including imports and the definition of the model architecture. The second screenshot displays the model summary, showing the total number of parameters (22,488,476) and the number of trainable parameters (22,488,476). The third screenshot shows the model being compiled with the Adam optimizer and the categorical_crossentropy loss function.</p>

		widely used and adapted in various computer vision applications.	
2.	Accuracy	<p>Training Accuracy – 95.56%</p> <p>Validation Accuracy -70.80%</p>	 <p>The figure consists of two screenshots from a Jupyter Notebook. The top screenshot shows the output of a training loop for an AlexNet model. It displays training and validation accuracy over 10 epochs. The training accuracy reaches approximately 95.56%, and the validation accuracy reaches approximately 70.80%. The bottom screenshot shows a line graph titled 'Training & Validation Accuracy for AlexNet'. The x-axis represents epochs (0 to 10), and the y-axis represents accuracy (0.0 to 1.0). The training accuracy (green line) starts at approximately 0.45 and rises sharply to about 0.95 by epoch 2, then remains stable. The validation accuracy (red line) starts at approximately 0.45 and rises to about 0.71 by epoch 2, then remains stable.</p>