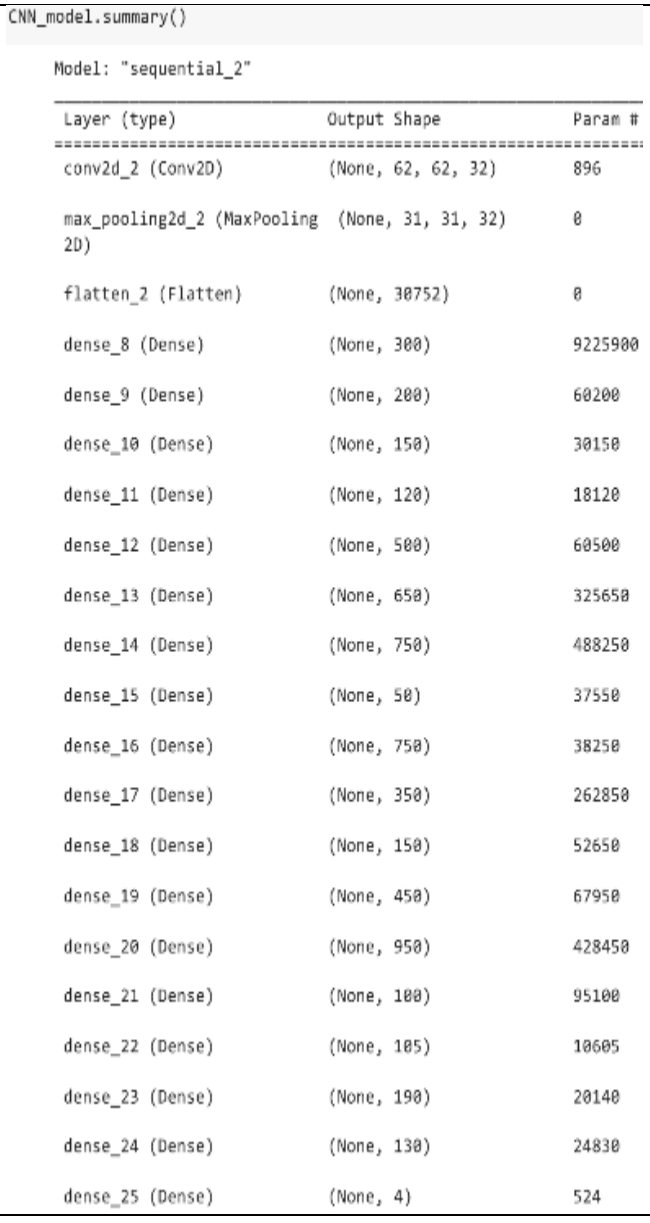
Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID04308
Project Name	Natural Disasters Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	10 Marks

Model Performance Testing:

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Convolutional Neural Network or CNN is a type of artificial neural network, which is widely used for image/object recognition and classification. Deep Learning thus recognizes objects in an image by using a CNN. CNN has four layers. They are Convolution layer, Pooling layer, Flatten layer, Fully connected layer. **CONVOLUTION LAYER:** The majority of computations happen in the convolutional layer, which is the core building block of a CNN. A second convolutional layer can follow the initial convolutional layer. The process of convolution involves a kernel or filter inside this layer moving across the receptive fields of the image, checking if a feature is present in the image. **Pooling layer:** Like the convolutional layer, the pooling layer also sweeps a kernel or filter across the input image. But unlike the convolutional layer, the pooling layer reduces the number of parameters in the input and also results in some information loss. On the positive side, this layer reduces complexity and improves the efficiency of the CNN.	

		Fully connected layer: The FC layer is where image classification happens in the CNN based on the features extracted in the previous layers. Here, *fully connected* means that all the inputs or nodes from one layer are connected to every activation unit or node of the next layer	
2.	Accuracy	Training Accuracy – 93.94% Validation Accuracy -72.73%	- accuracy: 0.9057 - val_loss: 1.5248 - val_accuracy: 0.7020 - accuracy: 0.9313 - val_loss: 1.2206 - val_accuracy: 0.7424 - accuracy: 0.9245 - val_loss: 1.3768 - val_accuracy: 0.7475 - accuracy: 0.9340 - val_loss: 1.3843 - val_accuracy: 0.7475 - accuracy: 0.9367 - val_loss: 1.2302 - val_accuracy: 0.7525 - accuracy: 0.9340 - val_loss: 1.3193 - val_accuracy: 0.7323 - accuracy: 0.9528 - val_loss: 1.3630 - val_accuracy: 0.7323 - accuracy: 0.9326 - val_loss: 1.4956 - val_accuracy: 0.7374 - accuracy: 0.9299 - val_loss: 1.5619 - val_accuracy: 0.7374 - accuracy: 0.9394 - val_loss: 1.5368 - val_accuracy: 0.7273