**Chapter 4**

# Results and Conclusions

1. The accuracy of the model which we have trained is 93%.
2. The size of the dataset which we use to train our model plays a major role in deciding the accuracy of the model. Larger the dataset, more experienced the model and hence more the accuracy.
3. Activation function such as ReLu function, plays an important role here as it adds the non-linearity to our model. The SoftMax function helps provide our predicted result on the scale of 0 to 1.
4. We can build more complex models and make our machines learn to identify anything and also tell the detail about it.
5. We have tested the app on 3 different models ,the accuracy ,response time and compatibility is listed in the following table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | Accuracy | Response time  (camera) | Response time  (gallery) | Compatibility |
| **Model1** | **93%** | **4.99 sec** | **4.91 sec** | **All devices** |
| Model2 | 85% | 4.77 sec | 4.70 sec | All devices |
| Model3 | 74% | 4.61 sec | 4.42 sec | All devices |

The model files are attached with the project.

1. The app uses an object detection model Resnet\_50 which classifies an image if it contains a dog. If the picture provided has no dog in it ,”No dog detected is displayed on the results screen else the breeds and their probability percentage is displayed on a Piechart.