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**J016**

**B.Tech (Data Science) – 3rd Year**

**J1 Batch**

# Practical- 9

**Aim:**

To learn and implement the various a 2-D Convolutional Neural Network to classify images into cats or dogs.

**Observations:**

* **Input Data-**

A picture containing photo, small, sitting, different

Description automatically generated

* **Model Architecture-**

The model was made with 16 layers and it’s architecture is shown below.

A screenshot of a cell phone

Description automatically generated

* **Accuracy Score and loss:**

**A close up of a map

Description automatically generated**

**A close up of a map

Description automatically generated**

* The model is re-trained, optimizing and reducing the number of layers.
* The final accuracy obtained is as follows:

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

* The predictions are as follows:

**A close up of text on a black background

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

**Inference:**

Implemented Image Classification through Convolutional Neural Networks using a 2-D layers.