13. UNDERSTANDING THE ARCHITECTURE OF PRE-TRAINED MODEL

AIM:-

TO understand the architecture of Pre-trained model

OBJECTIVE:-

* Load a Pre-trained model from a deep learning library (eg. Pytorch or Tensor Flow)
* Visualize and study its layer structure and Parameters
* Identify features extraction and classification components
* Understand how transfer learning utilizes Pre-trained weight.

Pseudocode:-

1. Start
2. Import a Pre-trained CNN model (e.g VGG16) with weights = imagenet
3. Display model summary
4. Visualize Selected intermediate

layers and their features maps
8- Interpret how features transitions from edges – features – objective

END

Observation:-

1.) Early layers detected simple shapes like edges and color gradients

2.) Middle layers captured textures and Repeated Patterns

3.) Visualize selected intermediate layers and their features semantic representation

4.) Pre trained models reduce training time and improve accuracy significantly

Result:-

8) The internal working of a Pre-trained CNN model was successfully studied showing how deep networks learn hierarchical visual features.