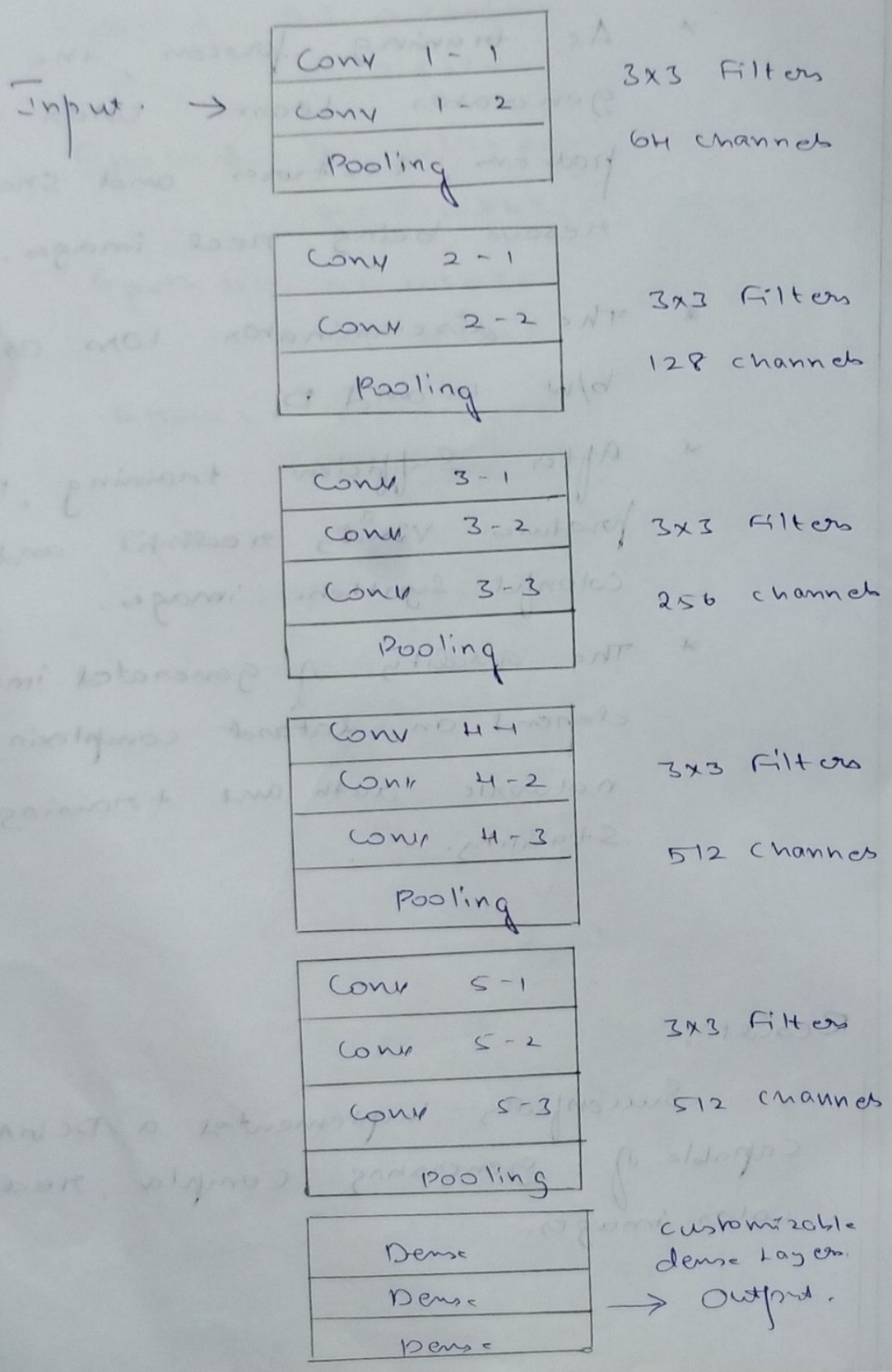
VGG 16 Architecture Diagram:-



Lab 13: Understanding the Architecture of a pretrainned model.

Aim:-

TO understand and analyze the architecture of a pretrainned deep Learning model.

Pseudo code:-

* import req. libraries
* Load a pretrainned model from pytorch (torchvision).
* Display the full architecture of the model.
* Count total to oinable and non-trainable parameters.
* Visualize layer types (conv, pooling)
* Optionally, pass a simple image model to verify dimensions.
* Analyze layer by layer flow and parameter size.

Observation:-

* The VGG16 model consists of 13 convolutional layers 3 fully connected Layers and uses ReLU after each convolution.

Output :-

	Top Accuracy	Top 5 Accuracy
VGG16	79.0%	94.5%

Training	Validation	Testing
86.62%	91.95%	29,97%

Paramdes
22,97%

* The model ends with a Softmax Classifier.
* The feature extraction part includes multiple conv + max pool blocks which progressively reduce spatial dimensions.
* Total parameters and around 138 million
* Pre Trainned weights help in transfer learning.

Result :-

The architecture and Structure of the pre Trained model were Successfully analyzed.