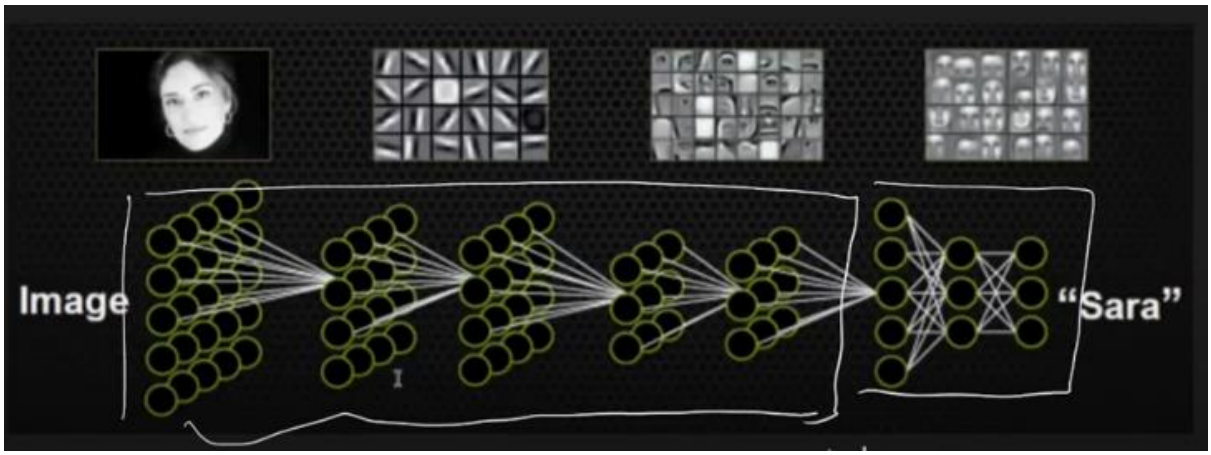
Convolutional Operation

CNN is special Neural Network whose architecture is different then ANN, as

There are different layers

Like **Convolution, Pooling Layer , Fully Connected Layer (also called as Dense)**



Convolution Layer & then Fully Connected Layer

1.) Shuru vale Layers → Edges Detect krte hai
2.) Aageh vale Layers → Edges millakr aur complex Features dhundte hai
    Ese joddte joddte
    Hum Solution tak pochenge

Convolution Operators

Convolutional Operator Perform krne keliye Filter chaye hota hai jishe Hum Kernel bhi kehte hai

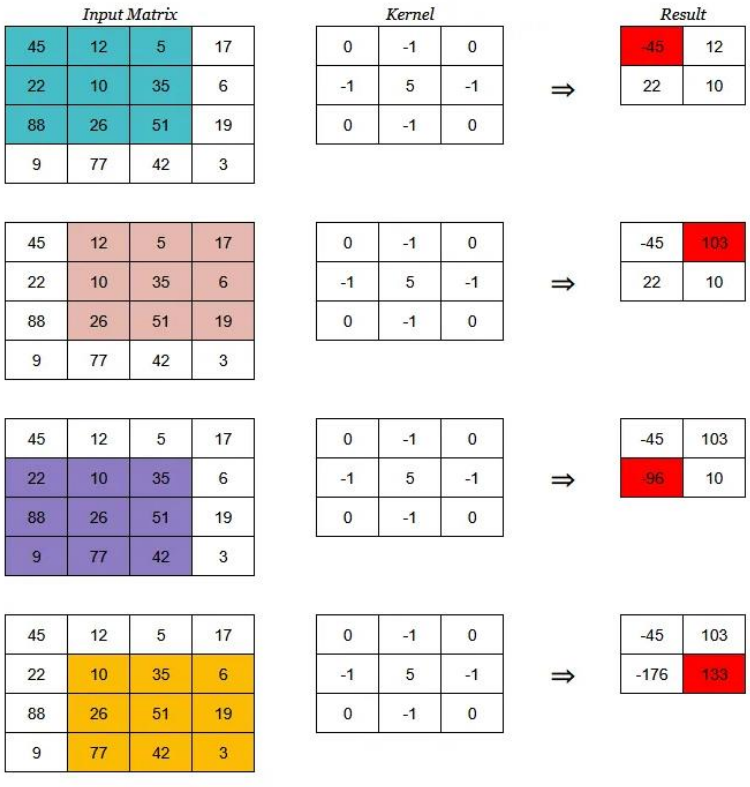
What are Edges? → it is just change in intensity

Filter means Kernel for RGB It becomes of 3 Channels like 3*3*3

For input images with 3 or more channels such as RGB a **filter** is applied

Filters are one dimension higher than kernels and can be seen as multiple kernels stacked on each other where every kernel is for a particular channel.

Therefore for an RGB image of (32x32) we have a filter of the shape say (5x5x3)



Convolution in action