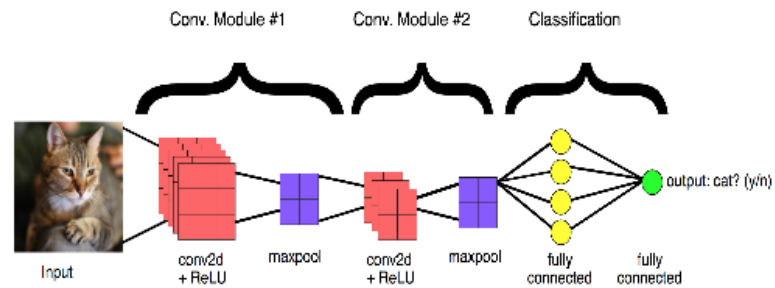


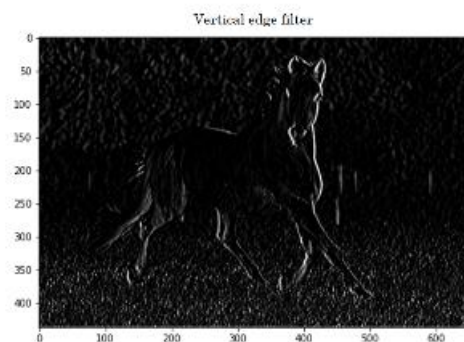
## Steps involved in Convolutional Neural Networks

- Step 1: Convolution
- Step 1b: ReLU Layer
- Step 2: Pooling
- Step 3: Flattening
- Step 4: Full Connection

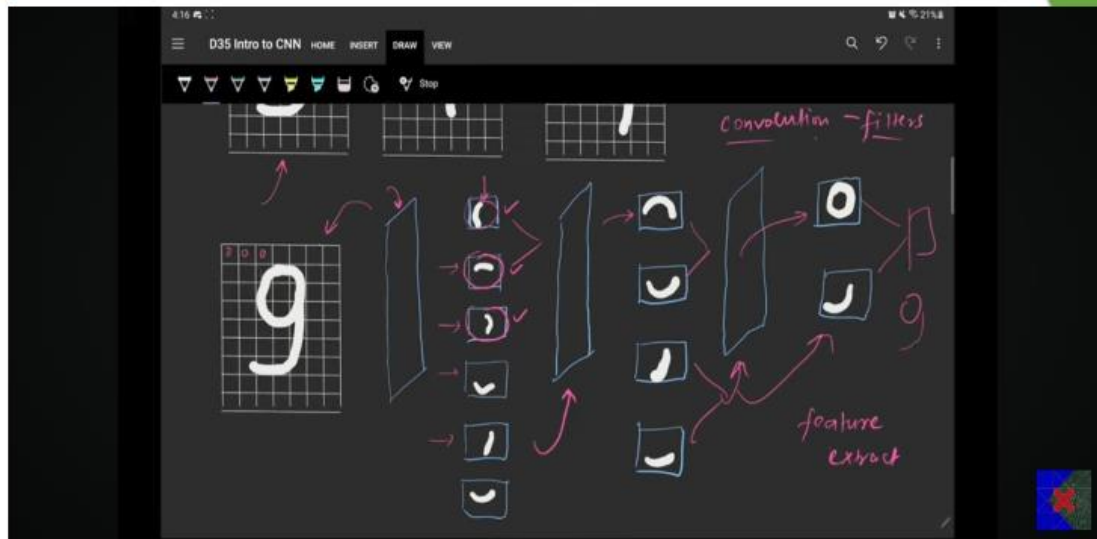


## Convolutional Layer

- A convolution is a linear operation that involves the multiplication of a set of weights with the input.

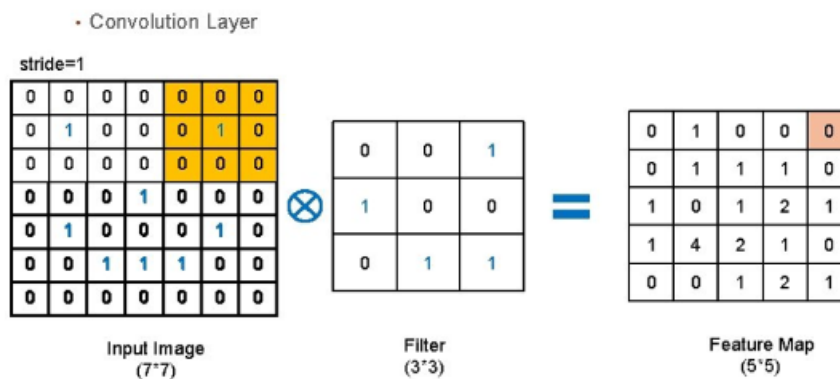


## Convolutional Layer



## Convolutional Layer

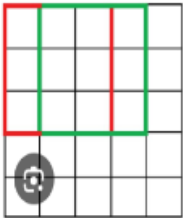
- A convolution is a linear operation that involves the multiplication of a set of weights with the input.



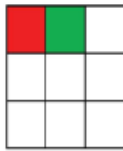
## Stride and Padding

Open with ▾

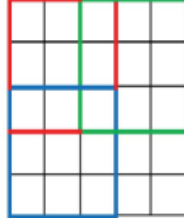
Convolution  
with Stride=1



Output



Convolution  
with Stride=2

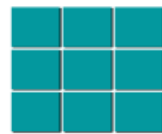


Output



Stride determines how many squares or pixels our filters skip when they move across the image, from left to right and from top to bottom

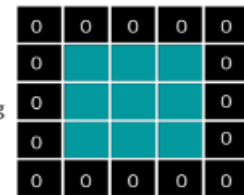
Padding in CNN refers to the addition of extra pixels around the borders of the input images or feature map



Input Image



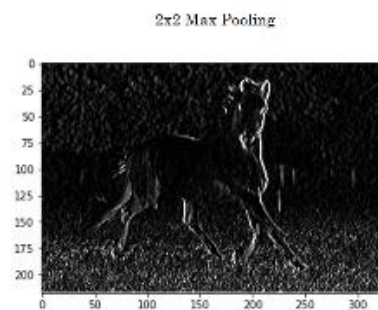
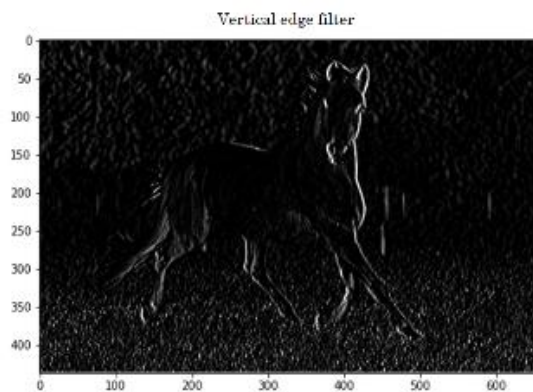
Applying padding  
of 1 on 3x3



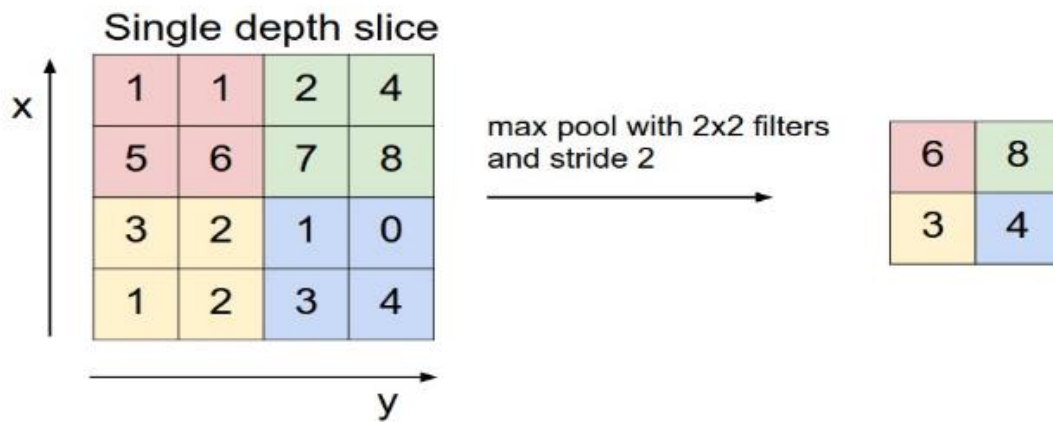
Padded Image

## Pooling Layer

- Pooling is use to down sample the detected features in feature maps.

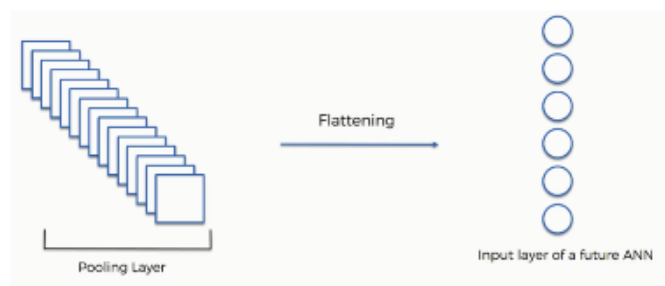
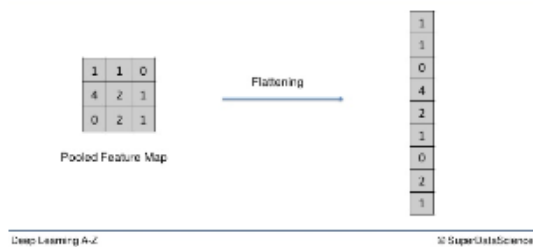


## Pooling Layer: Max Pooling

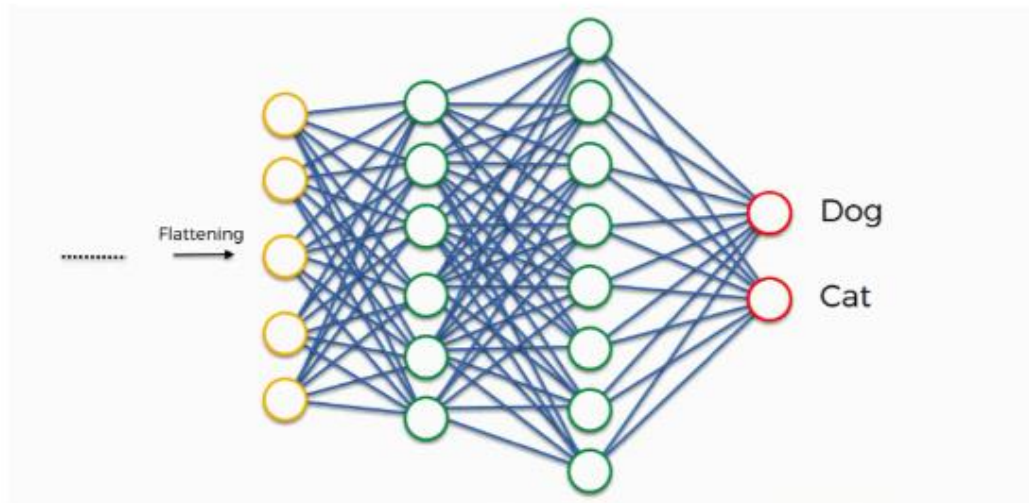


## Step3: Flattening Layer

### Step 3 - Flattening



## Step4: Full Connection



## Step4: Full Connection

