VGG 19 Architecture :

VGG19 consists of 16 convolution layer.

→ First convolution layer has the filter size 64 and kernels is 3x3 with stride size of 1 pixel. After this convolution layer Relu activation function is used. This Relu function output the input if positive; otherwise the output is zero. The next convolution layer also uses 64 filters with kernel size 3x3 and stride is 1x1. After this Relu function is used. After this pooling layer was used with kernel size 2 and stride is 2. So the image size is reduced. After this two more convolution layers are used with filter size 128 and kernel size is 3x3. stride is 1x1 Relu activation function is used. Max pooling was performed. the kernel size is 2 and stride is 2.

After this 4 convolution layers are used with filter size 256 and kernel size is 3x3 and stride = 1x1. For each convolution layer a Relu activation function is used. After this 4 convolution layer maxpooling layer was used. The kernel size is 2 and stride is 2.

Next 8 convolution layers used with filter size 512 and kernel size is 3x3 and stride is 1x1. Relu activation function is used for every convolution layer. Maxpool layer was used with kernel size = 2 and stride is 2.

Avgpool was used. So the target output size is 7x7. After all these layers 3 fully conected layers used. First Linear layer used in_features = 25088 and out_features is 4096. After this Relu activation function and Dropout layer is used. The next Linear layer consist of in_features = 4096 and out_features = 4096. Relu function and dropout layer were used. The final linear layer consists of in_features = 4096 and out_features = 1000.