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In [1]: from keras.layers import Dense, Flatten, MaxPooling2D, Conv2D
        from keras.models import Sequential
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In [2]: model=Sequential()
        model.add(Conv2D(filters=6, kernel_size=(5,5), input_shape=(32,32,1)))
        model.add(MaxPooling2D(pool_size=(2, 2), strides=2))
        model.add(Conv2D(filters=16, kernel_size=(5,5)))
        model.add(MaxPooling2D(pool_size=(2, 2), strides=2))
        model.add(Flatten())
        model.add(Dense(120, activation='relu'))
        model.add(Dense(84, activation='relu'))
        model.add(Dense(10, activation='relu'))

        model.summary()
```

Model: "sequential"

Layer (type)	Output Shape	Param #
=====		
conv2d (Conv2D)	(None, 55, 55, 96)	34944
max_pooling2d (MaxPooling2D)	(None, 27, 27, 96)	0
conv2d_1 (Conv2D)	(None, 27, 27, 256)	614656
max_pooling2d_1 (MaxPooling2D)	(None, 13, 13, 256)	0
conv2d_2 (Conv2D)	(None, 13, 13, 384)	885120
conv2d_3 (Conv2D)	(None, 13, 13, 384)	1327488
conv2d_4 (Conv2D)	(None, 13, 13, 256)	884992
max_pooling2d_2 (MaxPooling2D)	(None, 6, 6, 256)	0
flatten (Flatten)	(None, 9216)	0
dense (Dense)	(None, 4096)	37752832
dense_1 (Dense)	(None, 4096)	16781312
dense_2 (Dense)	(None, 1000)	4097000
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Total params: 62,378,344		
Trainable params: 62,378,344		
Non-trainable params: 0		

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In [ ]:
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