# Adding CNN Layers

| Team ID | PNT2022TMID51066 |
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| **Project Name** | AI-powered Nutrition Analyzer forFitness Enthusiasts |

- For information regarding CNN Layers refer to the link
- Link: **https://victorzhou.com/blog/intro-to-cnns-part-1/**
- As the input image contains three channels, we are specifying the input shapeas (64,64,3).
- We are adding a two convolution layer with activation function as "relu" andwith a small filter size (3,3) and the number of filters (32) followed by a max-pooling layer.
- Max pool layer is used to down sample the input.(Max pooling is a pooling operation that selects the maximum element from the region of the featuremap covered by the filter)
- Flatten layer flattens the input. Does not affect the batch size.

```
model = models.Sequential()
model.add(layers.Conv2D(32, (3, 3),
activation='relu',
input_shape=(32, 32, 3)))
model.add(layers.MaxPooling2D((2, 2)))
model.add(layers.Conv2D(64, (3, 3), activation='relu'))
model.add(layers.MaxPooling2D((2, 2)))
model.add(layers.Conv2D(64, (3, 3), activation='relu'))
model.add(layers.Flatten())
model.add(layers.Dense(64, activation='relu'))
model.add(layers.Dense(10))
```

[14] model summary()