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fullyConnectedLayer: The convolutional and down-sampling layers are followed by one or more fully connected layers. A fully connected layer is a layer in which the neurons connect to all the neurons in the preceding layer. It connects all neurons in the input to all neurons in the output, implementing a fully connected operation. This layer combines all the features learned by the previous layers across the image to identify the larger patterns. The last fully connected layer combines the features to classify the images. Therefore, the `OutputSize` parameter in the last fully connected layer is equal to the number of classes in the target data.
It has some key features, as shown below:
Weight Matrix: There is a weight for each connection between input and output neurons.
Bias: Each output neuron has a bias.

softmaxLayer: A softmaxLayer is an activation layer usually used before the output layer for classification tasks. It transforms the linear combinations of inputs into a probability distribution. The softmax activation function normalizes the output of the fully connected layer and the output of the softmax layer consists of positive numbers that sum to one, which can then be used as classification probabilities by the classification layer.

classificationLayer: The final layer is the classification layer. It is an output layer used for classifying categories. This layer uses the probabilities returned by the softmax activation function for each input to assign the input to one of the mutually exclusive classes and compute the loss. It has some key features, as shown below:
Loss Function: Computes the cross-entropy loss between the predicted values and the true labels.
Purpose: Used to train classification models, enabling the model to distinguish between different classes.