AI-powered Nutrition Analyzer for Fitness Enthusiasts

Team Leader   **:** Mary Annie S
Team Member   : Aishwarya E, Vandhana V, Pokkirreddy Varshini

Train The Model

Now, let us train our model with our image dataset. The model is trained for 20 epochs and after every epoch, the current model state is saved if the model has the least loss encountered till that time. We can see that the training loss decreases in almost every epoch till 20 epochs and probably there is further scope to improve the model.

Fit generator functions used to train a deep learning neural network Arguments:

- steps_per_epoch: it specifies the total number of steps taken from the generator as soon as one epoch is finished and the next epoch has started. We can calculate the value of steps_per_epoch as the total number of samples in your dataset divided by the batch size.

- Epochs: an integer and number of epochs we want to train our model for.

- Validation data can be either:
  - an inputs and targets list
  - a generator
  - inputs, targets, and sample weights list which can be used to evaluate the loss and metrics for any model after any epoch has ended.
- Validation steps: only if the validation data is a generator then only this argument

can be used. It specifies the total number of steps taken from the generator before it is
stopped at every epoch and its value is calculated as the total number of validation data points in your dataset divided by the validation batch size.

```
## Fitting the model

classifier.fit_generator(
        generator=x_train,steps_per_epoch = len(x_train),
        epochs=20, validation_data=x_test,validation_steps = len(x_test))# No of images in test set
```