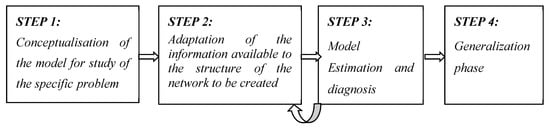
A neural network is made up of densely connected processing nodes, like neurons in the brain. Each node may be connected to different nodes in multiple layers above and below it. These nodes move data through the network in a feed-forward fashion, meaning the data moves in only one direction.

**Examples:**

Neural networks are primarily used to classify and cluster raw, unlabelled, real-world data. They work behind the scenes of familiar technology such as online image comparison or financial decision-making tools for large corporations. A neural network can also look for patterns in web browsing histories to develop recommendations for users.



-60% of the data is used for training.

-20% of the data is used for selection.

-20% of the data is used for testing.

We leave that default values.

Once the data set is configured, we can run some dataset analysis related tasks.

In the Training strategy page, the information about the error method and the optimization algorithm is set.

The most important task is the so-called Perform training, which appears in the list of Training strategy tasks.

Running that task, the optimization algorithm minimizes the loss index, i.e., makes the neural network to fit the data set.

Gradient descent, Newton method, Conjugate gradient, Quasi-Newton method, Levenberg-Marquardt algorithm.

This are the algorithm used for neural network.

India Tax Revenue was reported a drop of -10k in Feb 2022. This is a decrease from the previous figure of 9.895 USD bn for Jan 2022 as India Tax Revenue data is updated monthly,

**Classification:**

A neural network can learn to classify any data with a label that correlates to information the network can analyse, which require labelled datasets for supervised learning.

For example, neural networks can find visual patterns in thousands of photos and consistently apply labels at a fast rate. Through training, they become good at solving complex, confusing problems. (The data scientist doesn’t have to program the neural network with characteristics to distinguish between dogs and cats; the neural network learns to distinguish the most important features itself. )

**Clustering:**

neural networks also work well for clustering or detecting similarities. A learning neural network can analyse millions of data points and cluster them according to similarities. This can be applied to images, emails, voice messages or news articles.

Firstly,

**Predictive Analysis:**

Classification and clustering create a static prediction, Regression analysis gives neural networks the power to predict future states based on past events.

For example, the neural network can read a string of numbers and predict the next number most likely to occur. It can apply the same analysis to more complex events, such as predicting when a customer may leave a store or when a piece of manufacturing equipment is likely to fail.

A basic neural network uses linear regression to manage one input and one output. Multiple linear regression comes into play with many input variables. In this case, each node of the network performs multiple linear regression, weighing each data point as it moves through the layers. The net tests the inputs as it tries to reduce error.