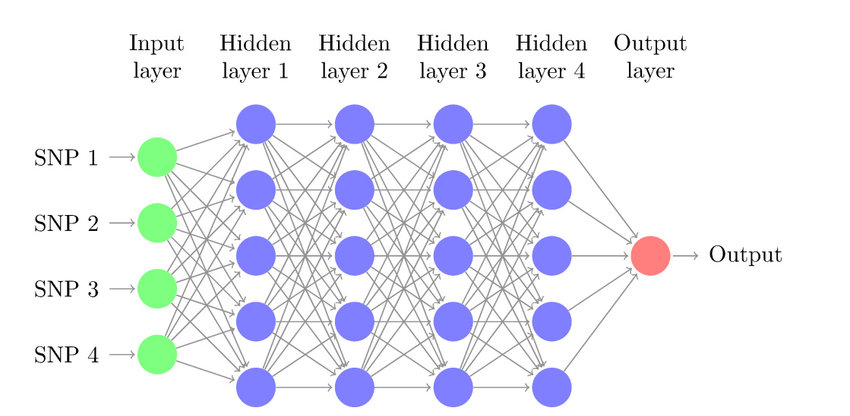
**Practical 3 - Multilayer Perceptron**

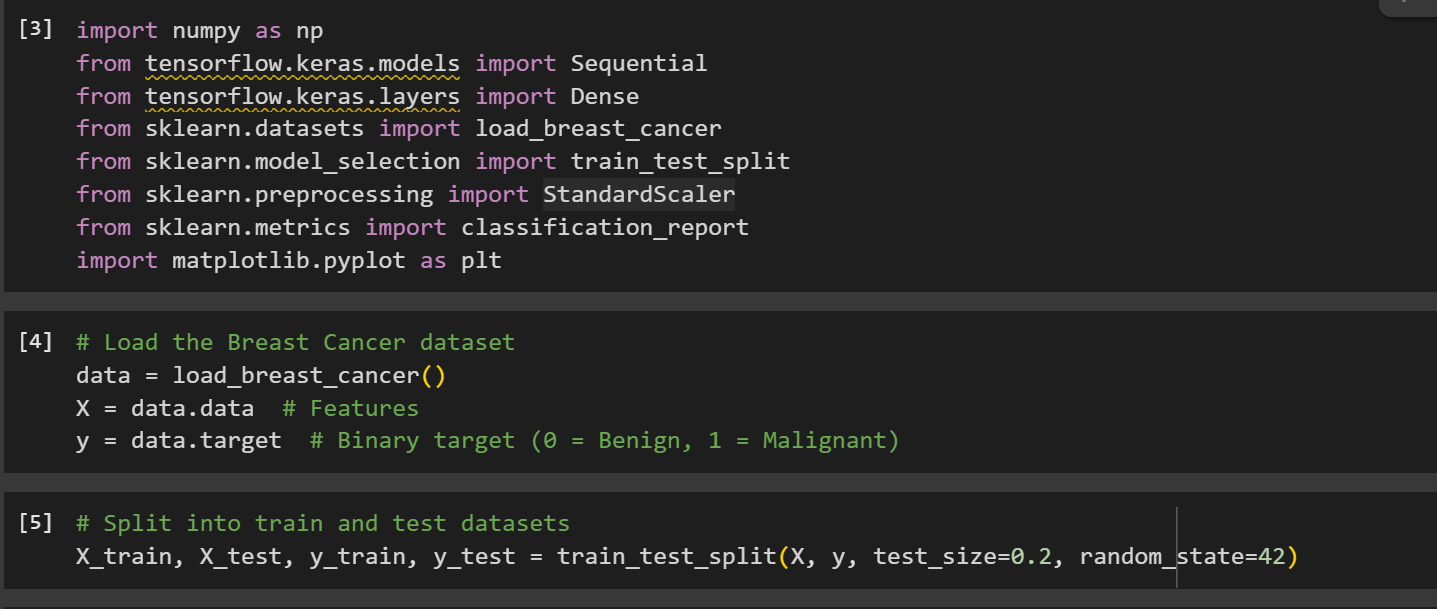
**What is a Multilayer Perceptron?**

A **Multi-Layer Perceptron (MLP)** consists of fully connected dense layers that transform input data from one dimension to another. It is called “multi-layer” because it contains an input layer, one or more hidden layers, and an output layer. The purpose of an MLP is to model complex relationships between inputs and outputs, making it a powerful tool for various machine learning tasks.

**The key components of Multi-Layer Perceptron includes :**

* **Input Layer**: Each neuron (or node) in this layer corresponds to an input feature. For instance, if you have three input features, the input layer will have three neurons.
* **Hidden Layers**: An MLP can have any number of hidden layers, with each layer containing any number of nodes. These layers process the information received from the input layer.
* **Output Layer**: The output layer generates the final prediction or result. If there are multiple outputs, the output layer will have a corresponding number of neurons.





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