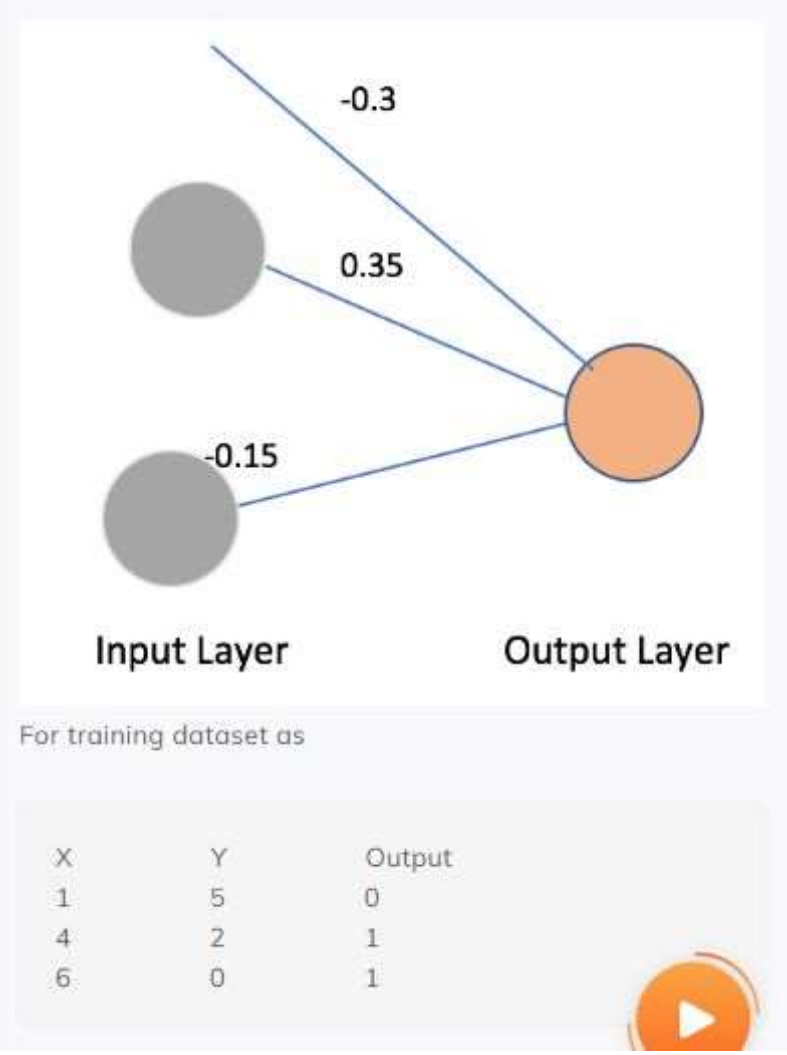
Cost of Neural Network

In [1]:
```
from IPython import display
display.Image("WhatsApp Image 2022-10-18 at 15.43.50.jpg")
```

Out[1]:




```
For training dataset as
X                   Y                   Output
1                   5                   0
4                   2                   1
6                   0                   1
Calculate cost of the network for training data. Cost function to be used is
mean squared error function i.e. (1 / m)*(sum((yi - ypred)^2)), where m is
number of training data points.
```

```
 (theta)                 (Ypred)                    (Yi-Ypred)
         (Yi-Ypred)2
-0.7 == 0.331812227831833893469 2 == -0.331812227831833893469 2 ==
0.110099354538724843064139640 14093
+0.8 == 0.689974481127612442633 9 == +0.310025518872387557366 1 ==
0.096115822352093133499419786 52679
```

```
+1.8 == 0.8581489350995122104057 == +0.1418510649004877895943 ==
0.020121724613402398956797425878 83
```

mean squared error function = (1 / m)*(sum((yi - ypred)^2))

In [2]:
```
(1/3)*(0.11009935453872484306413964214093+0.096115822352093133499419786526 79+0.02
```

Out[2]:
```
0.07544563383474012
```

In [ ]:
```

```