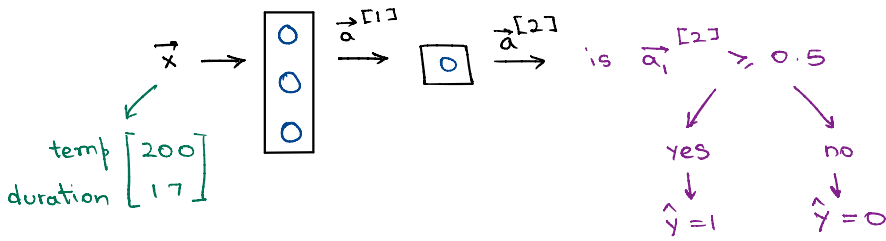


Basic syntax for creating a neural network in tensorflow



write the above in code :-

```
x = np.array([[200, 17]])
```

```
layer_1 = Dense(units = 3, activation = "sigmoid")
```

```
a_1 = layer_1(x) → predicted output :  $\begin{bmatrix} 0.2 \\ 0.7 \\ 0.8 \end{bmatrix}$ 
```

```
layer_2 = Dense(units = 1, activation = "sigmoid")
```

```
a_2 = layer_2(a_1)
```

```
# "now creating threshold"
```

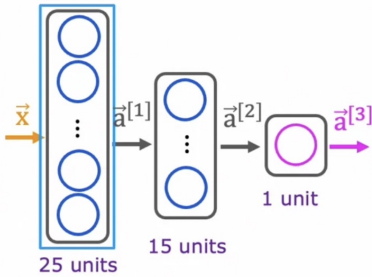
```
if a_2 >= 0.5:
```

```
    yhat = 1
```

```
else:
```

```
    yhat = 0
```

Creating the handwriting recognition model using tensorflow



Syntax :-

```
x = np.array([[0.0, ..., 245, ..., 24, ..., 0]])  
layer_1 = Dense(units = 25, activation = "sigmoid")  
a_1 = layer_1(x)  
layer_2 = Dense(units = 15, activation = "sigmoid")  
a_2 = layer_2(a_1)  
layer_3 = Dense(units = 1, activation = "sigmoid")  
a_3 = layer_3(a_2)
```

if $a_3 \geq 0.5$:

$\hat{y} = 1$

else:

$\hat{y} = 0$