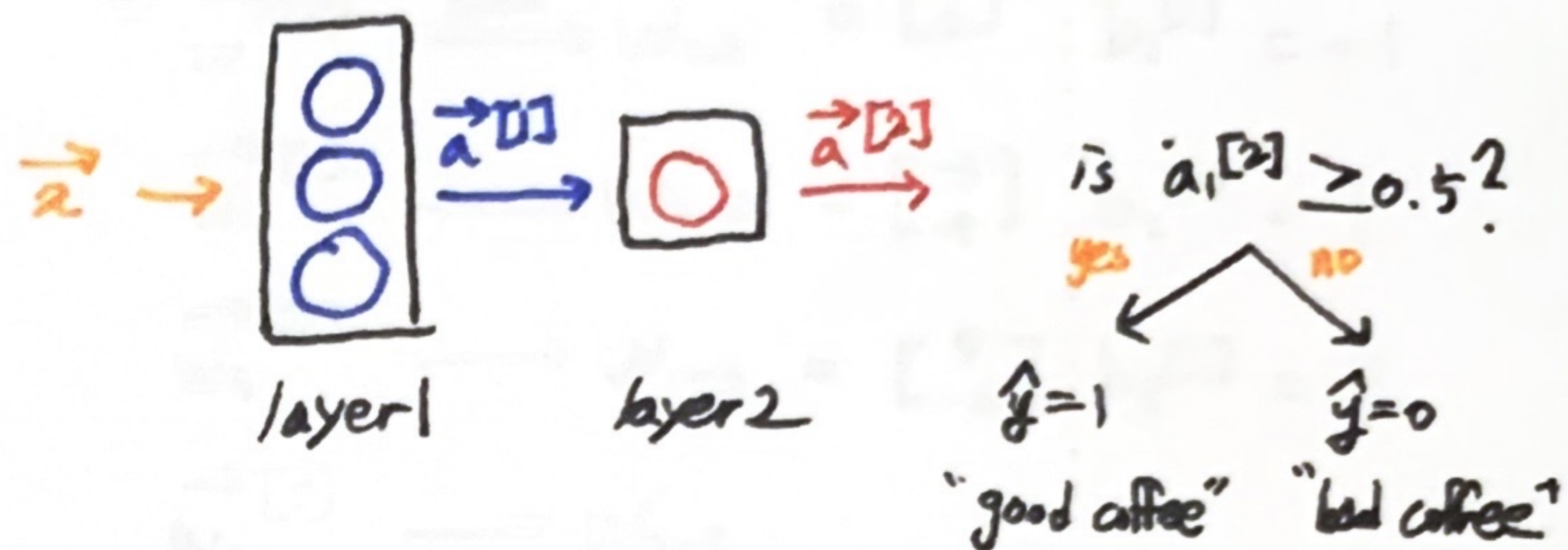
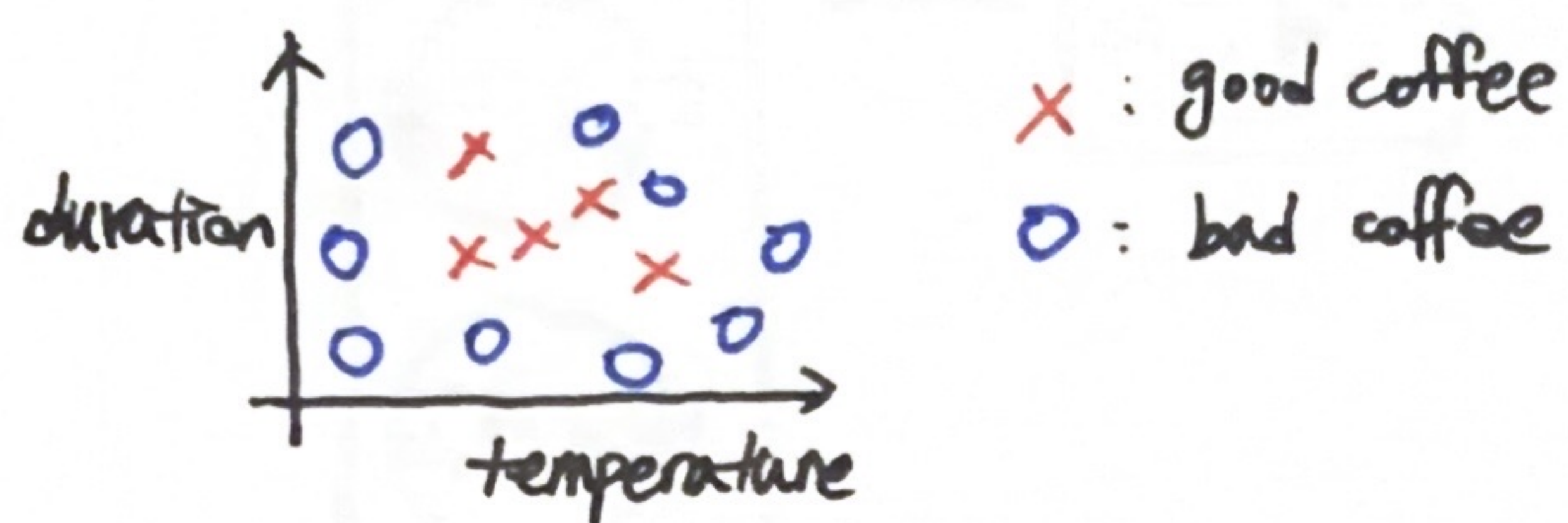


## < Inference in code > (Tensorflow)

ex) Roasted coffee is good tasting coffee? (classification)

features : temperature, duration



<code>

temperature duration

$z = \text{np.array}([[200.0, 17.0]])$  — 1x2 matrix

layer-1 = Dense(units=3, activation='sigmoid')

$a_1 = \text{layer-1}(z)$

1x3 matrix (e.g.  $[[0.2, 0.1, 0.3]]$ )  $\Rightarrow$  tf. Tensor( $[[0.2 \ 0.1 \ 0.3]]$ , shape=(1,3), dtype=float32)

layer-2 = Dense(units=1, activation='sigmoid')

$a_2 = \text{layer-2}(a_1)$

1x1 matrix (e.g.  $[[0.8]]$ )  $\Rightarrow$  tf. Tensor( $[[0.8]]$ , shape=(1,1), dtype=float32)

|| instead of manually setting Dense layer

model = Sequential([

Dense(units=3, activation='sigmoid')

Dense(units=1, activation='sigmoid')])