# PadhAI: MP Neuron & Perceptron

## One Fourth Labs

### **MP Neuron Evaluation**

### 1. Training Data

	phone 1	phone 2	phone 3	phone 4	phone 5	phone 6	phone 7	phone 8	phone 9	phone 10
Launch (within 6 months) x <sub>1</sub>	0	1	1	0	0	1	0	1	1	0
Weight (<160g) x <sub>2</sub>	1	0	1	0	0	0	1	0	0	1
Screen Size (< 5.9in) x <sub>3</sub>	1	0	1	0	1	0	1	0	1	0
Dual sim x <sub>4</sub>	1	1	0	0	0	1	0	1	0	0
Internal mem(>= 64gb, 4gb ram) x <sub>5</sub>	1	1	1	1	1	1	1	1	1	0
NFC x <sub>6</sub>	0	1	1	0	1	0	1	1	1	0
Radio x <sub>7</sub>	1	0	0	1	1	1	0	0	0	0
Battery (>= 3500mAh) x <sub>8</sub>	0	0	0	1	0	1	0	1	0	0
Price? (> 20k) x <sub>9</sub>	0	1	1	0	0	0	1	1	1	0
Liked (y)	1	1	1	0	0	1	1	1	0	0
Prediction $\hat{y}$	1	1	0	1	1	1	1	0	0	0

#### 2. Test Data

	phone11	phone12	phone13	phone14
Launch (within 6 months) x <sub>1</sub>	1	0	0	1
Weight (<160g) x <sub>2</sub>	0	1	1	1
Screen Size (< 5.9in) x <sub>3</sub>	0	1	1	1
Dual sim x <sub>4</sub>	0	1	0	0
Internal mem(>= 64gb, 4gb ram) x <sub>5</sub>	1	0	0	0
NFC x <sub>6</sub>	0	0	1	0
Radio x <sub>7</sub>	1	1	1	0
Battery (>= 3500mAh) x <sub>8</sub>	1	1	1	0
Price? (> 20k) x <sub>9</sub>	0	0	1	0
Liked (y)	0	1	0	0
Prediction $\widehat{y}$	0	1	1	0

3. Accuracy = No. of correct predictions/ Total No. of predictions ( $\frac{3}{4}$  = 75% in test set)