

$$\begin{matrix} 0 \\ \text{"apple"} \end{matrix} = \begin{matrix} 1 \\ 0 \\ 0 \\ 0 \end{matrix}$$

$$\begin{matrix} 1 \\ \text{"banana"} \end{matrix} = \begin{matrix} 0 \\ 1 \\ 0 \\ 0 \end{matrix}$$

$$\begin{matrix} 2 \\ \text{"dog"} \end{matrix} = \begin{matrix} 0 \\ 0 \\ 1 \\ 0 \end{matrix}$$

$$\begin{matrix} 3 \\ \text{"car"} \end{matrix} = \begin{matrix} 0 \\ 0 \\ 0 \\ 1 \end{matrix}$$