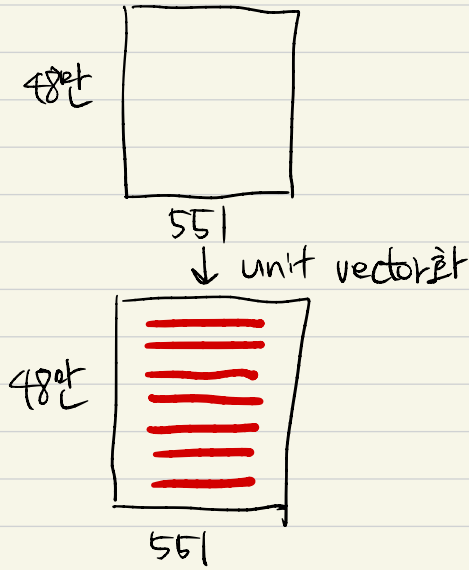


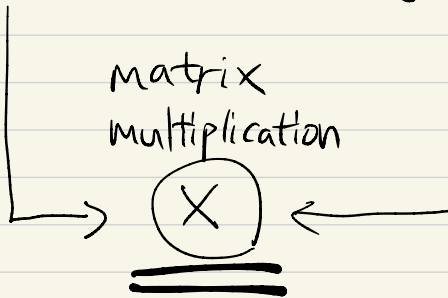
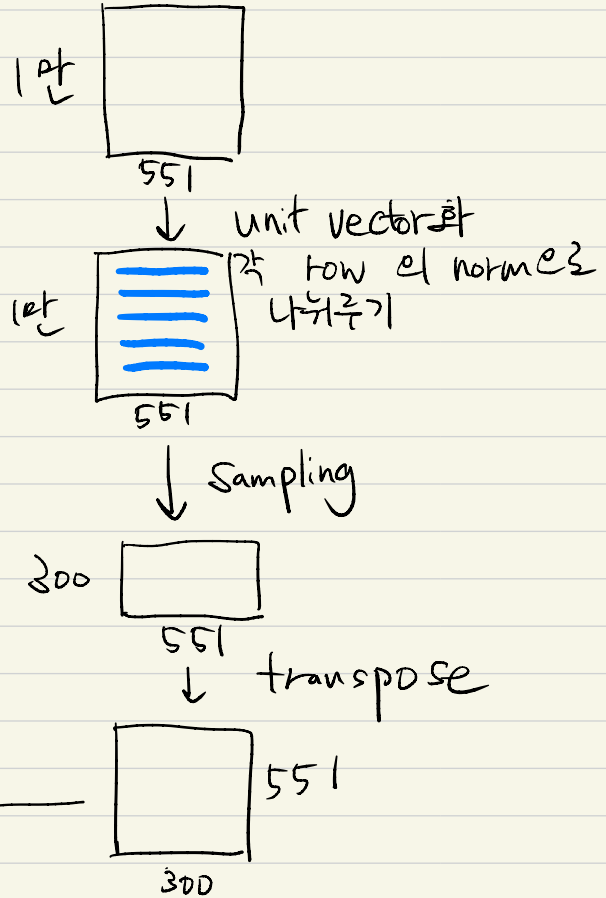
Vectorization (No Loop)

$$\text{Cos_sim} = \frac{\text{dot}(A, B)}{\text{norm}(A) * \text{norm}(B)}$$

Target-group



Ref-group



이게 되는 이유 >

$$\begin{aligned}\text{dot}(A, B) &= a_1 b_1 + \dots + a_n b_n \\ \text{dot}(A, kB) &= k a_1 b_1 + \dots + k a_n b_n \\ &= k \text{dot}(A, B)\end{aligned}$$