

$$\begin{aligned}
 \Rightarrow \sigma_1 &= \sigma_1 + 0 + \dots + 0 + 0 + 0 + 0 \\
 \sigma_2 &= * \sigma_1 + * \sigma_3 + \dots \\
 \sigma_3 &= 0 + \sigma_3 + 0 + \dots \\
 &\vdots \\
 \sigma_{\bar{i}-1} &= \dots + \sigma_{\bar{i}-1} + 0 + 0 + 0 \\
 \sigma_{\bar{i}} &= 0 + \dots + 0 + \sigma_{\bar{i}} + 0 + 0 \\
 \sigma_{\bar{i}+1} &= * \dots * \\
 \sigma_n &= * \dots
 \end{aligned}$$

$$\Rightarrow L(X) = \begin{pmatrix} 1 & * & 0 & \dots & 0 & 0 & 0 & * & \dots & * \\ 0 & * & 1 & 0 & \dots & 0 & 0 & 0 & * & * \\ \vdots & & & & & & & & & \\ 0 & * & 0 & 0 & \dots & 1 & 0 & 0 & * & \\ 0 & * & 0 & 0 & \dots & 0 & 1 & 0 & * & * \\ 0 & * & 0 & 0 & \dots & 0 & 0 & 1 & * & * \end{pmatrix}$$

Wrong!

$$\begin{aligned}
 \textcircled{2} \quad a=0, \Rightarrow \sigma_1 &= * \sigma_2 + \dots + 0 \\
 \sigma_2 &= \sigma_2 + 0 + \dots + 0 \\
 &\vdots \\
 \sigma_{\bar{i}} &= 0 + \dots + \sigma_{\bar{i}} \\
 \sigma_{\bar{i}+1} &= * \sigma_{\bar{i}} + \dots
 \end{aligned}$$

$$\Rightarrow L(X) = \begin{pmatrix} * & 1 & 0 & \dots & 0 & * & \dots & * \\ * & 0 & 1 & \dots & 0 & * & \dots & * \\ \vdots & & & & & & & \\ \bar{i}-1 & 0 & 0 & \dots & 1 & * & \dots & * \\ ( & & & & & & & \end{pmatrix}$$

$$\Rightarrow \dim(\Lambda \cap V_{h-\bar{i}+2}) \geq k-l+1 = k-(\bar{i}-1)+1 = k-\bar{i}+2$$

$$\Rightarrow \text{Contradiction.}$$