## Step-1

No

 $A = \begin{bmatrix} 1 & 2 \\ 0 & 1 \end{bmatrix}, B = \begin{bmatrix} 1 & 3 \\ 0 & 1 \end{bmatrix}, B \text{ is have same null space } \{0\} \text{ , same column space } R^2 \text{ , same row spaces, same left nul space But } A \neq CB \text{ for any } C \in R.$