

Candidate keys

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1. Given the table $R(X, Y, Z, W, T)$ and the following functional relations $D_F = \{X \rightarrow W, Y \rightarrow T, XY \rightarrow Z\}$. Write the candidate keys.

Since X determinates W , Y determinates T and the mix of XY determinates Z , only by using X and Y we can determinate every single one. Thus, XY must be a the *candidate key*.

2. Now, given the table $R(A, B, C, D, E, F)$ and the functionals $D_F = \{AB \rightarrow C, D \rightarrow E, C \rightarrow F, F \rightarrow DBA\}$. Write the candidate keys.

The candidate keys here are C , AB and F .

3. Make up your own functional relations on the previous table $R(A, B, C, D, E, F)$ in such a way that there are exactly three candidate keys.

$$D_F = \{A \rightarrow B, C \rightarrow E, D \rightarrow F\}$$

Hence, the *candidative keys* are A , AB and ACD .