|  |  |  |
| --- | --- | --- |
| Dependency | Possible (Yes/No) | Why/why not? |
| A -> B | No | Because both a1 gives both b1, b2 |
| A -> C | No | Because both a1 gives c1 ,c3 |
| A -> D | No | Because both a1 gives d3,d2 |
| B -> A | No | Because both b2 gives a1,a2 |
| B -> C | Yes | Because all unique b values gives a unique c value |
| B -> D | No | Because both b2 gives d2,d4 |
| C -> A | No | Because both c3 gives a1,a2 |
| C -> B | Yes | Because all unique c values gives a unique b value |
| C -> D | No | Because both c3 gives d2,d4 |
| {A, B} -> C | Yes | Because there isn’t any single, same a,b pair that lead to different c values |
| {A, B} -> D | Yes | Because there isn’t any single, same a,b pair that lead to different d values |
| {B, C} -> A | No | Because now b2,c3 gives both a1 and a2 values |
| {B, C} -> D | No | Because now b2,c3 gives both d2 and d4 values |
| {C, D} -> A | Yes | Because there isn’t any single, same c,d pair that lead to different a values |
| {C, D} -> B | Yes | Because there isn’t any single, same c,d pair that lead to different b values |
| {A, C} -> B | Yes | Because there isn’t any single, same a,c pair that lead to different b values |
| {A, C} -> D | Yes | Because there isn’t any single, same a,c pair that lead to different d values |

Conclusion:

Here we can use either A,C or A,B or C,D as composite keys as they can determine all the other records of the other two columns.