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CIS-310-02

3 October 2018

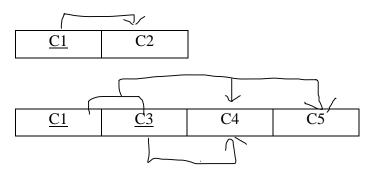
## PART 1

In Figure Q6.6 there is a partial dependency between C1 and C2 and a transitive dependency between C4 and C5.

The given table is in 1NF because there no repeating rows and all tables relate to each other.

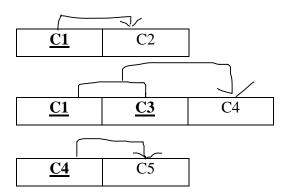
The result is not in 2NF. The table must have no partial dependencies.

## 2NF:



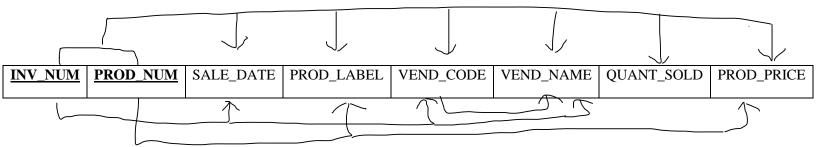
The result is not in 3NF. There is still a transitive dependency.

## 3NF:



## PART 2

<u>INV\_NUM</u>, <u>PROD\_NUM</u>, SALE\_DATE, PROD\_LABEL, VEND\_CODE, VEND\_NAME, QUANT\_SOLD, PROD\_PRICE



Partial dependencies: INV\_NUM, SALE\_DATE, VEND\_CODE, and VEND\_NAME
PROD\_NUM and PROD\_LABEL, PROD\_PRICE

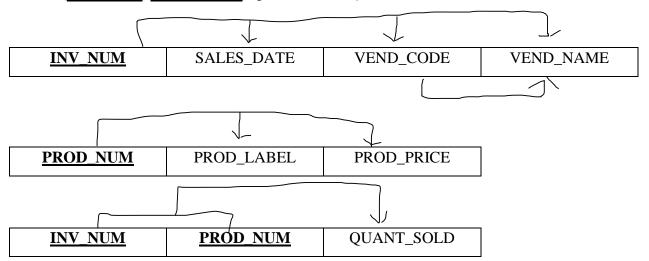
Transitive dependencies: VEND\_CODE and VEND\_NAME

2NF:

INVOICE (INV\_NUM, SALES\_DATE, VEND\_CODE, VEND\_NAME)

PRODUCT (**PROD\_NUM**, PROD\_LABEL, PROD\_PRICE)

SALES (INV\_NUM, PROD\_NUM, QUANT\_SOLD)



3NF:

INVOICE (<u>INV\_NUM</u>, SALES\_DATE, VEND\_CODE)

VENDOR (**VEND\_CODE**, VEND\_NAME)

PRODUCT (**PROD\_NUM**, PROD\_LABEL, PROD\_PRICE)

SALES (INV\_NUM, PROD\_NUM, QUANT\_SOLD)

