08

**Fall**

**Assignment 6**

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CIS320-01 | DUE: 10-11-17

Due: October 11 before 1pm

Worth: 70 points

This is an individual assignment.

1. Draw the dependency diagram for the P6.3 on page 238.

INV\_NUM

PROD\_PRICE

QUANT\_SOLD

VEND\_NAME

VEND\_CODE

PROD\_LABEL

SALE\_DATE

PROD\_NUM

Partial Dependency

Transitive Dependency

Partial Dependency

1. Is the table in 1NF? Why or why not?

**Yes. The table is in 1NF because there is a primary key, and each row is uniquely identified.**

1. Is the table in 2NF? Why or why not? If the table is not in 2NF, normalize the table so that the resulting database is in 2NF.

**No. The table is not in 2NF because it contains 2 partial dependencies. The partial dependencies must be converted into separate tables.**

QUANT\_SOLD

PROD\_NUM

INV\_NUM

PROD\_PRICE

VEND\_NAME

VEND\_CODE

PROD\_LABEL

PROD\_NUM

Transitive Dependency

SALE\_DATE

INV\_NUM

**TOTAL TABLE PRODUCT TABLE**



**INVOICE\_TABLE**

1. Is the database above in 3NF? Why or why not? If it is not 3NF, normalize the table so that the resulting database is in 3NF.

**No. The table is not In 3NF because it contains a transitive dependency. The transitive dependency must be converted to a new table.**

QUANT\_SOLD

PROD\_NUM

INV\_NUM

PROD\_PRICE

VEND\_CODE

PROD\_LABEL

PROD\_NUM

SALE\_DATE

INV\_NUM

VEND\_NAME

VEND\_CODE

**TOTAL TABLE PRODUCT TABLE**

 

**INVOICE TABLE VENDOR TABLE**

 

5. Use the resulting tables in step 4 to create a Crow's Foot ERD.

