

Lab 6

Part 1: Keys and Determinants

- 1) a) A potential primary key (candidate key) for the Air Supply data in the spreadsheet could be **Order Id**.
- 2) **Yes**, the table is in first normal form (1NF) because the **Primary Key is identified, the row isn't repeated, and is in table format**.
- 3) **No**, the table is not in second normal form because **the table is able to be broken down further, by removing partial dependencies**.
- 4) **(Order Id) -> (Product Id, Order Date)**
- 5) **(Vendor Id) -> (Vendor Name, Accounts Payable Terms),
(Product Id) -> (Product Name, Product Description, Product Price)**
- 6) **Cost Per Order is a denormalized, derived attribute because you can get the same value just by multiplying the Product Price with the Order Quantity. For example, (Product Price) \$4.25 * 19500 (Order Quantity) = 82,875 (Cost Per Order).**

Part 2: NFing

- 1) **2NF Form**

ORDER DATES (**Order Id**, Order Date, Arrival Date)

ORDER (**Order Id**, Line_Number, Vendor Id, Vendor Name, Product Id, Product Name, Product Description, Product Price, Order Quantity, Cost Per Order, Accounts Payable Terms)

3NF Form

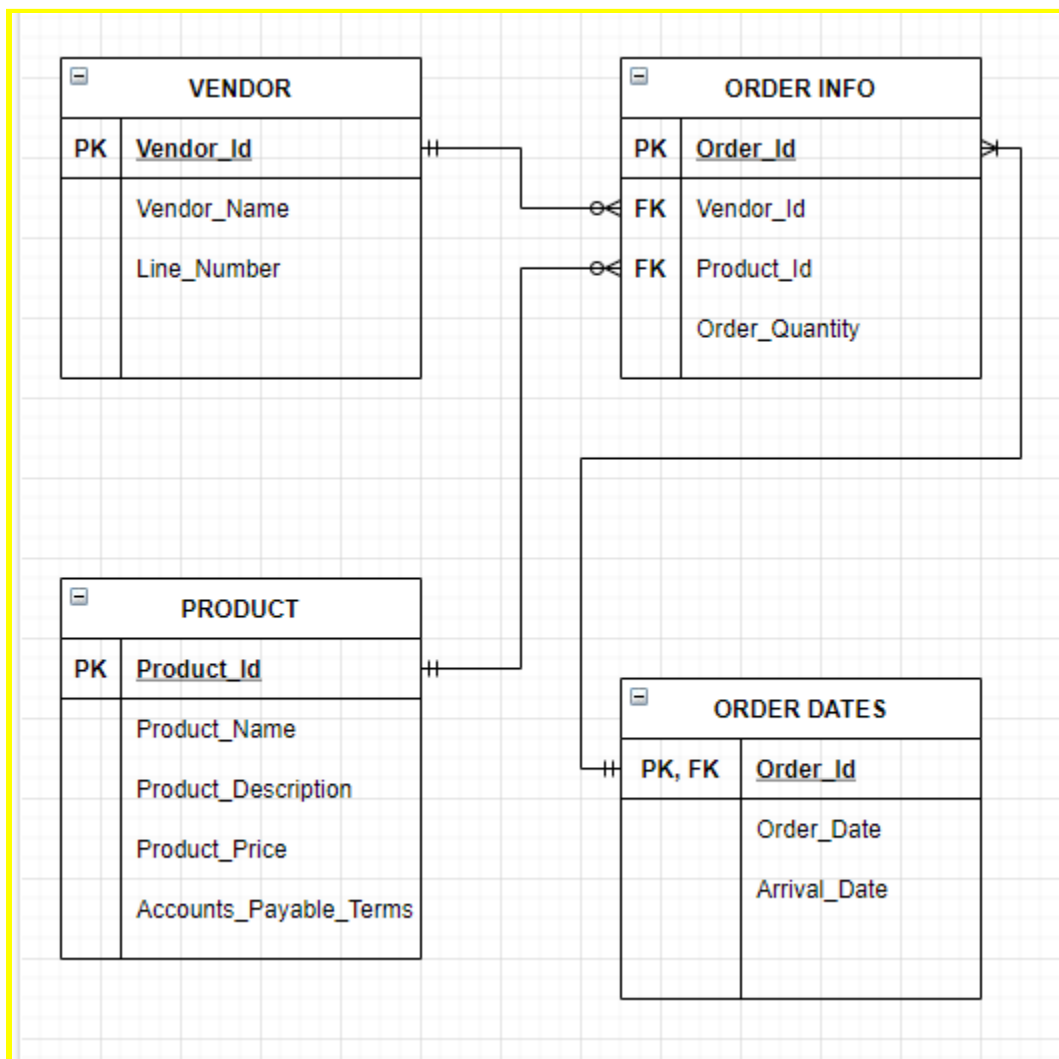
ORDER DATES (Order Id, Order Date, Arrival Date)

VENDOR (Vendor Id, Line Number, Vendor Name)

PRODUCT (Product Id, Product Name, Product Description, Product Price, Accounts Payable Terms)

ORDER INFO(Order Id, Vendor Id, Product Id, Order Quantity)

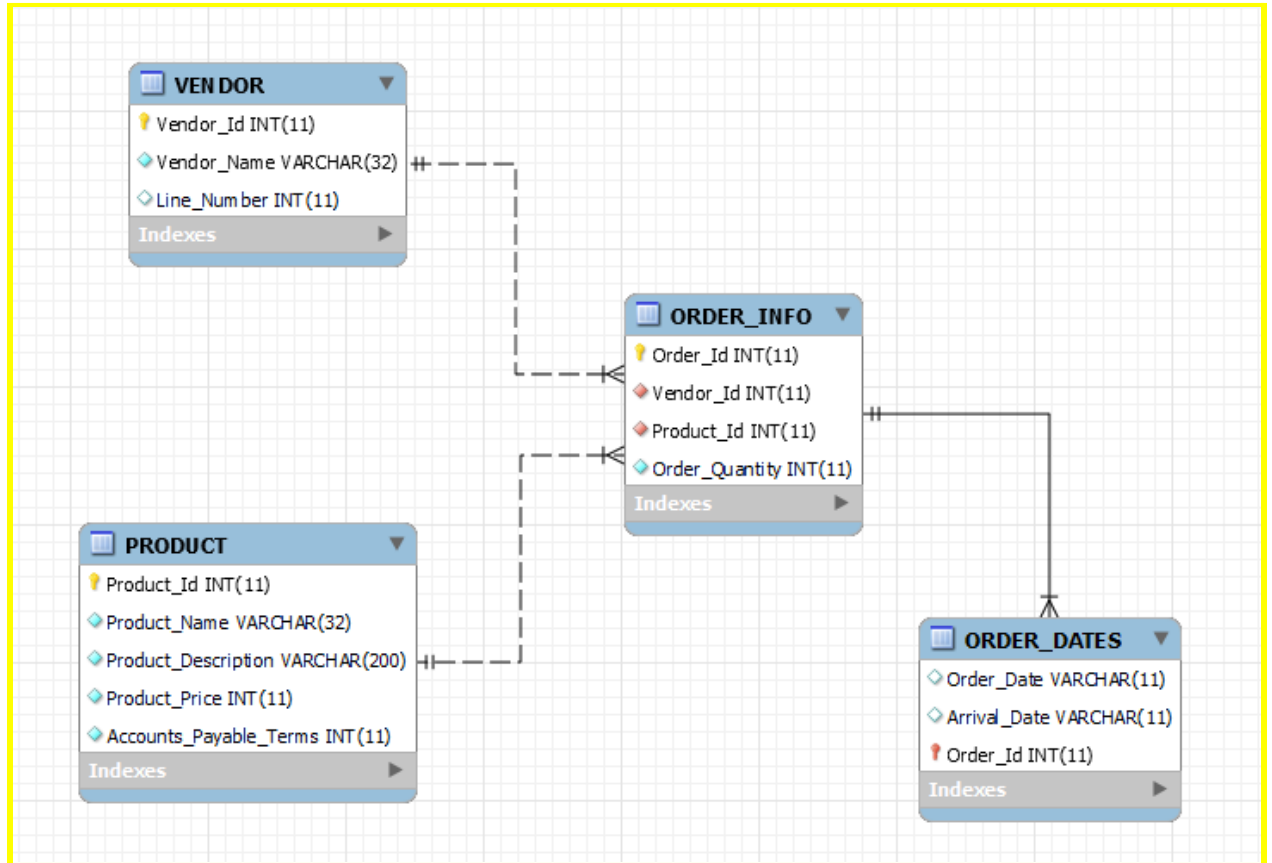
Part 3: ERDing



1)

Part 4: And Reverse It!

1) See SQL



2)