Eric Beilmann

CS 4307

**Data Diagram**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Salesperson** | | | | | |
| SPN | Name | Commission percentage | year of hire | Dept. Number | Manager Name |
| 137 | Baker | 10 | 1995 | 73 | Scott |
| … |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | | | |
| PN | Prod. Name | Unit Price | Quantity |
| 16386 | Wrench | 12.95 | 1745 |
| … |  |  |  |

|  |  |
| --- | --- |
| **Salesperson/product** | |
| SPN | PN |
| 137 | 19440 |
| 137 | 24013 |
| … |  |

**Data Diagram**

Good format just not the same division of tables and data (see bob diagram below for teachers table differences)

Data diagram benefits are normalization

|  |
| --- |
| **Salesperson/product** |
| SPN, C, 5 ->Salesperson.SPN |
| PN, C, 5 ->Product.PN |

**Bob Diagram**

|  |
| --- |
| **Salesperson** |
| SPN, C, 5 |
| Name, V, 30 |
| Commission, N, 3 |
| Year of Hire, N, 4 |
| Dept. Number, N, 3 |
| Manager Name, V, 30 |

|  |
| --- |
| **Product** |
| PN, C, 5 |
| Product Name, V, 30 |
| Unit Price, N, 10, 2 |
| Quantity, N, 5 |

**For Bob diagram**

**Salesman table:**

\*SID, C, 7

Name, V, 30

Commission, N, 4, 1

Year, N, 4

DID, C, 7

**Department table:**

\*DID, C, 7

Manager, V, 30

**Inventory table:**

\*PID, C, 7

Description, V, 3

Prince, N, 10, 2

**Sales:**

\*SID, C, 7

\*PID, C, 7

Quantity, N, 4

**ER Diagram**

0:M 0:M

Salesperson 🡨-------------------------🡪 salesperson/product 🡨---------------------🡪 Product

|-SPN 0:1 |-SPN 0:1 |-PN

|-Name |-PN |-Product Name

|-commission |-Unit Price

|-year of hire |-Quantity

|-Dept. Name

|-Manager Name

**ER Diagram**

(Note: also I will need to include the whiskers/fish bones)

Salesman-|-|---------------------<Sales

V V

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| |

| |

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Department Product

**Many to many conversion**

Data1>---------<Data2

To

Data1-||-----<Link table>------||-Data2