**Group 2**

**Bacchus Winery Case Study**

**Business Rules**

1. 1 to 1
   * Employee - time sheet
2. 1 to many (throwing out ideas)
   * Owner (co-owners) - Employees
   * Wine - distributors
   * Suppliers - Delivery Metrics
   * Wine - types
   * Employee - duties/jobs/responsibilities
3. Many to many
   * Employees - duties/jobs/responsibilities

**Initial ERD:**

Stan and Davis need to know three things:

1. Current state of inventory(supplies)
   1. Are supplies delivering on time?
   2. Is there a large gap between expected delivery and actual delivery?
   3. A month by month report should show problem areas
2. Information on distribution
   1. Are all wines selling as they thought
   2. Is one wine not selling?
   3. Which distributor carries which wine
3. Information on employees
   1. During the last four quarters how many hours did each employee work

| **Suppliers (There are 3 suppliers)** | **Delivery\_Metrics** |
| --- | --- |
| supplier\_name | delivery\_id |
| supplier\_id | expected\_deliverytime |
|  | actual\_deliverytime |
|  | delivery\_gap |
|  | month |
|  | supplier\_id |

| **Employees** | **Time\_sheets** |
| --- | --- |
| first\_name | time\_worked |
| last\_name | quarter |
| job\_title | employee\_id |
| employee\_id |  |

| **Wine** | **Distributor** |
| --- | --- |
| Name | distributor\_name |
| UPC | distributor\_id |
|  | pickup\_time |
|  | units |
|  | order\_id |
|  | UPC |

**Potential Tables**

**Plus assumptions made for each**

Employees

* Stan Bacchus - Co-Owner & keep track of supply inventory
* Davis Bacchus - Co-Owner & keep track of supply inventory
* Janet Collins - Finances and Payroll
* Roz Murphy - Marketing Department
  + Bob Ulrich - Marketing Department (Roz’s assistant)
* Henry Doyle - Production Line
  + 20 Employees
    - I **assumed** they worked under
    - Henry Doyle and Production Line, but maybe some work for the other departments to fill out the tables?
* Maria Costanza - Distribution

Time Sheet

* Stan Bacchus
  + Hours worked weekly: 45
  + OT worked weekly: 5
  + Last four quarters: 2,340
  + Employee id: 1
* Davis Bacchus
  + Hours worked weekly: 50
  + OT worked weekly: 10
  + Last four quarters: 2,600
  + Employee id: 2
* Janet Collins
  + Hours worked weekly: 32
  + OT worked weekly: 0
  + Last four quarters: 1,664
  + Employee id: 3
* Roz Murphy
  + Hours worked weekly: 45
  + OT worked weekly: 5
  + Last four quarters: 2,340
  + Employee id: 4
* Henry Doyle
  + Hours worked weekly: 60
  + OT worked weekly: 20
  + Last four quarters: 3,120
  + Employee id: 5
* Maria Costanza
  + Hours worked weekly: 40
  + OT worked weekly: 0
  + Last four quarters: 2,080
  + Employee id: 6
* 20 employees
  + Hours worked weekly: 900
  + OT worked weekly: 100
  + Last four quarters: 46,800
  + Employee id: …
    - …

Wines

* Merlot
  + 50 cases/month
* Cabernet
  + 40 cases/month
* Chablis
  + 60 cases/month
* Chardonnay
  + 30 cases/month

Supplies

* Supplier #1 (The New Corker)
  + Bottles
  + Corks
* Supplier #2 (Boxes n Stuff)
  + Labels
  + Boxes
* Supplier #3 (Wine Supply)
  + Vats
  + Tubing

Suppliers

* Supplier #1 (The New Corker)
* Supplier #2 (Boxes n Stuff)
* Supplier #3 (Wine Supply)

Deliveries (monthly)

* January
  + <Supplier>
    - <Items delivered>
      * <Expected Delivery Date>
      * <Actual Delivery Date>
* February
* March
* April
* May
* June
* July
* August
* September
* October
* November
* December

Orders

* Merlot
  + Order id: 1
  + Cases sold: 10
* Cabernet
  + Order id: 2
  + Cases sold: 15
* Chablis
  + Order id: 3
  + Cases sold: 12
* Chardonnay
  + Order id: 4
  + Cases sold: 10

Distributors

* **Wines to Go (ID: 1)**
  + Merlot
  + Cabernet
  + Chablis
  + Chardonnay
* **Partners in Wine (ID: 2)**
  + Merlot
  + Cabernet
  + Chardonnay
* **Sip Happens Co. (ID: 3)**
  + Merlot
  + Cabernet
  + Chardonnay

**Potential Reports**

* One report technically needed for deliveries
  + One that shows (each of the 12 months) the suppliers name, what was delivered , expected delivery date that month, the actual date of delivery and what the gap was between the two
* Two reports for wine
  + One that displays which distributor carries which wine
  + One that shows how many cases of each wine was sold over a year. Maybe sort it by least cases sold to most?? Or least sales amount in dollars to most?
* One report for employees
  + Employee hours worked (quarterly - “Last four quarters”)