

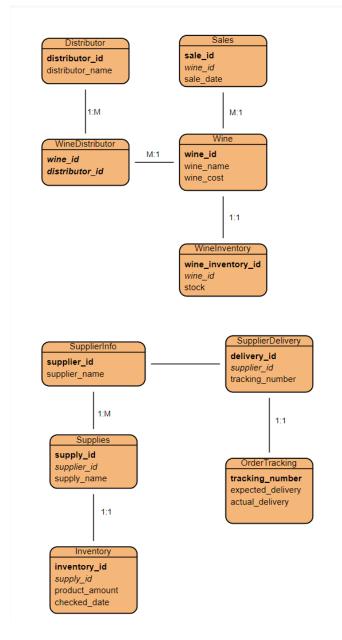
Bacchus Winery Database Design

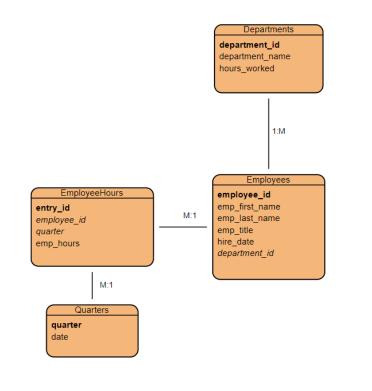
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Bacchus Winery Case Study Summary

- The company was inherited by two sons who wanted to keep all current personnel. They have managers for finances and payroll, marketing, and production. They also have a marketing assistant and twenty production line workers.
- They grow grapes to make Merlot, Cabernet, Chablis, and Chardonnay.
- They receive bottling supplies from three different suppliers and have two people in charge of keeping track of supply deliveries and inventory.
- They want a more efficient way to keep track of ordering supplies, track shipments, and allow their distributors to order online.

Entity Relationship Design





Report 1

- Are all suppliers delivering on time?
- Is there a large gap between expected delivery and actual delivery?
- A month-by-month report should show problem areas.

```
--DISPLAYING Gap between expected delivery and actual delivery for JANUARY--
supplier id: 3
expected delivery:2024-02-01
actual_delivery:2024-01-23
Day Difference: 9
supplier id: 1
expected delivery:2024-02-01
actual_delivery:2024-01-28
Day Difference: 4
supplier id: 1
expected delivery:2024-02-01
actual_delivery:2024-01-27
Day Difference: 5
--DISPLAYING Gap between expected delivery and actual delivery for FEBRUARY--
supplier id: 2
expected_delivery:2024-03-01
actual_delivery:2024-02-22
Day Difference: 8
supplier_id: 3
expected_delivery:2024-03-01
actual_delivery:2024-02-28
Day Difference: 2
--DISPLAYING Gap between expected delivery and actual delivery for MARCH--
supplier_id: 1
expected delivery:2024-03-01
actual delivery:2024-03-24
Day Difference: -23
supplier_id: 2
expected delivery:2024-03-01
actual_delivery:2024-03-18
Day Difference: -17
supplier_id: 1
expected delivery:2024-04-01
actual_delivery:2024-03-30
Day Difference: 2
```

Report 2

- The wine distribution, are all wines selling as they thought?
- Is one wine not selling?
- Which distributor carries which wine?

```
Wines selling status:
Merlot: Yes
Cabernet: Yes
Chablis: Yes
Chardonnay: Yes
Unsold wines: 0
Distributor information for each wine:
Wine ID: 380
- Trader Joes
- Costco
Wine ID: 381
- Trader Joes
- Costco
Wine ID: 382
- Target
- Costco
Wine ID: 383
- Target
```

Report 3

During the last 4 quarters, How many hours did each employee work?

```
--Quarter 1 Hours--
Employee ID: 1
Employee Name: Stan Bacchus
Quarter: Q1
Total Hours: 1021
Employee ID: 2
Employee Name: Davis Bacchus
Quarter: Q1
Total Hours: 1035
Employee ID: 3
Employee Name: Janet Collins
Quarter: Q1
Total Hours: 1048
Employee ID: 4
Employee Name: Roz Murphy
Quarter: Q1
Total Hours: 745
Employee ID: 5
Employee Name: Bob Ulrich
Quarter: Q1
Total Hours: 1008
Employee ID: 6
Employee Name: Henry Doyle
Quarter: Q1
Total Hours: 906
Employee ID: 7
Employee Name: Maria Costanza
Quarter: Q1
Total Hours: 913
Employee ID: 8
Employee Name: Tony Stark
Quarter: Q1
Total Hours: 416
Employee ID: 9
Employee Name: Thor Odinson
Quarter: Q1
Total Hours: 585
Employee ID: 10
Employee Name: Janet Van Dyke
Quarter: Q1
Total Hours: 585
```

Report 3 (cont'd)

Quarter 2 Results

```
--Quarter 2 Hours--
Employee ID: 1
Employee Name: Stan Bacchus
Quarter: Q2
Total Hours: 1058
Employee ID: 2
Employee Name: Davis Bacchus
Quarter: Q2
Total Hours: 1030
Employee ID: 3
Employee Name: Janet Collins
Quarter: Q2
Total Hours: 1075
Employee ID: 4
Employee Name: Roz Murphy
Quarter: Q2
Total Hours: 803
Employee ID: 5
Employee Name: Bob Ulrich
Quarter: Q2
Total Hours: 1182
Employee ID: 6
Employee Name: Henry Doyle
Quarter: Q2
Total Hours: 976
Employee ID: 7
Employee Name: Maria Costanza
Quarter: Q2
Total Hours: 948
Employee ID: 8
Employee Name: Tony Stark
Quarter: Q2
Total Hours: 416
Employee ID: 9
Employee Name: Thor Odinson
Quarter: Q2
Total Hours: 600
Employee ID: 10
Employee Name: Janet Van Dyke
Quarter: Q2
Total Hours: 585
```

Report 3 (cont'd)

Quarter 3 Results

```
--Quarter 3 Hours--
Employee ID: 1
Employee Name: Stan Bacchus
Quarter: Q3
Total Hours: 1143
Employee ID: 2
Employee Name: Davis Bacchus
Quarter: Q3
Total Hours: 1020
Employee ID: 3
Employee Name: Janet Collins
Quarter: Q3
Total Hours: 1132
Employee ID: 4
Employee Name: Roz Murphy
Quarter: Q3
Total Hours: 790
Employee ID: 5
Employee Name: Bob Ulrich
Quarter: Q3
Total Hours: 1187
Employee ID: 6
Employee Name: Henry Doyle
Quarter: Q3
Total Hours: 1028
Employee ID: 7
Employee Name: Maria Costanza
Quarter: Q3
Total Hours: 1081
Employee ID: 8
Employee Name: Tony Stark
Quarter: Q3
Total Hours: 416
Employee ID: 9
Employee Name: Thor Odinson
Quarter: Q3
Total Hours: 585
Employee ID: 10
Employee Name: Janet Van Dyke
Quarter: Q3
Total Hours: 585
```

Report 3 (cont'd)

Quarter 4 Results

```
--Quarter 4 Hours--
Employee ID: 1
Employee Name: Stan Bacchus
Quarter: Q4
Total Hours: 1089
Employee ID: 2
Employee Name: Davis Bacchus
Quarter: Q4
Total Hours: 1074
Employee ID: 3
Employee Name: Janet Collins
Quarter: Q4
Total Hours: 1164
Employee ID: 4
Employee Name: Roz Murphy
Quarter: Q4
Total Hours: 824
Employee ID: 5
Employee Name: Bob Ulrich
Quarter: Q4
Total Hours: 1172
Employee ID: 6
Employee Name: Henry Doyle
Quarter: Q4
Total Hours: 1188
Employee ID: 7
Employee Name: Maria Costanza
Quarter: Q4
Total Hours: 1223
Employee ID: 8
Employee Name: Tony Stark
Quarter: Q4
Total Hours: 416
Employee ID: 9
Employee Name: Thor Odinson
Quarter: Q4
Total Hours: 585
```

Case Study Assumptions

- Online ordering is in a different database
- Everything is ordered online by retailers (i.e. Costco, Target, etc..)
- Chablis does not sell much because it is pricey
- Head of department workers are on call
- Some workers hours were different in Quarters because of appointments and personal matters
- Some workers did overtime for extra money