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Case Study Project

Milestone #1:
Case Chosen: Bacchus Winery

Business Rules:
Bacchus has multiple Wines
Bacchus has multiple Suppliers
Bacchus has multiple Employees
One Employee has multiple Positions
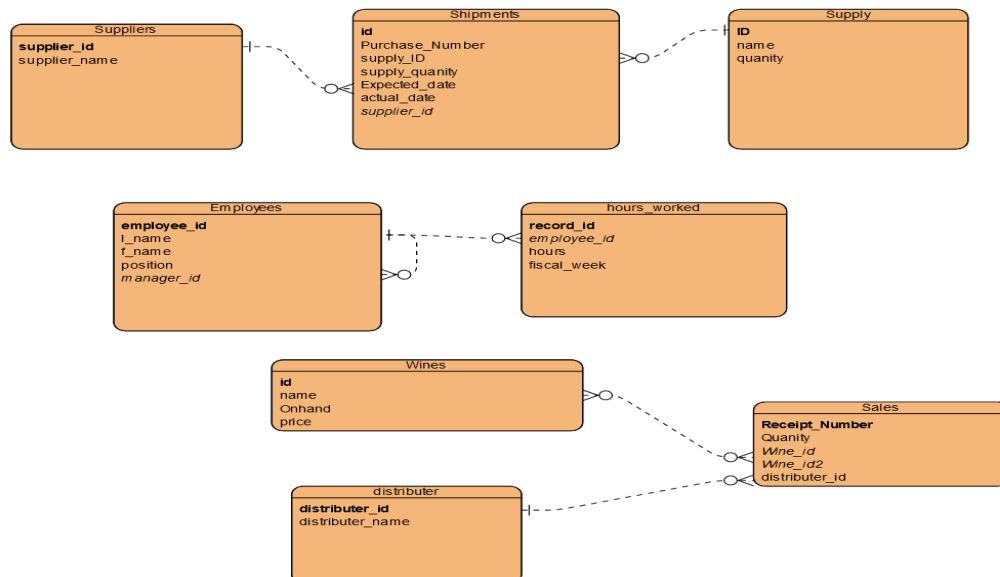Multiple Employee's have multiple Hours
One Supplier has multiple Products
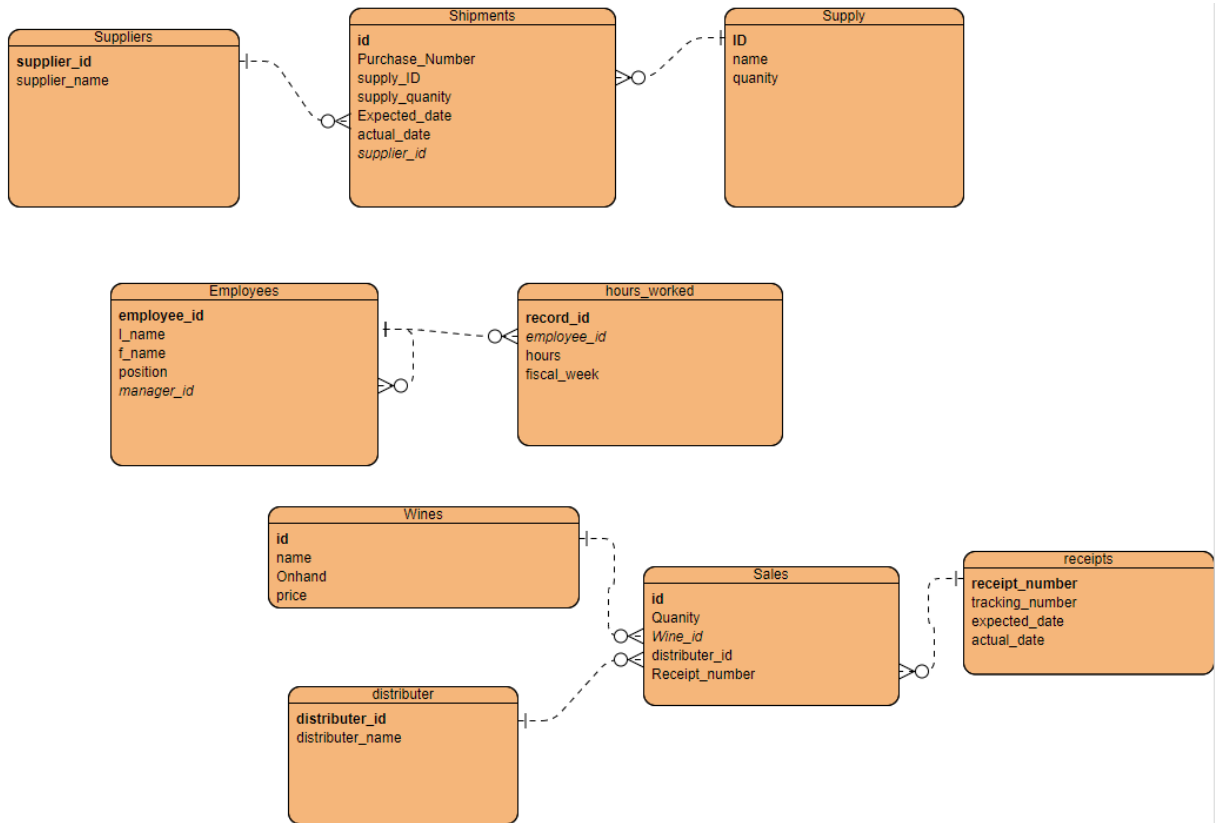One Supplier has multiple Shipments
Multiple Shipments have One Supply
Multiple Wine's have multiple Sales
One Distributor has multiple Sales

Milestone #2:

Suppliers
- **supplier_id**
- supplier_name

Shipments
- **id**
- Purchase_Number
- supply_ID
- supply_quanity
- Expected_date
- actual_date
- *supplier_id*

Supply
- **ID**
- name
- quanity

Employees
- **employee_id**
- l_name
- f_name
- position
- *manager_id*

hours_worked
- **record_id**
- *employee_id*
- hours
- fiscal_week

Wines
- **id**
- name
- Onhand
- price

Sales
- **id**
- Quanity
- *Wine_id*
- distributer_id
- Receipt_number

receipts
- **receipt_number**
- tracking_number
- expected_date
- actual_date

distributer
- **distributer_id**
- distributer_name

```
PS C:\csd\csd-310\Module-10> python script.py

Database user bacchusWinery connected to MySQL on host 127.0.0.1 with database bacchus


Press any key to continue...

--Distributer Results--

id:1
name:Great Value Wine Sales

id:2
name:WineMart

id:3
name:Great Value Wine Sales

id:4
name:Wine Sale

id:5
name:Wine and More

id:6
name:Wineys

--Employees Results--

F_name:1
id:Collins
l_name:Janet
manager_id:Finance and Payroll
position:None

F_name:2
id:Murphy
l_name:Roz
manager_id:Marketing
position:None

F_name:3
id:Ulrich
l_name:Bob
manager_id:Marketing
position:2

F_name:4
id:Doyle
l_name:Henry
```

```
f_name:4
id:Doyle
l_name:Henry
manager_id:Production
position:None

f_name:5
id:Costanza
l_name:Maria
manager_id:Distribution
position:None

f_name:6
id:Bacchus
l_name:Davis
manager_id:Owner
position:None

f_name:7
id:Bacchus
l_name:Stan
manager_id:Owner
position:None

--Hours Results--

employee_id:1
fiscal_week:1
hours:40
id:1

employee_id:2
fiscal_week:2
hours:54
id:1

employee_id:3
fiscal_week:3
hours:45
id:1

employee_id:4
fiscal_week:4
hours:56
id:1

employee_id:5
fiscal_week:5
```

```
employee_id:5
fiscal_week:5
hours:48
id:1

employee_id:6
fiscal_week:6
hours:59
id:1

employee_id:7
fiscal_week:7
hours:62
id:1

  --Receipts Results--

actual_date:151582
expected_date:235489348
receipt_number:2023-12-05
tracking_number:2023-12-02

actual_date:156789
expected_date:682235789
receipt_number:2023-12-05
tracking_number:None

actual_date:156945
expected_date:123456
receipt_number:2023-12-05
tracking_number:None

actual_date:156989
expected_date:156327235
receipt_number:2023-12-05
tracking_number:None

actual_date:156992
expected_date:5389725
receipt_number:2023-12-05
tracking_number:None

actual_date:159872
expected_date:2053687
receipt_number:2023-12-05
tracking_number:2023-12-03

  --Sales Results--

distributer_id:1
```

```
  --Sales Results--

distributer_id:1
id:156945
quantity:1
receipt_number:15
wine_id:2

distributer_id:2
id:156992
quantity:1
receipt_number:1
wine_id:6

distributer_id:3
id:156989
quantity:4
receipt_number:30
wine_id:5

distributer_id:4
id:151582
quantity:3
receipt_number:15
wine_id:4

distributer_id:5
id:156789
quantity:2
receipt_number:9
wine_id:3

distributer_id:6
id:159872
quantity:1
receipt_number:30
wine_id:2

  --Shipments Results--

actual_date:1
expected_date:981758
id:1
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:1

actual_date:2
expected_date:981513
id:2
```

```
  --Shipments Results--

actual_date:1
expected_date:981758
id:1
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:1

actual_date:2
expected_date:981513
id:2
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:1

actual_date:3
expected_date:981780
id:3
purchase_number:100
supplier_id:2023-11-10
supply_id:2023-11-10
supply_quantity:2

actual_date:4
expected_date:981791
id:4
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:2

actual_date:5
expected_date:981850
id:5
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:3

actual_date:6
expected_date:981458
id:6
purchase_number:100
supplier_id:2023-11-25
supply_id:2023-11-25
supply_quantity:3
```

```
  --Suppliers Results--

id:1
name:BottleAndCork

id:2
name:BoxAndLabels

id:3
name:VatsAndTubing

  --Supply Results--

id:1
name:Bottles
quantity:100

id:2
name:Cork
quantity:100

id:3
name:Boxes
quantity:100

id:4
name:Labels
quantity:100

id:5
name:Tubing
quantity:100

id:6
name:Vats
quantity:100

  --Wines Results--

id:1
name:Merlot
onhand:16
price:16.99

id:2
name:Cabernet
onhand:14
price:14.99

id:3
```

```
id:6
name:Vats
quantity:100

 --Wines Results--

id:1
name:Merlot
onhand:16
price:16.99

id:2
name:Cabernet
onhand:14
price:14.99

id:3
name:Chablis
onhand:20
price:17.99

id:4
name:Chardonnay
onhand:31
price:19.99
```

Milestone #3:

Reports needed for making the business decisions listed in the case study:

- Question #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.
    - Report on suppliers delivering on time.
    - Report of the suppliers that have large gaps between the expected delivery versus the actual delivery date. Specifically, if the gap is more than a week.

- Question #2: The wine distribution, are all wines selling as they thought? Is one wine not selling? Which distributor carries which wine?
    - Report on wine sales, specifically displaying the trend across the sales of the different wines and noting which ones are selling below average.
    - A report on which distributor carries which wine sold by the winery.
- Question #3: Employee time. During the last four quarters, how many hours did each employee work?
    - A report on the hours each employee worked during the last four quarters.

Delivery Report

This report shows us the supplier's name, the expected date of delivery, the actual date of delivery, whether it was on time, and by how many days late the delivery was. From this point we can see that most of the suppliers had a good time ratio when delivering their supplies, however the supplier BoxandLabels had a delivery late by 10 days.

```
  --Late Shipment's Report ran on Fri Dec  8 01:41:37 2023--

Name: BoxAndLabels
Expected Date: 2023-11-15
Actual Date: 2023-11-25
On Time: No
Late By: 10 days
```

Wine Distribution Report

The distribution report shows us what retailer is selling the specific wine, or even if they are selling more than one type of wine. In this case only WineMart is currently selling more than one type of wine with Merlot and Cabernet being the two wines that are sold within more than one location.

```
  --Distributer's Wine's Report ran on Sun Dec 10 18:17:11 2023--

Name: WineMart
Wine Name: Merlot, Cabernet

Name: Wineys
Wine Name: Merlot

Name: Wine and Dine
Wine Name: Cabernet

Name: Wine Sale
Wine Name: Chablis

Name: Wine and More
Wine Name: Chardonnay
```

Wine Sales Report

The wine sales report pulls the data from the wines table and the sales table, and then calculates the average of the sales for the wines to show how each wine is selling along with whether or not the wine is selling well (above the average) or not selling well (below the average). From the python script being run, we can see that out of all the wines, the Chablis and Cabernet aren't selling well as they are below the average, and the Merlot and Chardonnay are selling well as they are above the average. The average of the wine sales is displayed below to show as a reference to compare the sales of the wine.

```
● ● ●                        IDLE Shell 3.11.4
    Python 3.11.4 (v3.11.4:d2340ef257, Jun  6 2023, 19:15:51) [Clang 13.0.0 (clang-1
    300.0.29.30)] on darwin
    Type "help", "copyright", "credits" or "license()" for more information.
>>>
    =========== RESTART: /Users/ashleylandin/Downloads/wine_sales (1).py ===========

     Database user root connected to MySQL on host 127.0.0.1 with database bacchus


    Press any key to continue...

    --Wine Sales Report on Sat Dec  9 12:45:17 2023--

    Name:Merlot
    Sales Quantity:184
    Results:Selling Well

    Name:Chablis
    Sales Quantity:60
    Results:Not Selling Well

    Name:Cabernet
    Sales Quantity:36
    Results:Not Selling Well

    Name:Chardonnay
    Sales Quantity:120
    Results:Selling Well

    The Average of all wine sales is 100
>>>

                                                                      Ln: 30  Col: 0
```

Employee Hours Report

The purpose of this report is to inform the current employee's, their total hours for the last four quarters and show their employee ID. Showing first the

employee ID, their name and total hours you can see the trend that certain people are working a crazy amount of time while others are on the lower end and these could be indications of their station as some of the lowest hours are coming from the owner's Davis and Stan Bacchus along with their head of distribution Maria.

```
 -- Hours Worked Report --
Pulled on: Sun Dec 10 08:56:04 2023

Employee Id: 1
Employee Name: Janet Collins
Hours Worked: 78

Employee Id: 2
Employee Name: Roz Murphy
Hours Worked: 98

Employee Id: 3
Employee Name: Bob Ulrich
Hours Worked: 95

Employee Id: 4
Employee Name: Henry Doyle
Hours Worked: 144

Employee Id: 5
Employee Name: Maria Costanza
Hours Worked: 48

Employee Id: 6
Employee Name: Davis Bacchus
Hours Worked: 59

Employee Id: 7
Employee Name: Stan Bacchus
Hours Worked: 62
```

Milestone #4:

Google slides presentation was submitted to the class project forum on blackboard.

Milestone #5:

Edits made to case study project:

- Google slides presentation was moved over to Microsoft PowerPoint for better access, as others in the class were expressing difficulties viewing the powerpoint initially.
- Edits were made to the finalized ERD to make the diagram more legible and easier to follow.