The Data Commanders

First up is DJ who by day works in Operations at Walt Disney World with sights set on working in the Emerging Tech Department or Production Tech Department for Disney. Although, that is TBDFN – to be determined for now! When DJ isn't grinding away at Disney it's game on! Playing handheld games, usually from Nintendo! Finding him playing the Pokemon Series would not be unusual. Also, he doesn't shy away from a challenge and is currently trying to build a program that prints out information needed for something called a Professor Oak Challenge. Essentially, it is a challenge to get 100% complete in a game broken up into certain checkpoints along the way. Good Luck, DJ!

Keeping it close to home is none other than, Emanual, working as a programmer for a local Credit Union where he engages with various programming languages bringing efficiency to their operations. PowerOn, a proprietary language, is his primary tool, complemented by proficiency in Basic and Cobol. Seems DJ has some competition here because Emanuel is no stranger to game play! Emanuel has extended an invitation to anyone who wants to join him in an online match to test each other skills and indulge in some friendly competition. After all, he believes bonding through shared passions and spirited gameplay creates stronger connections.

Finally, Wendy who thrives in her Recruiting career recently embarked on a new journey into the realm of Software Development. As a lifelong learner this industry appeals to her because of the ever evolving skill requirements. When she's not engrossed in her professional pursuits, she embarks on urban escapades through the vast and diverse wonders that Chicago has to offer. If you haven't been to Chicago, she encourages you to go April - December! As her brother once said….it's really grey in winter. Anyway, these journeys give her the opportunity for some much-needed photographic expression or inspiration for jewelry making and drawing. All in all, Wendy is embracing the challenges of a career change and looks forward to starting her first Software Developer position soon!

Bacchus Winery

Case Study

Bacchus Winery

Bacchus Winery is a family-owned winery that prides itself on growing its own grapes to ensure the quality and availability of its wines.

Three years ago, brothers Stan and Davis Bacchus inherited the business from their father George after his retirement.

Both brothers value the dedication and hard work their father put into the business. However, they want to incorporate new business methods into the winery's operations to improve the products and services.

Bacchus Winery Brief

Although they are making many changes to improve the products and services their existing personnel will be retained to assist them with these updates.

The following personnel includes:

- Janet Collins, finances and payroll
- Roz Murphy, heads the marketing department
- Bob Ulrich, Roz Murphy's assistant
- Henry Doyle, manages the production line
- Maria Costanza, oversees distribution

The first thing to do is gather information to get a yearly snapshot of the business.
They need to find out if supplies are delivered on time or if there are any gaps between expected delivery dates and actual delivery dates. Also, they need to find out if there are any problems with wine distribution, wines sell, and employee hourly stats.

Stan and Davis are not only owners of the winery but are responsible for inventory management. Currently, they receive their supplies from three different suppliers who deliver monthly. The suppliers provide the following products:

- bottles and corks
- labels and boxes
- vats and tubing

This has led them to explore more efficient methods of tracking and ordering supplies, potentially utilizing internet-based systems. Also, Maria, who oversees distribution, has suggested getting their distributors to be able to order online and track shipments.

Business Rules

Supplier Performance Monitoring:

Track and analyze the delivery performance of each supplier.

Maintain records of expected delivery dates versus actual delivery dates for components.

Generate monthly reports to identify any significant gaps between expected and actual delivery dates.

Address any persistent or significant delays with suppliers to ensure timely delivery of components.

Efficient Supply Management:

Explore and implement an efficient method, such as an online ordering system, to track inventory levels and automate the process of ordering supplies from various suppliers.

Regularly review inventory levels to avoid stockouts or excessive inventory.

Online Ordering and Tracking for Distributors:

Develop an online platform that allows distributors to place orders for wines, track shipments, and receive real-time updates on delivery status.

Wine Sales Analysis:

Analyze sales data to evaluate the performance of each wine type (Merlot, Cabernet, Chablis, Chardonnay).

Identify any wines that are not selling as expected and investigate the possible causes.

Regularly review distributor performance in terms of sales volume and customer feedback.

Employee Time Tracking:

Generate reports to summarize the number of hours worked by each employee during each quarter.
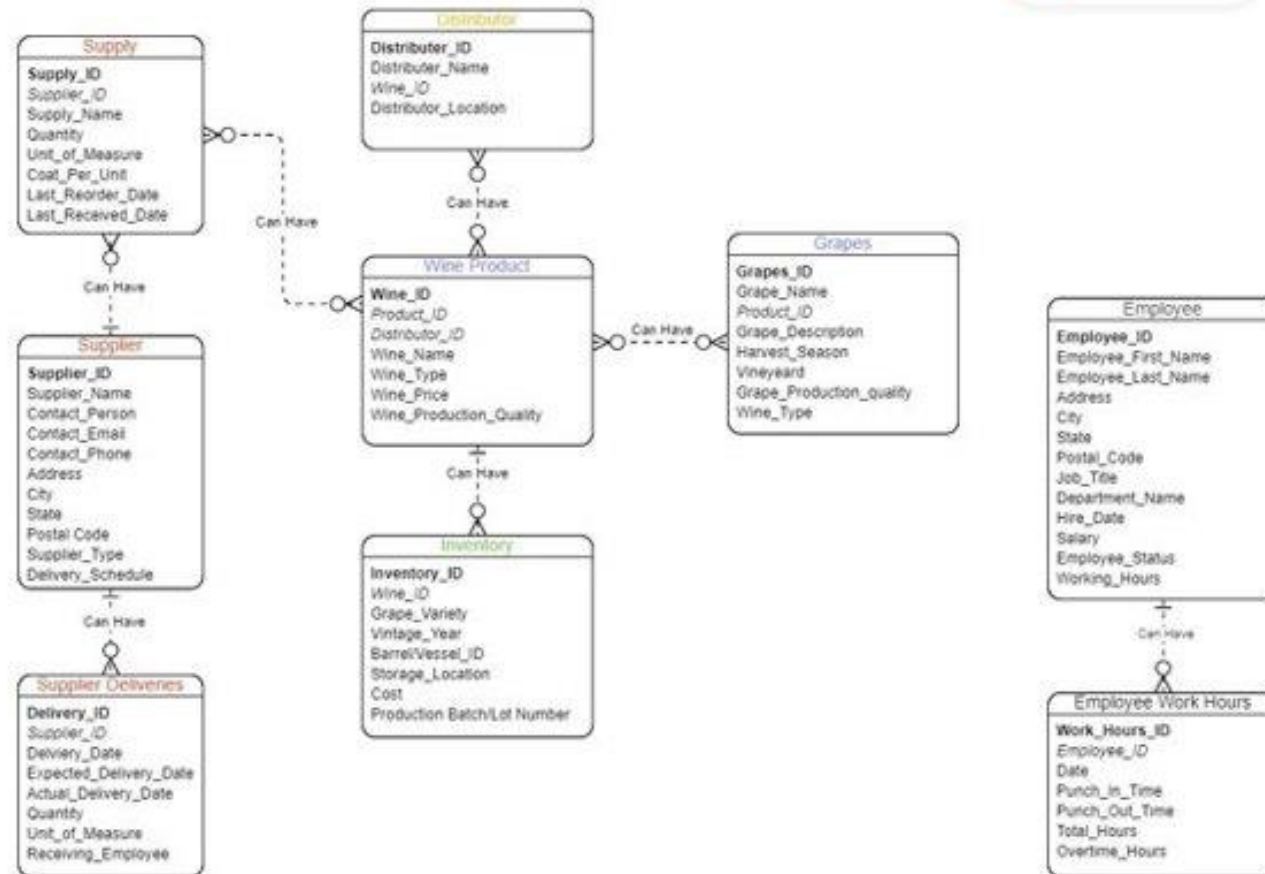
Yearly Business Snapshot:

Prepare a comprehensive yearly report summarizing the state of inventory, distribution, and employee-related information.

Use the snapshot report to assess the overall business performance and make informed decisions for improvement.
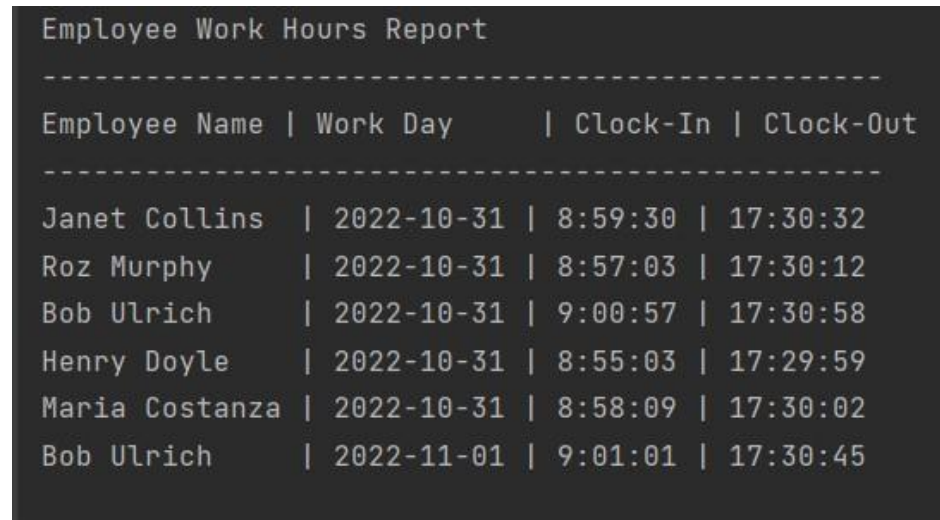
Entity Relationship Diagram

Business Reports

The following three reports based on the user story provided are the most effective in producing the results the stakeholders are expecting.

Report One: Employee Data

Report Description

The first report will generate daily based on specific query information to detail the hours an employee worked during each of the four quarters throughout a one-year period. This report gives stakeholders insight into employee production and efficiency.

Report Screenshot

```
Employee Work Hours Report
-------------------------------------------------
Employee Name | Work Day    | Clock-In | Clock-Out
-------------------------------------------------
Janet Collins   | 2022-10-31 | 8:59:30 | 17:30:32
Roz Murphy      | 2022-10-31 | 8:57:03 | 17:30:12
Bob Ulrich      | 2022-10-31 | 9:00:57 | 17:30:58
Henry Doyle     | 2022-10-31 | 8:55:03 | 17:29:59
Maria Costanza  | 2022-10-31 | 8:58:09 | 17:30:02
Bob Ulrich      | 2022-11-01 | 9:01:01 | 17:30:45
```

Report Two: Distributor Report

Reports Description

The Second report is based on the stakeholder's request for an inventory list of current wines in stock, and distributors' information based on all wines carried by the company. This report includes the wine id, price, quantity and distributor Information to ease reordering for all parties involved.

Report Screenshot

```
Wine ID: 1, Price: $15, Quantity: 0
Distributor: Distributor 1
Address: 578 S Wintergreen Dr, North Augusta, SC 29841

Wine ID: 2, Price: $17, Quantity: 0
Distributor: Distributor 3
Address: 17 Talbot St, Muskegon, MI 49441

Wine ID: 2, Price: $17, Quantity: 0
Distributor: Distributor 5
Address: 9263 S Logan Lane, Quincy, MA 02169

Wine ID: 3, Price: $17, Quantity: 0
Distributor: Distributor 2
Address: 6 Marconi Rd, Huntsville, AL 35803

Wine ID: 3, Price: $17, Quantity: 0
Distributor: Distributor 6
Address: 424 Garfield Street, Clementon, NJ 08201
```

Report Three: Suppliers

Reports Description

The Third Report includes the final requirements from stakeholders where a monthly report would be generated providing the suppliers name, contact name, contact details, expected delivery dates, actual delivery dates and the supplies delivered.

Report Screenshot

```
Supplier Information Report
-------------------------------------------------------------------------------------------------------------------------
Supplier Name | Contact Name    | Phone          | Email              | Supplies        | Delivery Date | Expected Date
-------------------------------------------------------------------------------------------------------------------------
Supplier 1    | Odell Boyer     | (504) 899-9970 | oboyer@sup1.com    | bottles, bottles, corks, corks | 2022-10-15 | 2022-10-15
Supplier 2    | Saylor Woods    | (536) 822-7091 | swoods@sup2.com    | labels, boxes   | 2022-10-02 | 2022-10-01
Supplier 2    | Saylor Woods    | (536) 822-7091 | swoods@sup2.com    | labels, boxes   | 2022-10-07 | 2022-10-01
Supplier 3    | Lincoln Whitaker | (835) 624-4092 | lwhitaker@sup3.com | vats, tubing   | 2022-10-23 | 2022-10-25
Supplier 3    | Lincoln Whitaker | (835) 624-4092 | lwhitaker@sup3.com | vats, tubing   | 2022-10-25 | 2022-10-25
```

Assumptions Made

Existing Supplier Relationships: The assumption is that Bacchus Winery will continue working with the three suppliers for their components. These relationships have been ongoing and the suppliers will continue to deliver the components on a monthly basis.

Tracking of Supply Inventory: The assumption is that Stan and Davis are manually tracking the inventory supplies like bottles, corks, labels, boxes, vats, and tubing currently, which is why they are looking to incorporate online possibilities.

Distributor Relationship and Sales: The assumption is that Bacchus Winery has established relationships with multiple distributors and each one carries a specific type of wine (Merlot, Cabernet, Chablis, Chardonnay), but doesn't know how well each wine is selling through the distributors.

Employee Time Tracking: The assumption is there are issues with employee work hours being tracked and recorded for payroll purposes, so they need to be analyzed for the last four quarters, possibly for performance evaluation and payroll processing.

Snapshot Reporting: The assumption is that Bacchus Winery hasn't conducted a yearly snapshot report to assess the state of inventory, distribution, and employee-related information recently and needs to do so to evaluate the overall business performance and make informed decisions for improvement.

Conclusion

Addressing the winery's need for efficient supply management, distribution tracking and employee time tracking is crucial for improving operations and achieving business goals.

Continuing collaboration between the winery owners and stakeholders will guarantee the winery's ongoing progress.