**Group Gamma**

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CSD310

Module 9.2 Assignment

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Milestone #1

**The case study selected:** Bacchus Case Study

**Business Rules**

*Rules for Supplies*

1. Each Supplier provides MANY supplies.
2. Each supply has ONE supplier.
3. Each supply order can have MANY supplies.
4. Each supply order can only be from ONE supplier.
5. Each supply order has ONE estimated delivery date.
6. Each supply order has ONE tracking number.
7. Each supply order has ONE shipped date.
8. Each supply order has ONE delivery date.
9. Each Order MUST reference item(s) from the supply table.
10. Each Order MUST show the amount of supply received.
11. The order date of supplies CANNOT be later than the delivery date.
12. The shipped date of supplies CANNOT be earlier than the estimated delivery date.
13. The shipped date of supplies CANNOT be later than the delivery date.
14. Each supply item MUST show the total units on hand.
15. Units on hand CANNOT be lower than zero.

*Rules for Employees*

1. Each employee MUST have an Associate ID.
2. Each employee has ONE department.

*Rules for Wine Distribution*

1. Each distributor can order MANY wines.
2. Each type of wine MUST have a unique identifier.
3. Each wine order can only have ONE distributor.
4. Each wine order can have MANY tracking numbers.

*Rules for Scheduling/Time tracking*

1. Total hours worked CANNOT be less than zero.
2. Each timecard entry has ONE employee.
3. Each employee can have MANY timecard entries.

**Assumptions Made**

We made the assumption that the winery could not place one order for supplies from each supplier; instead, they would have to place an order for each supplier. We assumed that the suppliers would provide an ETA for all orders that the winery made and that each order would be shipped once all items in the order have been fulfilled - meaning each order would have one tracking number. Lastly, we also made the assumption that each distributor will have individual orders and that partial shipments could be made for the wine orders, so each one could have many tracking numbers.

**Initial ERD**

