# Milestone #1 Bacchus Winery

**A diagram of a computer

AI-generated content may be incorrect.**

**Business Rules & Assumptions**

1. The winery employs multiple departments:
   * Finance
   * Marketing
   * Production
   * Distribution.
2. Each department has one or more employees; each employee belongs to only one department.
3. The winery produces four types of wine:
   * Merlot
   * Cabernet
   * Chablis
   * Chardonnay
4. Supplies are received from three suppliers:
   * Bottles & corks
   * Labels & boxes
   * Vats & tubing
5. Supplies are shipped monthly by each supplier.
6. Stan and Davis manage supply inventory and ordering.
7. Distribution is managed by Maria, and distributors should be able to order and track shipments online.
8. Each distributor can carry one or more wine types.
9. Wine sales data should be tracked to determine performance per wine type and distributor.
10. Employee work hours are tracked weekly; total hours for each employee are required.
11. Reports are needed on:
    * Supplier delivery performance
    * Wine distribution & sales trends
    * Employee work hours

*Assumptions:*

* Each shipment from a supplier includes a timestamp for expected and actual delivery.
* Wine inventory and sales are logged per distributor.
* Employees clock in/out digitally, or their hours are otherwise recorded for reporting.

**ERD**

Employee

* EmployeeID [PK]
* Name
* DepartmentID [FK]
* Position

Department

* DepartmentID [PK]
* Name

EmployeeHours

* RecordID [PK]
* EmployeeID [FK]
* Week
* HoursWorked

SupplyType

* SupplyTypeID [PK]
* Description

Supplier

* SupplierID [PK]
* Name

SupplyShipment

* ShipmentID [PK]
* SupplierID [FK]
* SupplyTypeID [FK]
* Quantity
* ExpectedDeliveryDate
* ActualDeliveryDate

SupplyInventory

* SupplyInventoryID [PK]
* SupplyTypeID [FK]
* QuantityOnHand
* LastUpdated

Wine

* WineID [PK]
* Name
* Type

Distributor

* DistributorID [PK]
* Name

WineOrders

* OrderID [PK]
* DistributorID [FK]
* WineID [FK]
* Quantity
* OrderDate
* ShipDate
* OrderStatus

WineInventory

* WineInventoryID [PK]
* WineID [FK]
* QuantityOnHand
* LastUpdated

**Relationships:**

* Each Department has multiple Employees.
* Each Supplier provides multiple SupplyShipments.
* Each SupplyShipment updates the SupplyInventory for a given supply type.
* Each WineOrder links a Wine to a Distributor, and updates WineInventory.
* WineInventory is updated as wines are bottled and shipped.
* EmployeeHours logs total hours per Employee per week.