**Project Group 5**  
Joshua Martin  
Brooks Roberts  
**Bacchus Case Study**  
  
**MILESTONE #1**

**Business Rules**:

for Employees

1. Each employee has a unique Employee ID.

2. Employees are assigned to different departments (Finance, Marketing, Production, Distribution).

3. Each department is headed by a single manager.

4. Track the working hours of each employee on a quarterly basis.

for Departments

1. Each department has a unique Department ID.

2. Departments include Finance, Marketing, Production, and Distribution.

3. Each department has one or more employees.

4.Marketing has one assistant working for the head of the department.

for Products (Wines)

1. Each wine type (Merlot, Cabernet, Chablis, Chardonnay) has a unique Product ID.

2. Track the inventory of each wine type.

3. Each wine is distributed by one or more distributors.

for Suppliers

1. Each supplier has a unique Supplier ID.

2. Suppliers provide different types of supplies (bottles, corks, labels, boxes, vats, tubing).

3. Track the delivery schedule and timeliness of each supplier.

for Supply Inventory

1. Track the quantity and type of supplies.

2. Supplies are ordered and delivered on a monthly basis.

3. Stan and Davis are responsible for maintaining the supply inventory.

for Distributors

1. Each distributor has a unique Distributor ID.

2. Distributors handle the distribution of one or more wines.

3. Track which wines each distributor carries.

4. Distributors should be able to order online and track shipments.

Distribution

1. Track the sales of each wine type.

2. Compare actual sales to expected sales to identify underperforming wines.

for Employee Time Tracking

1. Track the number of hours worked by each employee for each quarter.

2. Provide a summary report of employee hours for the last four quarters.

for Reports

1.Generate monthly reports on supply deliveries, highlighting any delays.

2. Generate reports on wine sales, identifying underperforming products and corresponding distributors.

3. Generate quarterly employee time tracking reports.

**ERD Entities and Relationships**:

Employee  
Attributes: EmployeeID, Name, DepartmentID, ManagerID, HoursWorked (per quarter)  
Relationships: Belongs to one Department, has one Manager

Department  
Attributes: DepartmentID, Name, ManagerID  
Relationships: Has many Employees, has one Manager (Employee)

Product (Wine)  
Attributes: ProductID, Name, InventoryQuantity  
Relationships: Distributed by many Distributors

Supplier  
Attributes: SupplierID, Name, SupplyType, DeliverySchedule  
Relationships: Provides many Supplies

SupplyInventory  
Attributes: SupplyID, SupplierID, Type, Quantity, DeliveryDate  
Relationships: Supplied by one Supplier

Distributor  
Attributes: DistributorID, Name  
Relationships: Distributes many Wines

Distribution  
Attributes: DistributionID, ProductID, DistributorID, SalesQuantity  
Relationships: One Product, One Distributor

[Untitled (3).pdf](file:///C:\Users\barob\Downloads\Untitled%20(3).pdf)  
A screenshot of a computer

Description automatically generated