Group 5

CSD 310

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Module 9.1 Assignment

Assignment: Milestone #1

Case Study: Bacchus Winery

Business Rules

Suppliers:

* Each supplier has a unique ID.
* Suppliers must have a name, address, email, and phone number.
* Bacchus Winery has three suppliers (bottles/corks, labels/boxes, vats/tubing).
* Suppliers ship components monthly.
* There is a need to track delivery times, expected vs. actual delivery, and highlight any delays.
* Manage relationship with suppliers to ensure reliable and consistent supply.

Products (Wines):

* Wines include Merlot, Cabernet, Chablis, and Chardonnay.
* Track which wines are being sold by each distributor.
* Track wine sales performance to identify underperforming products.

Employees:

* Each employee has a unique ID.
* Employees must have a first name, last name, employee ID, and department.
* Track each employee's work hours per quarter.
* Employees work in various roles: finance, marketing, production, and distribution.

Distribution:

* Enable distributors to order online and track shipments.
* Explore new distribution to expand market reach and to new customers.

Inventory:

* Conduct regular inventory count to ensure accuracy.
* Track and address inventory shrinkage caused by factors like theft, spoilage, or errors.

Assumptions:

* Distributors order specific quantities of wine monthly or quarterly.
* Employees work varying hours, and overtime could be a factor.
* The system will track inventory in real time, and distribution will sync with sales.

Initial ERD

Create an ERD (Entity Relationship Diagram) that represents:

* Suppliers: SupplierID, Name, ProductSupplied, DeliverySchedule.
* Products (Wines): WineID, Name, Type, DistributorID, SalesData.
* Employees: EmployeeID, Name, Department, HoursWorked, Quarter.
* Distributors: DistributorID, Name, WineOrdered, OrderDate.
* Inventory: InventoryID, Name, Product, Type, Quantity, Location.
* Orders: OrderID, Product, DistributorID, OrderDate, ExpectedDeliveryDate, ActualDeliveryDate.

