**Module 9.1 Assignment: Case Study – Milestone #1**

Group 1: Samiah Ford, Renante Labrador, Taylor Niemann, and Devinder Randhawa

Bellevue University

CSD 310: Database Development and Use

Prof. Tracy Shelansky

April 30, 2023

**Bacchus Winery Case Study**

**Milestone # 1:**

Requirements:

* The database needs store inventory to make an inventory management system
* The database will be used to monitor products online
* The database must be able to store all employees, their departments
* The database must store the number of hours the employees work.
* The database will be used to retrieve and print quarterly reports of each employee’s work hours.
* The database must be accessed to make changes to employment status or add new employees.
* The database must be used to store information about the suppliers and distributors.
* Supplies must be categorized and organized for quick retrieval and searchability by supplier.
* The database must store supply order times, expected shipment arrival dates, and actual shipment arrival dates in order to track shipment timelines.
* The database will be used to retrieve monthly reports of supply order arrival times.
* The database should store potential substitutions for any supply that might be unavailable or inappropriate for a specific function.
* The database must be able to store the wines are produced, distributed, and by which distributor in order to track sales and distribution.
* Wines must be categorized and organized for quick retrieval and searchability by the distributor.
* The database will be used to retrieve amounts of wine sold and to which distributor in order to compare sales between wine types and distributors.

Business Rules:

EMPLOYEE/MANAGAER

* One MANAGER can have many EMPLOYEES
* An EMPLOYEE has one MANAGER

EMPLOYEE/DEPARTMENT

* An EMPLOYEE has one DEPARTMENT
* A DEPARTMENT has one or more EMPLOYEEs

EMPLOYEE/SHIFT

* An EMPLOYEE will have many SHIFTS
* A SHIFT is worked by one EMPLOYEE

PARTS/SUPPLIER

* A SUPPLIER can provide multiple PARTS
* A PART comes from one SUPPLIER

SUPPLIER/SUPPLY ORDER

* A SUPPLER will deliver multiple SUPPLY ORDERs
* A SUPPLY ORDER comes from one SUPPLIER

SUPPLY ORDER/PARTS

* A SUPPLY ORDER contains one PART
* A PART can have many SUPPLY ORDERS

PRODUCTS/SHIPMENT

* A SHIPMENT can have one type of PRODUCT
* A PRODUCT can have multiple SHIPMENTS

SHIPMENT/DISTRIBUTOR

* A DISTRIBUTOR can make many SHIPMENTS
* A SHIPMENT will have one DISTRIBUTOR

Assumptions:

* There are multiple products of the same type
* The company is using a paper or manual system
* The company currently doesn’t have a website
* The company needs the website so they can keep track of their employees, their supplies, their shipments, and they could sell their products online

ERD:

Diagram

Description automatically generated