

CSD310

Red Team Milestone 5

Bacchus Winery Solutions

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Red Team Introduction

Ryan Monnier

- TSgt in the USAF, since 2016. Previously served as an airborne Arabic linguist, currently training into offensive cyber operations

Zach King

- A passionate software engineering student currently pursuing their degree at Bellevue University. With a strong foundation in IT principles and graphic design, they have cultivated a deep interest in software development, system architecture, and emerging technologies.

Jacob Achenbach

- Been studying Computer Science since 2020. I have worked on various of projects and developer teams in the last two years.

Case Study Overview

Bacchus Winery: Inherited by Stan and Davis Bacchus from their father, George

Goal: Improve products and customer service using modern business methods

Current Operations:

- Employees: Janet Collins (Finance), Roz Murphy (Marketing), Henry Doyle (Production), Maria Costanza (Distribution)
- Products: Merlot, Cabernet, Chablis, Chardonnay
- Suppliers: Bottles & corks, labels & boxes, vats & tubing

Business Challenge: Track inventory, distribution, employee work hours and also allow distributors to order online

Assumptions

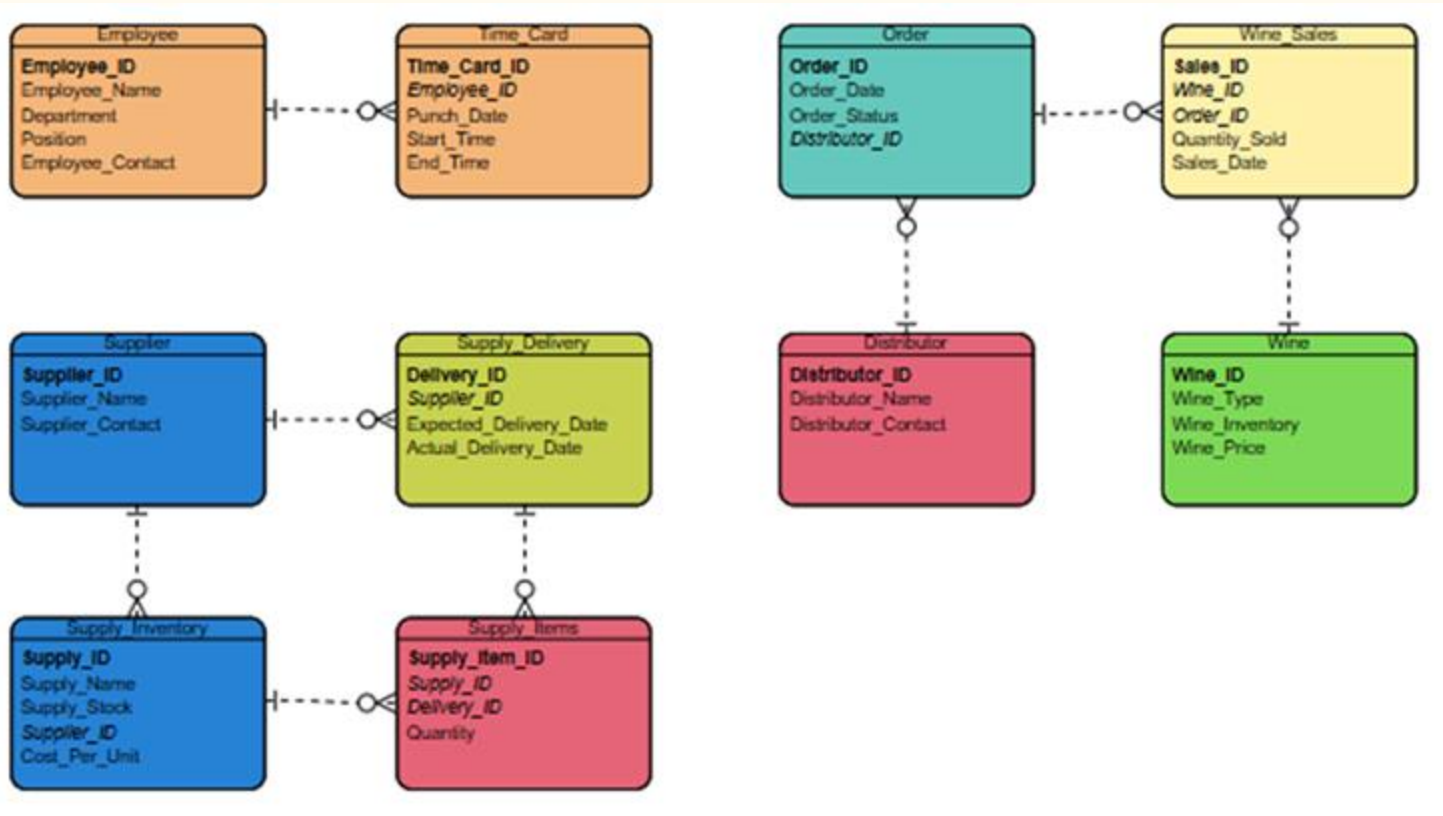
Data Availability: Assumed that all relevant data for deliveries, sales, and time worked is accurately recorded in the database

Supply Delays: Assumed that suppliers' delay dates are recorded and provided in a timely manner

Wine Distribution: Assumed the winery's sales data reflects accurate sales figures per distributor and wine type

Employee Time Tracking: Assumed that employee time cards are correctly filled and submitted monthly

ERD



Reports Generated

We generated three key reports based on the needs of the winery:

- 1) Supplier Delivery Timeliness Report

- a) Analyze if suppliers deliver on time and track delays

- 2) Wine Sales and Distribution Report

- a) Evaluate wine sales, distributor performance, and inventory levels

- 3) Employee Time Report

- a) Track employee working hours over the last four quarters.

Reports Generated - Supplier Delivery Timeliness

- Monthly report tracking delays of supply shipments from the suppliers of Bacchus Winery
- This will allow management to analyze supplier timeliness trends and make the best decisions going forward.

Supplier Delivery Report - Generated on 2025-03-09 15:33:49

Month: 2024-01

Supplier	Total Deliveries	Avg Delay
Bottle & Cork Supply Co.	1	3.00 days
Label & Box Supplies	1	0.00 days
Vats & Tubing Suppliers	1	1.00 days

Month: 2024-02

Supplier	Total Deliveries	Avg Delay
Bottle & Cork Supply Co.	1	2.00 days
Label & Box Supplies	1	-1.00 days
Vats & Tubing Suppliers	1	1.00 days

Month: 2024-03

Supplier	Total Deliveries	Avg Delay
Bottle & Cork Supply Co.	1	1.00 days
Label & Box Supplies	1	0.00 days
Vats & Tubing Suppliers	1	0.00 days

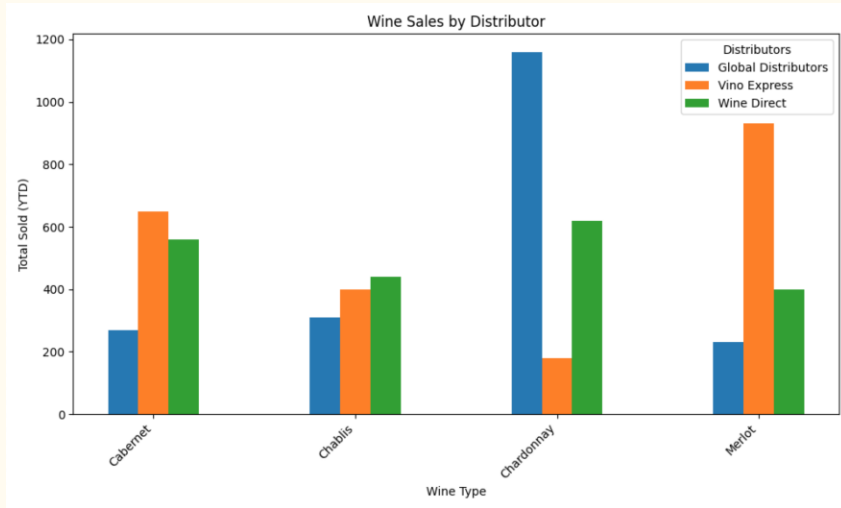
Month: 2024-04

Supplier	Total Deliveries	Avg Delay
Bottle & Cork Supply Co.	1	1.00 days
Label & Box Supplies	1	-1.00 days
Vats & Tubing Suppliers	1	3.00 days

Month: 2024-05

Supplier	Total Deliveries	Avg Delay
Bottle & Cork Supply Co.	1	0.00 days
Label & Box Supplies	1	1.00 days
Vats & Tubing Suppliers	1	0.00 days

Reports Generated – Annual Wine Sales and Distribution



- The bar graph for wine sales and distribution gives a clear overview of which distributors are ordering which wines.
- We can see that our Chardonnay is most popular, by far, among the Global Distributors.

Wine Distribution and Sales Report - Generated on 2025-03-09 15:33:49

Wine Type	Distributor	Total Sold (YTD)
Cabernet	Global Distributors	270
Cabernet	Vino Express	650
Cabernet	Wine Direct	560
Chablis	Global Distributors	310
Chablis	Vino Express	400
Chablis	Wine Direct	440
Chardonnay	Global Distributors	1160
Chardonnay	Vino Express	180
Chardonnay	Wine Direct	620
Merlot	Global Distributors	230
Merlot	Vino Express	930
Merlot	Wine Direct	400

Reports Generated - Employee Time Report

- The employee work hours report allows Bacchus Winery management to analyze quarterly reports on employee work hours.

Employee Work Hours Report (Last Four Quarters) - Generated on 2025-03-09 15:34:19

Employee	Q1 (Jan-Mar)	Q2 (Apr-Jun)	Q3 (Jul-Sep)	Q4 (Oct-Dec)	Total Hours Worked	Avg Hours Worked Per Q
Bob Ulrich	455	465	480	470	1870	467.50
Davis Bacchus	465	475	465	470	1875	468.75
Henry Doyle	505	475	500	490	1970	492.50
Janet Collins	460	485	460	490	1895	473.75
Maria Costanza	465	475	475	460	1875	468.75
Roz Murphy	470	485	475	485	1915	478.75
Stan Bacchus	485	520	480	520	2005	501.25

Conclusions

- Supplier performance is generally on time but some delays were noticed, particularly in the early months of 2024
- Wine sales are varied, with Merlot and Chardonnay performing well, but Cabernet and Chablis sales may need attention
- Employee work hours seem to be steady and consistent, with only small deviations