

Design and Implementation of IS: Assignment Bonus

UML

System Name:

Semester: A 2025

Submitted by Group:

GitHub Repository URL:

<https://github.com/Design-and-Implementation-of-IS/bouns-janmine.git>

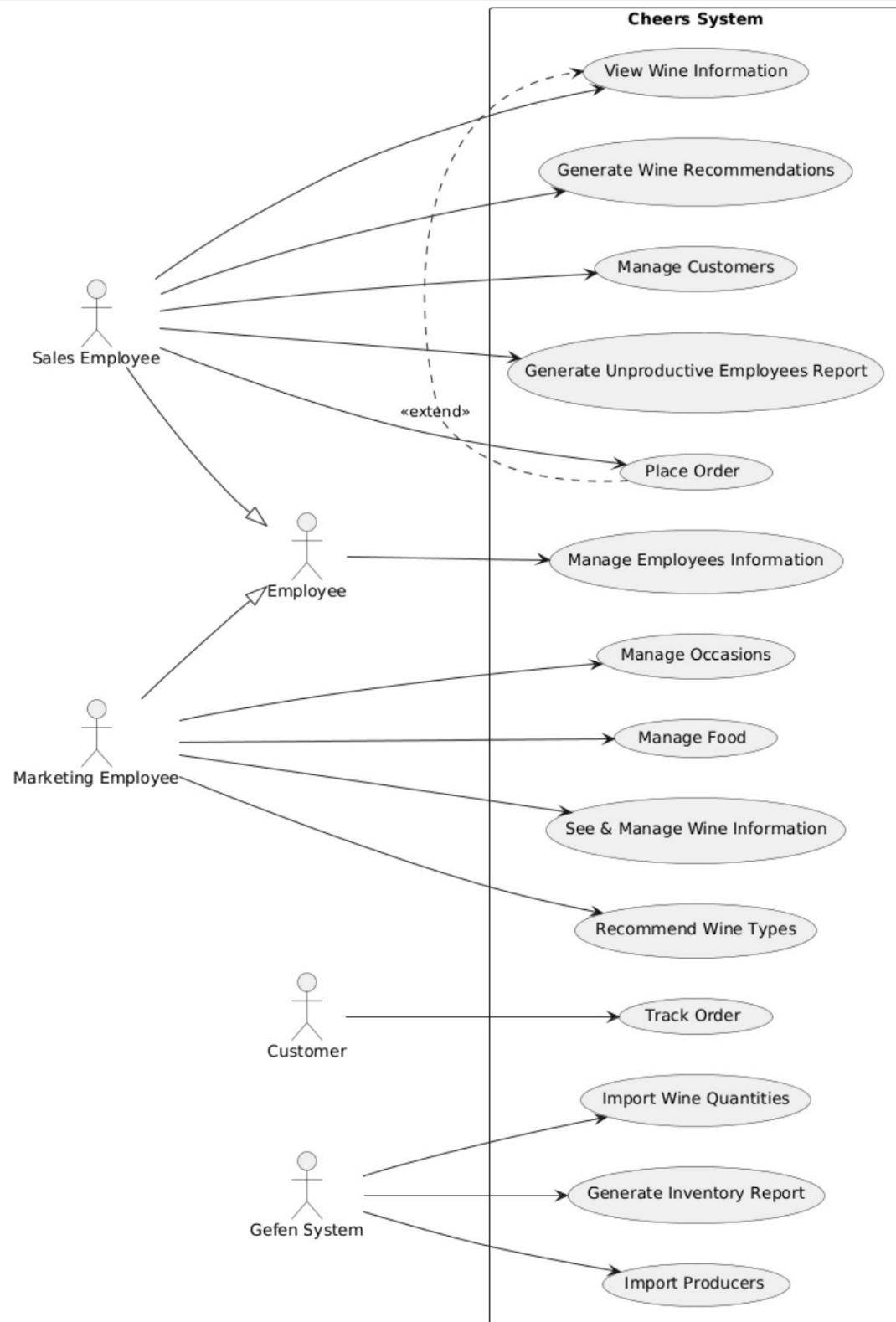
Assumptions:

This is an optional section for essential assumptions; Please provide concise information aimed at clarifying key aspects for the exercise evaluator; Ensure that the content does not replicate details already presented in the system description narrative.

The customer can track their order.

1.1.a. The Final Use Case Diagram:

Verify readability of the figure.



1.1.b. The Final Descriptions of the Use Cases:

Make sure the descriptions are short and concisely describe the responsibilities of the various use cases.

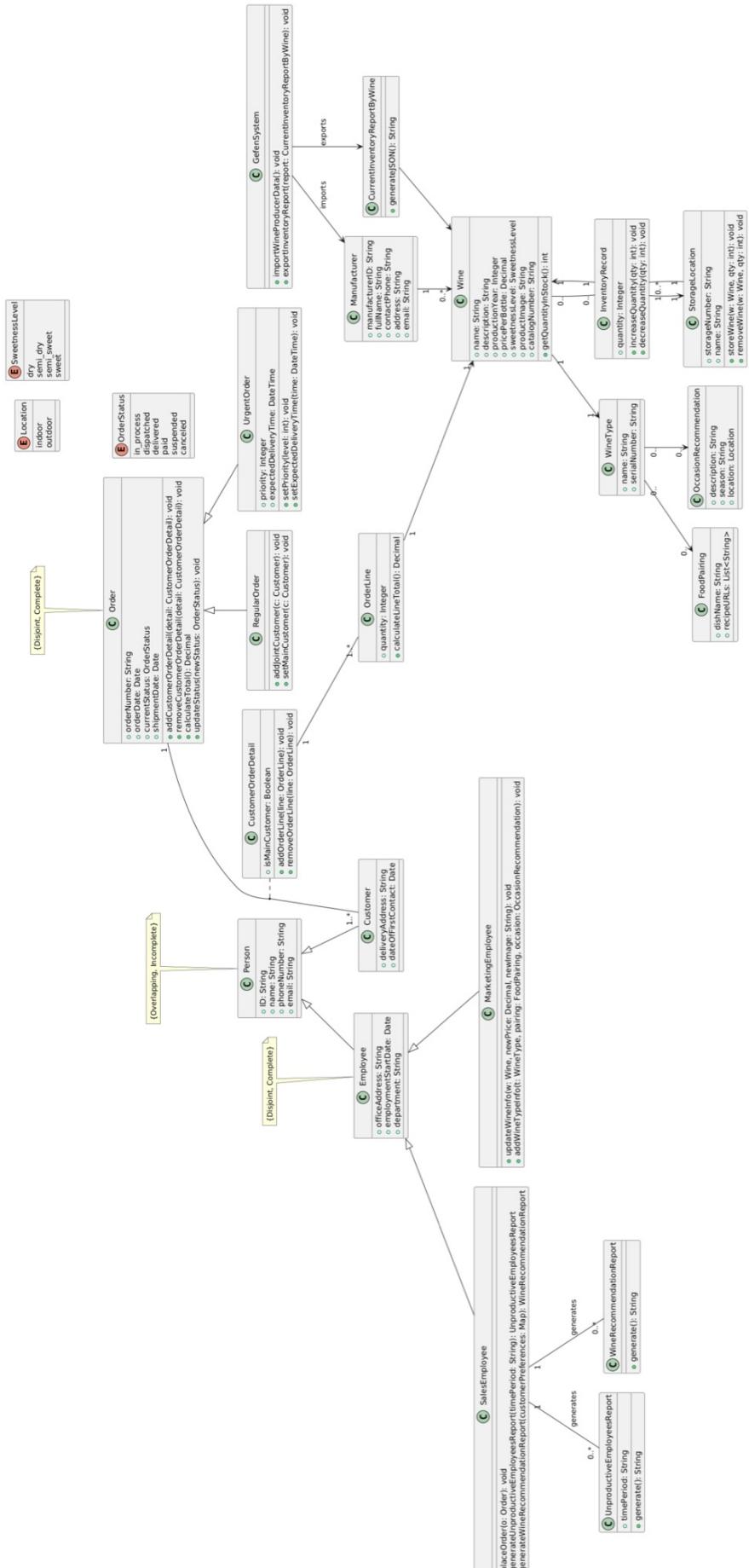
Manage Employees Information: Allows employees to manage and update information related to staff.

Generate Wine Recommendations: Provides recommendations for wines based on customer preferences.

- **Manage Customers:** Enables sales employees to handle customer data and relationships.
- **Place Order:** Facilitates the process of placing an order for customers.
- **Generate Unproductive Employees Report:** Generates reports on employees who are underperforming.
- **View Wine Information:** Displays detailed wine information, including types and availability.
- **Recommend Wine Types:** Suggests wine types based on specific criteria.
- **Manage Occasions:** Handles the organization and categorization of wine for different occasions.
- **Manage Food:** Manages food pairings and their compatibility with different wines.
- **See & Manage Wine Information:** Allows marketing employees to view and update wine-related details.
- **Track Order:** Enables customers to track the status of their placed orders.
- **Generate Inventory Report:** Creates a report on current inventory levels.
- **Import Producers:** Imports data about wine producers into the system.
- **Import Wine Quantities:** Updates the inventory with new wine stock from producers.

1.1.c. UML Class Diagram:

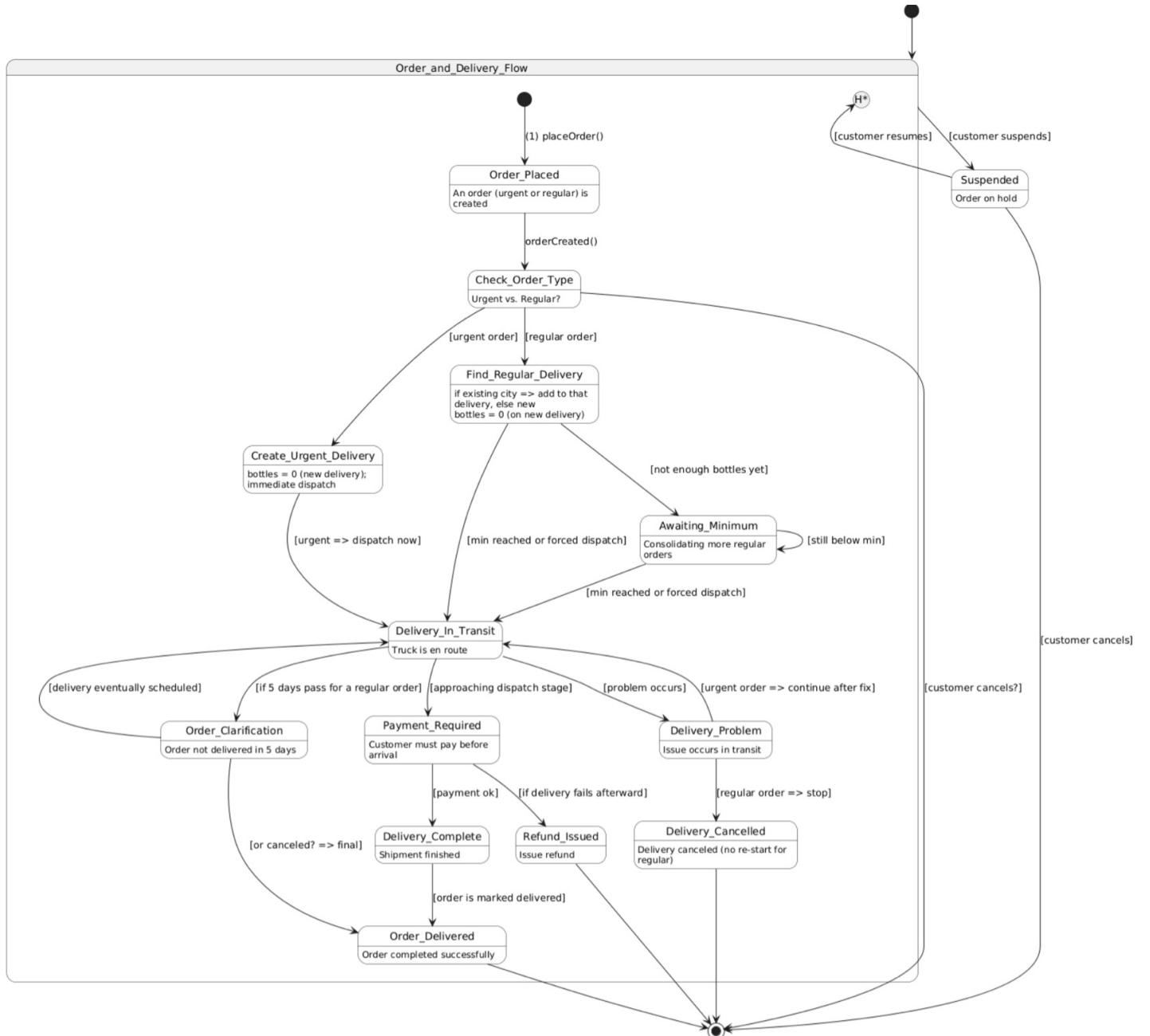
This section will not be checked again and is intended to understand the context.



2.1 The Final Statechart Diagram:

Verify readability of the figure.

Model:



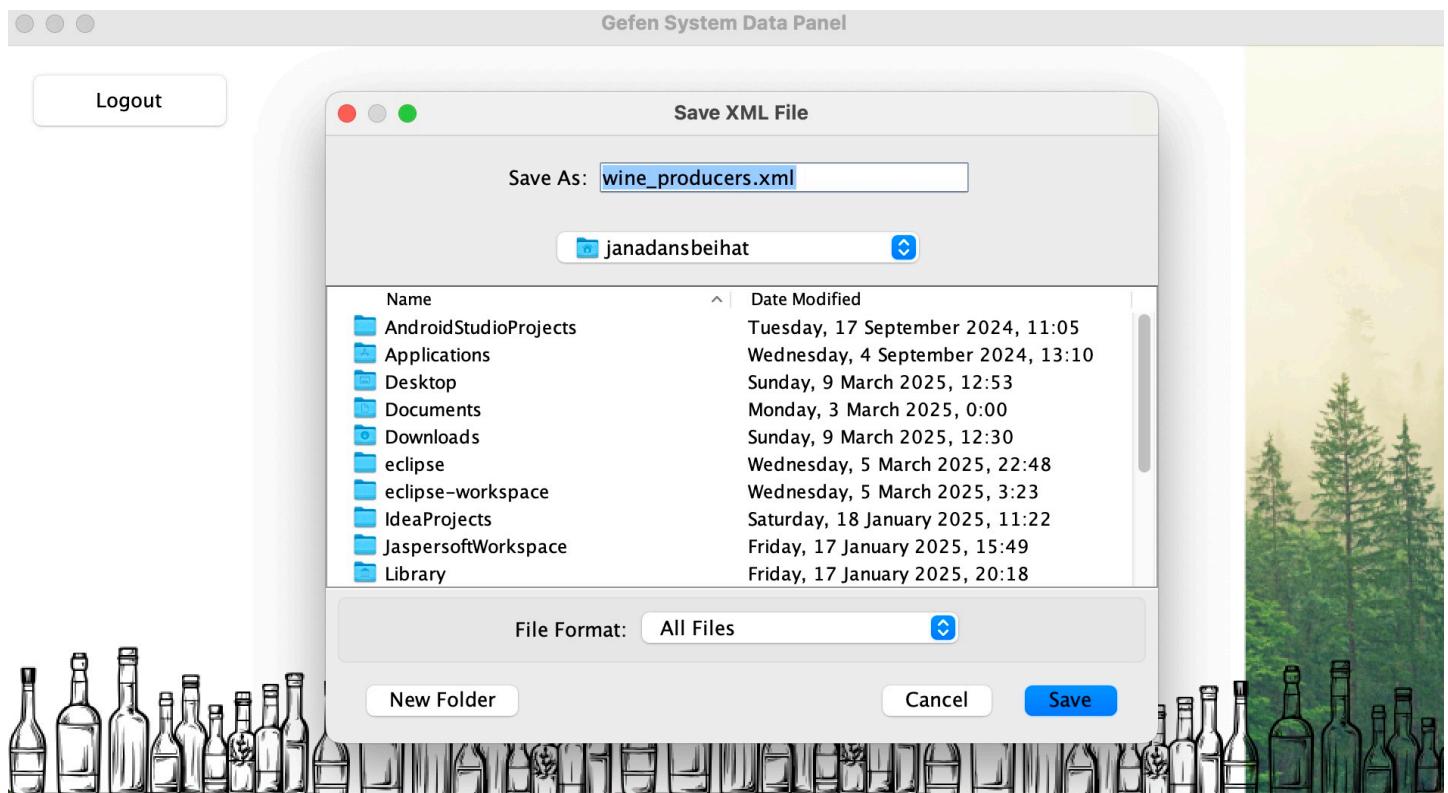
Description of the model:

Event / Variable	Description
<code>placeOrder()</code>	Trigger for creating a new order. Occurs when sales staff (or the system) inputs the customer's order.
<code>orderCreated()</code>	Internal signal that the order has been captured in the system, causing a transition from "Order_Placed" to "Check_Order_Type."
[urgent order]	A guard condition indicating that the order is marked "urgent." Leads to immediate delivery creation and dispatch.
[regular order]	A guard condition for standard orders, which may wait for additional items (batches) to reach the minimum shipment quantity.
<code>bottles</code>	A variable tracking how many bottles are allocated to a given Delivery. Reset to 0 when a new delivery is created; increments as orders are added.
[min reached or forced dispatch]	A condition that triggers the move from "Awaiting_Minimum" to "Delivery_In_Transit." If the quantity in a Delivery meets or exceeds the minimum, or a GalGalim employee forces dispatch, we proceed.
[problem occurs]	An event fired if an in-transit issue arises. For urgent orders, we resolve the problem and continue; for regular orders, the delivery is canceled.
<code>Payment_Required</code>	A state indicating the system is waiting for the customer to pay before final delivery completion.
[payment ok]	A guard/event signifying the payment was received. This allows transitioning from "Payment_Required" to "Delivery_Complete."
[if delivery fails afterward]	Condition used if a paid order fails to arrive, leading to the "Refund_Issued" state.
5-Day Rule	If 5 days pass before a regular order is dispatched, the order transitions to "Order_Clarification."
[customer suspends]	An event triggered by the customer to put the order on hold. Moves the composite state to "Suspended."
[customer resumes]	An event meaning the customer reactivates a suspended order, returning it to its last active sub-state.
[customer cancels]	An event meaning the customer terminates the order. Leads directly to a final or canceled state (depending on context).

2.2 Design Class Diagram of Wines for Producer Report

Verify readability of the figure. For each diagram, the relevant screenshots must be presented (the titles can be reproduced if needed).

Screenshot:



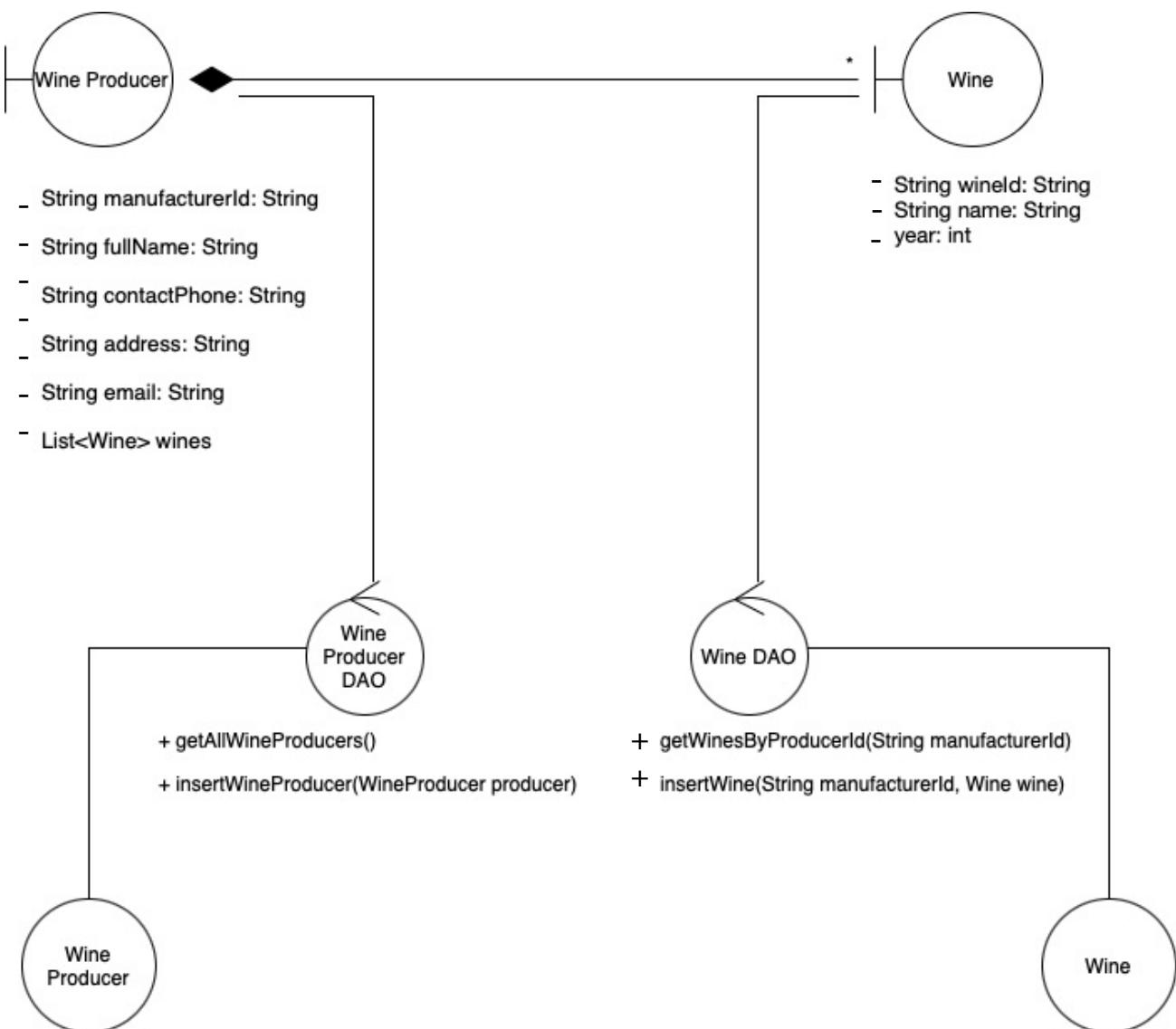
wine_producers (1) No Selection

```

1 <?xml version="1.0" encoding="UTF-8" standalone="no"?>
2 <wineProducers>
3   <Producer id="1">
4     <Name>David Wines Ltd</Name>
5     <ContactPhone>+1 555-123-4567</ContactPhone>
6     <Address>123 Grape Lane, Napa, CA</Address>
7     <Email>contact@davidwines.com</Email>
8     <Wines>
9       <wine id="1">
10      <Name>Chateau Margaux</Name>
11      <Year>2018</Year>
12    </Wine>
13  </Wines>
14</Producer>
15<Producer id="10">
16  <Name>Classic Wines</Name>
17  <ContactPhone>+39 06 12345678</ContactPhone>
18  <Address>555 Classic Rd, Rome</Address>
19  <Email>support@classicwines.it</Email>
20  <Wines>
21    <wine id="10">
22      <Name> Zinfandel Reserve</Name>
23      <Year>2019</Year>
24    </Wine>
25  </Wines>
26</Producer>
27<Producer id="11">
28  <Name>Silver Oak Vintners</Name>
29  <ContactPhone>+1 555-765-4321</ContactPhone>
30  <Address>678 Oak Rd, Sonoma, CA</Address>
31  <Email>contact@silveroak.com</Email>
32  <Wines>
33    <wine id="11">
34      <Name>Gewürztraminer</Name>
35      <Year>2021</Year>
36    </Wine>
37  </Wines>
38</Producer>
39<Producer id="12">
40  <Name>FineWines Corporation</Name>
41  <ContactPhone>+44 161 555 3456</ContactPhone>
42  <Address>456 Fine Ave, Manchester</Address>
43  <Email>sales@finewines.co.uk</Email>
44  <Wines>
45    <wine id="12">
46      <Name>Moscato d'Asti</Name>
47      <Year>2020</Year>
48    </Wine>
49  </Wines>
50</Producer>

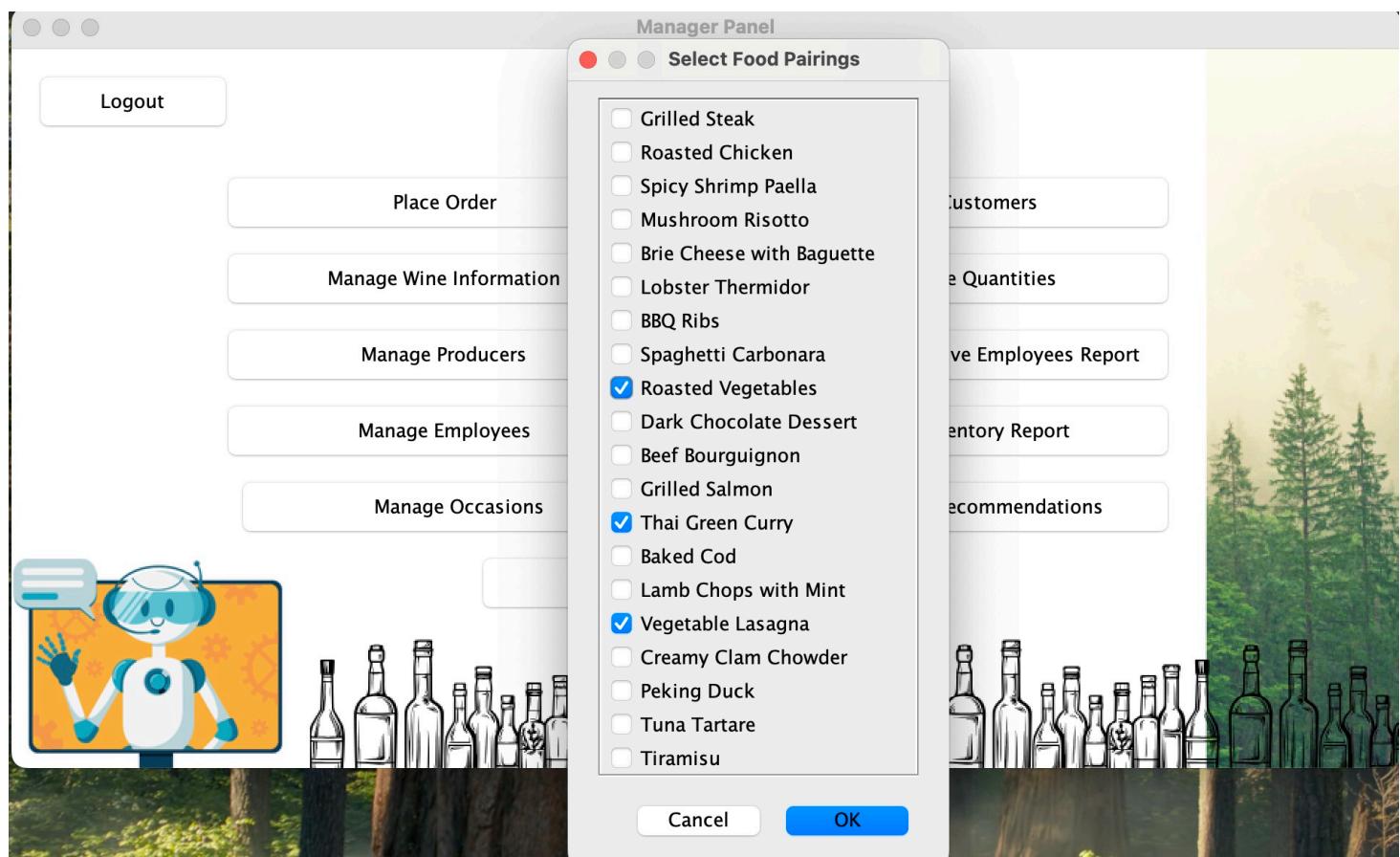
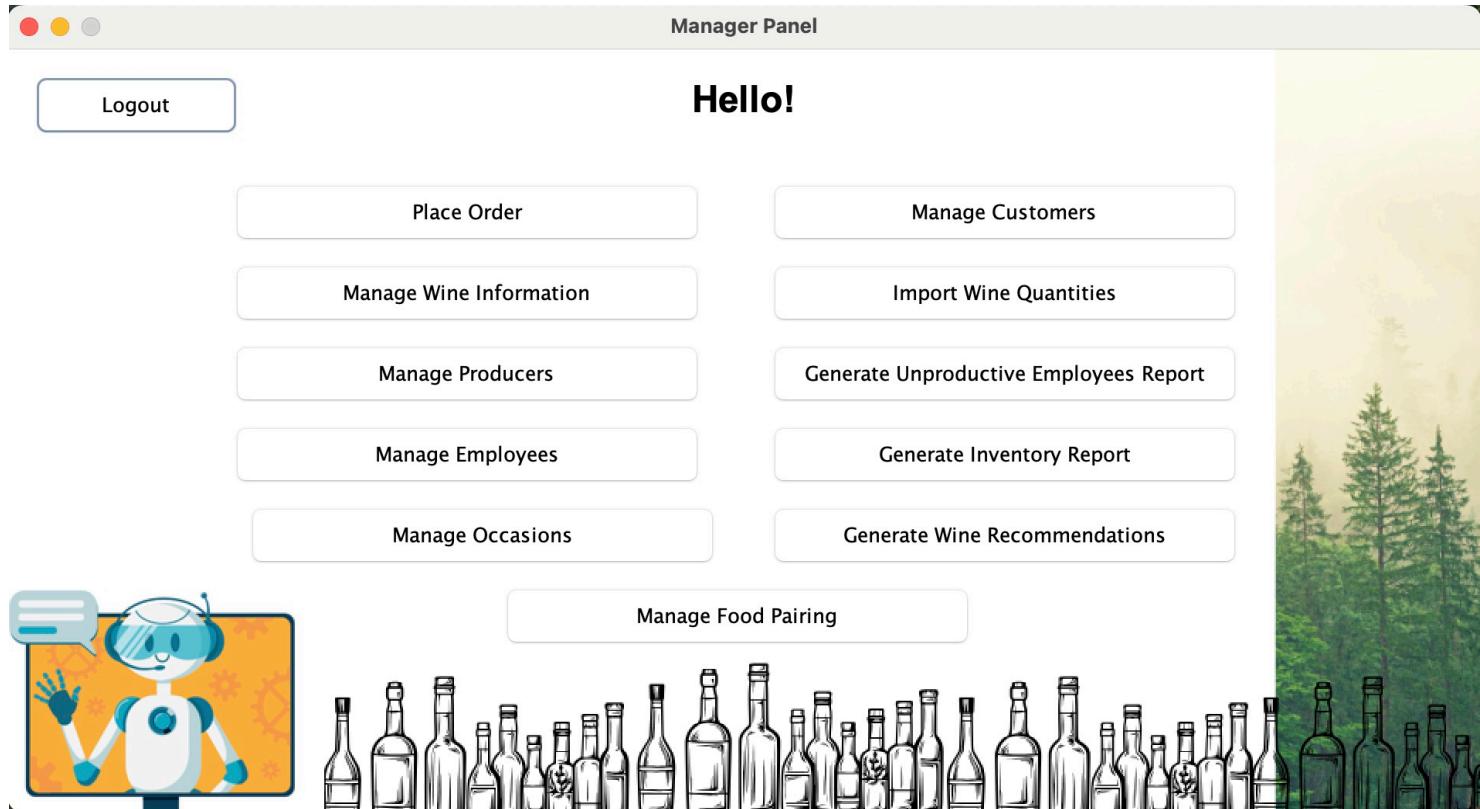
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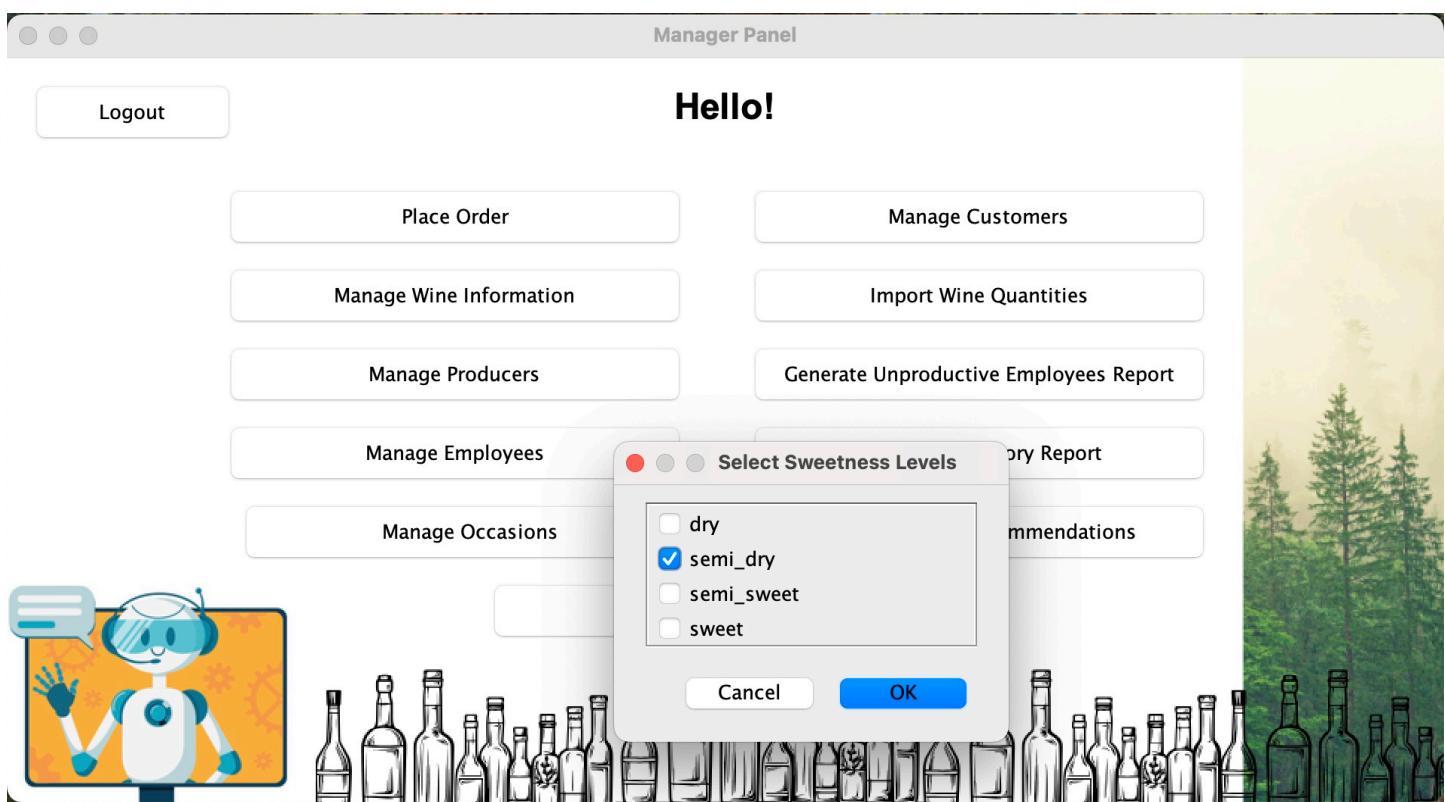
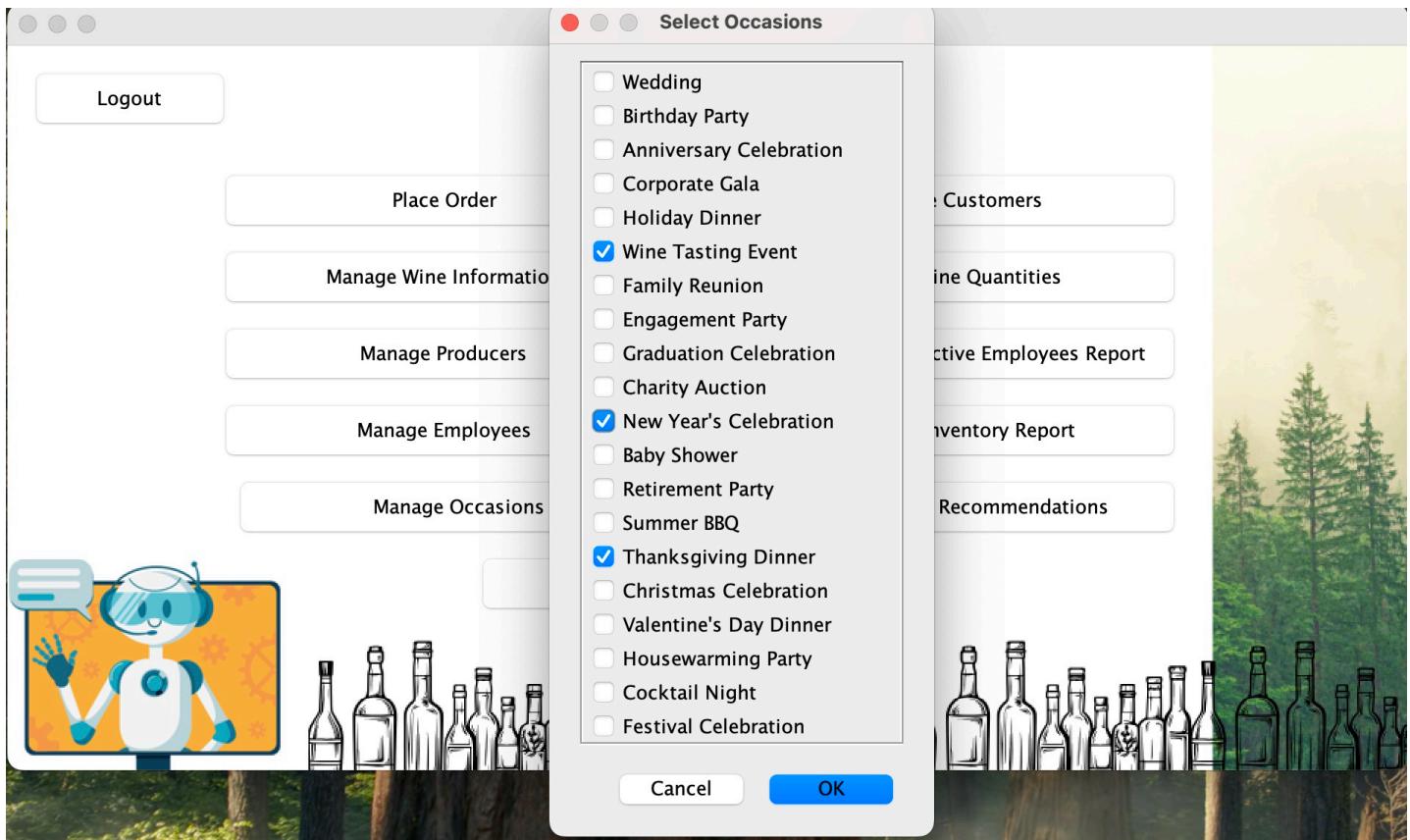
Line: 1 Col: 1



3.1.a Design Class Diagram of generation of a wine recommendation report

Verify readability of the figure. For each diagram, the relevant screenshots must be presented (the titles can be reproduced if needed).

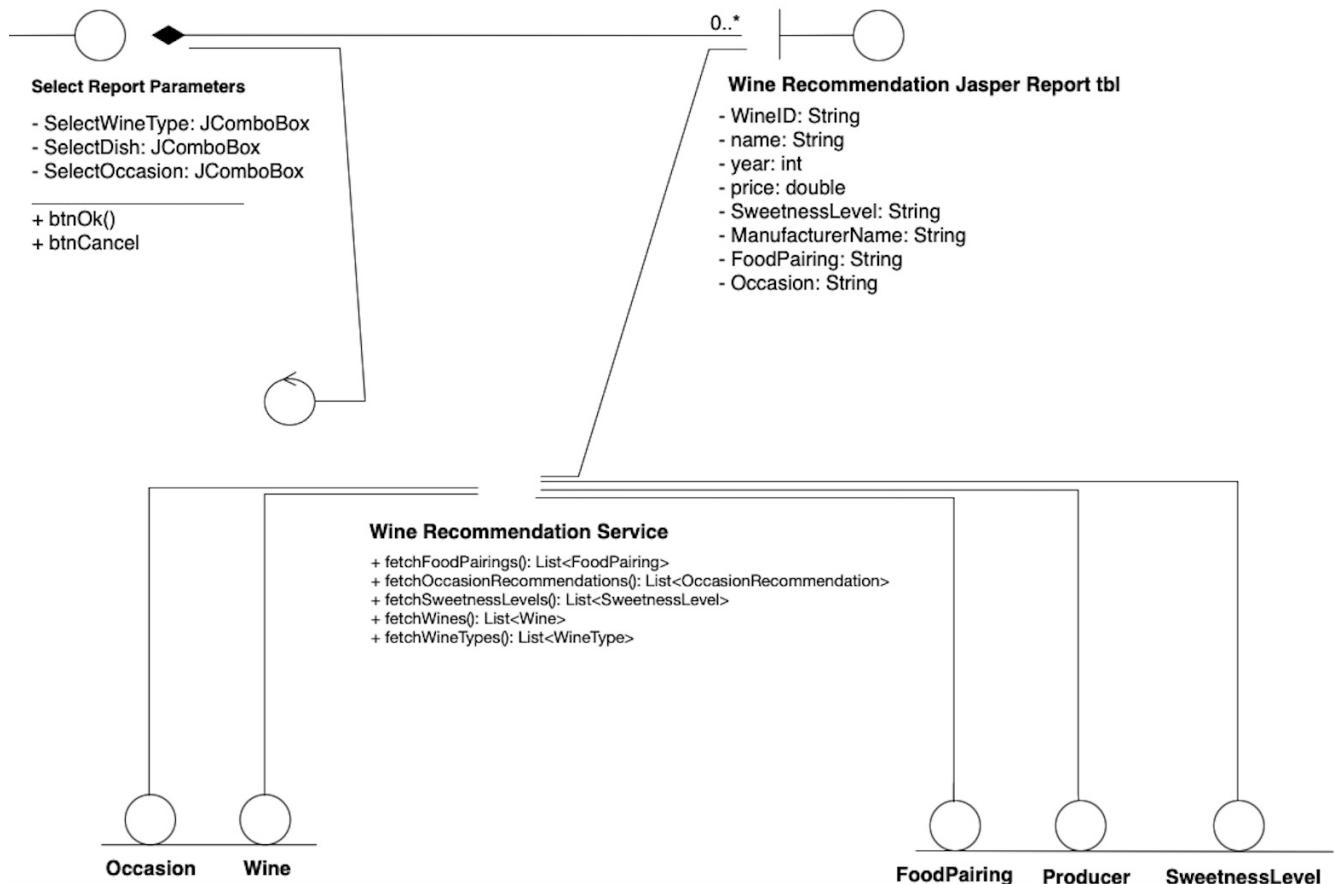




JasperViewer

WinID	WineName	WineDescription	ProductionYear	PricePerBottle	SweetnessLevel	ManufacturerName	FoodPairing	Occasion
13	Malbec Signature	Full-bodied with oak	2021	55.0000	semi_dry	RedHill Vineyards	null	Family Reunion
14	Vouvray Demi-Sec	Smooth, semi-sweet	2020	40.7000	sweet	Sunfield Wineries	null	Graduation Celebration
15	Barolo Riserva	Robust and complex red	2019	20.9000	semi_dry	GreenLeaf Estates	null	New Year's Celebration
16	Tempranillo Crianza	Balanced with cherry	2018	22.9900	semi_sweet	Grand Reserve	null	Retirement Party

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3.1.b Sequence Diagram of generation of a wine recommendation report

Verify readability of the figure.

