## CMPT 475 Assignment 5 Group 12

## **Business Rules for system**

| No. | Client & Contract Management Rules  |
|-----|---|
| 1   | A client must have at least one active contract before any order can be placed  |
| 2   | Client/Agent/Product IDs must be unique identifiers.  |
| 3   | Contracts must define applicable charge types (warehouse, shipping, service) and the billing method (flat rate, quantity, discount, etc.) for each service. |
| 4   | Contracts must have valid start and end dates. Only active contracts can be referenced in transactions  |
| 5   | A Client must have a valid form of payment and signed contract before they can send products.   |
| 6   | A Client must send their products to a Wizzard Services Warehouse.  |
| 7   | A Client's stock must be destroyed promptly upon destruction request.   |
| 8   | A Contract must define terms for handling returns/damaged goods.  |
| 9   | A Contract may contain rate tables but must be valid and in the active date range.  |
|     | Order Entry System Rules  |
| 10  | An Agent must call or email a Wizzard Clerk to place an order.  |
| 11  | Order status must follow this valid flow: New -> In Progress -> On Hold/Cancelled -> Completed -> Released.   |
| 12  | Charge calculation must follow the method and rate defined in the contract  |
| 13  | Each order must be contained in one invoice; an invoice cannot span multiple orders.  |
| 14  | Each product in the order must have at least one applicable charge  |
| 15  | Each order must be associated with a specific client and agent.   |
| 16  | An Agent must have a valid name, contact information, delivery address, and product list before placing an order.   |
| 17  | An Agent's order will be put on hold if all items are not in stock.   |
| 18  | An Agent's Order must include the Agent ID, Product Code, Quantity, and   |

|    | Destination.  |
|----|---|
| 19 | An Agent will not be able to order if their accounts status is suspended.   |
| 20 | An Agent's order will be cancelled promptly upon request if it has not yet been picked up by the shipping company.                  |
| 21 | Once an Agent's order is processed by fulfillment, the shipping company will be notified immediately that it is ready for pick up.  |
| 22 | Each product in the order must have at least one applicable charge (warehouse, shipping, or service)                                |
| 23 | An Agent record must include legal or business name, billing address, and contact information.                                      |
| 24 | An Agent can only be modified only by authorized personnel with edit privileges.  |
|    | Invoice Management Business Rules   |
| 25 | An invoice must be generated for all completed Agent's Order at the end of the month only after all related charges are calculated. |
| 26 | When an error occurs generating invoices the errors will be corrected and then those invoices will be generated again promptly.     |
| 27 | The invoice language must be selected based on the Client's preference (English, French, or Spanish).                               |
| 28 | An invoice must be sent to the Accounts Receivable Department after it is finalized.  |
| 29 | An Order must be put on hold or cancelled when inventory is insufficient to fulfill the order.                                      |
| 30 | Charges from delivery service providers must be imported before the monthly invoice is calculated.                                  |
| 31 | Warehousing charges will be added to the invoice at the end of month.   |
| 32 | Fulfillment charges must be imported before the invoice at the end of month.  |
| 33 | Service charges must be imported before the invoice at the end of month.  |
| 34 | A Contract must be referenced when calculating Invoice Charges.   |
| 35 | Invoice Charges must be the sum of all individual charge sources: Services + Warehouse + Shipping.                                  |
| 36 | Each Charge must have a Charge Date and must not precede the Contract start date.   |

## **Glossary of Terms**

| Term                      | Definition   |  |  |  |  |  |  |  |
|---------------------------|--|--|--|--|--|--|--|--|
| Client                    | The company that provides the products to handle and to be billed.   |  |  |  |  |  |  |  |
| Agent                     | The individual or company that the client's product is provided too. Also known as the Customer  |  |  |  |  |  |  |  |
| Clerk                     | Wizzard Services person who helps process agent's orders.  |  |  |  |  |  |  |  |
| Rate Table                | The different prices associated with a service or product depending on its condition and other attributes.   |  |  |  |  |  |  |  |
| Services                  | The different services Wizzard Services provides such as labor, phone services, etc  |  |  |  |  |  |  |  |
| Service Charges           | Charges for the different services provided.   |  |  |  |  |  |  |  |
| Invoice                   | A collection of all the orders and charges accrued for each client.  |  |  |  |  |  |  |  |
| Contract                  | Agreement on how much and the method that charges and services will be billed at.  |  |  |  |  |  |  |  |
| Product                   | The item provided by a client to be sold to agents.  |  |  |  |  |  |  |  |
| Location                  | The location of warehouses to be used to store products.   |  |  |  |  |  |  |  |
| Shipping charges          | Charges obtained by using third-party shipping companies.  |  |  |  |  |  |  |  |
| Warehouse charges         | Charges related to receiving, packaging and destroying products.   |  |  |  |  |  |  |  |
| Charge Plan               | A set of various charges and how they are calculated that belong together to make up a contract(s)   |  |  |  |  |  |  |  |
| Invoice Management (IM)   | Handles generating, modifying and altering invoices and maintaining clients.   |  |  |  |  |  |  |  |
| Order Entry (OE)          | Recording and managing customer orders within a business system  |  |  |  |  |  |  |  |
| Delivery Service Provider | A Delivery Service Provider is a third-party company responsible for transporting and delivering orders from the warehouse to the client's Agents (customers). |  |  |  |  |  |  |  |
| Account Receivable (AR)   | is the department responsible for managing and collecting payments from clients based on the invoices.   |  |  |  |  |  |  |  |

## **Time Sheets**



| 宣宣   | Michael James Fischer - week 2025-14 |           | Enter real as planned |            | Validate work |      | 03/31/2025 - 04/06/2025 |       |       |       |       |       |       | 03/31/2025 |         |  |
|--|--------------------------------------|-----------|-----------------------|------------|---------------|------|-------------------------|-------|-------|-------|-------|-------|-------|------------|---------|--|
| task   |                                      |           | start                 | end        | assigned      | real | Mo 31                   | Tu 01 | We 02 | Th 03 | Fr 04 | Sa 05 | Su 06 | left       | revised |  |
|  |                                      |           |                       |            |               |      | 2                       | 0     | 0     | 0     | 0     | 0     | 0     |            | 2       |  |
| 미  | Use Case Diagram                     | Analyst 🕌 | 03/10/2025            | 03/14/2025 | 0             | 2    |                         |       |       |       |       |       |       | 0          | 2       |  |
| 미미   | Package Diagram                      | Analyst   | 03/10/2025            | 03/18/2025 | 0             | 0.75 |                         |       |       |       |       |       |       | 0          | 0.75    |  |
| 미미   | Activity Diagram                     | Analyst   | 03/10/2025            | 03/18/2025 | 0             | 0.75 |                         |       |       |       |       |       |       | 0          | 0.75    |  |
| 미미   | State Chart                          | Analyst   | 03/10/2025            | 03/18/2025 | 0             | 1    |                         |       |       |       |       |       |       | 0          | 1       |  |
| 마음   | Entity Model                         | Analyst   | 03/10/2025            | 03/18/2025 | 0             | 1.25 |                         |       |       |       |       |       |       | 0          | 1.25    |  |
| 마음   | Glossary of Terms                    | Analyst 🕌 | 03/10/2025            | 03/18/2025 | 0             | 0.5  |                         |       |       |       |       |       |       | 0          | 0.5     |  |
| 마음   | Business Rules                       | Analyst 🕌 | 03/31/2025            | 03/31/2025 | 0             | 2    | 2                       |       |       |       |       |       |       | 0          | 2       |  |
| unit for Timesheet (real work) = hours (7.5 h/d) |                                      |           |                       |            |               | 2    | 0                       | 0     | 0     | 0     |       | 0     |       | 2          |         |  |

|            | Peiman Zhiani Asgharzadeh - week 2025-14         | Enter real         | Validate   | 03/31/2025 - 04/06/2025 |      |       |       |       |       |       | 03/31/2025 |       |      |         |
|------------|--|--------------------|------------|-------------------------|------|-------|-------|-------|-------|-------|------------|-------|------|---------|
| task       |  | start              | end        | assigned                | real | Mo 31 | Tu 01 | We 02 | Th 03 | Fr 04 | Sa 05      | Su 06 | left | revised |
|            |  |                    |            |                         |      | 2     | 0     | 0     | 0     | 0     | 0          | 0     |      | 2       |
| olg<br>old | Use Case Diagram                                 | Analyst 03/10/2025 | 03/14/2025 | 0                       | 1.75 |       |       |       |       |       |            |       | 0    | 1.75    |
| 맹          | Package Diagram                                  | Analyst 03/10/2025 | 03/18/2025 | 0                       | 1    |       |       |       |       |       |            |       | 0    | 1       |
| 맹          | Activity Diagram                                 | Analyst 03/10/2025 | 03/18/2025 | 0                       | 0.75 |       |       |       |       |       |            |       | 0    | 0.75    |
| 맹          | State Chart                                      | Analyst 03/10/2025 | 03/18/2025 | 0                       | 1    |       |       |       |       |       |            |       | 0    | 1       |
| 먭          | Entity Model                                     | Analyst 03/10/2025 | 03/18/2025 | 0                       | 1    |       |       |       |       |       |            |       | 0    | 1       |
| 먭          | Glossary of Terms                                | Analyst 03/10/2025 | 03/18/2025 | 0                       | 0.5  |       |       |       |       |       |            |       | 0    | 0.5     |
| 먭          | Business Rules                                   | Analyst 03/31/2025 | 03/31/2025 | 0                       | 2    | 2     |       |       |       |       |            |       | 0    | 2       |
| unit f     | unit for Timesheet (real work) = hours (7.5 h/d) |                    |            |                         |      |       | 0     | 0     | 0     | 0     |            | 0     |      | 2       |