CMPT 475 Assignment 4 Group 12
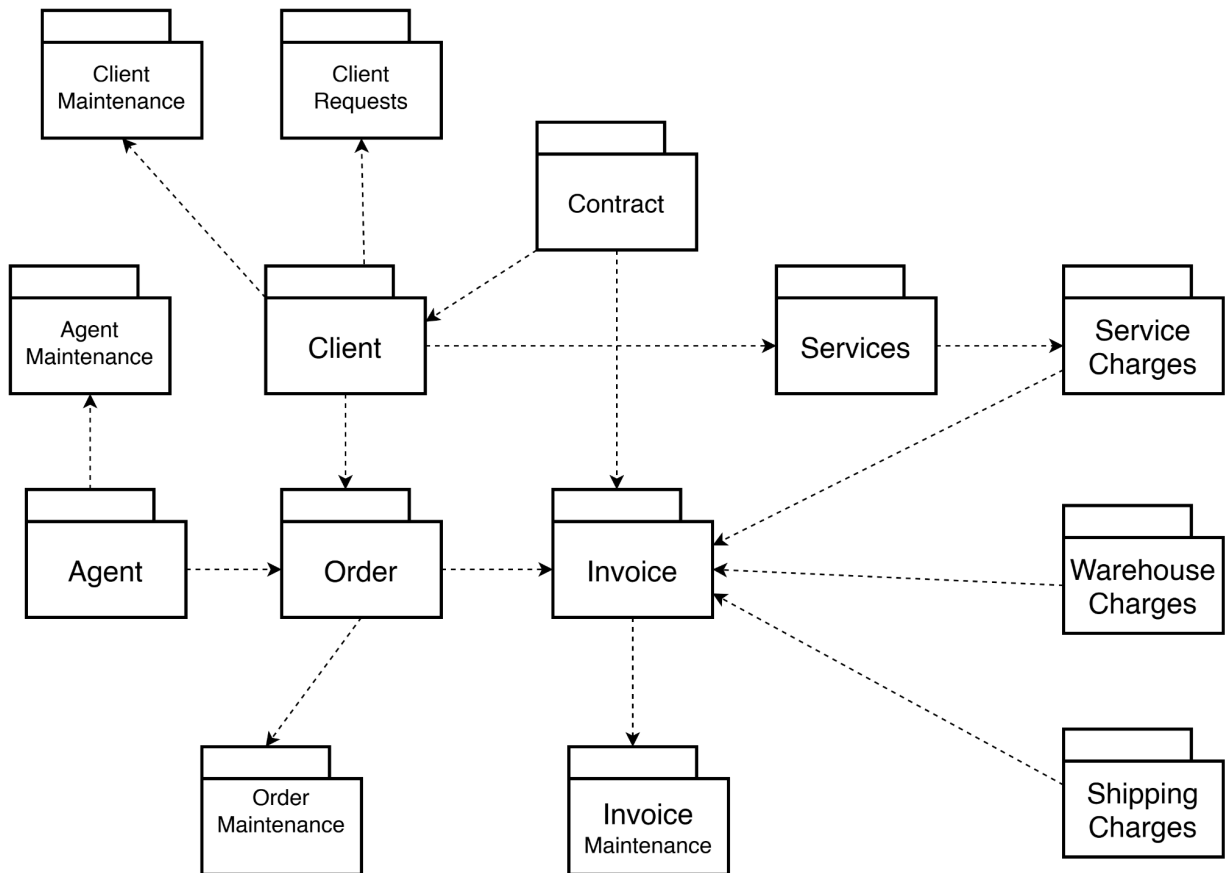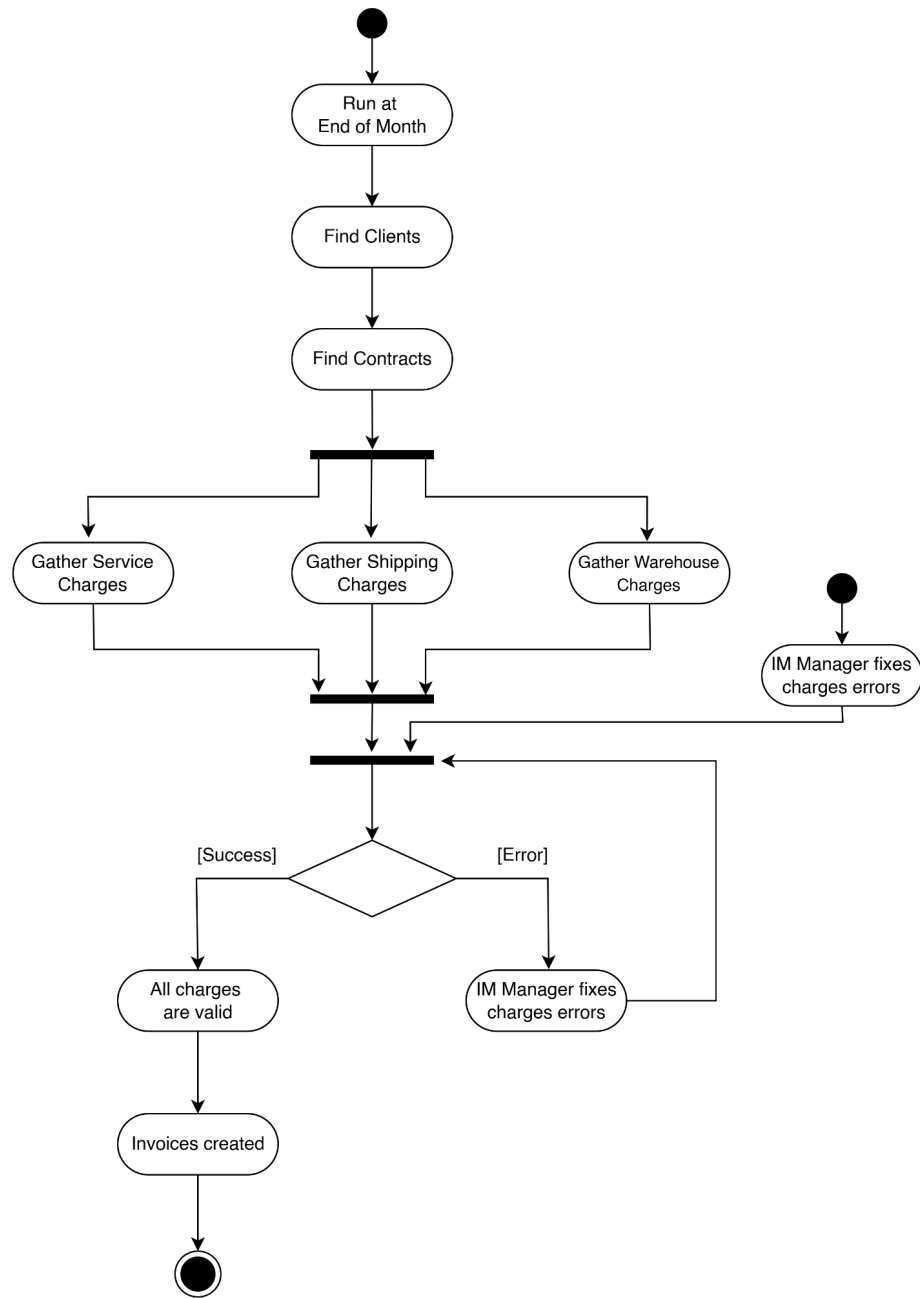
Use Case Diagram for System
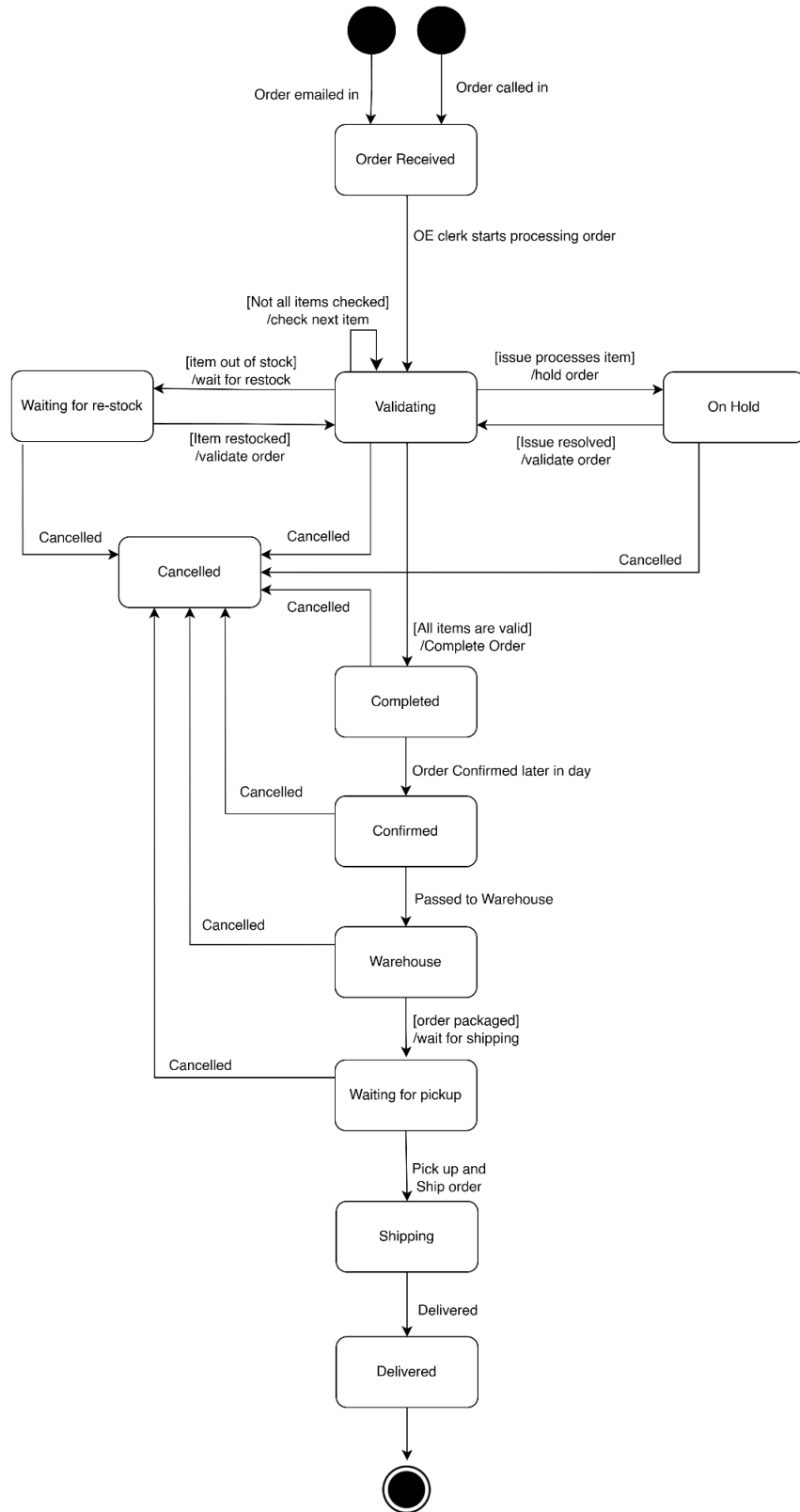
Package Diagram for System
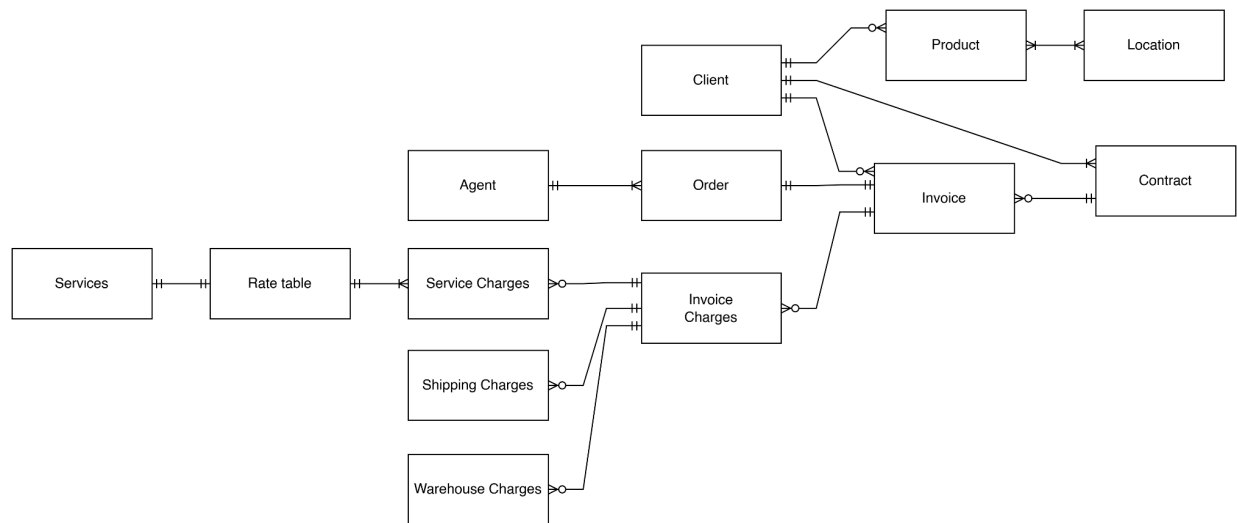
Client Maintenance

Client Requests

Contract

Agent Maintenance

Client

Services

Service Charges

Agent

Order

Invoice

Warehouse Charges

Order Maintenance

Invoice
Maintenance

Shipping Charges

Activity Diagram for 'IITT Generate Invoices'

```
                              ●
                              │
                              ▼
                         ╭─────────╮
                         │  Run at  │
                         │End of Month│
                         ╰─────────╯
                              │
                              ▼
                         ╭─────────╮
                         │Find Clients│
                         ╰─────────╯
                              │
                              ▼
                         ╭─────────╮
                         │Find Contracts│
                         ╰─────────╯
                              │
        ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
         │                    │                    │
         ▼                    ▼                    ▼
    ╭─────────╮         ╭─────────╮         ╭─────────╮
    │Gather Service│    │Gather Shipping│   │Gather Warehouse│        ●
    │  Charges  │       │  Charges  │       │  Charges  │             │
    ╰─────────╯         ╰─────────╯         ╰─────────╯               ▼
         │                    │                    │             ╭─────────╮
         │                    │                    │             │IM Manager fixes│
         └────────────━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━┘             │charges errors│
                              ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━╰─────────╯
                              ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━◄─────────┐
                              │                                             │
                              ▼                                             │
               [Success]   ◇◇◇◇◇   [Error]                                  │
         ┌───────────────◇     ◇───────────────┐                           │
         │               ◇◇◇◇◇                 │                           │
         ▼                                      ▼                           │
    ╭─────────╮                           ╭─────────╮                      │
    │All charges│                          │IM Manager fixes│───────────────┘
    │ are valid │                          │charges errors│
    ╰─────────╯                            ╰─────────╯
         │
         ▼
    ╭─────────╮
    │Invoices created│
    ╰─────────╯
         │
         ▼
         ◉
```

State Chart for Orders

Order emailed in

Order called in

Order Received

OE clerk starts processing order

[Not all items checked]
/check next item

[item out of stock]
/wait for restock

[issue processes item]
/hold order

Waiting for re-stock

Validating

On Hold

[Item restocked]
/validate order

[Issue resolved]
/validate order

Cancelled

Cancelled

Cancelled

Cancelled

Cancelled

[All items are valid]
/Complete Order

Completed

Order Confirmed later in day

Cancelled

Confirmed

Passed to Warehouse

Cancelled

Warehouse

[order packaged]
/wait for shipping

Cancelled

Waiting for pickup

Pick up and
Ship order

Shipping

Delivered

Delivered

Entity Model Diagram for System

Services	—	Rate table	—	Service Charges
Shipping Charges				
Warehouse Charges				Invoice Charges
		Agent	—	Order
				Client
				Invoice
				Product	—	Location
				Contract

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.
IITT Generate Invoices	"It Is Time To", is an action of generating an invoice on a set period (weekly or monthly) that is triggered by IM.

Time Sheets

Michael James Fischer - month 2025-03 — March 2025 — 03/18/2025

task		Mo 3	Tu 4	We 5	Th 6	Fr 7	Mo 10	Tu 11	We 12	Th 13	Fr 14	Mo 17	Tu 18	We 19	Th 20	Fr 21	Mo 24	Tu 25	We 26	Th 27	Fr 28	Mo 31	left	revised
Assgn4_12		0	0	0	0	0	3	0	0	0	1	0	2.25	0	0	0	0	0	0	0	0	0		6.25
Use Case Diagram	Analyst						1				1												0	2
Package Diagram	Analyst						0.25						0.5										0	0.7
Activity Diagram	Analyst						0.5						0.25										0	0.7
State Chart	Analyst						0.5						0.5										0	1
Entity Model	Analyst						0.75						0.5										0	1.2
Glossary of Terms	Analyst												0.5										0	0.5
unit for Timesheet (real work) = hours (7.5 h/d)		0	0	0	0	0	3	0	0	0	1	0	2.25	0	0	0	0	0	0	0	0	0		6.25

Peiman Zhiani Asgharzadeh - month 2025-03 — March 2025 — 03/18/2025

task		Mo 3	Tu 4	We 5	Th 6	Fr 7	Mo 10	Tu 11	We 12	Th 13	Fr 14	Mo 17	Tu 18	We 19	Th 20	Fr 21	Mo 24	Tu 25	We 26	Th 27	Fr 28	Mo 31	left	revised
Assgn4_12		0	0	0	0	0	0	0.75	2	0	1	0	2.25	0	0	0	0	0	0	0	0			6
Use Case Diagram	Analyst							0.75			1												0	1.7
Package Diagram	Analyst								0.5				0.5										0	1
Activity Diagram	Analyst								0.5				0.25										0	0.7
State Chart	Analyst								0.5				0.5										0	1
Entity Model	Analyst								0.5				0.5										0	1
Glossary of Terms	Analyst												0.5										0	0.5
unit for Timesheet (real work) = hours (7.5 h/d)		0	0	0	0	0	0	0.75	2	0	1	0	2.25	0	0	0	0	0	0	0	0			6

Boyu Zhang - month 2025-03 — March 2025 — 03/18/2025

task		Mo 3	Tu 4	We 5	Th 6	Fr 7	Mo 10	Tu 11	We 12	Th 13	Fr 14	Mo 17	Tu 18	We 19	Th 20	Fr 21	Mo 24	Tu 25	We 26	Th 27	Fr 28	Mo 31	left	revised
Assgn4_12		0	0	0	0	0	3	0	0	0	1	0	2	0	0	0	0	0	0	0	0			6
Use Case Diagram	Analyst						0.25				1												0	1.2
Package Diagram	Analyst						0.75						0.5										0	1.2
Activity Diagram	Analyst						0.5						0.25										0	0.7
State Chart	Analyst						0.5						0.25										0	0.7
Entity Model	Analyst						0.5						0.5										0	1
Glossary of Terms	Analyst						0.5						0.5										0	1
unit for Timesheet (real work) = hours (7.5 h/d)		0	0	0	0	0	3	0	0	0	1	0	2	0	0	0	0	0	0	0	0			6