

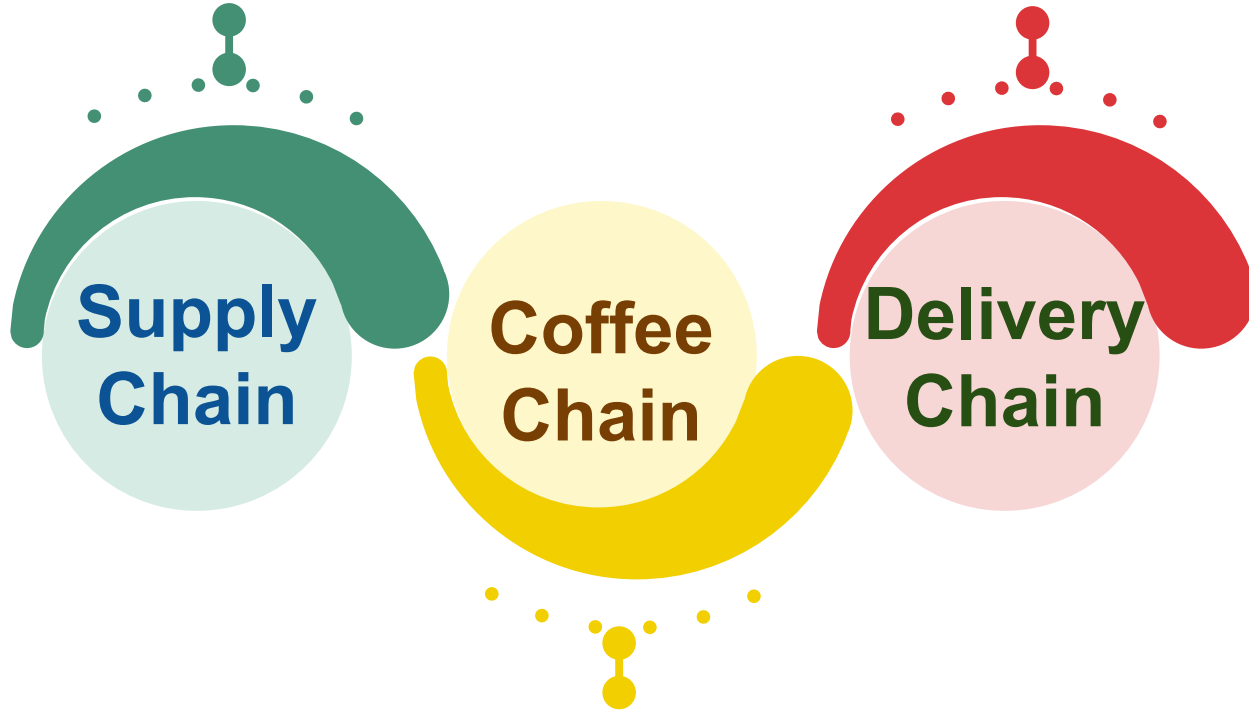
Ecosystem

**Coffee Chain + Supply Chain +
Delivery Chain**

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Restock materials for
coffee stores

Deliver coffee to
customers



Ecosystem

Storefront - take orders
and prepare coffee

Problem Statement

Cafe Chains use disconnected systems, which:

- Delays Communication
- Inhibits Coordination
- Causes Inefficiencies
- Lowers Data Visibility
- Limits Automation

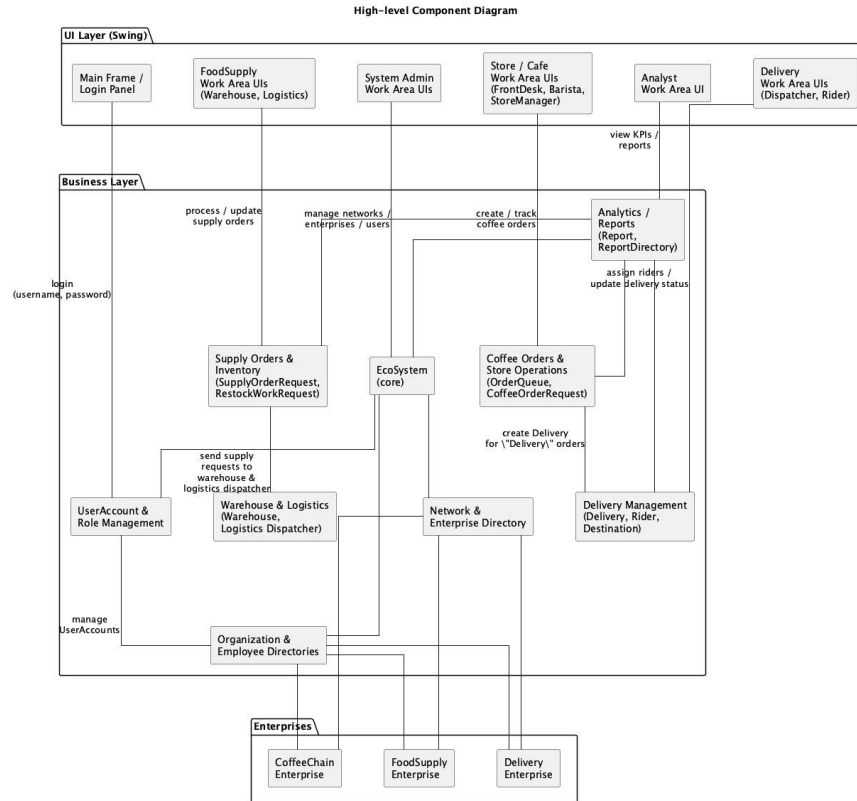
Proposed Solution

Three interconnected enterprises:

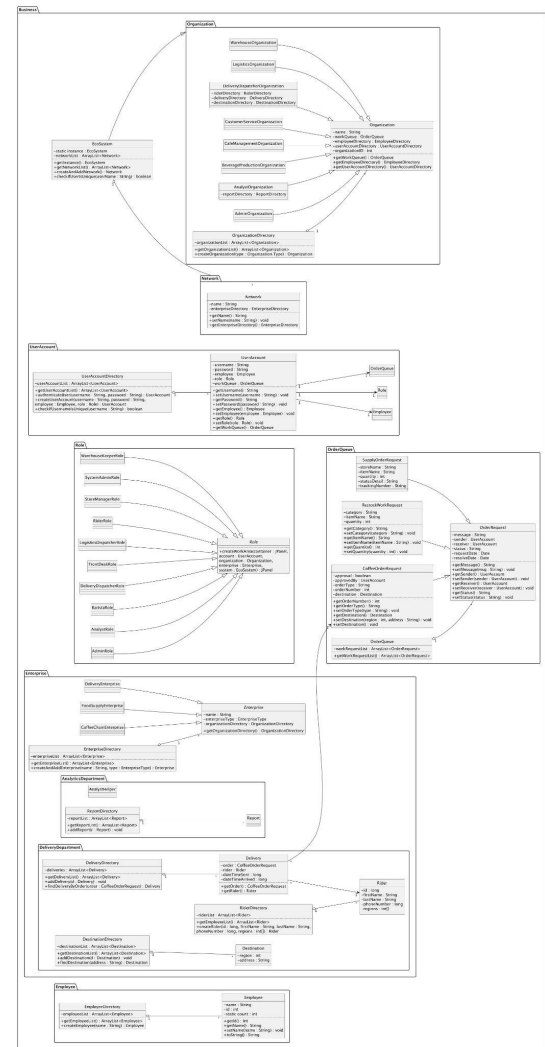
1. Store operations and management
2. Supplies, warehousing, and logistics
3. Assigning and dispatching delivery riders and delivery analytics

UML Class Diagram →

Component Diagram ↘



Please see the separate attachment for a larger version



Brief Advanced Feature Introduction

Multi-Enterprise Ecosystem Integration

- Integrates Coffee, Supply Chain, and Delivery systems into one seamless network.

Role Based Access Control

- Supports 8 distinct user roles (plus 4 admins) across 7 organizations, and 3 enterprises.
- Ensures users only access functionality relevant to their specific roles.

Automated Cross-Enterprise Workflows

- Order Loop: *Front Desk -> Barista -> Delivery Dispatcher -> Rider*
- Supply Loop: *Store Manager -> Warehouse -> Logistics -> Store Receipt*

Data Analytics Function

- Analytics Department in the Delivery Enterprise generates rider and order performance reports to support data-driven business decisions.

UI Screenshots

User Name
id

Password
-

Login

Logout

Enterprise : CoffeeChain

Order List

Refresh

Type	Order#	Order	Receiver	Status
Dine-in	101	Americano	b	Ready
Delivery	102	Mocha	Waiting	Delivered
Dine-in	101	Mocha	Waiting	In-Progress
Delivery	100	Latte	Waiting	Sent
Dine-in	99	Americano	Waiting	Sent
Dine-in	98	Americano	b	Ready
Delivery	97	Mocha	b	Ready
Delivery	96	Espresso	b	Pending
Dine-in	95	Mocha	Waiting	Sent
Dine-in	94	Americano	b	Ready

Create Order

User Name
id

Password
-

Login

Logout

Enterprise : CoffeeChain

Coffee: Americano

Type: Dine-in

Delivery Address:

<<Back

Place Order

User Name
b

Password
-

Login

Logout

Refresh

Type	Order#	Order	Receiver	Status
Dine-in	101	Americano	b	Ready
Delivery	102	Mocha	Waiting	Delivered
Dine-in	101	Mocha	Waiting	In-Progress
Delivery	100	Latte	Waiting	Sent
Dine-in	99	Americano	b	Ready
Dine-in	98	Americano	b	Ready
Delivery	97	Mocha	b	Ready
Delivery	96	Espresso	b	Pending
Dine-in	95	Mocha	Waiting	Sent
Dine-in	94	Americano	b	Ready
Dine-in	93	Espresso	b	Ready
Dine-in	92	Mocha	Waiting	Delivered
Dine-in	91	Americano	Waiting	Sent
Dine-in	90	Americano	Waiting	Delivered
Dine-in	89	Espresso	b	Pending

Assign Order to me

Order Finished

User Name
sm

Password
-

Login

Logout

Item: Coffee - Dark Roast

Quantity

Request Supplies

Refresh

Supply Orders

Order	Quantity	Sender	Receiver	Tracking No.	Status
Coffee Beans - Dark ...	100	sm	N/A	N/A	Sent to Warehouse
Coffee - Decaf x80 f...	69	sm	wh	N/A	Prepared in Warehouse
Cups - Small (12oz) ...	184	sm	wh	N/A	Prepared in Warehouse
Milk - Whole x183 f...	183	sm	id	92807198	Sent to Warehouse
Milk - Skim x107 f...	107	sm	id	N/A	Out for Delivery
Other x183 for Main ...	183	sm	id	N/A	Sent to Warehouse
Coffee - Dark Roast ...	102	sm	id	4320410	Delivered to Store

Confirm - Received by Store

User Name
wh

Password
-

Login

Logout

Warehouse Keeper Work Area

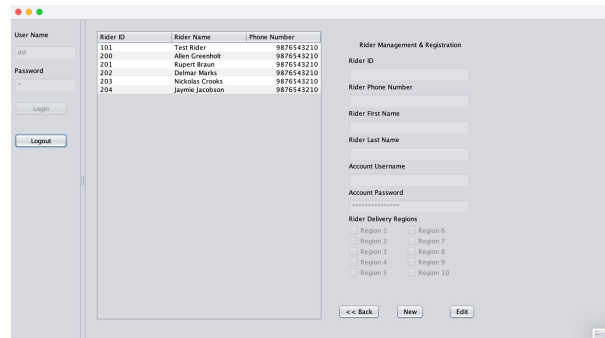
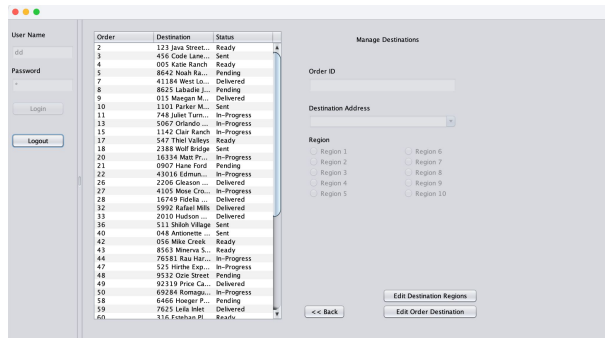
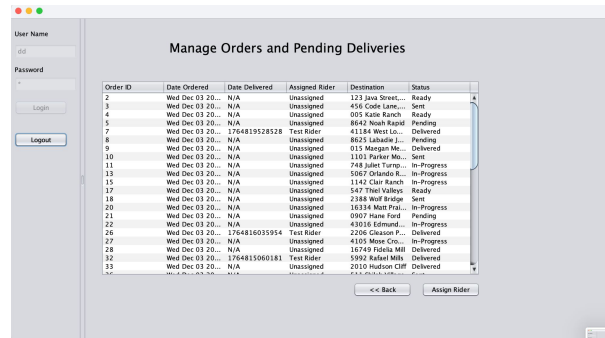
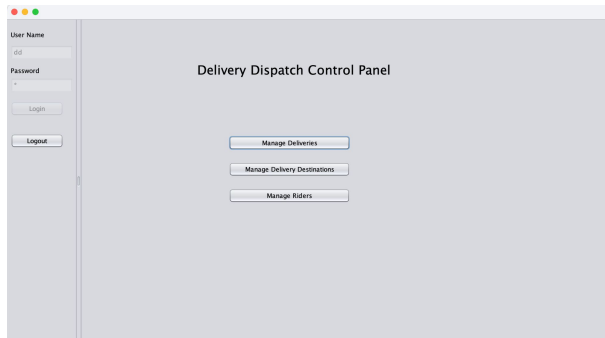
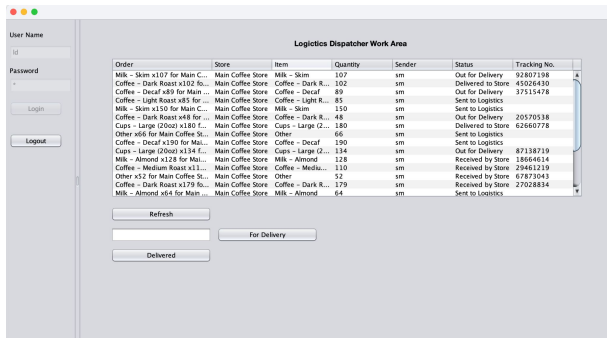
Refresh

Mark Prepared

Send to Logistics

Order	Store	Item	Quantity	Sender	Status
Coffee Beans - Dark Roast x100	Main Coffee Store	Coffee Beans - Dar...	100	sm	Sent to Warehouse
Coffee - Decaf x80 for Main Cof...	Main Coffee Store	Coffee - Decaf	69	sm	Prepared in Wareh...
Cups - Small (12oz) x184 for M...	Main Coffee Store	Cups - Small (12oz)	184	sm	Prepared in Wareh...
Milk - Whole x183 for Main Cof...	Main Coffee Store	Milk - Whole	183	sm	Sent to Warehouse
Milk - Skim x107 for Main Cof...	Main Coffee Store	Milk - Skim	107	sm	Out for Delivery
Other x183 for Main Coffee Store	Main Coffee Store	Other	183	sm	Sent to Warehouse
Coffee - Dark Roast x102 for M...	Main Coffee Store	Coffee - Dark Roast	102	sm	Delivered to Store
Coffee - Decaf x80 for Main Cof...	Main Coffee Store	Coffee - Decaf	89	sm	Out for Delivery
Coffee - Light Roast x85 for Ma...	Main Coffee Store	Coffee - Light Roast	85	sm	Sent to Logistics
Milk - Skim x100 for Main Cof...	Main Coffee Store	Milk - Skim	100	sm	Out for Delivery
Coffee - Dark Roast x88 for Ma...	Main Coffee Store	Coffee - Dark Roast	48	sm	Prepared in Wareh...
Cups - Small (12oz) x184 for M...	Main Coffee Store	Cups - Small (12oz)	14	sm	Prepared in Wareh...
Cups - Large (20oz) x180 for ...	Main Coffee Store	Cups - Large (20oz)	180	sm	Delivered to Store
Other x85 for Main Coffee Store	Main Coffee Store	Other	66	sm	Sent to Logistics
Coffee - Decaf x190 for Main C...	Main Coffee Store	Coffee - Decaf	190	sm	Sent to Logistics

UI Screenshots



UI Screenshots

