

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Product Lifecycle Tracing System

The Capstone Experience

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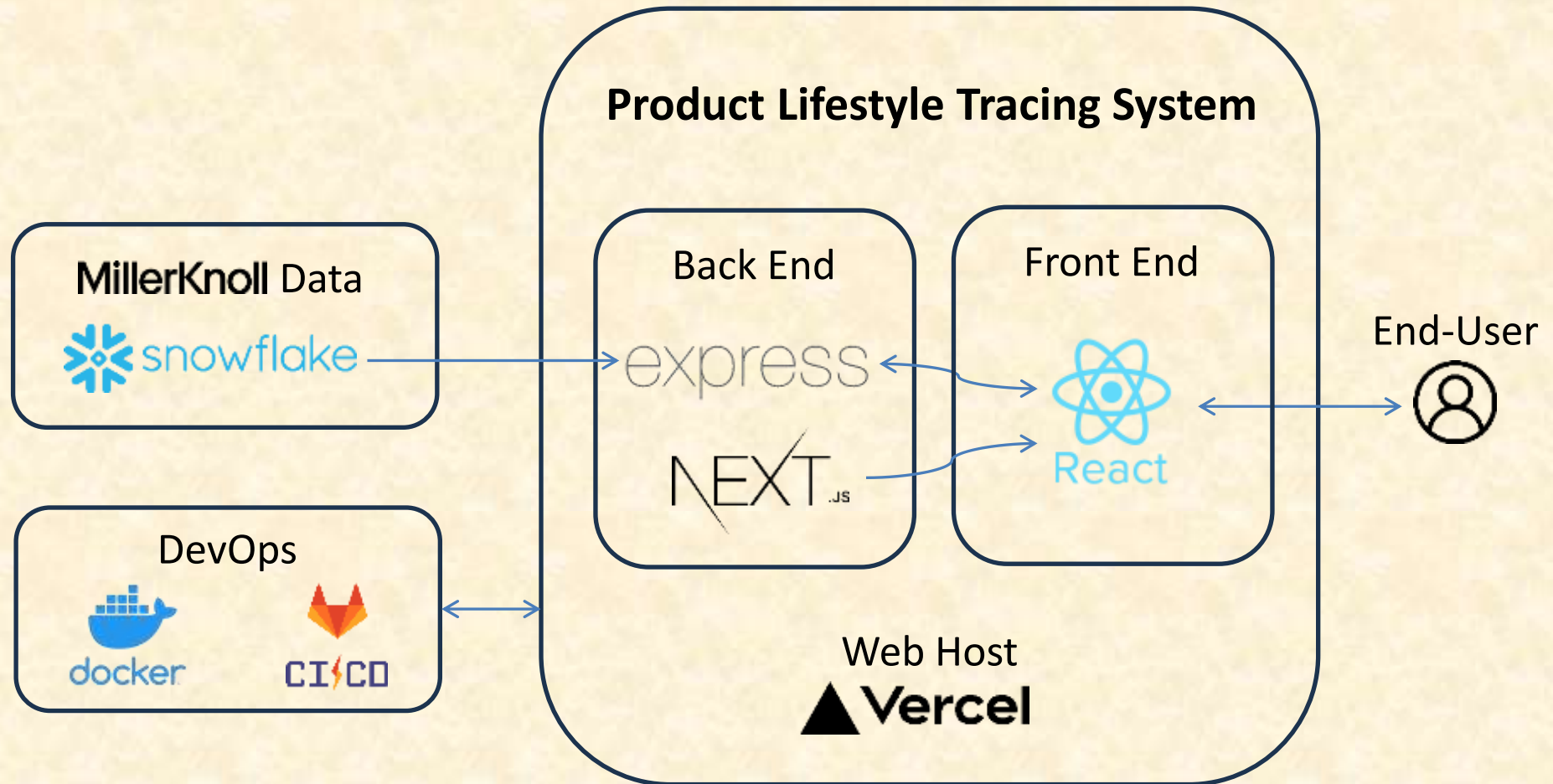
*From Students...
...to Professionals*

Project Overview

- MillerKnoll is a made-to-order furniture company with a lot of unique data
- Software provides insight into product to part relationships and effects of discontinuation
- Supports supply and product in making informed decisions regarding production volumes



System Architecture



Product Reference Lookup

The screenshot shows a web browser window with the URL www.millerknoll.com/productdashboard. The page features a dark sidebar on the left with the MillerKnoll logo and navigation options: "Product Lookup Tool", "Product to Parts", and "Part to Products". The main content area has a search bar containing "0024343298" and a "Search" button. The user's email, "herman@millerknoll.com", is displayed in the top right. Below the search bar, the "Overview" section for the product "0024343298" is shown. The product is identified as a "Standard-Pull Freestanding Pedestal". Key details include: Project ID: NAG53X, Subcategory: Storage, Line: K. Task, Final Order Date: Saturday, February 3, 2024, Final Ship Date: Thursday, February 8, 2024, and Region(s): United States. A 3D image of the product is shown on the right. At the bottom of the product overview, there are two buttons: "View Components" and "Simulate Discontinue".

MillerKnoll

> Product Lookup Tool

Product to Parts

Part to Products

0024343298 Search herman@millerknoll.com

Overview

0024343298

Standard-Pull Freestanding Pedestal

Project ID: NAG53X


Subcategory: Storage

Line: K. Task

Final Order Date: Saturday, February 3, 2024

Final Ship Date: Thursday, February 8, 2024

Region(s):



View Components Simulate Discontinue

Product to Parts Lookup

The screenshot shows a web browser window with the MillerKnoll Product Dashboard. The search bar contains the part number "0024343298" and the search button is labeled "Search". The user's email address "herman@millerknoll.com" is visible in the top right. The left sidebar contains the MillerKnoll logo and navigation options: "Product Lookup Tool", "> Product to Parts", and "Part to Products". The main content area displays "Results for '0024343298'" and a table with the following data:

Div	SupplierID	SupplierName	ItemID	Description	OnHand	RhythmAlloc	SupplyDifference
107	40081	ENDRIES INTERNATIONAL INC	0103/0015	1/8 DIA STEEL RIVET & MANDREL	14002	5679	
107	50029	MOLDING SOLUTIONS DBA SAC PLASTICS	0104/0167	LOCKBAR STOP	7537	4091	
107	88127	ROYAL TECHNOLOGIES CORPORATION	0105/0100	LEVELING FOOT ITW TALL	8	16222	16214
107	7150	HUDSON LOCK	0107/0185	LOCK BARREL TOPPER U/M	1247	3019	1772
107	9910	JIREH METAL PRODUCTS	0263/4070S	BLANK FOR 1513/4070S	207	848	641
107	40081	ENDRIES INTERNATIONAL INC	101/016	10-16*1/2 PH PAN #2 TEK-BLACK	0	122732	122732

Simulating Product Discontinuation

The screenshot shows a web browser window with the URL www.millerknoll.com/productdashboard. The page title is "Product Dashboard". The MillerKnoll logo is visible in the top left. A sidebar on the left contains navigation links: "Product Lookup Tool", "Product to Parts", and "Part to Products". The main content area is partially obscured by a modal window titled "Affected Components". The modal has a search bar labeled "Search for ItemID or Description" and a list of components with the following data:

ItemID	Description
0103/0015	1/8 DIA STEEL RIVET & MANDREL
0104/0167	LOCKBAR STOP
0105/0100	LEVELING FOOT ITW TALL
0107/0185	LOCK BARREL TOPPER U/M
0263/4070S	BLANK FOR 1513/4070S
101/016	10-16*1/2 PH PAN #2 TEK-BLACK
101/058	6-32*1/4 PH PAN-SEMS W/NYLOCK
107/074	ACTIVATING PIN (TOP LOCK)
1253/0107-9S	49.707*25.250*22 GA SMOOTH
1514/0012	RLFRM BASE TUBE 15*17.81*1.50

The modal also shows a "Simulate Discontinue" button at the bottom right. The background of the dashboard shows a product image and the email address herman@millerknoll.com.

Part to Products Lookup

MillerKnoll

Product Lookup Tool

Product to Parts

> Part to Products

Product Dashboard

www.millerknoll.com/productdashboard

0263/4070S Search herman@millerknoll.com

Results for "0263/4070S"

Component ID: 0263/4070S

Div	SupplierID	SupplierName	ItemID	Description	OnHand	RhythmAlloc	SupplyDifference	LastInvTr
107	9910	JIREH METAL PRODUCTS	0263/4070S	BLANK FOR 1513/4070S	207	848	641	2024-01-0

Used in Products: 2

ID	Description	ProjectID	Subcategory	Line	FinalOrderDate	FinalShipDate	Regions
0024343304	Standard-Pull Mobile Pedestal	NAG53X	Storage	K. Task	1707003708	1707413708	• EU • US
0024343298	Standard-Pull Freestanding Pedestal	NAG53X	Storage	K. Task	1707003708	1707413708	• US

What's left to do?

- Finish parsing Snowflake database
- Iterate on data visualization
- Integrate with company SSO (OneLogin)
- Interactive tooltips to walk users through each feature
- Set up DevOps and deploy to Vercel
- Stretch goal: Stock warning & supplier contact feature



Questions?

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