



Alpha Presentation

Intelligent Inventory and Recognition System

The Capstone Experience

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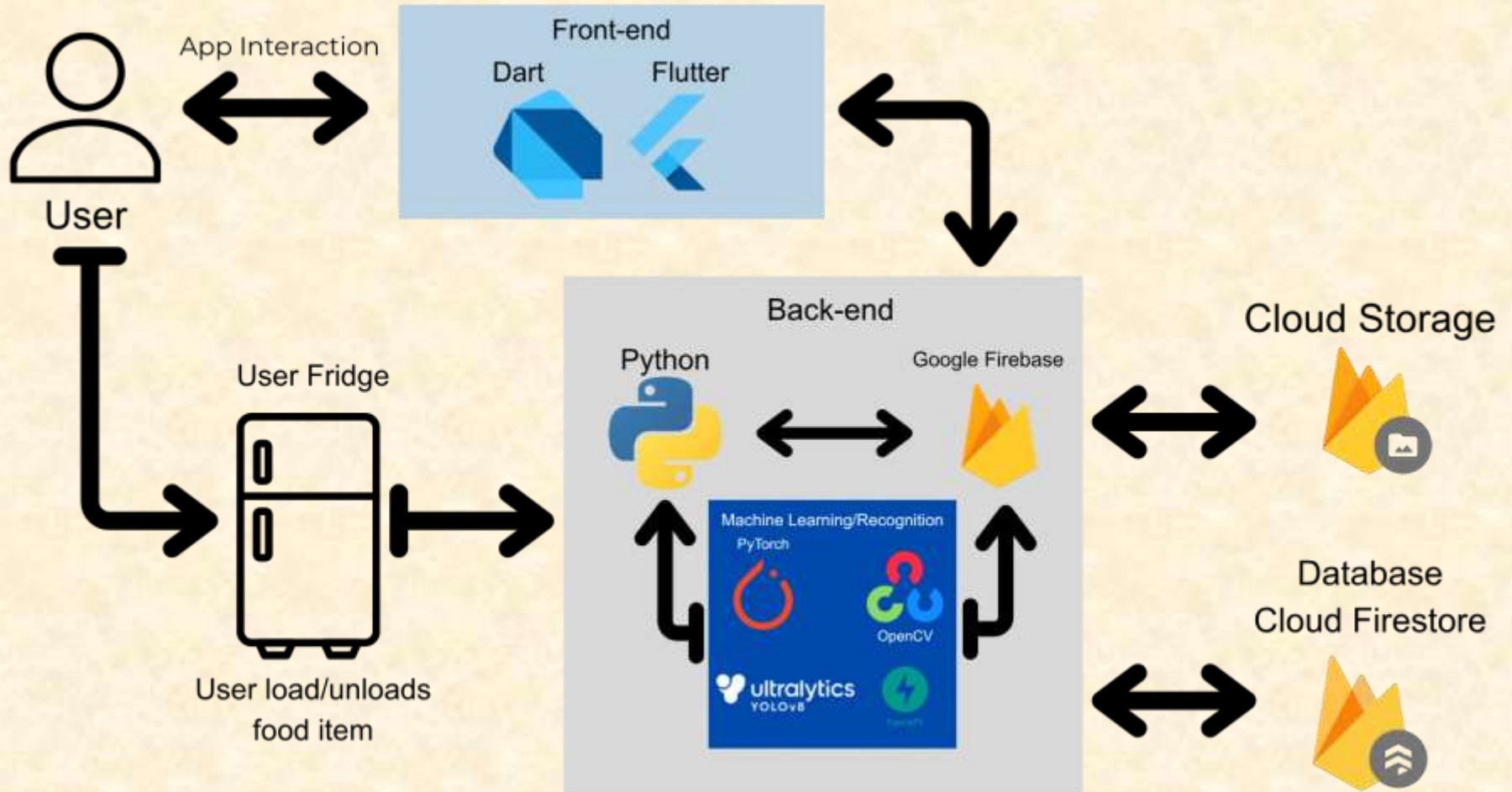
*From Students...
...to Professionals*

Project Overview

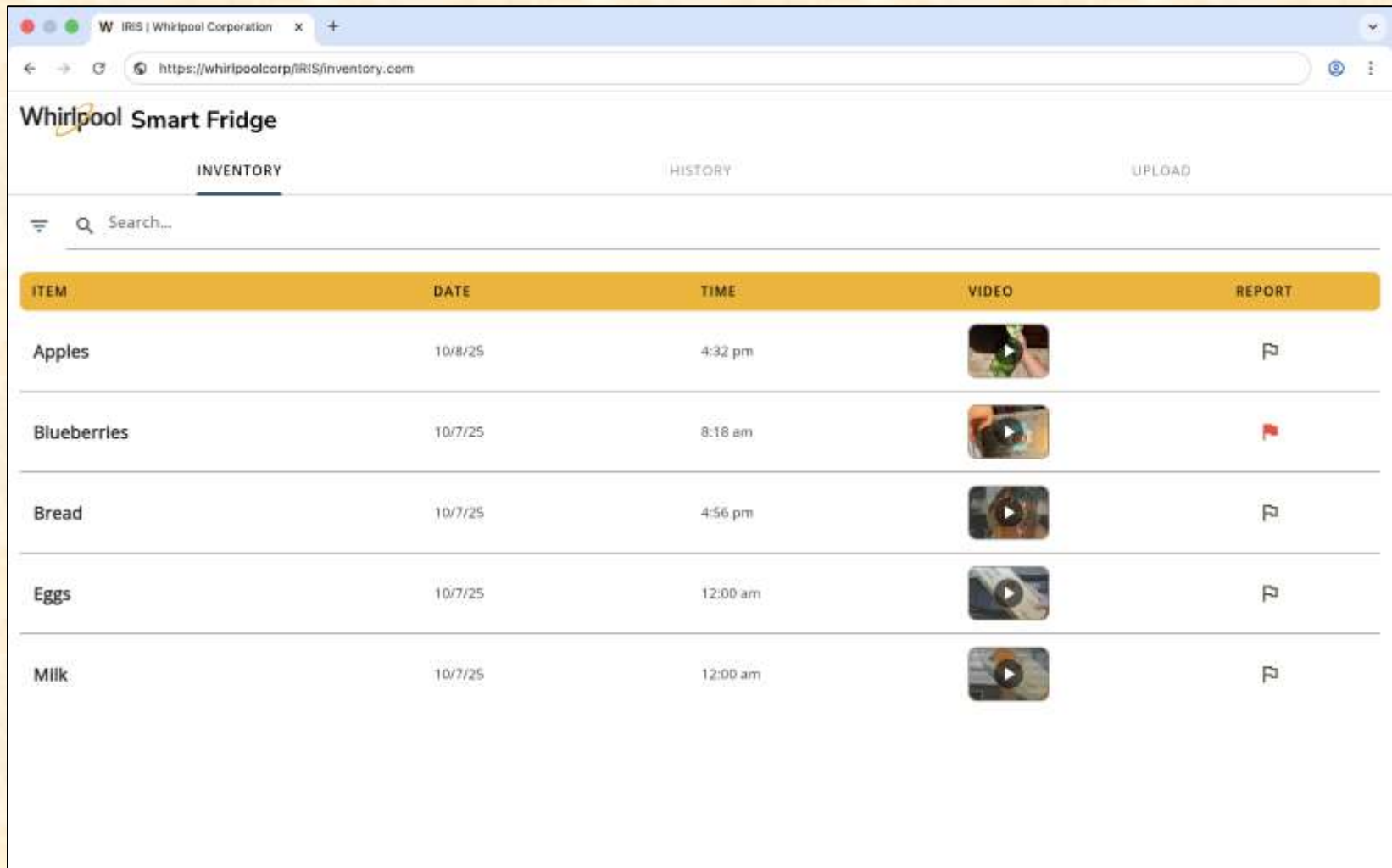
- Helps households avoid overbuying, reduce food waste, and meal plan
- Automatically recognizes and tracks groceries through live video feed
- Maintains a real-time digital inventory of fridge contents
- Designed to make everyday organization effortless and stress-free



System Architecture



Inventory Tab

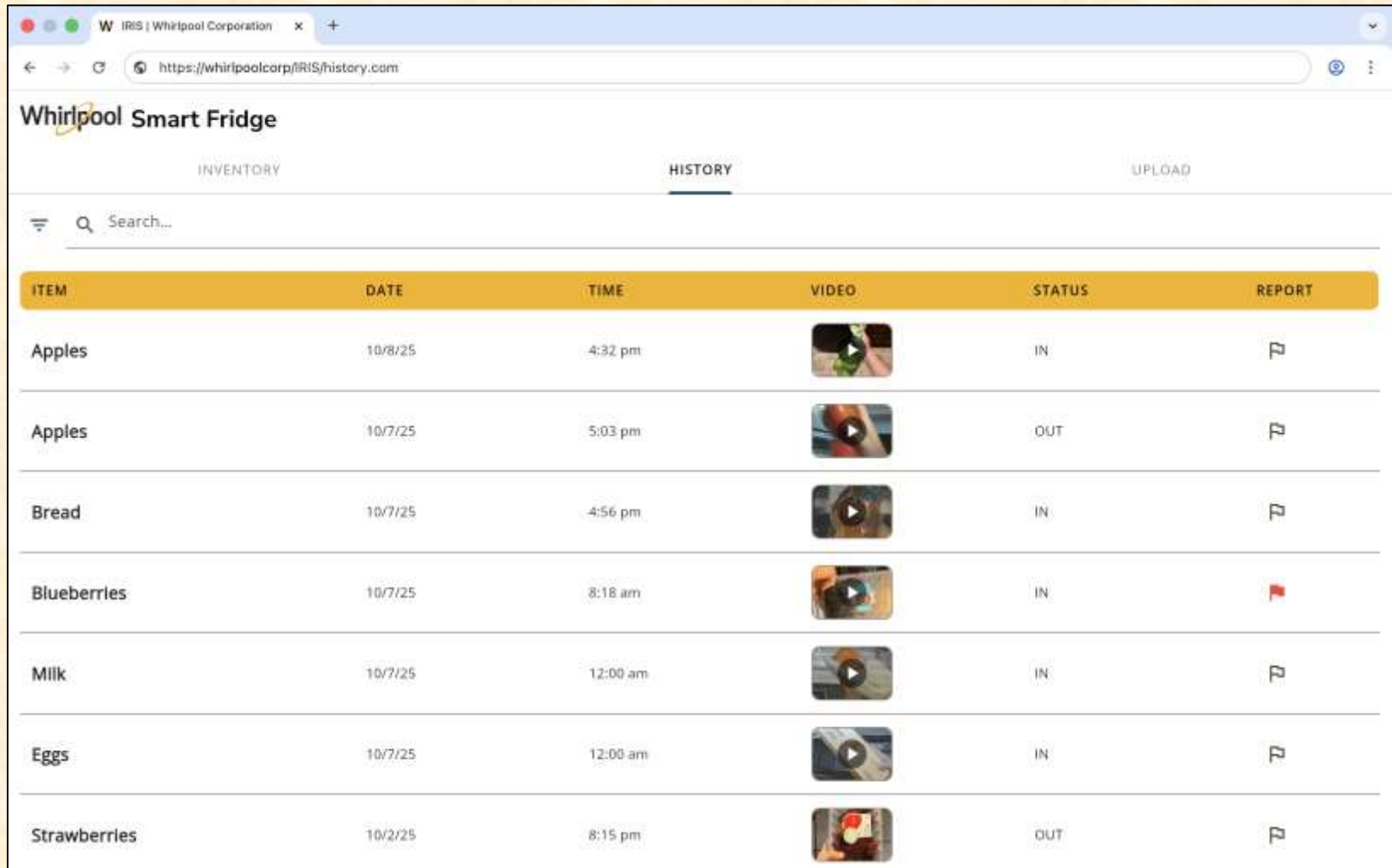


The screenshot shows a web browser window with the URL <https://whirlpoolcorp/IRIS/inventory.com>. The page title is "Whirlpool Smart Fridge". Below the title are three tabs: "INVENTORY" (selected), "HISTORY", and "UPLOAD". A search bar with a magnifying glass icon and the text "Search..." is located below the tabs. The main content area displays a table with five columns: "ITEM", "DATE", "TIME", "VIDEO", and "REPORT". The table contains five rows of data:

ITEM	DATE	TIME	VIDEO	REPORT
Apples	10/8/25	4:32 pm		
Blueberries	10/7/25	8:18 am		
Bread	10/7/25	4:56 pm		
Eggs	10/7/25	12:00 am		
Milk	10/7/25	12:00 am		



History Tab

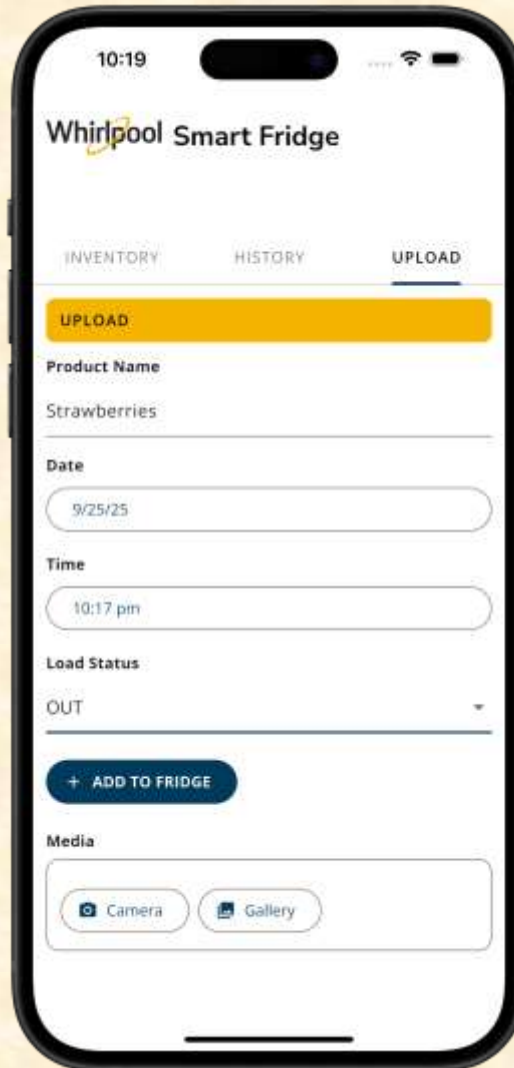


The screenshot shows a web browser window with the URL <https://whirlpoolcorp/IRIS/history.com>. The page title is "Whirlpool Smart Fridge". Below the title are three tabs: "INVENTORY", "HISTORY" (which is selected and underlined), and "UPLOAD". A search bar with a magnifying glass icon and the text "Search..." is located below the tabs. The main content area is a table with the following columns: ITEM, DATE, TIME, VIDEO, STATUS, and REPORT. The table contains seven rows of data, each representing a food item with its corresponding date, time, a video thumbnail, status, and a report icon.

ITEM	DATE	TIME	VIDEO	STATUS	REPORT
Apples	10/8/25	4:32 pm		IN	
Apples	10/7/25	5:03 pm		OUT	
Bread	10/7/25	4:56 pm		IN	
Blueberries	10/7/25	8:18 am		IN	
Milk	10/7/25	12:00 am		IN	
Eggs	10/7/25	12:00 am		IN	
Strawberries	10/2/25	8:15 pm		OUT	



Upload Tab



10:19

Whirlpool Smart Fridge

INVENTORY HISTORY **UPLOAD**

UPLOAD

Product Name
Strawberries

Date
9/25/25

Time
10:17 pm

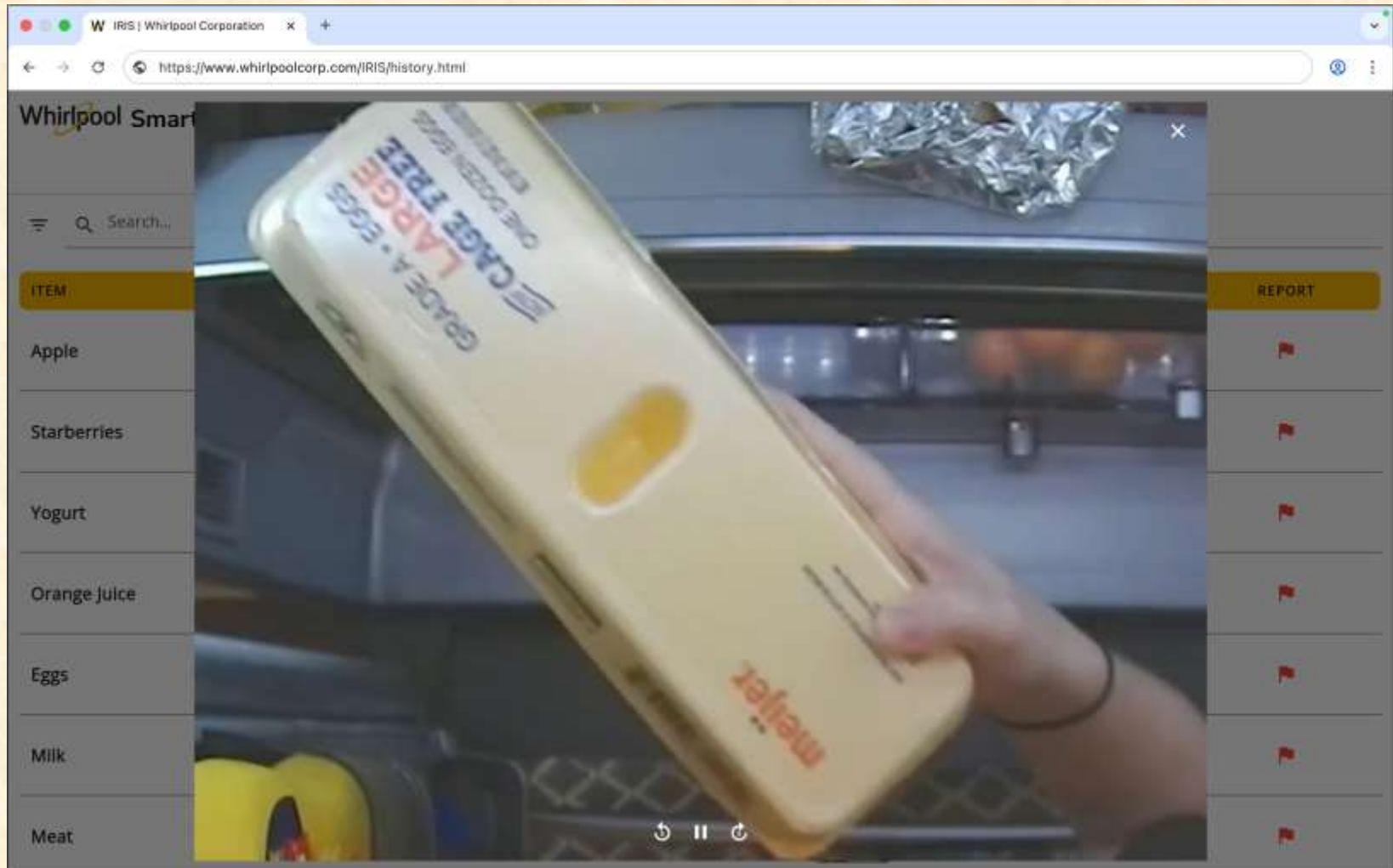
Load Status
OUT

+ ADD TO FRIDGE

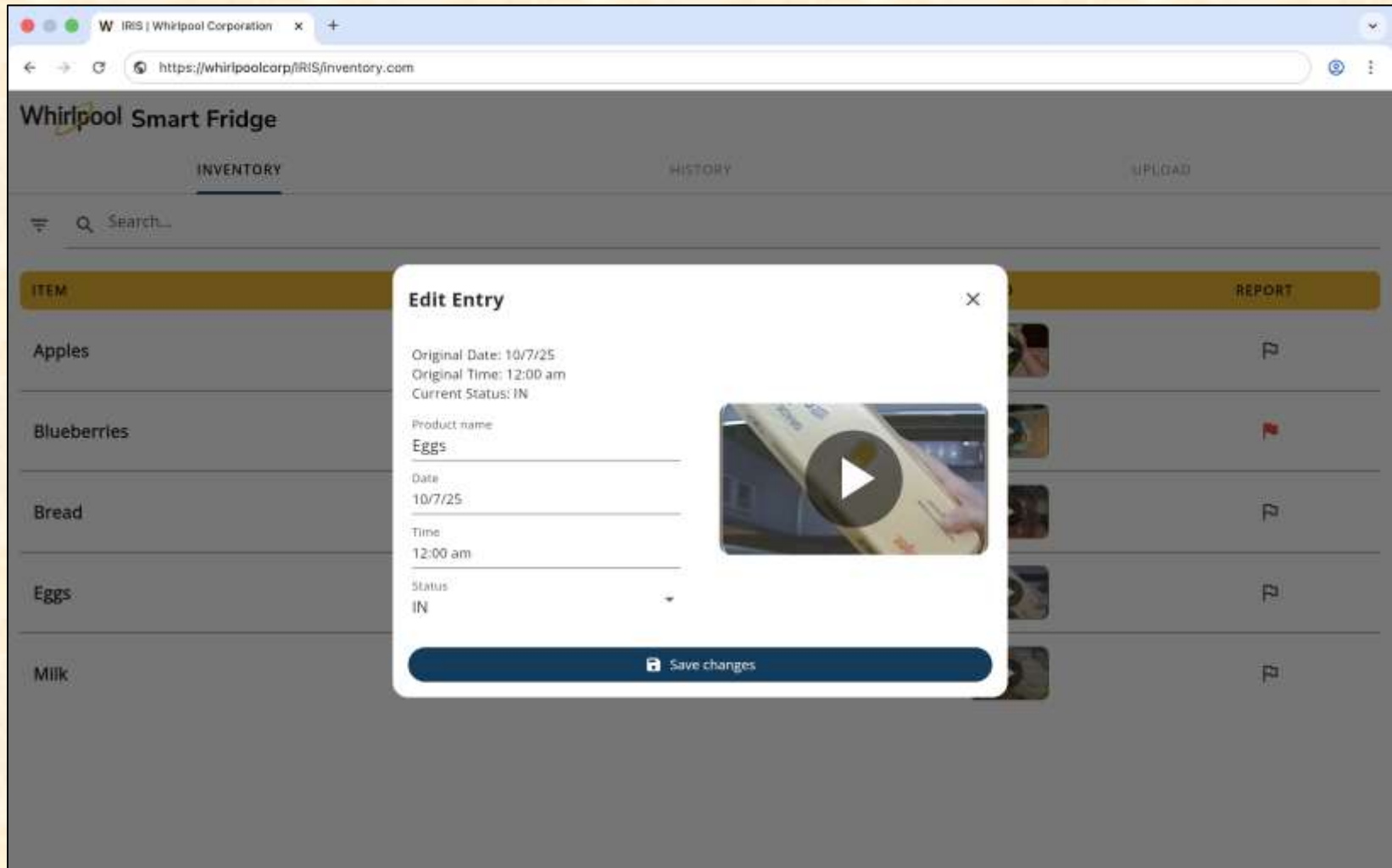
Media
Camera Gallery



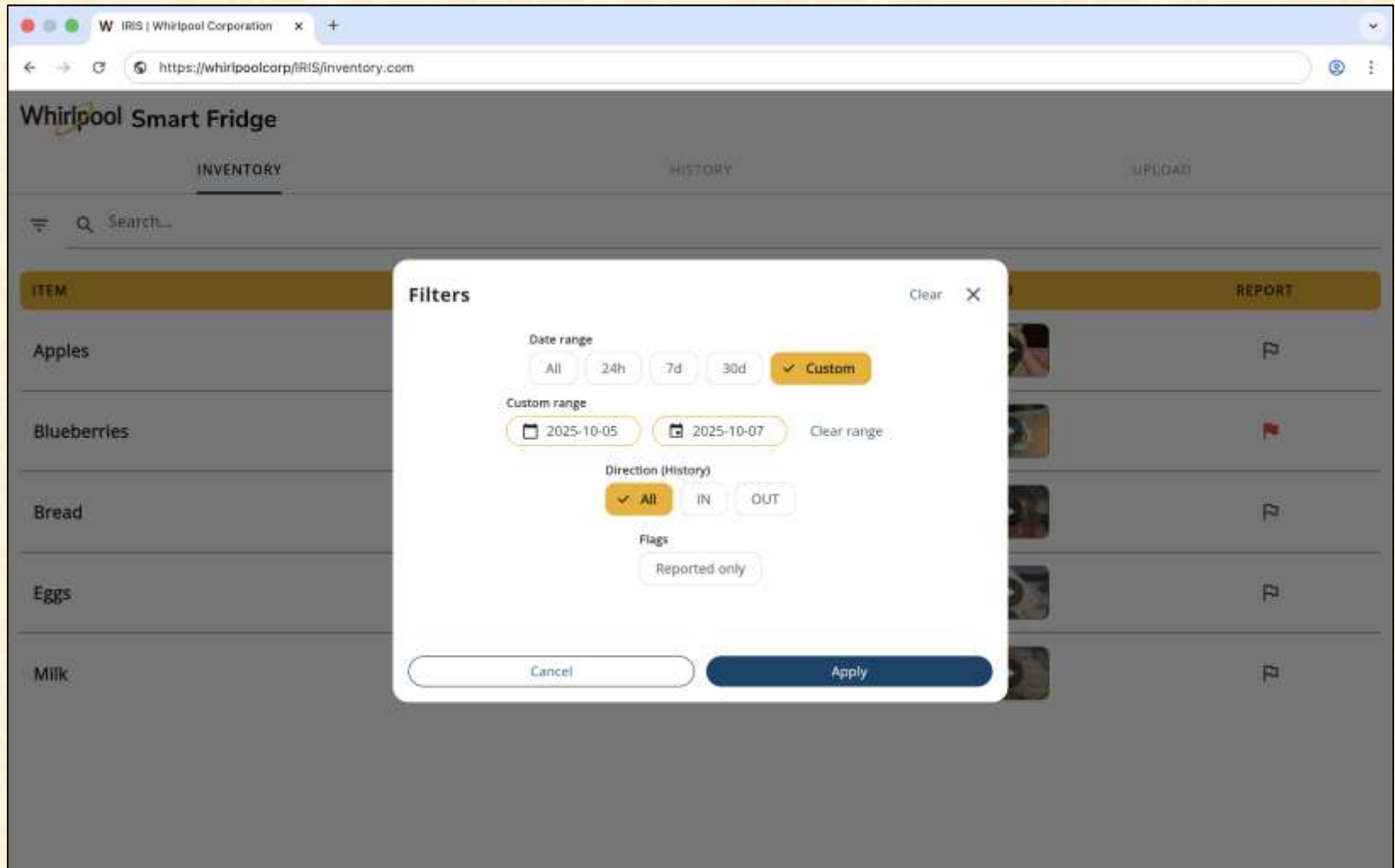
Video Playback



Edit Entry/Report



Filter



What's left to do?

- Display quantity of detected items
- Refine model to recognize more specific items
- Implement error grouping and admin management tools
- Handle edge cases (reorganizing, fridge door...)
- Expand filtering and sorting options
- Integrate AI detection on user uploaded media
- Better format UI between mobile and web



Questions?

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