

INTERMEDIATE PRESENTATION ON HOSPITAL PROJECT

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AUTOMATED TRACKING OF CONSUMABLES

DESCRIPTION

- Context:

An IVF lab with more than 5000 cycles per year which made them use a lot of culture media, consumables, etc. Nice logistics team made up of 4 persons that keep track what goes in and out. But all these are still performed on paper. Orders of consumables are made based on what goes in and out.

- Objectives:

Facilitate the workflow for consumables and media that go in the laboratory; Creating an automated list of consumables that should come from the basement to the lab; Automated tracking in use and automated assignment of consumables that need to be ordered.

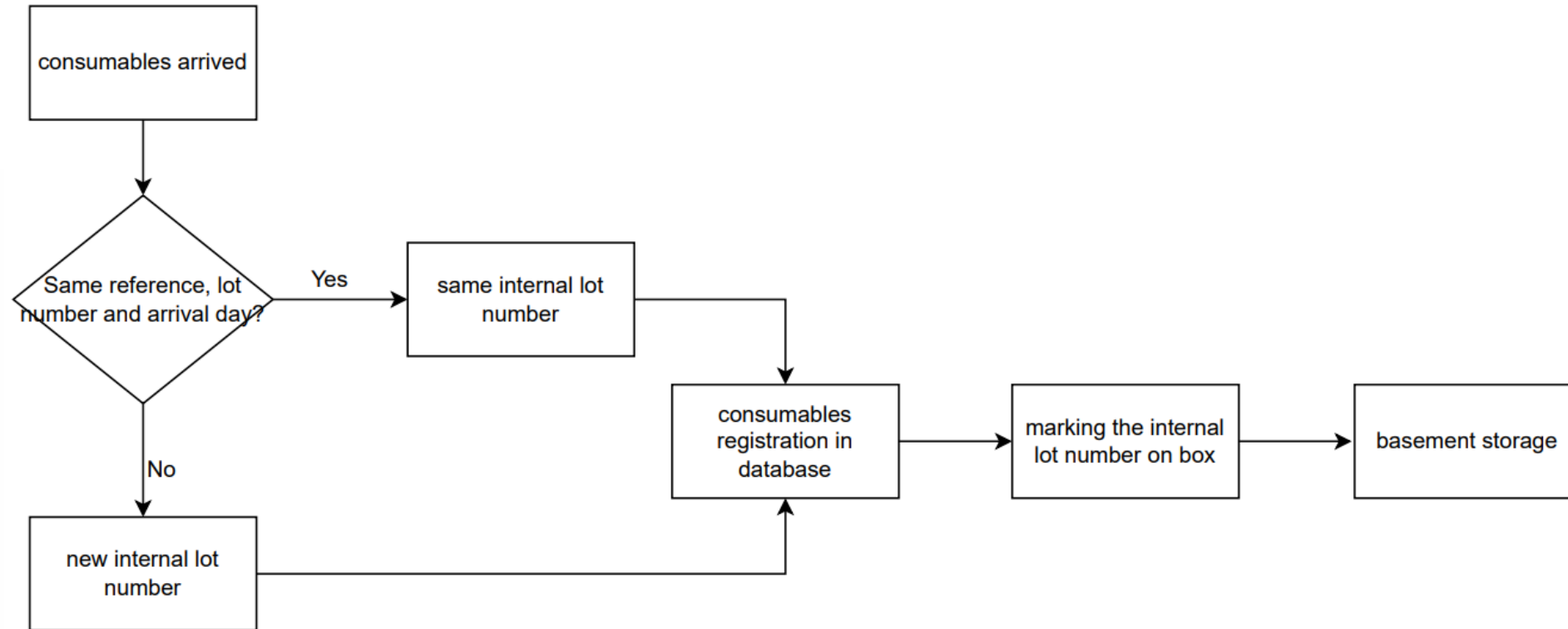
- Deliverables:

Mapping the current situation; Propose a plan for optimisation; Test a plan for optimisation; If possible: apply a new structure/plan

ANALYSIS OF THE PROJECT

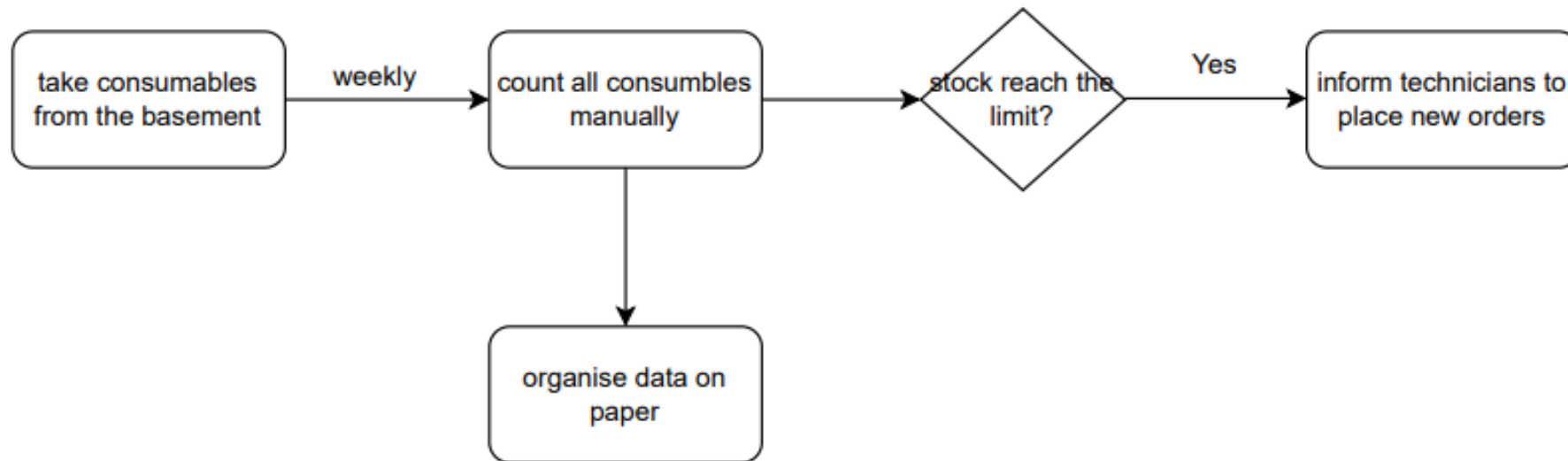
AUTOMATED TRACKING OF CONSUMABLES

CURRENT WORKFLOW



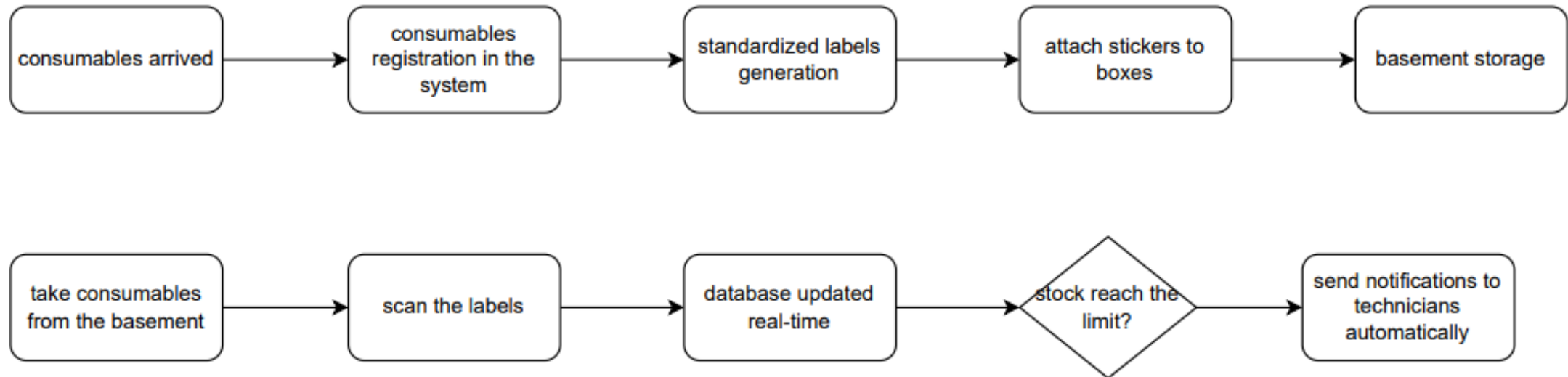
AUTOMATED TRACKING OF CONSUMABLES

CURRENT WORKFLOW



AUTOMATED TRACKING OF CONSUMABLES

EXPECTED WORKFLOW



AUTOMATED TRACKING OF CONSUMABLES

INVENTORY MANAGEMENT SOFTWARE IN THE MARKET



Pros: mature, multi-functional

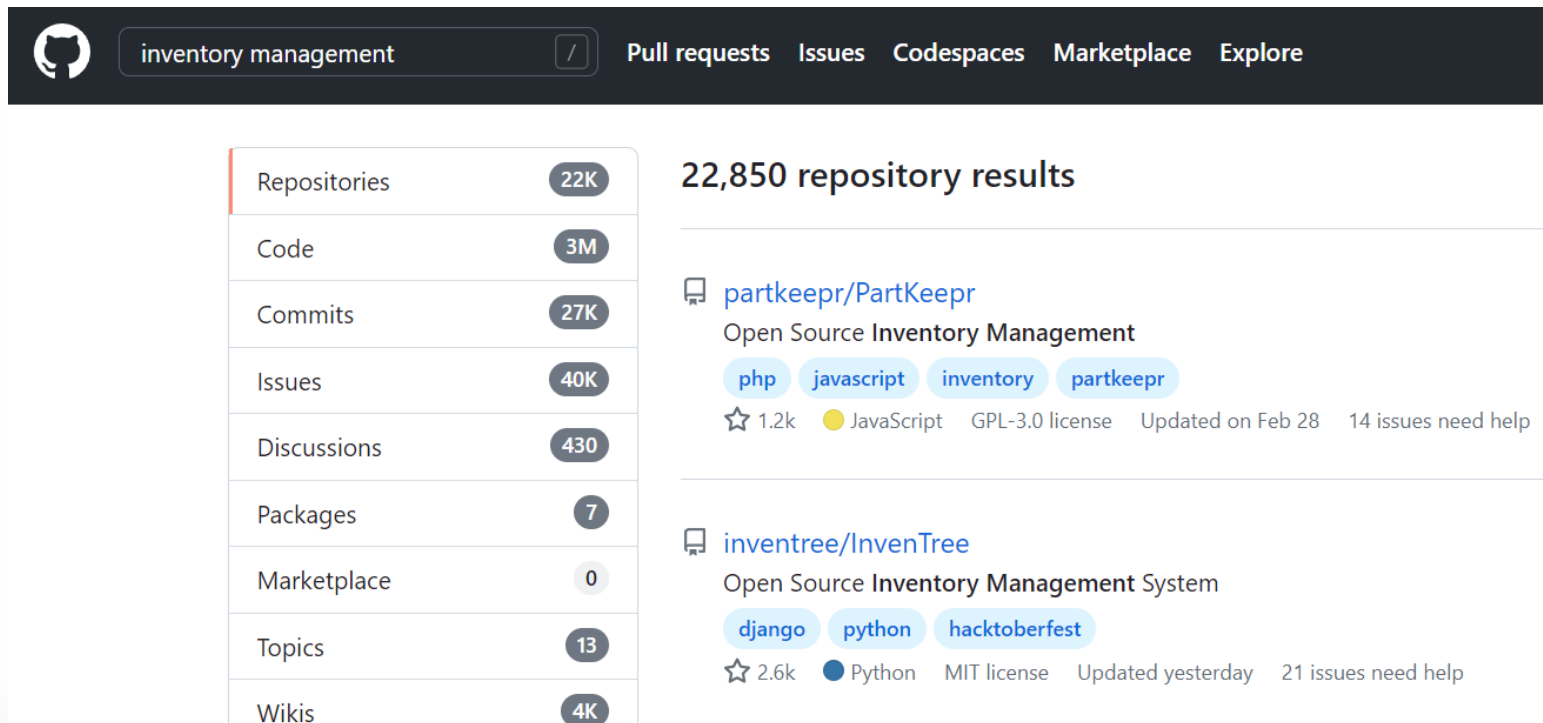
Cons: paid, not customized, unrequired functions, not user-friendly

PROPOSAL OF APPROACH

AUTOMATED TRACKING OF CONSUMABLES

PROPOSAL OF APPROACH

Search for an existing project (web application) on GitHub, modify the code according to needs



The screenshot shows the GitHub search interface with the query 'inventory management'. The left sidebar displays navigation links: Repositories (22K), Code (3M), Commits (27K), Issues (40K), Discussions (430), Packages (7), Marketplace (0), Topics (13), and Wikis (4K). The main content area shows 22,850 repository results. The top two results are:

- partkeepr/PartKeepr**: Open Source Inventory Management. Technologies: php, javascript, inventory, partkeepr. 1.2k stars, JavaScript, GPL-3.0 license, Updated on Feb 28, 14 issues need help.
- inventree/InvenTree**: Open Source Inventory Management System. Technologies: django, python, hacktoberfest. 2.6k stars, Python, MIT license, Updated yesterday, 21 issues need help.

AUTOMATED TRACKING OF CONSUMABLES

PROPOSAL OF APPROACH

Examples: GreaterWMS



Back-end: Django, Node.js

Front-end: Vue.js

AUTOMATED TRACKING OF CONSUMABLES

PROPOSAL OF APPROACH

Examples: GreaterWMS

The screenshot displays the GreaterWMS web application. On the left is a sidebar menu with options: Dashboard, Inbound, Outbound, Inventory, Finance, GoodsList (selected), Base Info, Warehouse, Staff, Driver, Upload Center, and Download Center. The main area features a top navigation bar with icons for GOODS LIST, UNIT, CLASS, COLOR, BRAND, SHAPE, SPECS, and ORIGIN. Below this is a table with columns: Goods Code, Goods Desc, Goods Width(Unit:mm), Goods Depth(Unit:mm), Goods Height, and Action. A modal window is open over the table, showing details for Goods Code: A000041, including a QR code and a 'PRINT' button. The table data includes rows for various goods codes and their dimensions. At the bottom, it says 'NO MORE DATA' and has a 'vConsole' button.

Goods Code	Goods Desc	Goods Width(Unit:mm)	Goods Depth(Unit:mm)	Goods Height	Action
A000041	Goods Desc-41	9.9	51.68	618.3	[Print] [Edit] [Delete]
A000040	Goods Desc-40	9.9	728.72	736.7	[Print] [Edit] [Delete]
A000039	Goods Desc-39	8.29	100.13	480.7	[Print] [Edit] [Delete]
A000038	Goods Desc-38	3.92	63.48	46.5	[Print] [Edit] [Delete]
A000037	Goods Desc-37	930.09	874.1	863.1	[Print] [Edit] [Delete]
A000036	Goods Desc-36	645.67	467.46	614	[Print] [Edit] [Delete]

- Supplier Management
- Customer Management
- **Scanner PDA** ✓
- Cycle Count
- Order Management
- **Stock Control** ✓
- Safety Stock Show
- API Documents
- IOS APP Support
- Android APP Support
- Electron APP Support
- Auto Update
- i18n Support

AUTOMATED TRACKING OF CONSUMABLES

DATABASE DESIGN

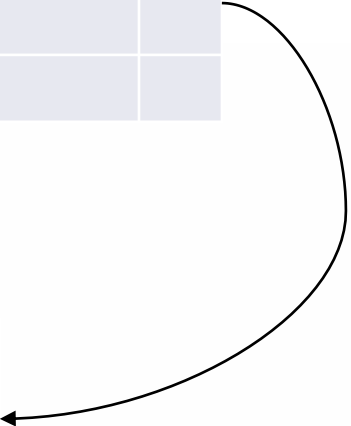
class	name	company	reference	lot	internal lot	arrival date	date in use	expiry date	num

Sheet 1 inventory records

class	name	company	reference	min	num

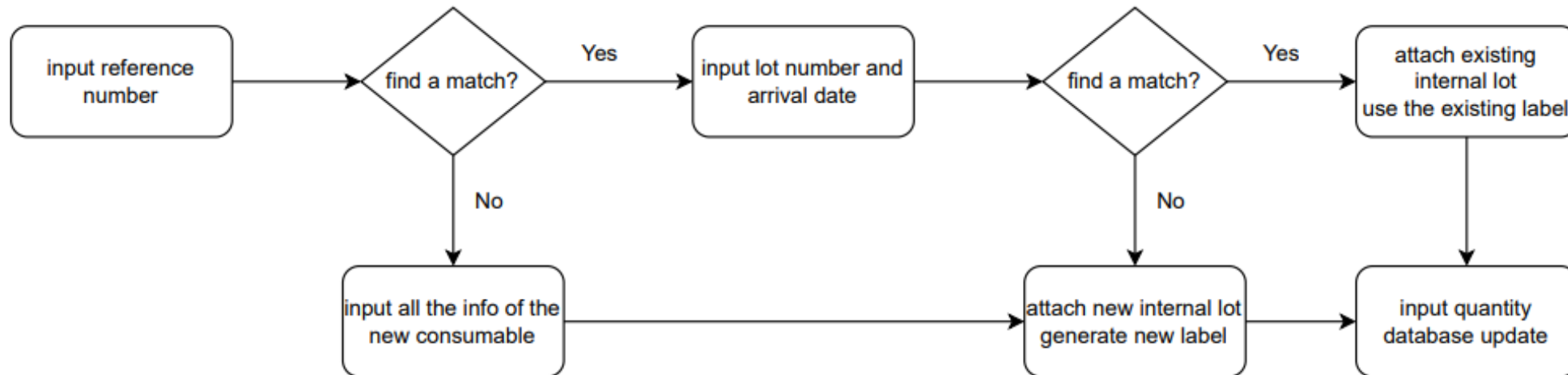
Sheet 2 goods list

COUNT num
GROUP BY
company, reference



AUTOMATED TRACKING OF CONSUMABLES

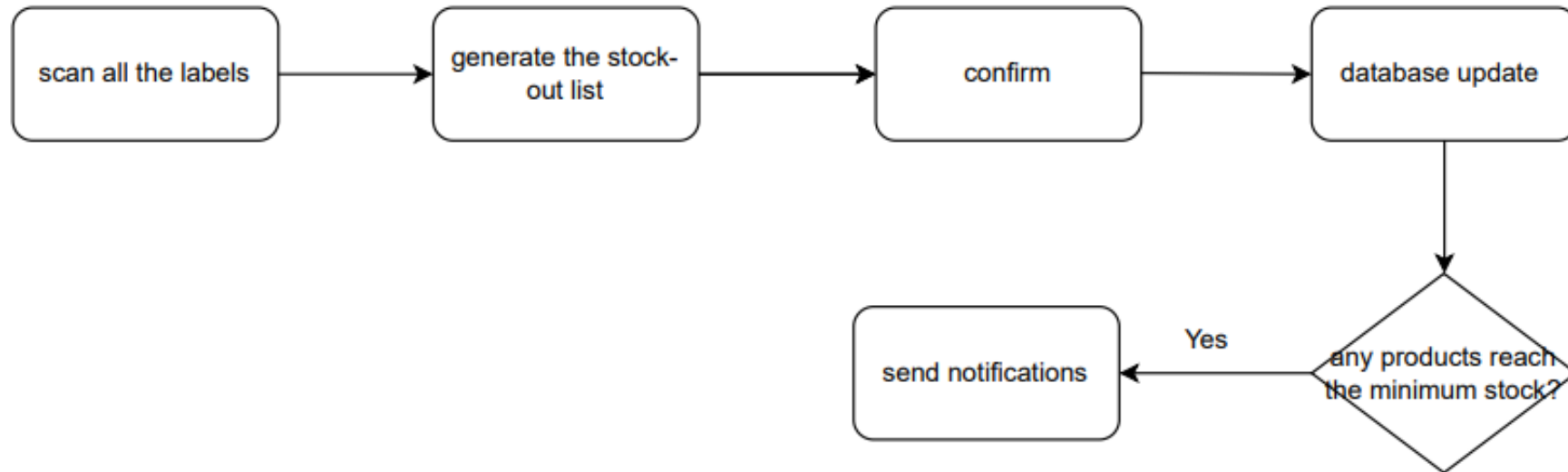
PROCESS OF STOCK-IN



Pros: take advantage of existing records, decrease the need of input all the product information manually every time.

AUTOMATED TRACKING OF CONSUMABLES

PROCESS OF STOCK-OUT



AUTOMATED TRACKING OF CONSUMABLES

PROS AND CONS

Pros:

- Highly customized
- Free

Cons:

- Complicated installment and launch through terminal