OPERATIONS / WORKFLOW AUTOMATION

POS Maintenance Automation

Turning maintenance know-how into a structured Telegram workflow.

A practical system for device registration, repeat-entry checks, controlled exceptions and operational reporting.

FROM DEVICE INPUT TO MANAGEMENT VISIBILITY

01	>	02	>	03
CAPTURE		**CONTROL**		**REPORT**
Serial + fault		Checks + review		Records + exports

MOHAMED FATHY

POS Maintenance Department Manager
Operations improvement & AI-assisted software development

PROJECT CASE STUDY / PUBLIC EDITION / NOVEMBER 2026

01 / THE OPERATIONAL CHALLENGE

The repair was only part of the workflow.

Each device also needed a reliable record: who handled it, what was reported, whether it had appeared before, and how it should enter the daily report.

WORKFLOW FRICTION	DESIGN RESPONSE
Repeated record handling	Structured serial and fault capture
Manual history checks	Rule-based repeat-entry validation
Exceptions handled separately	A controlled review path
Reports assembled from records	Spreadsheet-based operational exports

WHY MY BACKGROUND MATTERED

As a POS maintenance manager, I could translate technician routines, supervision needs and recurring administrative friction into practical workflow requirements.

02 / HOW THE WORKFLOW FITS TOGETHER

Capture consistently.
Review exceptions deliberately.

Telegram provides the interaction layer; structured records connect day-to-day technician activity with operational follow-up.

01

Capture the device

Serial-number entry and fault capture, with barcode/photo-assisted input where supported.

02

Check the record

Validate the input and check repeat-entry conditions before routine registration continues.

03

Handle the exception

Keep rule exceptions and sensitive actions subject to the appropriate review and permissions.

04

Make the work visible

Search maintenance history and produce spreadsheet outputs for technician and management follow-up.

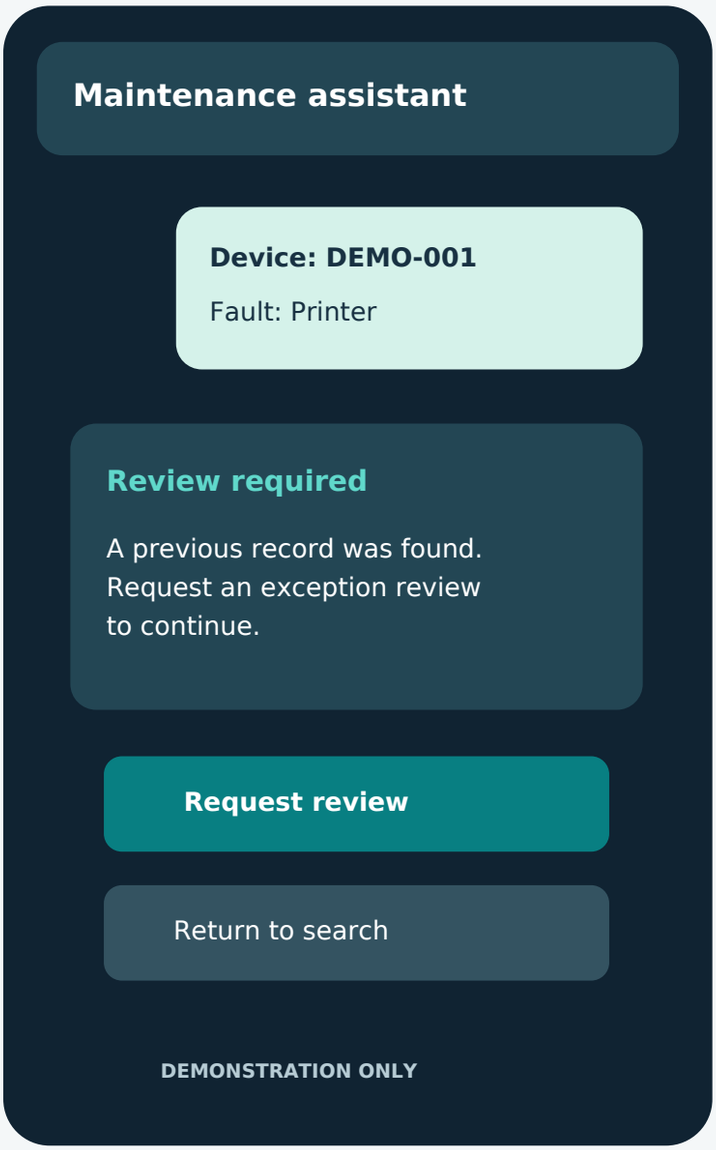
ENGINEERING PRIORITIES

Usability for technicians. Consistent records. Controlled access.
Iterative improvements that preserve existing workflows.

03 / A CONCRETE WALKTHROUGH

One device.
A visible decision path.

Illustrative reconstruction - synthetic data, not a production screenshot.



A Structured input

Device and fault information are captured together.

B Explain the decision

The user sees why the routine path cannot continue.

C Keep people in control

An exception has a review path instead of silently bypassing the rule.

The visual explains the interaction pattern. Labels and layout are simplified; they do not reproduce the live bot interface.

04 / MY CONTRIBUTION & THE VALUE DELIVERED

Operational insight. Practical implementation.

MY RESPONSIBILITIES

01 Define the problem

Mapped administrative bottlenecks and translated them into workflow requirements.

02 Build and refine

Developed the automation with AI assistance and coordinated real-world testing.

03 Improve with users

Used technician and supervisor feedback to refine usability and preserve working behavior.

OPERATIONAL VALUE

Structured registration / Traceable history
Controlled exceptions / Exportable reporting

These are workflow capabilities. Time savings, error reduction and financial returns are not quantified in this edition.

Publication note. This case study reflects project-owner descriptions and the supplied portfolio. It is not an independent production audit. The example on page 4 is synthetic. Employer-confidential records, credentials and production screenshots are excluded; no employer endorsement is implied.

LET'S DISCUSS PRACTICAL AUTOMATION

Contact Mohamed Fathy via the LinkedIn profile hosting this portfolio.