Ticket Request Manager – Documentation

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1. Project Overview

Ticket Request Manager is a solution built on Microsoft Power Platform that streamlines the submission and tracking of tickets. The basic version enables ticket submission via a Power Apps form, data storage in SharePoint, automated notifications and updates through Power Automate, and data analysis in Power BI.

2. Scope of the Current Version

The following functionalities are available in this version:

• Ticket submission form in Power Apps (Create) with automatic generation of a Ticket ID (e.g., INC000000123).

• Dashboard screen for viewing user-specific tickets (with search and filter options).

• Automatic setting of the Finished Date upon changing the ticket status to Completed via a Flow.

• Email notifications (e.g., upon ticket completion).

• Done=Yes flag to prevent multiple actions on completed tickets.

• "Show stats" button in Power Apps to open a Power BI report (or a Power BI tile on the Performance screen).

3. Solution Architecture

• SharePoint: Ticket list (primary data source).

• Power Apps (Canvas): User interface for creating and viewing tickets.

• Power Automate: Two flows: New Request Notification and Completion (sets Finished Date and sends email).

• Power BI: Report with KPIs (ticket statuses, trends, average completion time).

4. Data Structure (SharePoint)

Key columns:

• Ticket ID (Single line of text): Unique ticket identifier generated upon submission.

• Title, Description: Ticket description.

• Priority (Choice: Low/Medium/High).

• Status (Choice: New/In Progress/On Hold/Completed).

• Request Date (Date/Time).

• Requested For (Person or text) + (optional) Requested For Email.

• Location (Text).

• Attachments (Built-in).

• Finished Date (Date/Time).

• Done (Yes/No): Prevents multiple actions on completed tickets.

Note: The Assigned To column (responsible person) can be added in a future iteration – see Section 7.

5. Power Automate – Flows

• Flow A – New Request Notification: Triggered by "When an item is created." Sends an email for new tickets (optionally refreshes the Power BI dataset).

• Flow B – Complete & Close: Triggered by "When an item is modified." Condition: Status=Completed AND Done=No. Actions: Update item → Set Finished Date=utcNow(), Done=Yes; send email to the requester; (optionally) refresh Power BI dataset.

Best Practice: Create a separate flow for refreshing the KPI report, e.g., every 30 minutes.

6. Power BI – Report

KPIs: Total Tickets, Tickets Completed, Active Tickets, Avg. Completion (Days).

Visualizations: Requests by Status, Requests by Priority, Requests Over Time, detailed table with Ticket ID and completion time.

Integration with Power Apps: "Show stats" button (launches the report) or a Power BI tile on the Performance screen.

7. Roadmap (Planned Enhancements – Not Implemented)

• Login screen and roles (Admin/User): Admins see all tickets; users see only their own.

• Assigned To (Person): SharePoint column with assignment logic and notifications for the responsible person.

• Ticket editing by the requester within a specific time/status window (e.g., before the ticket is accepted).

• Comments/change history (audit): Stored in a SharePoint list or a separate Dataverse table.

• SLA and escalations: Reminders for overdue tickets.

• Dataverse + Model-driven App for greater scalability and record-level security.

• AI (Copilot/AI Builder): Ticket categorization and solution suggestions.

8. Security and Permissions

Current State (Implemented):

• SharePoint list permissions (item-level): Users can view/edit only their own tickets; the operations team has full permissions.

• Limited user-side editing: Users cannot modify the status of others' tickets.

Recommendations (Planned):

• Role-based access using Azure AD/Security Groups (Admin/User).

• Power Platform DLP policies and separate dev/test/prod environments.

• PII verification and archiving of completed tickets.

9. Case Study: Customer Data Verification Team (Current: Basic Version)

The Customer Data Verification Team receives requests from employees to update data (e.g., name changes, address updates, document additions). Previously, requests were sent via email, often getting lost, with unclear statuses.

With Ticket Request Manager, requesters submit a standardized Power Apps form. Tickets are stored in a SharePoint list and visible to the requester on the Dashboard screen. Upon changing the status to Completed, the system automatically sets the Finished Date and sends an email notification.

Added Value in the Basic Version:

• Single source of truth for tickets (no email chaos).

• Transparency: Requesters can view their tickets and statuses.

• Standardized data: Fewer errors and misunderstandings.

• Insight into metrics: Power BI report (statuses, times, trends).

Potential Enhancements (Example for This Team): Add an "Assigned To" (Person) column and a "Work Queue" screen for operations to assign tickets to specific individuals and measure workload. This feature is not yet implemented.

10. Implementation Guide (Summary)

1) SharePoint: Create a list as per Section 4 (with columns like Ticket ID, Finished Date, Done).

2) Power Apps: Connect the list, configure NewForm + OnSuccess (generate Ticket ID), add Dashboard.

3) Power Automate: Create Flow A (new ticket notification) and Flow B (Completed → set Finished Date, Done=Yes, send email).

4) Power BI: Connect the list, add KPIs and charts, set sorting for statuses and month names.

5) (Optional) Add a Refresh dataset action or schedule in Power BI Service.

11. Benefits of Implementation

• Automated Notifications: No need for manual updates to requesters.

• Improved Priority Management: High-priority tasks are immediately visible (Priority: High).

• Centralized Data: All tickets, statuses, and history in one tool, accessible from anywhere.

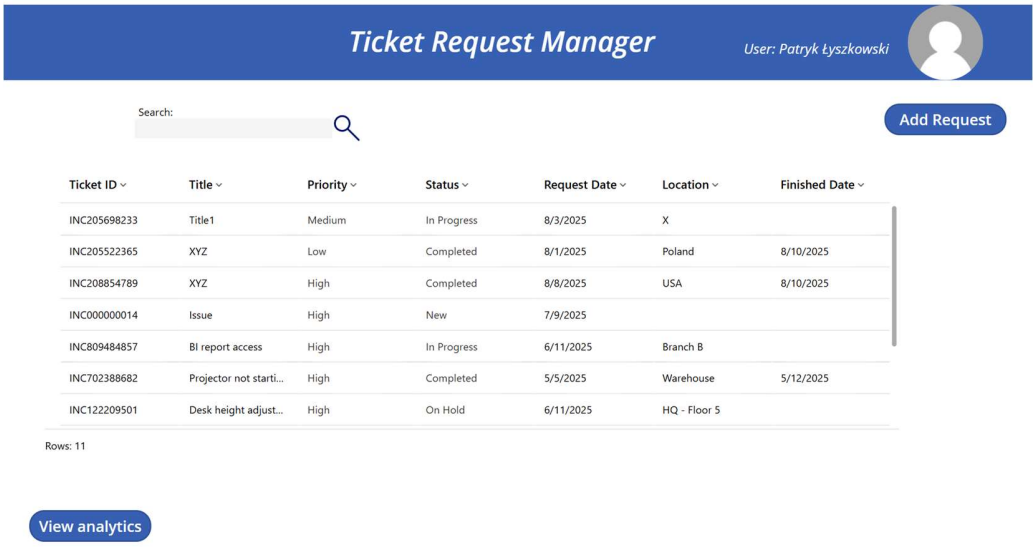
• Faster Response Times: Operations team has quick access to new tickets.

• Scalability: Easy to add new fields, processes, and integrations in the future.

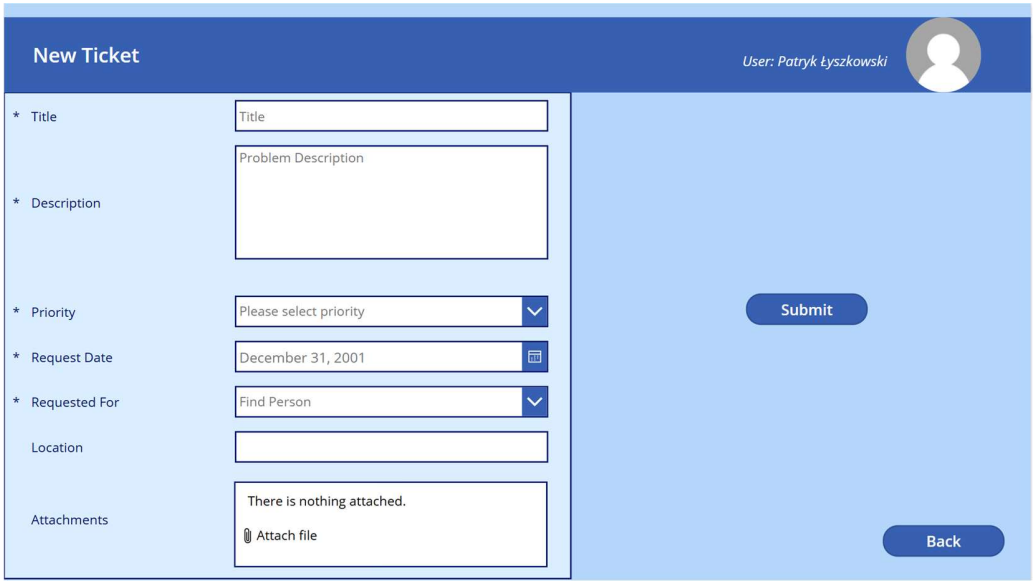
• Real-Time Reporting: Power BI provides up-to-date data without manual report generation.

Screenshots

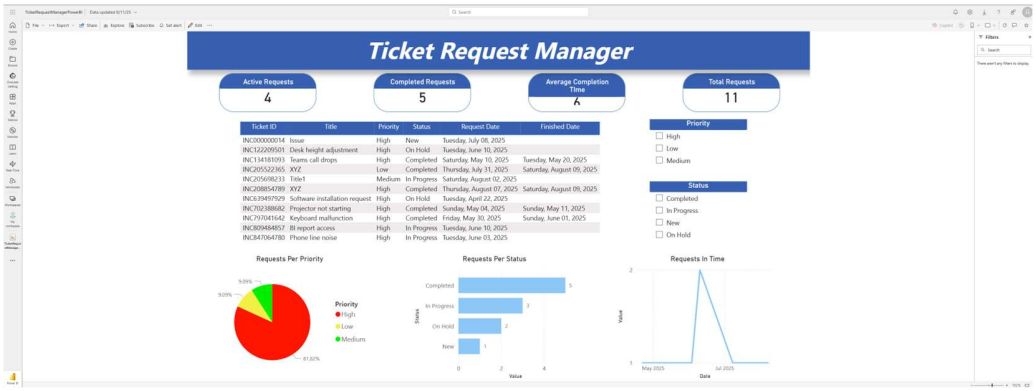
• SharePoint List



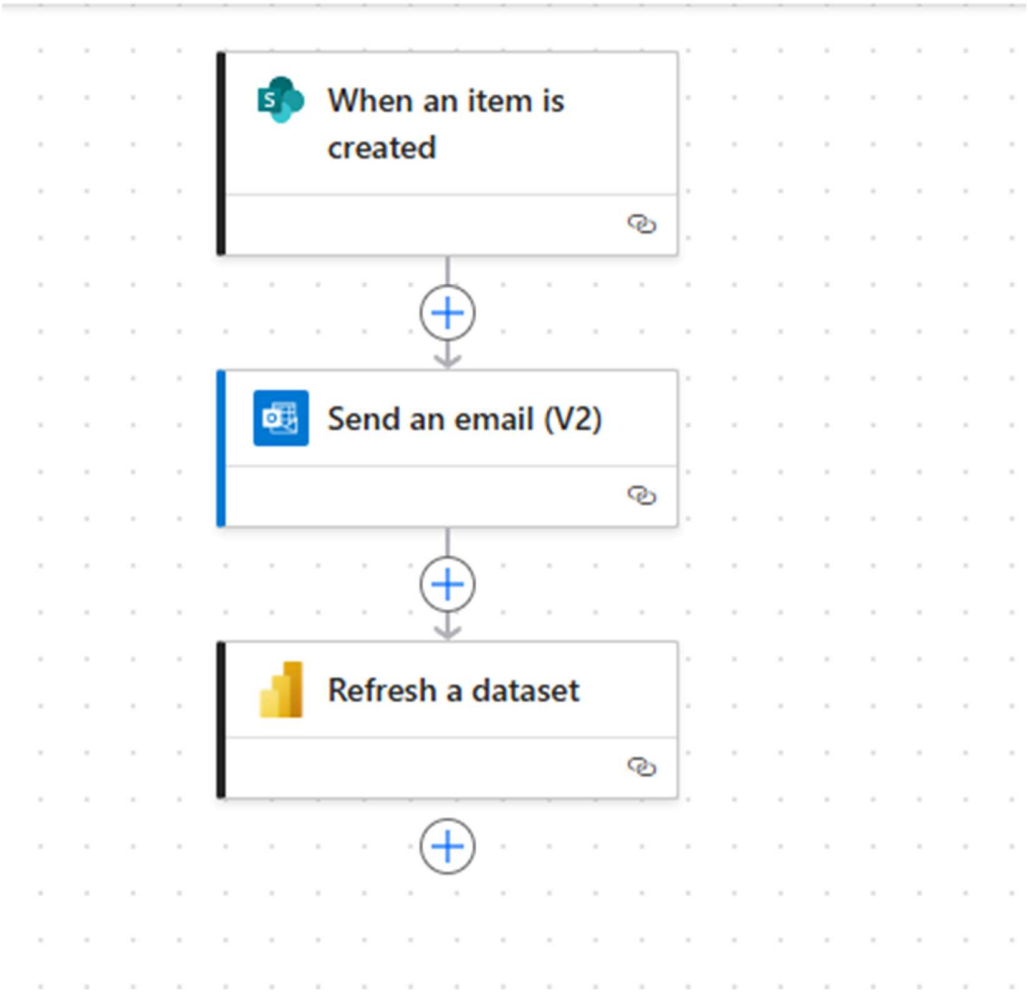
• Power Apps – Main Application Window



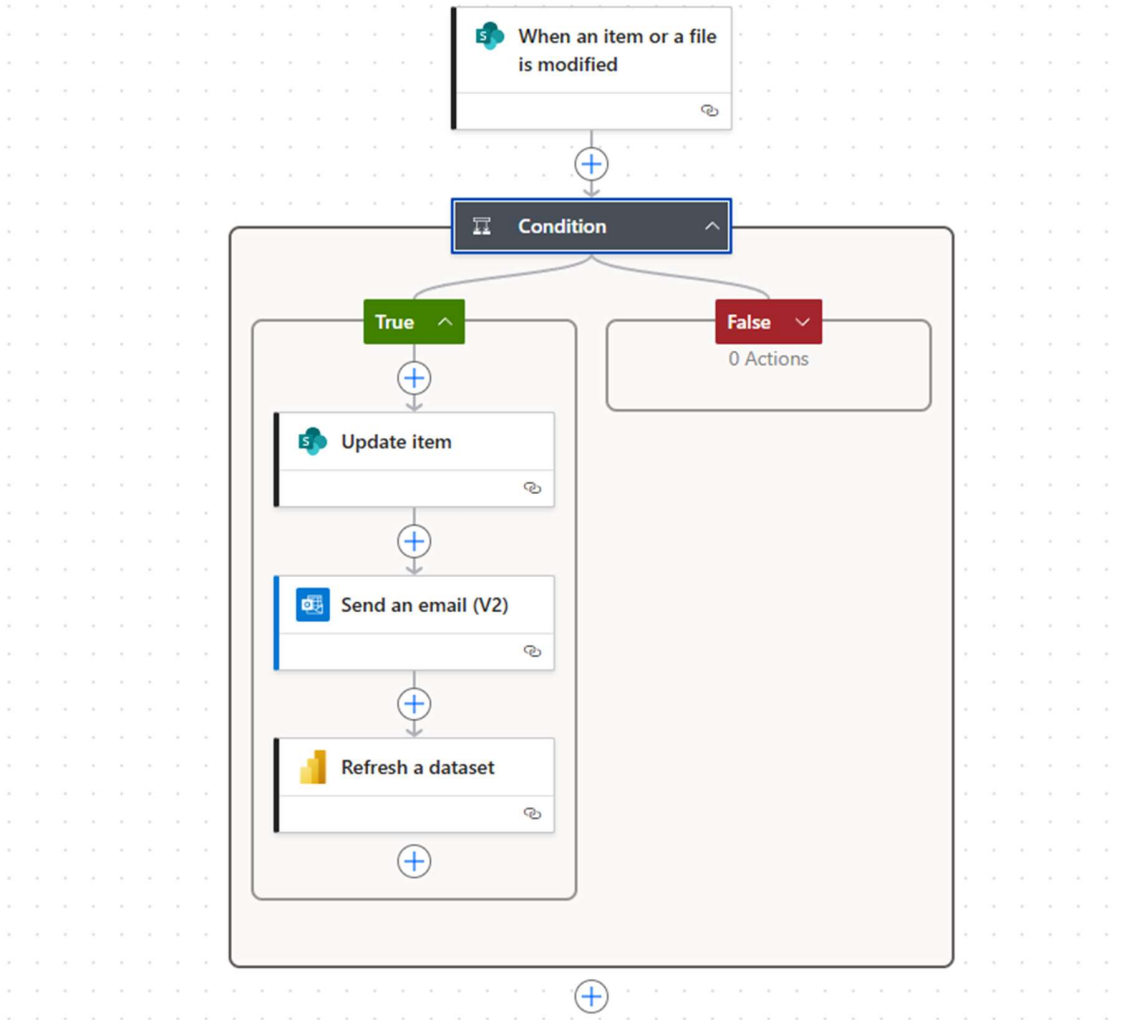
• Power Apps – Form



• Power BI – KPI Statistics



• Power Automate Flow – New Form



- Power Automate Flow – Task Completion