Project 1: Optimizing the Internal Data Request Tracking System Using Power Apps and SharePoint– *York Region*

Project Summary

During my Co-op at the Regional Municipality of York, I led the redesign of the internal data request tracking system used by several business units in the organization. The previous Excel/email-based process caused delays and lacked visibility. I designed and built a **Power Apps** solution integrated with **SharePoint**, enabling real-time tracking, streamlined approvals, and centralized data collection.

- **Role:** Data & Analytics Technician (Co-op)
- **Tools:** Power Apps, SharePoint, Power Automate, Power BI, and Excel.
- **Timeline:** 2.5 months.
- **Team:** Myself, supervisor, and business users (approx. 8 stakeholders).

Objective / Vision

• Objective**:** Transform a fragmented, manual request tracking process into a centralized, automated, and data-driven system supporting internal operations across multiple departments within the Regional Municipality of York.

• Vision**:**

- Eliminate inefficiencies caused by Excel- and email-based tracking.
- Implement a scalable Power Apps solution integrated with SharePoint, Power Automate, and Power BI.
- Enable real-time request submission, transparent tracking, automated notifications, and standardized workflows.
- Empower teams with visibility and accountability to improve response times, reduce manual errors, and prioritize requests based on urgency and complexity.
- Deliver a unified platform with reporting capabilities to support performance measurement, resource planning, and future process automation across the organization.

The Problem

- Data requests (IT issues, data requests from other areas, access permissions, etc.) were submitted via scattered emails and tracked in shared Excel files.
- Team leads lacked visibility into request volumes, status, or completion times.
- Frequent delays and duplicate submissions occurred due to lack of system standardization.

Expected Benefits / Value

- **Streamlined Request Intake Process**
  Replaced manual email and spreadsheet-based workflows with a centralized Power Apps form, ensuring faster and more accurate request submission.
- **Increased Transparency and Accountability**
  Automated request tracking via SharePoint enables all stakeholders to monitor status updates, responsible parties, and timelines—reducing follow-up emails and miscommunication.
- **Improved Data Governance and Standardization**
  Structured request fields (e.g., request type, urgency, deadline) improve data consistency, enabling better categorization, prioritization, and reporting.
- **Enhanced Productivity for Analysts and Managers**
  By automating task assignment and status updates, the system reduces administrative overhead—allowing analysts and managers to focus on high-value tasks.
- **Real-Time Dashboards and Reporting**
  Live dashboards (Power BI or within Power Apps) provide actionable insights into request volumes, bottlenecks, completion rates, and service levels—supporting data-driven decision making.
- **Scalable and Maintainable Solution**
  Built using low-code tools (Power Apps + SharePoint), the system can be easily updated and scaled to other departments with minimal IT dependency.

Project Goals

- Centralize and digitize the request submission process.
- Automate notifications and approvals.
- Improve visibility and accountability with live reporting.
- Minimize manual entry errors.
- Manage higher priority data requests more efficiently based on deadline and analysis difficulty.
- Users can see where their data request is in the process and add updates if needed.
- Have a centralized source of data request status with the aim of creating performance indicators for the area, such as compliance level, number of projects in progress, average number of days per request, etc.

Personal Contributions

1. **Requirements Gathering**

    - Conducted interviews with 5+ team leads and business users.
    - Identified must-have features: dropdown filtering, status tracking, attachments, timestamps, comments section.
    - The essential features were identified: drop-down filtering, status tracking, attachments and timestamps, location of data to be analyzed, assignment of project leaders, among others.

2. **System Design**

    - ❖ Designed the solution using Power Apps and SharePoint List as a backend.
    - ❖ Created a gallery-based dashboard, form screens, and user roles.
    - ❖ Designed dropdown filters by department, status, team lead, and deadlines.
    - ❖ Automatic connection between SharePoint and data entry in Power Apps.
    - ❖ Weekly meetings with manager and stakeholders to show progress and obtain feedback before sending data tracker to production.

3. **Automation & Workflow**

    - ✓ Used **Power Automate** to:

        - ❖ Send email notifications upon submission.
        - ❖ Trigger alerts for overdue tasks.
        - ❖ Update status fields automatically based on user actions.
        - ❖ Weekly emails regarding data requests with a deadline within 3 days.

4. **Visualization**

    - ✓ Integrated **Power BI** dashboards for:

        - ❖ Monthly trends
        - ❖ Status breakdown
        - ❖ SLA compliance tracking
        - ❖ Workload per project leader
        - ❖ Data requests by requesting area

5. **Documentation**

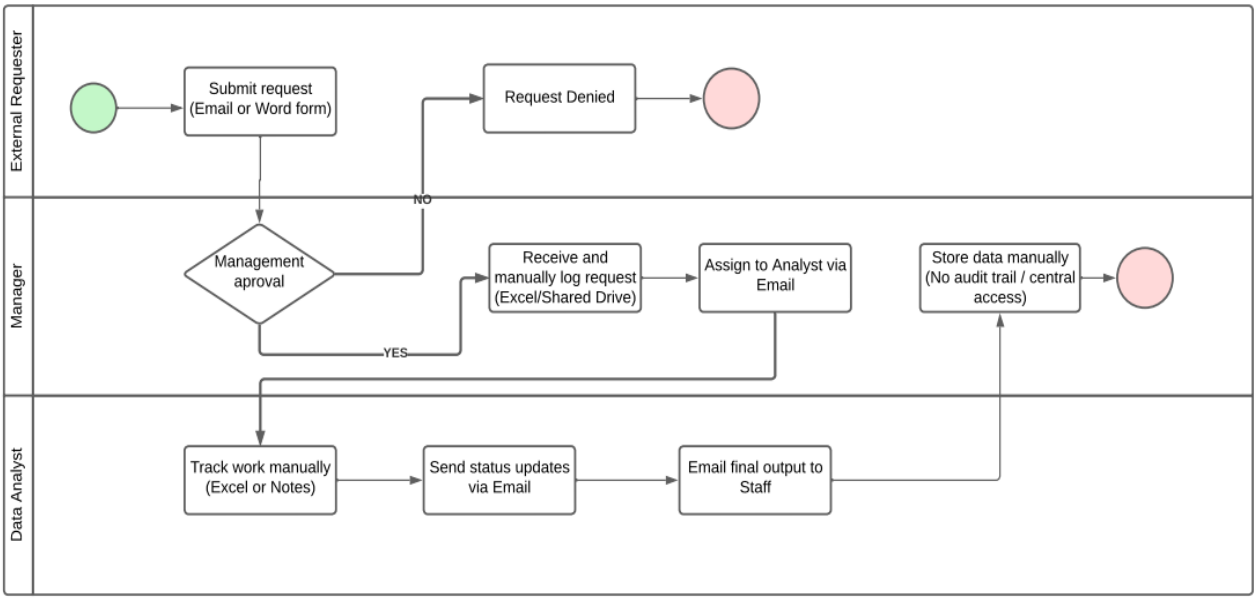
    - ❖ Wrote **User Guide** and **Process Documentation**
    - ❖ Presented the solution to internal stakeholders for adoption

Final Notes

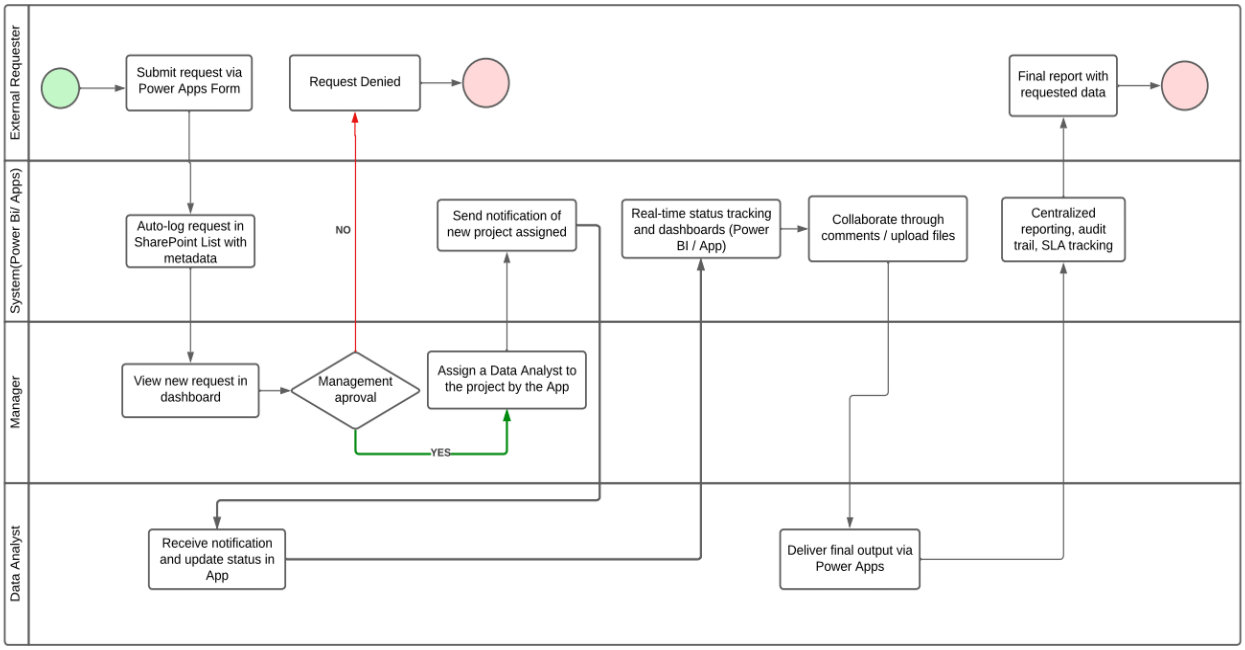
The project followed an agile, iterative development cycle. Stakeholders were engaged regularly through feedback loops and User Acceptance Testing (UAT). The final solution improved visibility, streamlined communication, and reduced approval delays significantly.

Process Flow Diagram (Before vs. After)

Before



After

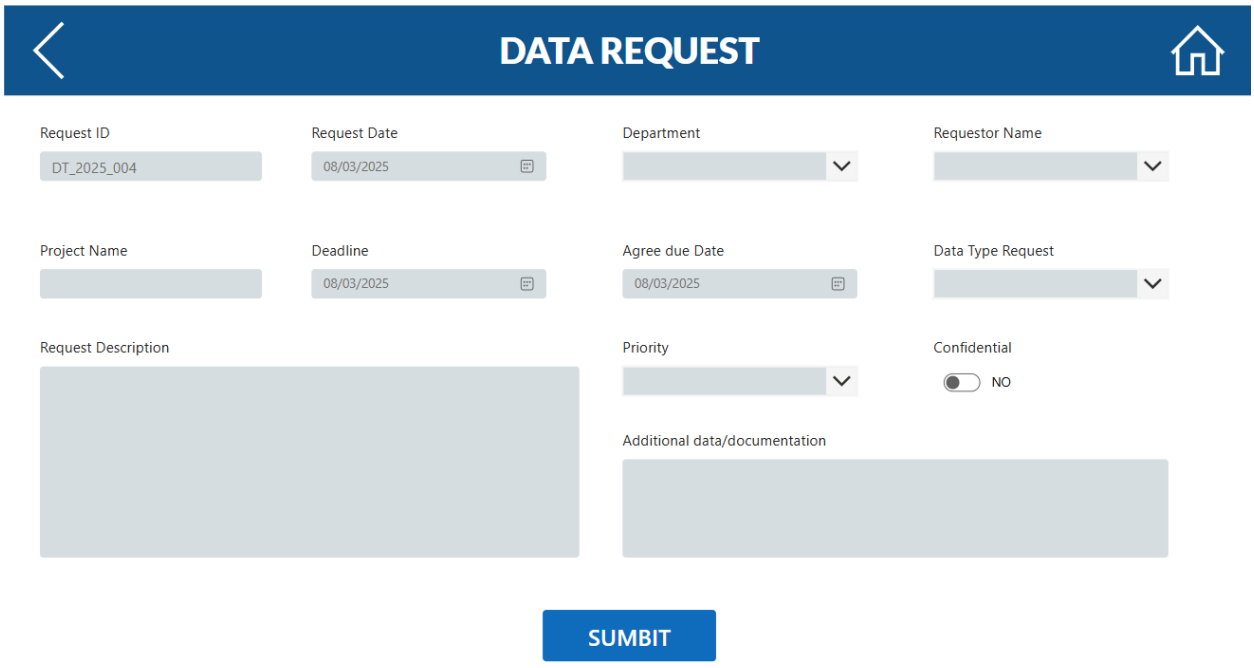


Stakeholder Map

Role	Title / Group	Responsibilities / Interests
Requesters	Frontline Staff (Paramedics, Admin, etc.)	Submit internal data or service requests through the new Power Apps form.
Analysts	Data & Analytics Team	Process incoming requests, extract data, and deliver reports or insights.
Team Leads / Supervisors	Supervisors or Coordinators	Review, assign, and monitor request progress; ensure deadlines are met.
Manager	Manager, Analytics	Oversee workflow, assign complex tasks, ensure timely completion.
Admin	Data & Analytics Technician (Co-op)	Designed, developed, and implemented the Power Apps and SharePoint solution.
IT / Power Platform Team	Internal IT Support / Platform Admins	Ensure system stability, governance, permissions, and future scalability.

Power Apps - Data Request Tracker (Screenshots)

a. Data Request – submission form



b. Data requests – Dashboard – Internal No Management View

Power BI Dashboard – Data Requests KPIs Dashboard