""Hi everyone, I'm [Your Name], currently pursuing my B.Tech in Information Technology at Anna University.

During my internship with Dover's Data & Analytics team, I worked on a project that's not just about building dashboards — it's about solving a real business challenge: managing and governing Power BI content across a large, distributed organization."

"My role focused on backend development and visualization:

- I retrieved and cleaned metadata from the Power BI REST API

- Built visualizations to show usage patterns, dataset freshness, and user activity

- Implemented Row-Level Security to restrict access by OpCo

- Replicated Power BI visuals using Python to maintain consistency

🛡️ **2. What Is Data Governance — and Why It Matters**

"So before I show you what we built, let's talk about what we mean by data governance.

In simple terms, it's about making sure the right people have access to the right data — and that the data is accurate, secure, and being used responsibly.

In a company like Dover, where Power BI is used across multiple OpCos and teams, things can get messy fast. You end up with:

- Reports that no one uses

- Datasets that haven't refreshed in months

- Users who still have access even though they've moved teams

- Outdated or duplicate reports

- Unused datasets

- Uncontrolled access

- Performance issues and clutter

That's where governance comes in. And it's not just about control — it's also about **optimization**.

We want to make sure the environment is clean, efficient, and easy to manage."

🔗 3. Why We Built This App

"So the idea behind this app was simple:

Let's build one place where we can see everything — reports, datasets, users, usage — and actually do something with that information.

Instead of relying on manual checks or scattered tools, we wanted to centralize the governance process.

That way, we can:

- Spot outdated or inactive content

- Clean up unused reports

- Secure access with Row-Level Security

- And optimize the whole environment

So yeah — this app helps us **centralize governance and keep our Power BI environment clean, secure, and optimized.**"

🔄 4. How the App Works (Workflow)

"Let me walk you through how it works — it's actually pretty straightforward:

First, the user logs in with their email and access token.

Then, the app pulls in all the workspaces they have access to.

Once they pick a workspace, we use the Power BI REST API to grab metadata — things like reports, datasets, users, and refresh logs.

Then we run some analysis to figure out:

- Which assets are active or inactive

- Which datasets are outdated

- How users are interacting with the content

And finally, we show all of that through clean, interactive visuals — so anyone can explore the insights without needing to be technical."

🛠️ 5. What I Worked On (Progress Summary)

"So here's what I worked on during the project:

- I started by exploring shared Power BI workspaces using a Microsoft Learn token — just to understand the structure and what kind of metadata we could access.

- Then I connected to the Power BI REST APIs and pulled in reports, dashboards, datasets, users, and refresh logs.

- I built the Streamlit web app — it's multi-page, easy to navigate, and responsive.

- I implemented Row-Level Security so users only see data for their OpCo.

- I recreated some Power BI visuals using Python libraries like Plotly and Matplotlib.

- And I wrote logic to classify assets as active or inactive based on refresh history and usage.

Basically, I helped turn raw metadata into something meaningful and actionable."

📊 6. A Few Visuals That Make It Real

"Let me show you a couple of examples of what this looks like in the app:

- Here's a heatmap that shows which users are accessing which reports. You can instantly see who's using what — and what's just sitting there collecting dust.

- This one shows dataset freshness. If a dataset hasn't been refreshed in over a year, we flag it as outdated. That's a risk — and this helps us catch it early.

- And here's a breakdown of user roles. We can see how many users are admins, members, or viewers — and whether any external domains have access. That's huge for security."

⚙️ 7. Optimization — A Big Part of Governance

"Now, one thing I really want to highlight is that **governance isn't just about locking things down — it's also about optimizing.**

This app helps us:

- Clean up unused reports and datasets

- Reclaim licenses from inactive users

- Spot refresh failures before they become a problem

- Focus support on the reports that actually matter

So we're not just managing data — we're improving how it's used. That's real value."

✅ 8. Final Wrap-Up — The Core Message

"So to wrap it all up:

This app gives Dover a single place to manage Power BI — to see what's being used, what's outdated, who has access, and where the risks are.

It helps us reduce clutter, tighten security, and improve performance.

By centralizing the data governance process, we're helping keep our Power BI environment clean, secure, and optimized.

And that's what makes this project not just useful — but essential."