[Skip to content](https://chatgpt.com/c/6888977c-42bc-8320-ba42-0bf3273f1794#main)

## Chat history

##### You said:

**Uploaded image**

So this is an example of a feature card and now we what we want to do we want to flush out enough details about it so that we can have a very constructive conversation with the engineers. So in the left you see I've put some design within design capabilities I have put down you can think about this as user stories but I put down enough granular details that what the thing would do. However this is not accurate this is just based on my assumptions and I want you to pressure test this and give me critique and tell me what exactly should be a good design capability for an automated data integrity checks for real-time alerts for investment bankers using some kind of generative AI capabilities and give me both the design capabilities and the tech requirements.

###### ChatGPT said:

Great — thanks for the context and the image. Based on the feature card and your goal to enable a high-quality engineering discussion, here’s a pressure-tested and more robust version of the Design Capabilities and Tech Requirements for:

### Feature Name:

Automated Data Integrity Checks with Real-Time Alerts  
(For investment banking pitch decks and financial models)

### ✅ Refined Design Capabilities (User Stories/UX Flows)

| **Capability** | **Description** |
| --- | --- |
| Side-panel Integration | Users (analysts/associates) see a persistent integrity sidebar in PowerPoint or slide editor that auto-refreshes on each edit or refresh cycle. |
| Content Scope Selection | Users can select: <ul><li>a single slide</li><li>a range of slides</li><li>or entire deck</li> for integrity checks.</ul> |
| Source Linking & Contextual Explanation | Integrity alerts display the data origin (e.g., “Excel: Valuation Model tab B16”), what the expected value is, and why it matters (e.g., “Doesn’t match summary slide” or “Year mismatch: FY23 vs FY24”). |
| Suggested Fixes (Generative AI) | System provides suggested fixes in natural language, with 1-click apply or “why this fix?” explanation (e.g., “Based on 3 other slides referencing Q3 revenue at $2.1B”). |
| Comment Threading | Users can leave comments on flagged issues (e.g., “Check with DCM team if number changed”), and system retains audit trail. |
| Auto-Learning Behavior | When users repeatedly override or ignore alerts, system deprioritizes that rule or flags for logic refinement (“analyst override pattern detected”). |
| Severity Indicator | Each issue is tagged (Minor / Moderate / Critical) to allow teams to prioritize fixes quickly. |
| Batch Review Mode | Users can see all flagged errors at once in a scrollable list to bulk-resolve or delegate to team members. |
| Post-Update QA | After user updates a source, system re-checks dependent slides in real time and confirms if issue is resolved or residuals remain. |

### 🔧 Suggested Tech Requirements

| **Component** | **Details** |
| --- | --- |
| Data Binding Engine | Must connect slide elements (charts, tables, text boxes) to source-of-truth spreadsheets, databases, or APIs. Includes reference mapping and delta tracking. |
| LLM/NLP Layer (Generative AI) | Trained to understand business context (e.g., EBITDA, YoY Growth), perform fuzzy matching, and generate suggestions or natural language explanations for alerts. |
| Real-Time Monitoring | Lightweight client-side script or add-in that hooks into slide editor events (e.g., onChange, onRefresh, onPaste) for real-time alerting. |
| Integrity Rule Library | Modular rule system: numeric mismatch, missing units, inconsistent terminology, stale data, outdated assumptions, etc. Rules should be customizable per team. |
| Explainability Service | AI-generated rationale for alerts — must trace source logic (e.g., “This cell was pulled from Model\_V7.xlsx > Tab 4 > Line 8”). Useful for trust. |
| Version & Access Control | Need to detect changes from older vs newer model versions and track access to restricted files (e.g., old debt schedule no longer valid). |
| Audit Trail & Commenting API | Must allow user feedback on flags, resolve flow, and integration with task tools (e.g., tag someone in Slack or Asana from a flag). |
| Scalability & Latency | Target sub-2s latency for error checks across full deck (~50 slides) with <500ms delay for partial slide updates. |
| Permissions Handling | Fine-grained access controls — only users with rights to model files or decks can trigger/see alerts or AI recommendations. |
| Offline/Failover Mode | Local fallback mode in case cloud services are down — users can still see cached alerts or re-run checks once reconnected. |

### 🧠 Notes for GenAI Integration

To make this feel magical for bankers (who don’t want to learn new tools), the system should behave like a smart “analyst assistant”:

* Understands financial context (e.g., knows $2.1B in Q3 EBITDA on Slide 7 must match Slide 2 summary).
* Explains mismatches clearly (“Slide 7 uses pre-tax, Slide 2 uses post-tax — 18% delta”).
* Suggests fixes, but always with traceability.

Would you like a sample user flow diagram or a stakeholder one-pager to pitch this to design/engineering?

##### You said:

**Uploaded image**

Now for interactive Outline Builder

###### ChatGPT said:

Thanks! Let’s sharpen the Interactive Outline Builder with Section & Keyword Prompts to support a productive conversation with engineering. I’ll pressure-test your assumptions and elevate both the Design Capabilities and Tech Requirements, grounding them in how investment bankers actually work and what GenAI can truly deliver.

## 🧠 Feature: Interactive Outline Builder with Section & Keyword Prompts

For investment banking use cases — typically pitch decks, client strategy docs, or internal committee materials.

### ✅ Refined Design Capabilities (UX/Behavioral Specs)

| **Capability** | **Description** |
| --- | --- |
| Embedded Entry Point in Workflow | Launch directly within Outlook, Slack, or DealTracker — wherever the banker receives mandate or deal context. Avoid switching apps. |
| Keyword + Context Prompting | Users paste an email or write 1–2 keywords (e.g., “LBO for logistics co”) → system suggests outline skeleton with headers (e.g., “Market Overview,” “Transaction Rationale”). |
| Auto-Fill by Deal Archetype | Select from predefined playbooks (e.g., IPO, M&A Buy-side, Debt Refinancing) to get relevant sections and flow logic. |
| Interactive Side Panel | Left pane shows editable outline. Users can drag to reorder sections or click to expand each section with GenAI-suggested bullet content (light scaffolding, not full text). |
| Real-Time Flow Feedback | Flags missing or misordered sections (“You skipped 'Valuation Summary' — common in M&A decks”). |
| Multi-user Assignment & Handoff | Users can tag team members to own specific sections (e.g., “John owns Market,” “Priya fills in comps”), and system logs assignments. |
| Review & Routing Integration | One-click sends draft outline to MDs or VP for review and comments; tracks approvals or changes. |
| Narrative Integrity Check | GenAI evaluates if the outline supports a cohesive story arc (e.g., “Valuation contradicts growth story — revise assumptions?”). |
| Contextual Anchoring to Data Sources | Clicking on a section shows suggested data sources or past decks that support it (e.g., “2019 UPS IPO deck used similar structure”). |

### 🔧 Suggested Tech Requirements

| **Component** | **Description** |
| --- | --- |
| Outline Builder Agent (LLM + Business Logic Layer) | Ingests user prompts and deal metadata, maps to known deck archetypes (IPO, M&A, etc.), and outputs structured outlines. Can reuse previous content templates. |
| Deal Context Retriever | Connects with CRM, Deal Tracker, or Outlook threads to ingest company name, deal type, geography, sector for grounding. |
| Narrative QA Engine | LLM-based heuristic checker that evaluates story logic, flags narrative gaps, and offers rationale for each suggestion (fine-tuned for IB storytelling). |
| Playbook Library | Predefined outline templates for standard deal types (configurable by team or industry vertical). Includes fallback defaults if custom data is missing. |
| Outline Collaboration API | Allows assigning sections, tracking changes, syncing with shared storage (e.g., SharePoint or Teams), and audit logging. |
| Side Panel SDK Integration | Hooks into slide editing environment (PowerPoint Web, Office Add-in, etc.) to enable live preview/editing inside native tools. |
| Security & Permissions Layer | Ensures data shared in outline is compliant with client confidentiality. Can restrict suggestions based on user access level. |
| LLM Guardrails & Prompt Tuning | Prevents hallucinations by anchoring outline to known deal structures and approved corp templates. Injects reference decks when applicable. |
| Slack/Email Notifier | Triggers alerts when outlines are ready for review, changes are requested, or section ownership is assigned. |

### 🎯 Why This Matters for Bankers

* Speed: Associates can go from email → outline in <5 mins.
* Structure: MDs get more strategic alignment early, reducing rework.
* Accountability: Teams are assigned sections early with context baked in.
* Storytelling: Ensures deck has a logical arc, not just data dumps.

Would you like me to expand this into a user journey map or a product spec doc for engineers or stakeholders?

##### You said:

**Uploaded image**

Now, Repository Analytics.

###### ChatGPT said:

Excellent — this feature has a high strategic value, and it looks like you're already pointing toward an intelligent analytics engine for slide-level usage. Let’s pressure-test and enrich the Repository Analytics for Usage Insights and Deal Trends card to turn it into a fully engineer- and exec-ready spec.

## 📊 Feature: Repository Analytics for Usage Insights and Deal Trends

Think of this as “Google Analytics for Pitchbooks,” enabling bankers to see what slides win deals, which ones get ignored, and what content patterns correlate with success.

### ✅ Refined Design Capabilities (UX/Behavioral Specs)

| **Capability** | **Description** |
| --- | --- |
| In-Tool Access from PPT or Deal Tracker | Embedded access inside slide editors or client engagement tools. Users see analytics *while* building decks, not in a separate dashboard. |
| Contextual Tags by Deal Outcome | System auto-tags decks or slides with metadata: “Mandate Won,” “Lost,” “Top Client,” “Repeat Use.” Tags update based on CRM pipeline outcomes. |
| Deck-Level Usage Insights | Heatmap shows how many times each pitchbook was used, by whom, and for which client or sector. |
| Slide-Level Popularity Metrics | Highlights top-performing slides (e.g., “Slide 6 - Cap Table used in 80% of successful Series C deals”). |
| Outcome-Based Filtering | Users can filter for decks/slides by winning outcomes, deal type (IPO, M&A), geography, client size, etc. |
| Smart Recommendations | For a given pitch, system suggests commonly used slides for similar deals (“You’re pitching a logistics M&A → Use Slide 4 from ‘Acme Deal 2023’ deck”). |
| Usage Alerts | Notifies when a slide is outdated, overused, or contradicts current deal data (“This chart still references 2023 multiples”). |
| Personalized Insights Panel | Banker sees a dashboard with content based on their coverage (e.g., “Your most-used slides in Energy M&A,” or “Top reused decks for your region”). |
| Team-wide Benchmarking | VPs/MDs can compare usage patterns across teams — identify what high-performers use vs. others. |
| Meeting-Aware Surfacing | Before a client meeting, the system suggests recent decks used by peers for similar clients. Integrated via calendar detection. |

### 🔧 Expanded Tech Requirements

| **Component** | **Description** |
| --- | --- |
| Slide-Level Analytics Engine | Tracks views, insertions, edits, and deletions at the slide level across all users and teams. Handles versioning and deduplication. |
| CRM Integration Layer | Syncs Salesforce (or other CRM) deal outcomes with repository content — tags decks by outcome, client, region, deal type, win/loss, etc. |
| Client-Side Instrumentation SDK | Lightweight plugin for PowerPoint and internal repositories that logs user actions and deck usage securely. |
| Calendar Integration | Hooks into Outlook/Google Calendar to surface deck suggestions before meetings. Uses NLP to infer context (e.g., “Meeting with CFO of FreightCo → Suggest Logistics pitchbooks”). |
| ML-Based Slide Clustering & Similarity Matching | Embeds slides into vector space to detect “semantically similar” content even with design or wording differences. Used for pattern analysis. |
| Generative Summary Layer (Optional) | Generates natural-language summaries of trends (e.g., “Revenue bridge slides appear in 92% of winning M&A decks in Tech sector”). |
| Permission-aware Analytics Layer | Honors access controls — users only see metrics for content they are authorized to view. Anonymizes peer usage where required. |
| Smart Prompt Injection for Retrieval Tools | Feeds usage trends into GenAI writing/slide agents (e.g., “Prioritize slides that work best for IPOs in Fintech sector”). |
| Export + Admin Controls | Allows exporting usage dashboards for internal reviews; admin settings to define timeframes, anonymization, slide classification rules. |

### 🧠 Strategic Value to Bankers

| **User** | **Value** |
| --- | --- |
| Analysts & Associates | Know which slides work best, avoid rework or reinventing the wheel. |
| VPs/MDs | Benchmark across teams; guide junior staff on “what works.” Improve pitch consistency. |
| Marketing/Product Team | See what content formats resonate; inform training and content refresh cycles. |

Would you like help turning this into:

* A product spec doc?
* A foundational dataset strategy to enable this?
* Or a dashboard wireframe mockup?

Let me know how deep you'd like to go.

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