



Internship Presentation

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Background

- Final Year SMU Information System Student
- Major in Business Analytics
- Previously did an internship that was doing industrial research and writing articles



How did I meet URA

- I did my FYP with Sean last year
- Where we tried to produce urban forms using GenAI



What it felt like starting



What I got to do at URA

- CX Assistant
- DMP Assistant

Welcome to the CORENET X Assistant (Beta)

> Thank you for participating in our beta.

> We are constantly improving our chat assistant. If you have a minute to spare, we'd love to [get your feedback here](#).

> Your feedback will help us improve the platform for a wider release in Q4 2025.

Does structural checks...

occur before access checks are done? What is the check sequence and hierarchy of checks?

How can I submit...


my linked Revit models to CORENET X?

What would detect...


clashes between building piles with underground structures?

How can I modify...




my IFC4 standards to comply with IFC SG standards?



Send a message...



DMP Assistant



Last 7 days

inquiry at Bukit Timah

Draft

inquiry at Changi

inquiry at Bukit Timah

inquiry at Bukit Merah

Vetted

inquiry at Marine Parade

Draft

inquiry at Clementi

Draft

older

request at NIL NIL B...

Replied

inquiry at SPOONE...

Replied

inquiry at BUKIT ME...

Replied

request at Spottiew...

Replied

request at 1 TIONG ...

Replied

inquiry at Holland P...

Replied

inquiry at Holland P...

Replied

inquiry at BUKIT TL...

Replied

N


1 issue


x

1.com

Welcome to Drafting Assistant

Craft perfect emails with AI-powered assistance

 Refresh Headlines

 Comparison

Possible Write-In Campaign detected

[View Details](#)

Today's Headlines

Overall Headlines

Evergreen Topics

Concerns Over Master Plan 2019 Revisions

Residents express dissatisfaction with the revised Master Plan 2019, citing issues such as increased dust, noise, and disruption from high-rise developments replacing planned

Preservation of Bukit Timah Saddle Club

Feedback emphasizes the importance of preserving Bukit Timah Saddle Club for its community, nature, and equestrian activities. Concerns are raised about potential

Ground-Up Initiative and Lorong Chencharu Concerns

Residents express concerns over the rezoning of Lorong Chencharu for residential use, emphasizing the importance of the Ground-Up Initiative for community engagement.

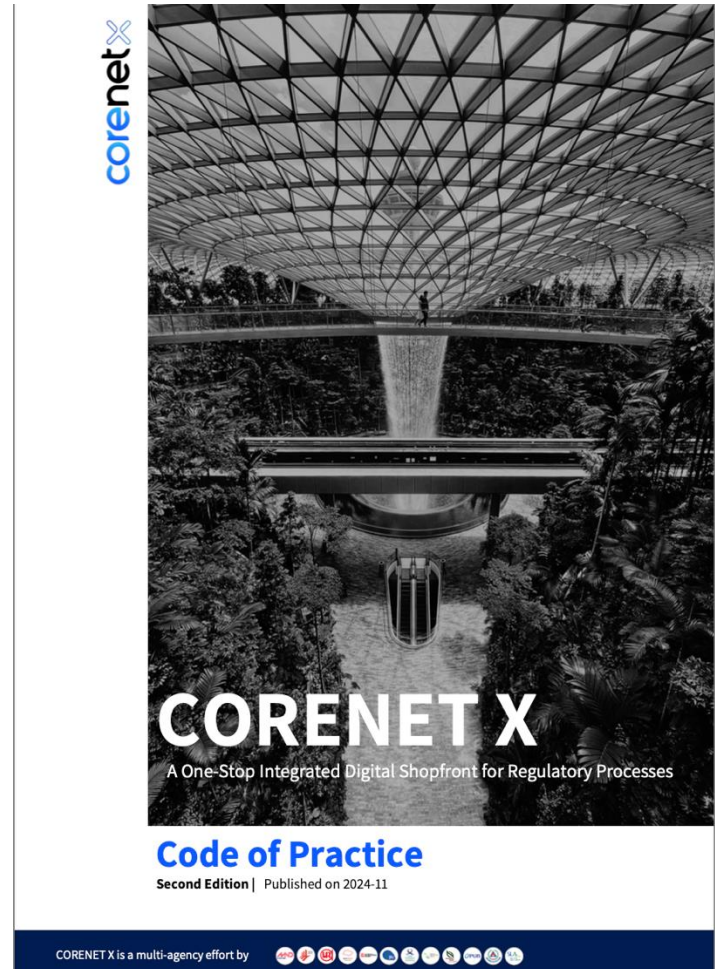
Concerns Over High-Density Developments

Feedback highlights concerns about high-density developments impacting traffic, noise,

CX Assistant

Time-consuming

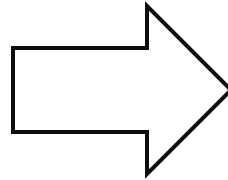
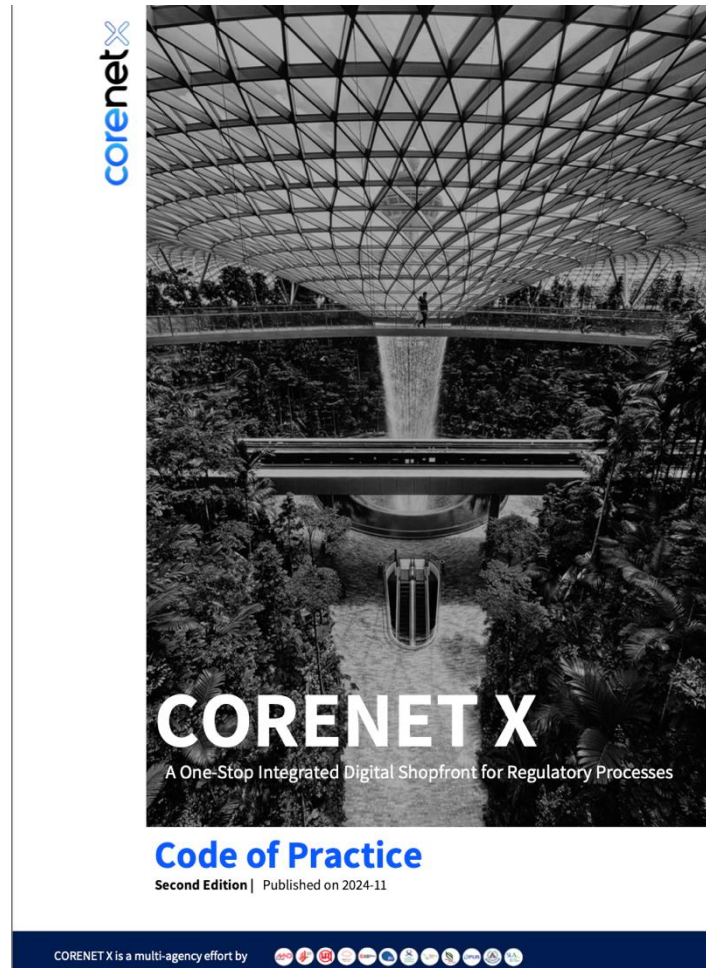
Complex



~ 300 pages

CX Assistant

- A one stop shop that could give you any information found on Corenet X PDF
- We want the information to be **accurate**



Pro - Thinking Private Guest

How can I modify my IFC4 standards to comply with IFC SG standards?

Okay, let's break down how you can adapt your models from IFC4 standards to comply with the specific requirements of IFC-SG for CORENET X submissions.

The key principle is that IFC-SG builds upon the international IFC4 standard by adding specific parameters and representations needed to meet Singapore's local regulatory requirements.

Here's a step-by-step guide based on the CORENET X Code of Practice (COP):

1. Understand the IFC-SG Requirements:


1. Familiarise yourself with the specific IFC-SG parameters required for your project components. IFC-SG introduces new representations and parameters, often prefixed with "SG" or within specific property sets (like SGPset_...), to capture information needed by Singapore regulatory agencies (refer to pg. 14, 191).
2. Section 4 of the COP, starting from the "Glossary of 'Identified Components'" (pg. 225 onwards), details the required IFC Entity, SubType, and specific IFC-SG properties for various building components (e.g., Beams, Columns, Walls, Doors, Sanitary Appliances).

CX Assistant

- Gemini 2.0 Flash (Web Search)



What would detect clashes between building piles with underground structures?

 Clash detection within a Building Information Model (BIM) can detect clashes between building piles and underground structures.


Here's how it works:

- 1. BIM and Clash Detection:** BIM is used to identify overlaps or interference between different elements from various disciplines (e.g., structural, architectural, mechanical). Clash detection is a core function of BIM.
- 2. Process:** The models from different design teams are submitted to a coordinator who uses clash detection software to identify conflicts.
- 3. Benefits:** Early clash detection helps to visualize, analyze, and fix issues before construction begins, reducing rework, minimizing waste, and keeping projects on time and within budget.





How should I submit my linked Revit models to CORENET X?

 To submit your linked Revit models to CORENET X, you should bind the linked Revit models to the host model. After binding the linked models, submit the host model to CORENET X.



CX Assistant

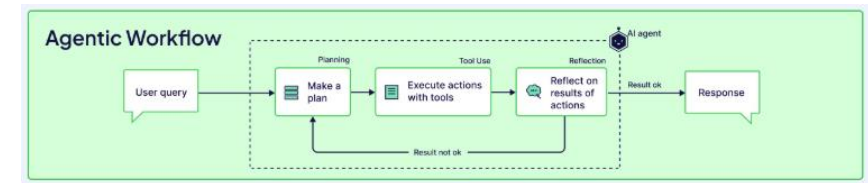


- ✦ 1,047,576 context window
- ➡ 32,768 max output tokens
- 📅 Jun 01, 2024 knowledge cutoff

- More input/output tokens
- Long context



- Better reasoning
- Web grounding

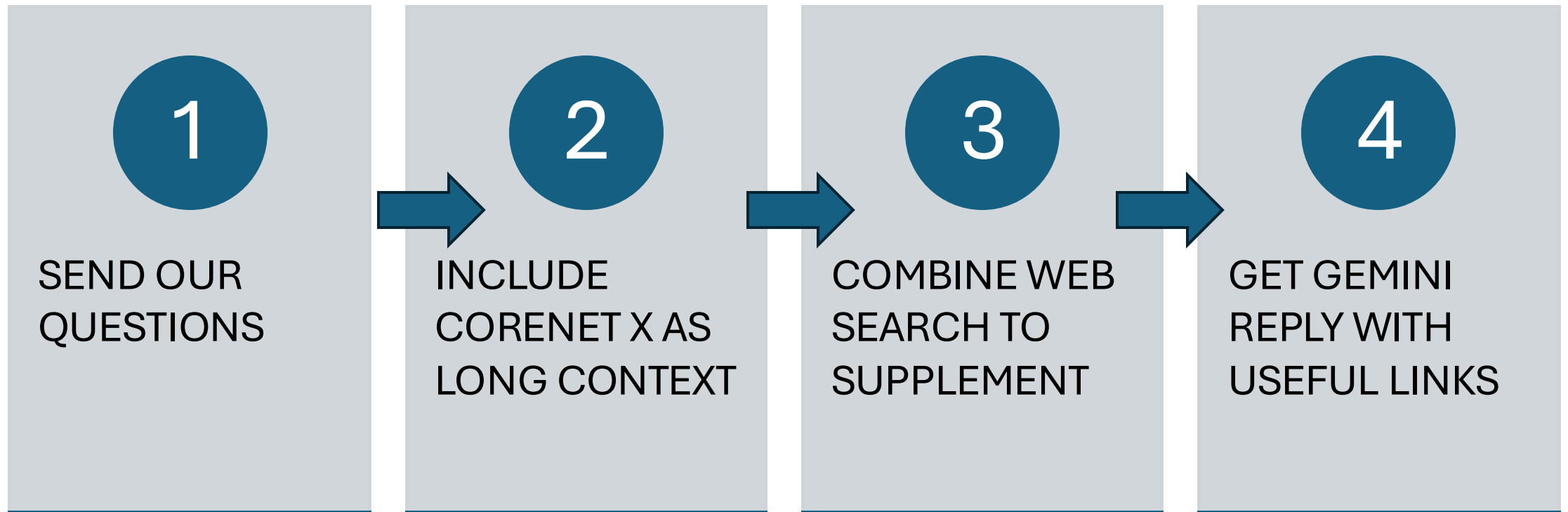


- Agentic Workflow

Demo

- Long Context + Web Search (Gemini 2.5 pro)
- Web Search (Gemini 2.5 pro)

Response generation



CX Assistant

Long Context	Web Search	Long Context + Web search
Take in the whole PDF as context	Sources from the web so response is fast	PDF + web search
Able to point you to the pages in the PDF	Possible to retrieve relevant links	Links and page number are accurate
Longer time to get response & costly	May throw links that don't exist	Longer time to get response & costly

CX Assistant

April 14, 2025 Product Research Publication

Introducing GPT-4.1 in the API

- Long context
- Takes too long for response

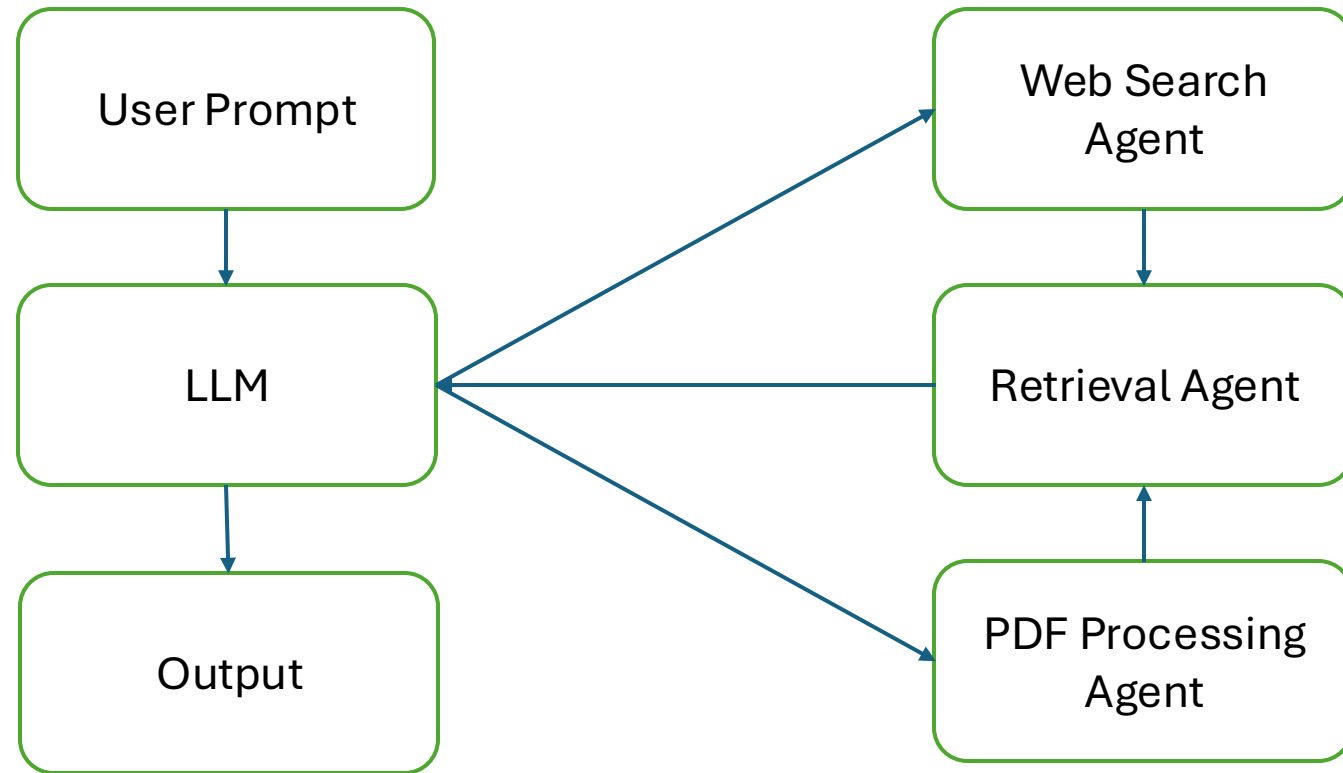


- Long context
- Short response
- Broken links



- Long context + web grounding
- Accurate results
- Faster than 4.1

CX Assistant (future works)



Agentic Tool Workflow

DMP Assistant

- To tackle large amount of feedback and emails that would come in after DMP is announced



DMP Assistant

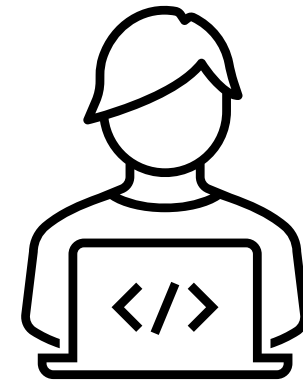
Feedback Analysis Tool	Topic Classification
	Sentiment Analysis
	Write-In Campaign Detection
AI Drafting Assistant	Past Replies
	House Style & FAQs
Personalised Editing	Notion-like Editor
	Write with AI

Drafter + Analytics Tool

DMP Assistant



- Integrated DMP19 emails for context & related emails



- Tested different methods for better headlines generation & topic prevalence % (Prompting vs Clustering)

Demo (Updates)

- Regenerate Headlines
- Compare Headlines of different dates
- View related emails of the headlines
- Related emails of draft are from DMP19
- Copy and Paste formatted draft into Outlook

DMP Assistant

Possible Write-In Campaign detected[Hide Details](#)

Affected Headlines:

- Turf City's Redevelopment Sparks Controversy - **38.2%**
- Concerns Over Bukit Timah Saddle Club's Future - **12.5%**

Possible Write-In Campaign detected[Hide Details](#)

Affected Headlines:

- Concerns Over Turf City Redevelopment Impacting Community Sports and Green Spaces - **78%**
- Bukit Timah Saddle Club Preservation Amidst Development Concerns - **25%**
- Ground-Up Initiative's Future Amidst Residential Zoning Threats - **10%**

Possible Write-In Campaign detected[Hide Details](#)

Affected Headlines:

- Turf City Development Concerns - **57.3%**

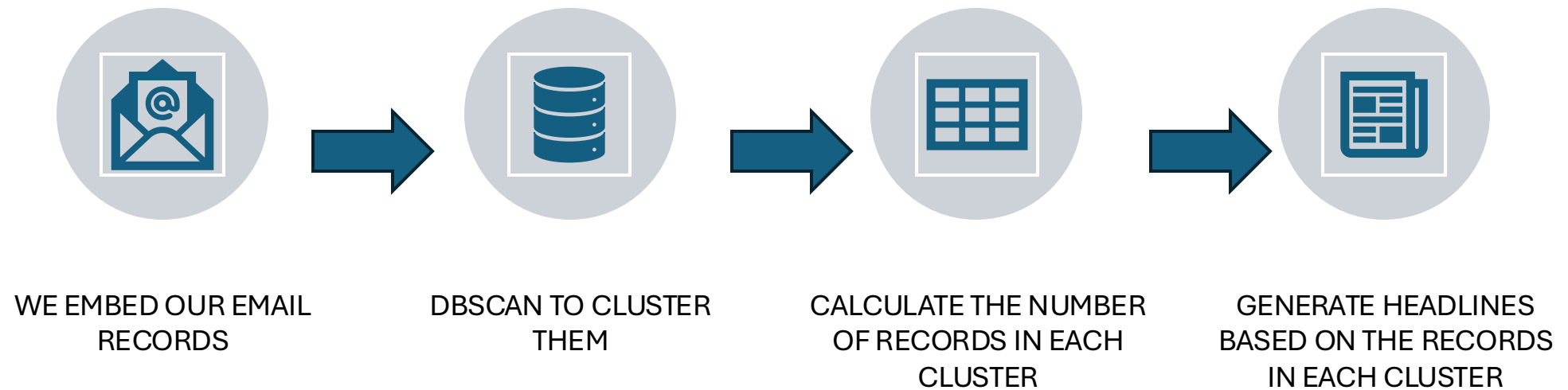
Possible Write-In Campaign detected[Hide Details](#)

Affected Headlines:

- Turf City's Future Sparks Widespread Community Concern - **42%**
- Ground Up Initiative Faces Threat from Residential Zoning - **18%**
- Bukit Timah Saddle Club's Future in Jeopardy Amidst Urban Development - **12%**

Inconsistent percentage

Headlines generation

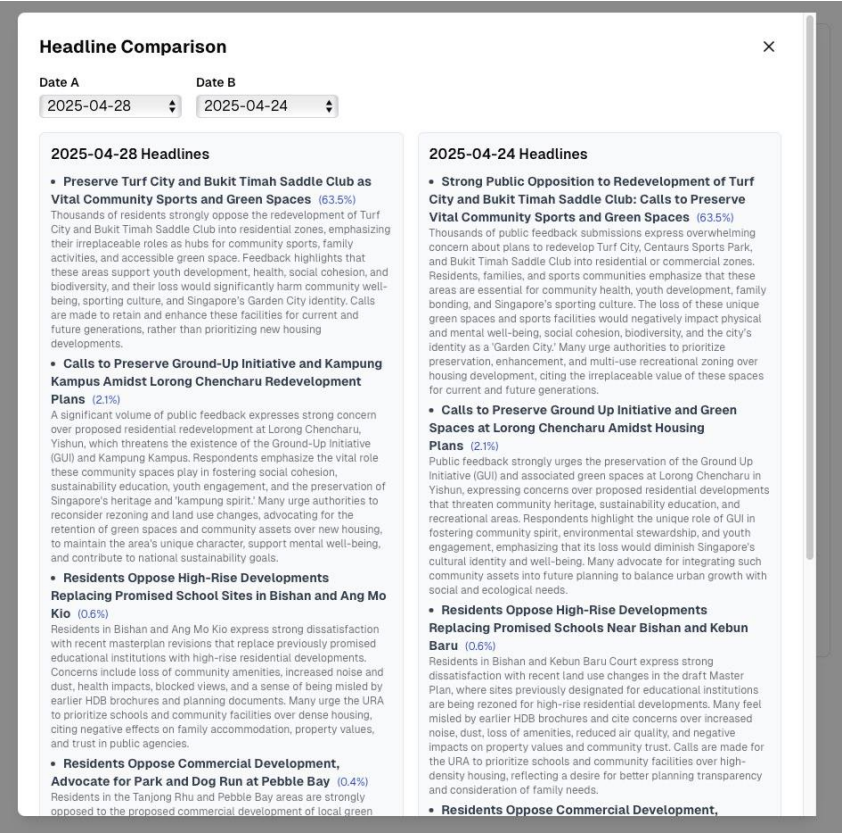


DMP Assistant

	Prompting	K-Means	DBSCAN
Method	Prompting	Centroid-based	Density-based
Number of clusters	Based on prompts	Must be specified in advance	Determined automatically by data density
Result	Hallucinates	Too sparse to group	Based on number of points in an area



DMP Assistant



- The % was representative
- The numbers were consistent

Preserve Turf City and Bukit Timah Saddle Club as Vital Community Sports and Green Spaces

Thousands of residents strongly oppose the redevelopment of Turf City and Bukit Timah Saddle Club into residential zones, emphasizing their irreplaceable roles as hubs for community sports, family activities, and accessible green space. Feedback highlights that these areas support youth development, health, social cohesion, and biodiversity, and their loss would significantly harm community well-being, sporting culture, and Singapore's Garden City identity. Calls are made to retain and enhance these facilities for current and future generations, rather than prioritizing new housing developments.

Topic Prevalence: 63.5%

[View Related Emails](#)

Calls to Preserve Ground-Up Initiative and Kampung Kampus Amidst Lorong Chencharu Redevelopment Plans

A significant volume of public feedback expresses strong concern over proposed residential redevelopment at Lorong Chencharu, Yishun, which threatens the existence of the Ground-Up Initiative (GUI) and Kampung Kampus. Respondents emphasize the vital role these community spaces play in fostering social cohesion, sustainability education, youth engagement, and the preservation of Singapore's heritage and 'kampung spirit.' Many urge authorities to reconsider rezoning and land use changes, advocating for the retention of green spaces and community assets over new housing, to maintain the area's unique character, support mental well-being, and contribute to national sustainability goals.

Topic Prevalence: 2.1%

[View Related Emails](#)

What I have learned



What I have learned



April 14, 2025 Product Research Publication

Introducing GPT-4.1 in the API



What I have learned





Thank you

