



Australian Government



Procurement Assistant - Your AI Data Partner

AI-powered chat application demonstrating enhanced information retrieval for procurement documentation

Department of Finance





Executive Summary

Problem Faced

GovAI required an app for demonstration purposes that showcased the potential capabilities of Generative AI in addressing common challenges within the APS. Through consultation with the GovAI Working Group, Procurement was chosen as an appropriate subject matter to showcase the app.

For many APS agencies, challenges in procurement can result in non-compliance with the Commonwealth Procurement Rules (CPRs), inconsistency, reduced value for money, and an increased risk of procurement failures.

In light of the issues with existing approaches, solutions are needed that improve, consistency, productivity, and service quality.

Solution Overview

GovAI developed an app based on an open-source Microsoft solution accelerator. The app allows users to ask questions in natural language in a chat window and receive accurate answers from a curated document set, which in this case is the CPRs. The purpose of the application is to allow GovAI to demonstrate the potential of AI in information retrieval using the context of procurement.

Key features include:

- Document search with specific citations.
- Chat capability with chat history.
- Ask a question capability.
- AI process auditing, allowing users to review how answers were produced.

Benefits and Impact

The app offers several benefits:

- By retrieving accurate information, the app supports evidence-based decision-making and compliance with the CPRs.
- Automating information retrieval reduces search time, improving productivity and lowering costs.
- Enhanced transparency and access to information can lead to better service delivery and more responsive public services, benefiting the broader community.
- For GovAI, the application serves as a proof of concept for stakeholders in government, illustrating the potential of AI for APS processes.



Target Audience and Stakeholders

Key users of the app include:

- Commonwealth entity employees
- Technical staff exploring AI capabilities
- Executives making decisions about AI adoption.

The decision to develop the app was informed by consultation with entities, which revealed issues with CPR compliance, and limited availability of similar tools.

The app is also expected to facilitate ongoing stakeholder consultation. Though the current version is not production-ready, it provides an example for stakeholders of what is possible with Generative AI.

Risks and Mitigation Overview

To ensure the secure operation of the application, measures implemented include:

- Transparency and traceability of the AI's responses, allowing users to understand how the AI arrived at its conclusions.
- Disclaimer which must be read before logging in via the GovAI website, to prevent the uploading of Official or Sensitive information.
- Information retrieval limited to a static data set including CPRs and related material.

Finally, governance and oversight mechanisms in place include console logs managed by application developers and authentication via GovTEAMS accounts.

Use Case Status

Pilot

Use case timeline

Jan 2024: Prototyping using synthetic data
Feb 2024: GovAI Working Group Consultation
Mar 2024: Demonstration version with public Procurement information



Additional Information

The application is designed to be used with a specific set of curated documents, which in this case is the CPRs and related material, ensuring that users can quickly and accurately access relevant information. It offers extensive customisation options, including data ingestion, which can be updated automatically, or manually by technical personnel.

Lessons Learned

Key insights from implementing this AI use case include:

- Feedback indicated a desire for Generative AI use cases that support common work tasks, like procurement.
- Open-source solutions enable rapid implementation and continuous improvement.
- Regular updates are essential for maintaining accuracy and relevance.
- The presence of developer settings allows administrators and advanced users to fine-tune app performance.

Contact information

Responsible Entity Name

Department of Finance

Area of Entity

GovAI
Government Services Branch
Business Enabling Services Group

Use Case Website/s

<https://www.govai.gov.au/>

Open for Collaboration?

Yes! Feel free to talk to us if you have any questions.

Use Case Contact

GovAI
GovAI@finance.gov.au

Use Case Owner

Angie Earl
GovAI Program Director
Government Services Branch



Screenshot/s

Your AI Data Partner - Procurement Assistant

Chat Ask a question

Logout

Open chat history

Clear chatDeveloper settings

 Australian Government

 GovAI

Procurement Assistant

Ask anything related to APS procurement rules and guidelines or try an example below.

What steps must I take to conduct a procurement under \$80,000?

What considerations must I make when setting a contract end date?

Under what circumstances can I directly source a supplier from the market?

Type a new question (e.g. How can my \$1m+ procurement meet the 'Broader benefits to the Australian economy' consideration?)

Only use publicly accessible information and documents. This system has not been approved for OFFICIAL content or above. Do not use this assistant for actual procurement work - this is a demo only.



Detailed Overview

Version Control

Version	Date	Author	Description of Changes
1.0	3 Feb 2025	GovAI	Version 1 created
1.1	17 Mar 2025	GovAI	Modified based on feedback

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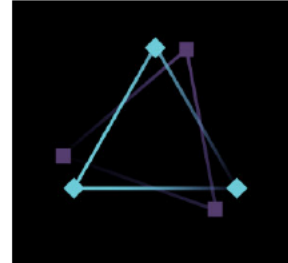
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Note: For details about category items in the detailed overview, see *APS AI Use Case Repository Guidance- Guidance for Use Case Owners and Editors*.

Responsible Organisation Category

Select the Classification of the Functions of Government - Australia (COFOG-A) 3-digit category that best identifies the functional area associated with your AI use case.

☒ 01 - General Public Services	015 - Basic research in public services
☐ 02 - Defence	Choose an item.
☐ 03 - Public Order and Safety	Choose an item.
☐ 04 - Economic Affairs	Choose an item.
☐ 05 - Environmental Protection	Choose an item.
☐ 06 - Housing and Community Amenities	Choose an item.
☐ 07 - Health	Choose an item.
☐ 08 - Recreation, Culture, and Religion	Choose an item.
☐ 09 - Education	Choose an item.
☐ 10 - Social Protection	Choose an item.
☐ 11 - Transport	Choose an item.



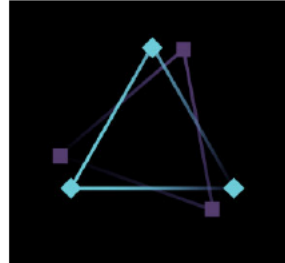
Scope of the Use Case

Use the dropdown menus below to identify the scope of your use case.

Geographical focus Choose the region for implementation from the dropdown list	National
Primary type of government interaction Choose the type of government interaction from the dropdown list	Government-to-government (G2G)
Cross-features - Sector Indicate if the use case describes a solution that can be used across sectors or in cross-sector scenarios (Yes/No).	Yes
Cross-features - Jurisdiction Indicate if the use case describes a solution that can be used across State/Federal borders or in cross-border scenarios (Yes/No)	Yes

Ethical Considerations

Accuracy, Fairness, Accessibility, Bias and Discrimination	The application includes features like AI process auditing, which allows users to review the responses generated by the AI and the chain of information used to produce those answers. This transparency helps ensure the system operates fairly and without bias. By using a curated set of documents, such as the CPRs, the application ensures that the information provided is accurate and relevant. The CPRs require procurement decisions to be objective, transparent, and based on evidence to ensure fairness to all suppliers. The system is designed to be accessible to all users, promoting fairness and reducing the risk of discrimination. The CPRs explicitly prohibit discriminatory procurement practices and encourage the use of digital and user-friendly platforms to improve accessibility.
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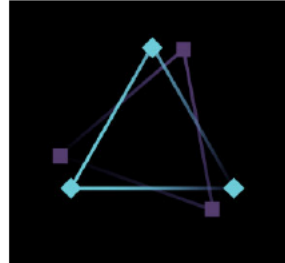


Privacy	The application uses a set of 'static' data, in this case the CPRs, that has been made available to the app. Users cannot add or remove source documents themselves, and the app does not seek new or updated information on its own. This controlled environment helps protect personal data. The demonstration application used by GovAI does not use any Official or Sensitive information, and the user is warned to only use publicly accessible information, limiting privacy and personal data risks.
Rights of Users	Features like AI process auditing and citation allow users to review the thought process and supporting content used by the AI to generate responses. Users can also access the full CPR documents cited in the responses, ensuring they can challenge AI decisions if needed. This transparency ensures that users are informed about their rights and can provide feedback or challenge the AI's decisions if necessary.

Value of the Use Case

Identify the public value that the solution provides or is expected to provide. Select from the multi-select options.

Improved public service This category refers to solutions that enhance the services provided to end users, whether they are citizens or businesses.	☐ Personalised services ☐ Public (citizen)-centred services ☒ Increased quality of public information and services ☒ More responsive, efficient and cost-effective public services ☐ New services or channels
Improved administrative efficiency This category refers to solutions that increase efficiency, effectiveness, and quality while reducing costs within administrative processes, systems, and services.	☒ Cost reduction ☒ Responsiveness of government operation ☒ Improved management of public resources ☒ Increased quality of processes and systems ☐ Better collaboration and better communication

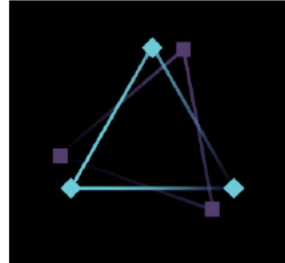


	☐ Reduced risk of corruption and abuse of the law by public servants ☒ Greater fairness, honesty and equality enabled
Open government capabilities This category refers to solutions that enhance the level of openness, transparency, engagement, and communication within public organisations.	☐ Increased transparency of public sector operations ☐ Increased public participation in government actions and policymaking ☐ Improved public control of and influence on government actions and policies

AI Process Type

Select the types of tasks within government operations that the AI solution is performing or expected to perform

Supporting Decision Making- Tasks that support formal or informal agency decision-making on benefits or rights.	☐ Taking decisions on benefits ☐ Managing copyright and intellectual property rights
Analysis, monitoring and regulatory research - Tasks that collect or analyse information that shapes agency policymaking.	☒ Information analysis processes ☐ Monitoring policy implementation ☐ Innovating public policy ☐ Prediction and planning
Enforcement - Tasks that identify or prioritise targets of agency enforcement action.	☐ Smart recognition processes ☐ Management of auditing and logging ☐ Predictive enforcement processes ☐ Supporting inspection processes ☐ Improving cybersecurity ☐ Registration and data notarisation processes ☐ Certification and validation processes
Internal management - Tasks that support agency management of resources, including employee management, procurement, and maintenance of technology systems.	☒ Internal primary processes ☐ Internal support processes ☒ Internal management processes ☒ Procurement management ☐ Financial management and support
Public services and engagement - Tasks that support the direct provision of services to the public or facilitate communication with the public for regulatory or other purposes.	☐ Engagement management ☐ Data-sharing management ☐ Governance and voting ☐ Payments and international transactions ☐ Supporting disintermediation

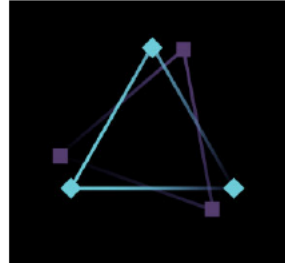


	☐ Authentication of self-sovereign digital ID services ☐ Service integration ☐ Service personalisation ☐ Tracking of goods and assets along the supply chain
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AI Technologies Utilised

Select the types of AI technologies proposed / utilised to deliver the use case.

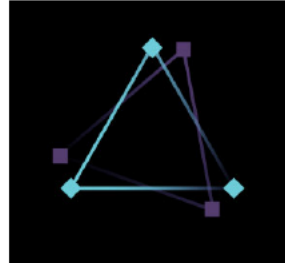
Reasoning or Knowledge Representation AI systems that store, structure, and process knowledge to make inferences, derive conclusions, or support decision-making.	☒ Knowledge Representation ☐ Automated Reasoning ☐ Commonsense Reasoning
Planning and Optimisation AI techniques that generate, refine, and optimise action sequences or resource allocation to achieve specific goals efficiently.	☐ Planning and Scheduling ☐ Searching ☐ Optimisation
Learning and Adaptation AI systems that identify patterns, extract insights, and improve performance over time based on data.	☐ Machine Learning ☐ Deep Learning ☒ Generative AI
Communication and Natural Language Processing AI systems that process, interpret, and generate human language for interaction, comprehension, and automation.	☒ Natural Language Processing (NLP) ☒ Text Generation ☐ Text Mining ☐ Machine Translation
Perception through the Senses AI systems that process and interpret sensory data, such as visual, auditory, or tactile inputs, to understand and respond to their environment.	☐ Computer Vision ☐ Audio Processing
Integration and Interaction with the Environment	☐ Multi-agent Systems ☐ Robotics and Automation



AI systems that interact with physical or digital environments, including autonomous agents, robotics, and interconnected systems.	☐ Connected and Automated Vehicles (CAVs)
AI as a Service AI capabilities delivered through cloud-based platforms, offering tools, models, and infrastructure for AI-powered applications.	☐ AI Services (e.g., cognitive computing, machine learning frameworks, bots) ☐ Infrastructure as a Service (IaaS) ☐ Platform as a Service (PaaS) ☐ Software as a Service (SaaS)
Additional Comments or Explanation:	N/A

Technical Elements

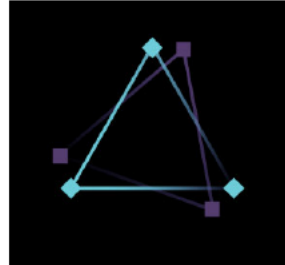
Platform implementation	The "Your AI Data Partner" application is hosted on Azure, leveraging a variety of Azure resources to deliver its functionalities. The deployment is managed using Azure Developer command-line with Bicep templates, ensuring a streamlined and efficient setup process. The application is deployed in both production and non-production environments, providing a robust infrastructure for development and testing. From an end-user perspective, the application is deployed behind an Azure Front Door, which routes user traffic to the Azure App Container where the application is hosted. This setup ensures high availability and scalability, allowing the application to handle many user requests efficiently. The app is hosted on Azure Container Apps and integrates with Azure AI Search for data indexing and retrieval. It includes performance tracing and monitoring with Azure Application Insights and optional authentication using Entra ID. The app supports both manual and automated data ingestion/indexing and provides developer settings for users to tweak the app's configuration.
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	The code repository for the app can be found on GitHub .	
Model / Algorithm used	The application utilises a Large Language Model (LLM) and Retrieval Augmented Generation (RAG) to provide its chat and question-answer capabilities. The LLM is responsible for understanding and generating responses based on user queries, while the RAG component enhances the model's ability to retrieve relevant information from a specific set of internal unstructured data. The current LLM being utilised for the demonstration application is GPT 4.0. The design of the application allows for flexibility in the backend, enabling it to be used with a variety of models that can be plugged in as needed. This modular approach ensures that the application can be easily updated or customised to meet specific requirements or to leverage advancements in AI technology.	
Data Sources Select the types of data sources used and provide relevant details.	☐ Internal ☒ Public	☐ Third-party ☐ Synthetic
	Details: The application uses a set of curated documents that are pre-loaded. It is designed to use a diverse range of data sources as part of this curated set. In the case of this demonstration, the documents relate to the Commonwealth Procurement Rules.	
Risk Assessment and Mitigation Details	The application employs a comprehensive approach to risk analysis to ensure that its operation is smooth and secure. Key measures include: • Authentication: Using Entra ID, this ensures secure access to the application, protecting sensitive data and preventing unauthorized access. • AI Process Auditing: This provides transparency and traceability of the AI's	



Security and Compliance Frameworks Select the security and compliance frameworks and measures implemented. Provide details or additional artifacts if relevant.	responses, allowing users to review the response chain and understand how the AI arrived at its conclusions. • Sensitive Information Mitigation: A disclaimer must be read before logging in via the GovAI website. • Governance and Oversight: Mechanisms are in place to ensure safe and responsible use, which include authentication via GovTEAMS accounts.	
	☐ Authority to Operate (ATO) ☐ System Security Plan (SSP) ☐ Security Risk Management Plan (SRMP)	☐ Information Security Registered Assessors Program (IRAP) ☐ Penetration Testing
	Details: No Security and Compliance Frameworks have been implemented at this stage.	
Assurance and Government Frameworks	Australia's AI Ethics Principles have been considered and applied during planning, however, no formal assessment against the AI Assurance framework has been undertaken at this time as this is not mandatory for low-risk use-cases.	
Record maintenance	Documentation is maintained for model choices, training materials, testing results, and the curated document set. The platform also supports the exporting of conversations, allowing users to maintain records of their interactions, and review by administrators.	
Disengagement	Models can be disconnected by admin.	
Performance Metrics and Results	To monitor and evaluate the benefits of the AI solution, we are investigating the use of the following performance indicators and metrics: • Access Frequency: How often the application is accessed.	



- **User Types:** Differentiating between new and returning users.
- **Daily Usage:** Overall daily interaction with the application.
- **Cost and Usage:** Tracking the costs and usage of the application.

The app also supports performance tracing and monitoring with Azure Application Insights.