UNIVERSITAS
GADJAH MADA
**Pengembangan Chatbot Berbasis Retrieval-Augmented Generation (RAG) Menggunakan N8N untuk Manajemen
Pengetahuan Multi-Domain, Studi Kasus Proyek Sistem Pemerintahan Berbasis Elektronik**
Ahmad Syauqi Taqiyuddin, Dr. Irkham Huda, S.Kom., M.Cs.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

[1] M. Rezaei, "Artificial intelligence in knowledge management: Identifying and addressing the key implementation challenges," *Journal of Knowledge Management*, vol. 29, no. 1, pp. 45–68, 2025.

[2] C. Kesuma, "Retrieval augment generation (rag) governance architecture for enterprise information systems," *International Journal of Informatics, Economics, Management and Science (IJIEMS)*, vol. 4, no. 2, pp. 133–142, 2025.

[3] H. Irawan, "Utilizing retrieval augmented generation (rag)-based chatbots as an innovative learning tool in higher education: A case study on the use of digital learning resources," 2025. [Online]. Available: https://www.researchgate.net/publication/397094598

[4] Y. Chen *et al.*, "Application of retrieval-augmented generation for interactive industrial knowledge management via a large language model," *Computer Standards & Interfaces*, vol. 93, p. 104043, 2025. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S0920548925000248

[5] J. Benita, K. V. C. Tej, E. V. Kumar, G. V. Subbarao, and C. Venkatesh, "Implementation of retrieval-augmented generation (rag) in chatbot systems for enhanced real-time customer support in e-commerce," in *Proceedings of the 2024 3rd International Conference on Automation, Computing and Renewable Systems (ICACRS)*, 2024.

[6] P. Béchard and O. M. Ayala, "Reducing hallucination in structured outputs via retrieval-augmented generation," *arXiv preprint arXiv:2404.08189*, 2024. [Online]. Available: https://arxiv.org/abs/2404.08189

[7] P. Lewis, E. Perez, A. Piktus, F. Petroni, V. Karpukhin, N. Goyal, H. Küttler, M. Lewis, W.-t. Yih, T. Rocktäschel, S. Riedel, and D. Kiela, "Retrieval-augmented generation for knowledge-intensive NLP tasks," in *Proceedings of the 34th International Conference on Neural Information Processing Systems*, ser. NIPS '20. Red Hook, NY, USA: Curran Associates Inc., 2020.

[8] S. Vijayakumaran, M. Vimaladevi, R. Thangamani, N. Vibeesh, M. Chandru, and S. V. Easwaramoorthy, "Revolutionizing legal access: An ai-driven rag chatbot for real-time judicial insights," in *Proceedings of the 2025 3rd International Conference on Artificial Intelligence and Machine Learning Applications (AIMLA)*, 2025, pp. 1–6.

[9] T. Piccardi, "Structured retrieval-augmented generation for enterprise knowledge management," Master's thesis, Politecnico di Torino, 2025. [Online]. Available: https://webthesis.biblio.polito.it/

[10] S. Es, J. James, L. Espinosa-Anke, and S. Schockaert, "Ragas: Automated evaluation of retrieval augmented generation," in *Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics: System Demonstrations (EACL)*, 2024, pp. 150–158. [Online]. Available: https://aclanthology.org/2024.eacl-demo.16/

UNIVERSITAS
GADJAH MADA
**Pengembangan Chatbot Berbasis Retrieval-Augmented Generation (RAG) Menggunakan N8N untuk Manajemen
Pengetahuan Multi-Domain, Studi Kasus Proyek Sistem Pemerintahan Berbasis Elektronik**
Ahmad Syauqi Taqiyuddin, Dr. Irkham Huda, S.Kom., M.Cs.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

[11] P. Shojaee, S. S. Harsha, D. Luo, A. Maharaj, T. Yu, and Y. Li, "Federated retrieval augmented generation for multi-product question answering," in *Proceedings of the 31st International Conference on Computational Linguistics: Industry Track*. Abu Dhabi, UAE: Association for Computational Linguistics, 2025, pp. 387–397. [Online]. Available: https://aclanthology.org/2025.coling-industry.33/

[12] N. Choi, "Reference-aligned retrieval-augmented question answering over heterogeneous proprietary documents," in *Proceedings of the ACM Conference on Information and Knowledge Management*, 2025.

[13] J. Shuster *et al.*, "Retrieval augmentation reduces hallucination in conversation," in *Proceedings of the Association for Computational Linguistics (EMNLP)*, 2021, pp. 3784–3803. [Online]. Available: https://arxiv.org/abs/2104.07567

[14] Z. Ji *et al.*, "Survey of hallucination in natural language generation," *ACM Computing Surveys*, vol. 55, no. 12, pp. 1–38, 2023.

[15] Y. Chang *et al.*, "A survey on evaluation of large language models," *ACM Transactions on Intelligent Systems and Technology*, vol. 15, no. 3, pp. 1–39, 2024.

[16] M. Al-Emran *et al.*, "Knowledge management systems: A systematic review and future research directions," *International Journal of Information Management*, vol. 68, p. 102558, 2023.

[17] J. de Bem Machado *et al.*, "Tacit and explicit knowledge in organizations: a systematic review," *Journal of Knowledge Management*, vol. 26, no. 11, pp. 1–23, 2022.

[18] K. C. Laudon and J. P. Laudon, *Management Information Systems: Managing the Digital Firm*, 18th ed. Boston: Pearson, 2024. [Online]. Available: https://www.pearson.com/

[19] J. Butler, S. Jaffe, N. Baym, M. Czerwinski, S. Iqbal, K. Nowak, R. Rintel, A. Sellen, M. Vorvoreanu, B. Hecht, and J. Teevan, "Microsoft new future of work report 2023," Microsoft Research, Tech. Rep. MSR-TR-2023-34, 2023. [Online]. Available: https://aka.ms/nfw2023

[20] W. X. Zhao, K. Zhou, J. Li, T. Tang, X. Wang, Y. Hou, Y. Min, B. Zhang, J. Zhang, Z. Dong *et al.*, "A survey of large language models," *Frontiers of Computer Science*, vol. 20, no. 12, p. 2012627, 2026. [Online]. Available: https://link.springer.com/article/10.1007/s11704-026-60308-3

[21] T. Lin, Y. Wang, X. Liu, and X. Qiu, "A survey of transformers," *AI Open*, vol. 3, pp. 111–132, 2022. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S2666651022000146

[22] J. Wei, Y. Tay, R. Bommasani, C. Raffel, B. Zoph, S. Borgeaud, D. Yogatama, M. Bosma, D. Zhou, D. Metzler, E. H. Chi, T. Hashimoto, O. Vinyals, P. Liang, J. Dean, and W. Fedus, "Emergent abilities of large language models," *Transactions on Machine Learning Research*, 2022. [Online]. Available: https://openreview.net/forum?id=yzkSU5zdwD

UNIVERSITAS
GADJAH MADA
**Pengembangan Chatbot Berbasis Retrieval-Augmented Generation (RAG) Menggunakan N8N untuk Manajemen
Pengetahuan Multi-Domain, Studi Kasus Proyek Sistem Pemerintahan Berbasis Elektronik**
Ahmad Syauqi Taqiyuddin, Dr. Irkham Huda, S.Kom., M.Cs.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

[23] R. K. Talaseela, "Intelligent workflow orchestration for enterprise contexts," *European Journal of Computer Science and Information Technology*, vol. 13, no. 2, pp. 72–73, 2025. [Online]. Available: https://doi.org/10.37745/ejcsit.2013/vol13n272739

[24] n8n Community, *n8n Documentation: Node-Based Automation in Modern Workflows*, n8n.io, 2025. [Online]. Available: https://docs.n8n.io/

[25] IBM, "What is RAG (Retrieval-Augmented Generation)?" IBM Think Topics, 2024. [Online]. Available: https://www.ibm.com/think/topics/retrieval-augmented-generation

[26] W. Gao *et al.*, "Retrieval-augmented generation for large language models: A survey," *arXiv preprint arXiv:2312.10997*, 2023. [Online]. Available: https://arxiv.org/abs/2312.10997

[27] S. Borgeaud *et al.*, "Improving language models by retrieving from trillions of tokens," in *Proceedings of the International Conference on Machine Learning (ICML)*, 2022, pp. 2206–2240. [Online]. Available: https://arxiv.org/abs/2112.04426

[28] L. Wang *et al.*, "Text embeddings by weakly-supervised contrastive pre-training," *arXiv preprint arXiv:2212.03533*, 2022. [Online]. Available: https://arxiv.org/abs/2212.03533

[29] S. Han, "Finding the best chunking strategy for accurate AI responses," NVIDIA Technical Blog, 2025. [Online]. Available: https://developer.nvidia.com/blog/finding-the-best-chunking-strategy-for-accurate-ai-responses/

[30] R. Schwaber-Cohen, "What is a vector database & how does it work? use cases + examples," Pinecone Learning Center, 2023. [Online]. Available: https://www.pinecone.io/learn/vector-database/

[31] A. Ingber and E. Liberty, "Accurate and efficient metadata filtering in Pinecone's serverless vector database," Pinecone Research (ICML 2025), 2025. [Online]. Available: https://www.pinecone.io/research/accurate-and-efficient-metadata-filtering-in-pinecones-serverless-vector-database/

[32] V. Klyuev and V. Oleshchuk, "Semantic retrieval: an approach to representing, searching and summarising text documents," *International Journal of Information Technology, Communications and Convergence*, vol. 1, no. 2, pp. 221–235, 2011. [Online]. Available: https://www.researchgate.net/publication/264817692_Semantic_retrieval_an_approach_to_representing_searching_and_summarising_text_documents

[33] L. Weng, "Llm-powered autonomous agents," Blog post on lilianweng.github.io, 2023. [Online]. Available: https://lilianweng.github.io/posts/2023-06-23-agent/

[34] A. Dennis, B. H. Wixom, and R. M. Roth, *Systems Analysis and Design*, 8th ed. Hoboken, NJ: John Wiley & Sons, 2022.

[35] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2021.

[36] Google Cloud, *Gemini Embedding 2 Model Documentation*, Google Cloud Documentation, 2025. [Online]. Available: https://docs.cloud.google.com/gemini-enterprise-agent-platform/models/gemini/embedding-2

UNIVERSITAS
GADJAH MADA
**Pengembangan Chatbot Berbasis Retrieval-Augmented Generation (RAG) Menggunakan N8N untuk Manajemen
Pengetahuan Multi-Domain, Studi Kasus Proyek Sistem Pemerintahan Berbasis Elektronik**
Ahmad Syauqi Taqiyuddin, Dr. Irkham Huda, S.Kom., M.Cs.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

[37] L. Zheng, W.-L. Chiang, Y. Sheng, S. Zhuang, Z. Wu, Y. Zhuang, Z. Lin, Z. Li, D. Li, E. Xing, H. Zhang, J. Gonzalez, and I. Stoica, "Judging llm-as-a-judge with mt-bench and chatbot arena," in *Advances in Neural Information Processing Systems*, A. Oh, T. Naumann, A. Globerson, K. Saenko, M. Hardt, and S. Levine, Eds., vol. 36. Curran Associates, Inc., 2023, pp. 46 595–46 623. [Online]. Available: https://proceedings.neurips.cc/paper_files/paper/2023/file/91f18a1287b398d378ef22505bf41832-Paper-Datasets_and_Benchmarks.pdf

[38] S. Laptick, "Prototype model in software development life cycle (sdlc)," 2022. [Online]. Available: https://xbsoftware.com/blog/prototype-model-sdlc/

[39] R. Fielding, M. Nottingham, and J. Reschke, "HTTP Semantics," Internet Requests for Comments, RFC Editor, STD 97, Jun. 2022. [Online]. Available: https://www.rfc-editor.org/rfc/rfc9110.html

[40] Vercel Inc., "Serverless functions execution timeout limits," 2024. [Online]. Available: https://vercel.com/docs/functions/configuring-functions/duration

[41] M. Publishing, "A systematic literature review of tacit knowledge in organizations in the past decade," *Malque Publishing*, 2026. [Online]. Available: https://www.researchgate.net/publication/396171954_A_systematic_literature_review_of_tacit_knowledge_in_organizations_in_the_past_decade

[42] S. Yao *et al.*, "React: Synergizing reasoning and acting in language models," in *Proceedings of the International Conference on Learning Representations (ICLR)*, 2023. [Online]. Available: https://arxiv.org/abs/2210.03629

[43] P. Shojaee, S. S. Harsha, D. Luo, A. Maharaj, T. Yu, and Y. Li, "Federated retrieval augmented generation for multi-product question answering (MKP-QA)," in *Proceedings of the 31st International Conference on Computational Linguistics (COLING): Industry Track*, 2025, pp. 33–42. [Online]. Available: https://aclanthology.org/2025.coling-industry.33/