



Knowledgebases with Structured data - Redshift

- Unstructured data in S3 Storage using Opensearch Vector store
- Bedrock handles :
 - ◆ Chunking
 - ◆ Parsing
 - ◆ Ingestion
 - ◆ Syncing new data



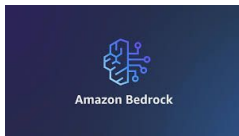
Knowledgebases with Structured data - Redshift

- **Redshift:** A fully managed, petabyte-scale data warehouse service in AWS.

- **Core Strengths:**
 - High Performance: Columnar storage, data compression, and parallel processing.
 - Scalable: Seamlessly scales from gigabytes to petabytes.
 - Integrations: Natively connects with AWS analytics ecosystem (S3, Glue, Athena, QuickSight).

Use Cases:

- Data analytics & reporting
- Complex ad-hoc reporting
- Machine learning and data science



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Caution: When Using Redshift as a Vector Store in AWS Bedrock

- ➔ **LLM-to-SQL Translation:** Natural-language prompts are automatically converted into SQL by the LLM
- ➔ **Risks of Uncontrolled Queries:** Unexpected data volume scanned resulting in spikes in Redshift compute costs.
- ➔ **Cost Impact:** Redshift charges by data scanned and compute node usage.