

# Database & Storage Options

	Azure Cosmos DB	Azure SQL Database	Azure Blob Storage
Data Model	NoSQL (JSON, Key-Value, Graph, Table, Vector)	Relational (Structured)	Object Storage (Blobs)
Performance	High for distributed workloads.	High for structured queries	Optimized for file storage
Scalability	Horizontal scaling (global distribution)	Vertical scaling	High (supports massive data storage)
Pros	<ul style="list-style-type: none"><li>• Multi-model database</li><li>• Auto-scalable and easy to use</li></ul>	<ul style="list-style-type: none"><li>• Familiar SQL query language</li><li>• Managed service with automated backups</li></ul>	<ul style="list-style-type: none"><li>• Cost-effective for large unstructured data</li><li>• Supports tiered storage (hot, cool, cold, archive)</li><li>• Native integration with Azure AI/ML</li></ul>
Cons	<ul style="list-style-type: none"><li>• More expensive for high throughput workloads</li><li>• Requires indexing &amp; partitioning knowledge</li></ul>	<ul style="list-style-type: none"><li>• Not ideal for unstructured data</li><li>• Vertical scaling can be costly</li><li>• Requires schema management</li></ul>	<ul style="list-style-type: none"><li>• No direct querying (requires additional services for metadata management)</li><li>• Limited metadata storage</li></ul>
Use Cases	<ul style="list-style-type: none"><li>• IoT and telematics</li><li>• Gaming</li><li>• Web and mobile applications</li></ul>	<ul style="list-style-type: none"><li>• Relational data storage for cloud-based applications and websites</li><li>• Backup and restore</li></ul>	<ul style="list-style-type: none"><li>• Storing image files and raw analysis results</li><li>• Media and content storage</li><li>• Data archiving and backup</li></ul>
Cost	\$24 per month for 400 RU/s	Starts at \$0.02 per hour (Basic tier)	\$0.15/GB (premium), \$0.018/GB (hot), \$0.01/GB (cool), \$0.0036/GB (cold), \$0.002/GB (archive)  - all for the first 50TB/month

**Recommended Database: Azure Blob Storage** as it stores image files and processed AI results efficiently and cost-effectively.

[Create an Azure storage account - Azure Storage | Microsoft Learn](#)