Cracking the Code: Selecting the Best Database for Your IoT Endeavors

Marco Dal Pino

DATA SATURDAY
Sofia, Oct 07th

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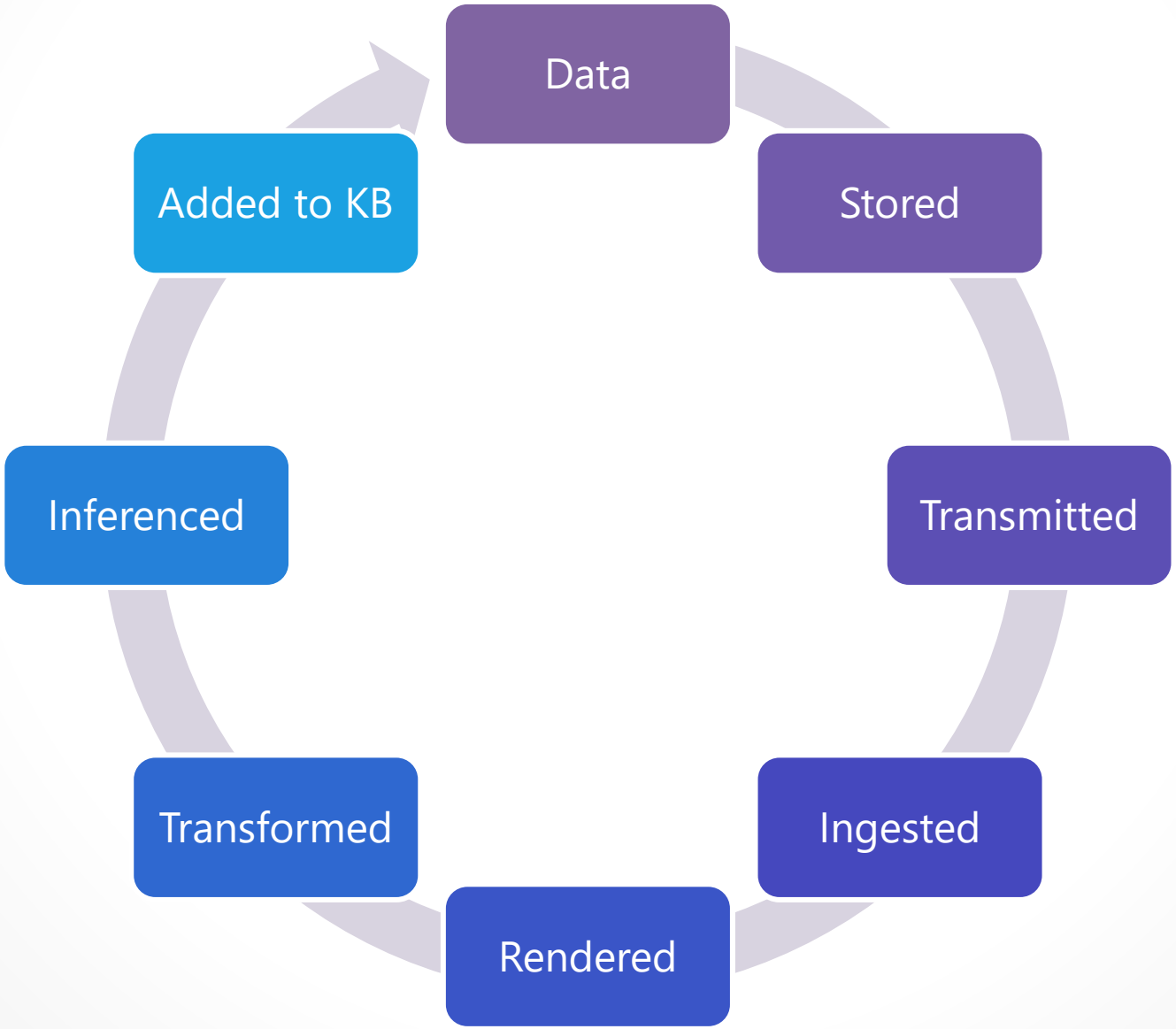
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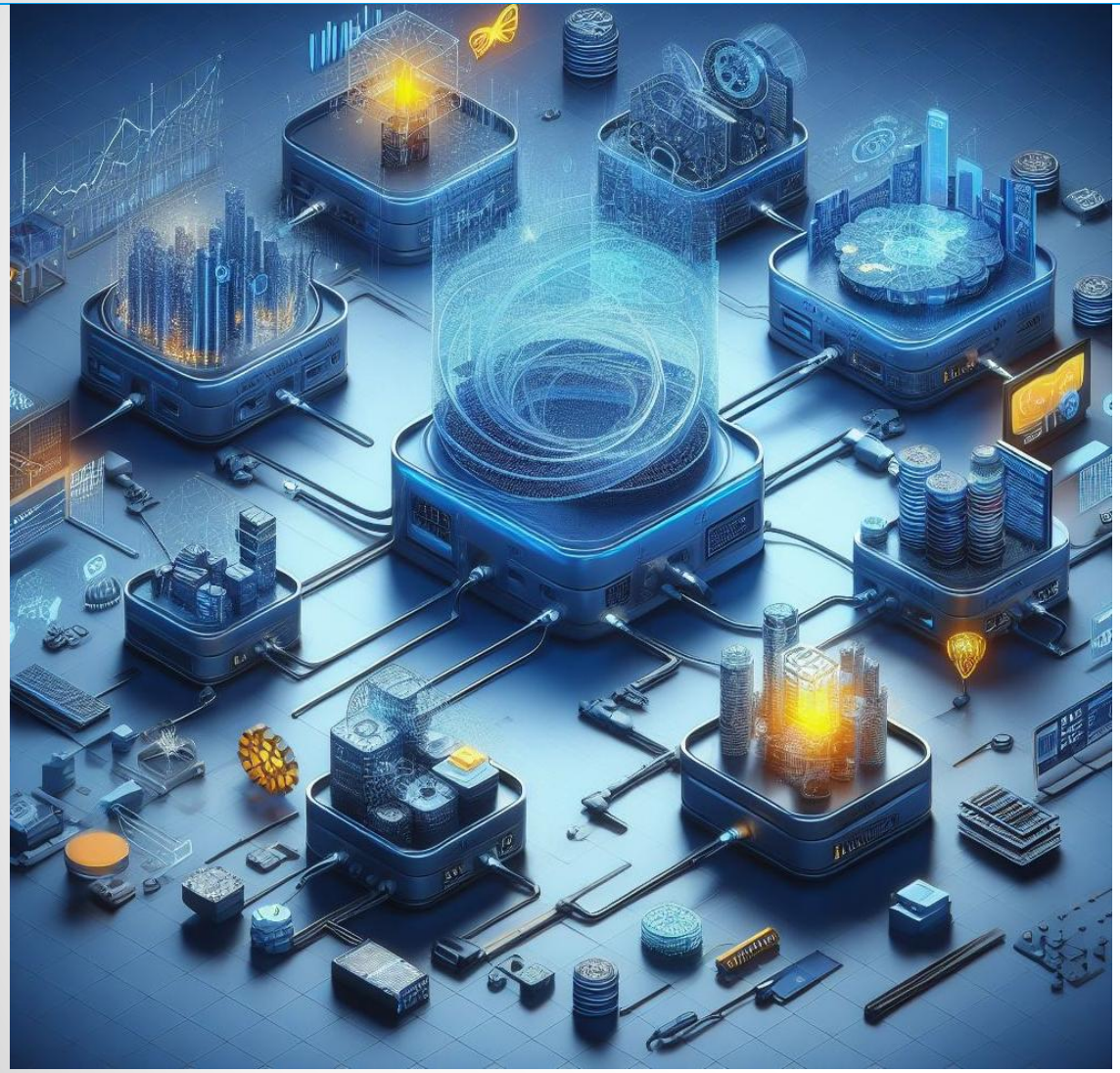
Key Factors for Database Selection

- Scalability considerations for IoT applications
- Handling data growth and increasing device connectivity
- Reliability requirements for ensuring data availability
- Security and data protection measures
- Significance of data structure on database choice

Database Types for IoT

- Relational databases benefits for structured data storage
- Flexibility and scalability advantages of NoSQL databases
- Time-series databases for storing and analyzing time-stamped IoT data
- Graph databases in handling complex relationships and interconnections

Edge Database Support for IoT



- Edge computing concept and its relevance to IoT
- Need for database support on the edge for local data processing
- Benefits of edge databases in disconnected or low-connectivity IoT deployments

Cloud Databases for IoT

- Advantages of utilizing cloud databases in IoT architectures
- Scalability and elasticity benefits offered by cloud database services
- Ability to leverage cloud-based analytics and AI capabilities for IoT data processing
- Microsoft's recent advancements in cloud database technologies

Evaluating and Comparing Databases

- Considerations for evaluating database options for IoT applications
- Factors to consider when comparing databases, including scalability, reliability, and security
- Criteria for evaluating performance and suitability for specific IoT use cases
- Compatibility with IoT platforms and protocols for seamless integration
- Best practices for comparing databases and making informed decisions

Integrating Databases into IoT Architecture

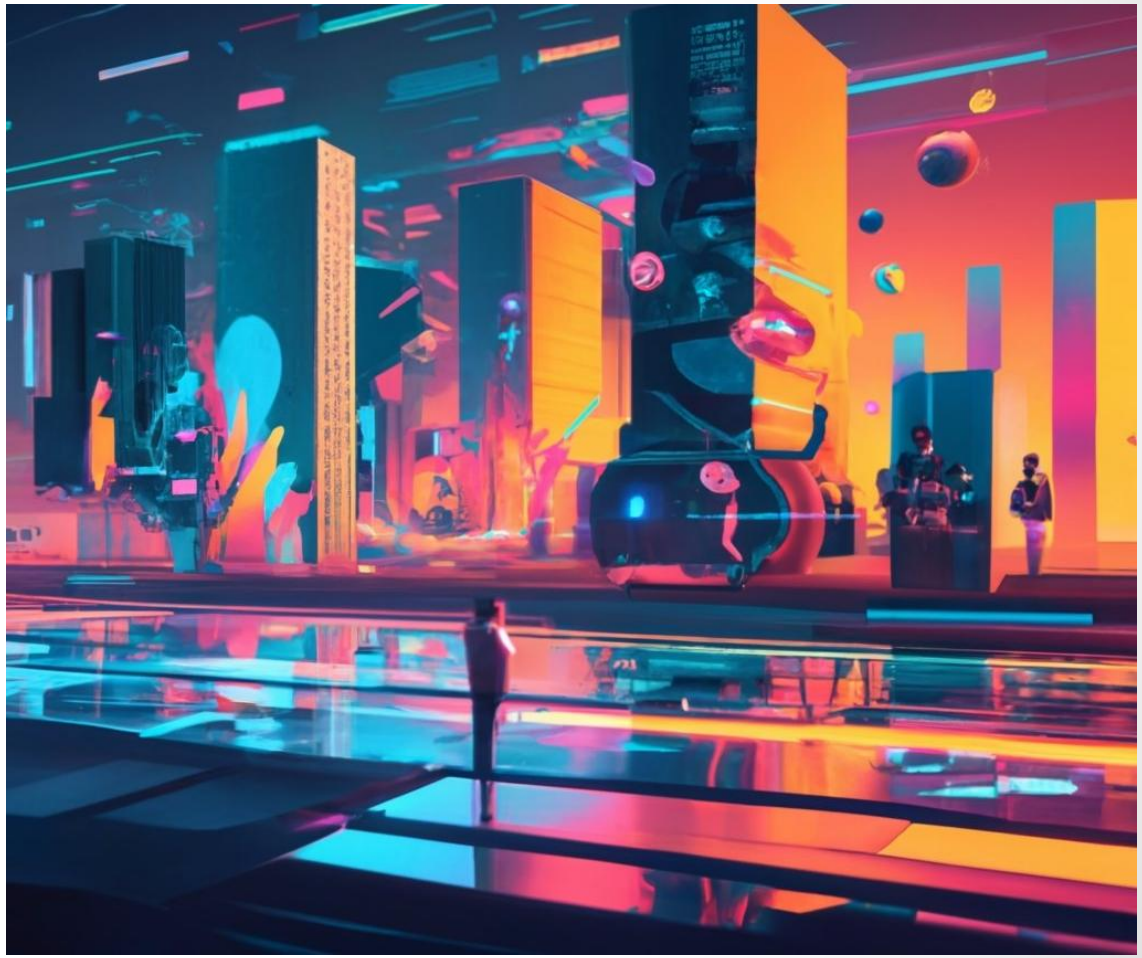
- Connecting IoT applications and devices with databases
- Efficient data ingestion strategies from IoT devices
- Data transformation and validation methods
- Data flow from IoT devices to the database
- Different integration patterns and protocols

Optimizing Performance and Managing Data Growth

- Optimize database performance in IoT applications
- Manage data growth, including data partitioning, compression, and archiving
- Ensure data integrity and consistency in distributed IoT environments

Emerging Trends and Future Considerations

- Edge databases and federated architectures
- Integration of ML & AI with IoT data and its impact on database technologies
- Insights into Microsoft's vision for future advancements in IoT data management
- Evolving capabilities in IoT data management



Q&A

References and Links

- Azure Databases - Types of Databases on Azure | Microsoft Azure
- Azure IoT – Internet of Things Platform | Microsoft Azure

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- 30+ years in IT (Developer, Architect, Consultant, PM, Trainer, MCT)
- Speaker, Community addicted
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Finally !! We prepared your "LUNCH" break menu

Upcoming Events

JS Talks

Nov 17-18, 2023 @Sofia Tech Park

Tickets (Eventbrite)

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