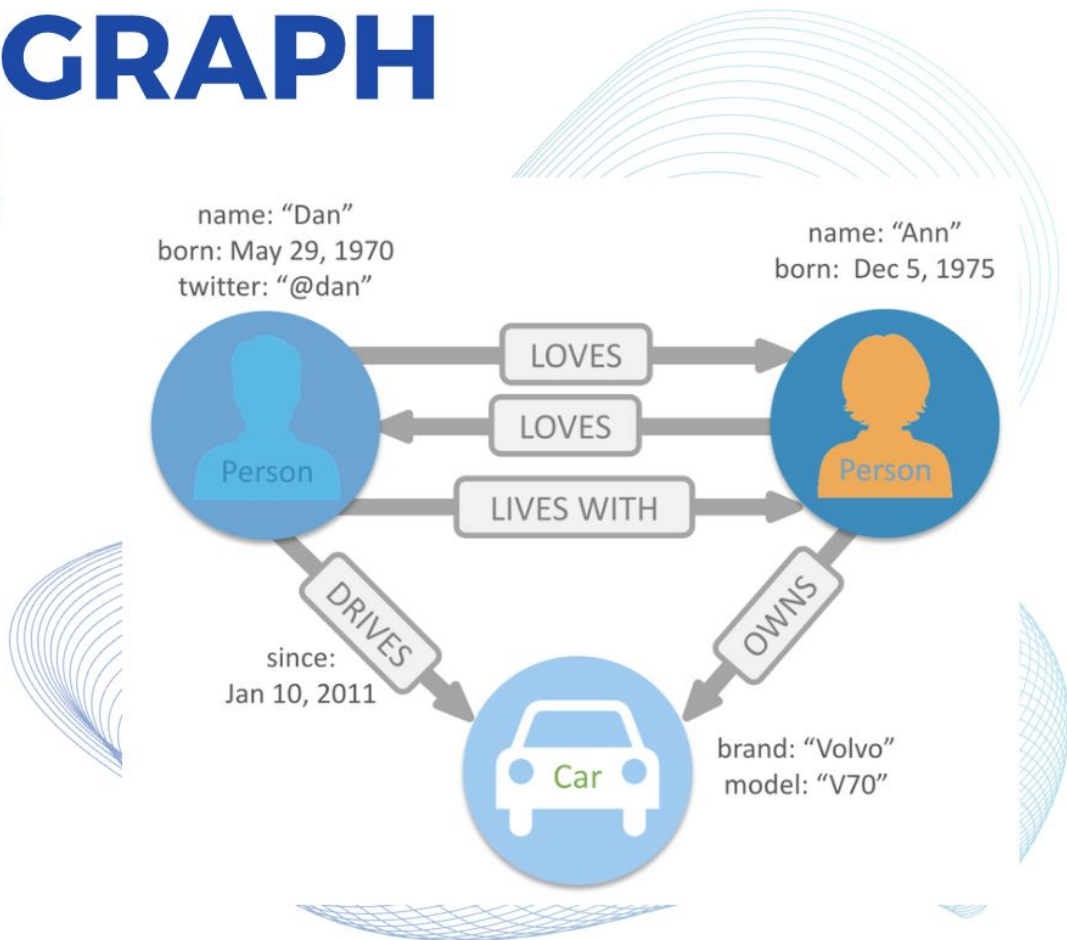# AZURE COSMOS DB:
ALT-GRAPH

Ava Ekholdt, Michael Hyder, Ayumu Izumo,
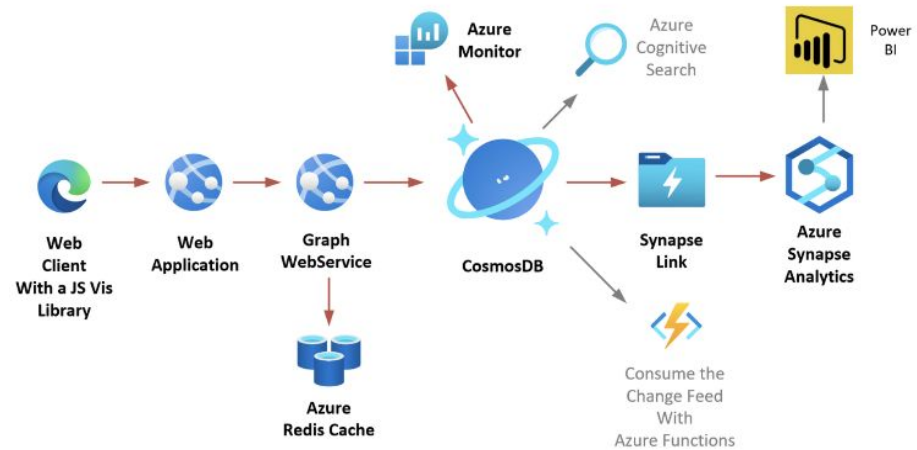Naeco Le, Kailen Richards

WHAT IS A GRAPH DATABASE

- Stores nodes and relations instead of tables or documents
- Data stored similar to how you would sketch it out
- Nodes = entities in graph
- Vertices = relationships between the nodes

name: "Dan"
born: May 29, 1970
twitter: "@dan"

name: "Ann"
born: Dec 5, 1975

Person

LOVES

LOVES

LIVES WITH

Person

DRIVES

OWNS

since:
Jan 10, 2011

Car

brand: "Volvo"
model: "V70"

WHAT IS ALTGRAPH

- Alt-graph implements graph workloads with Azure Cosmos DB for No SQL
- Highly efficient performance with other Azure features
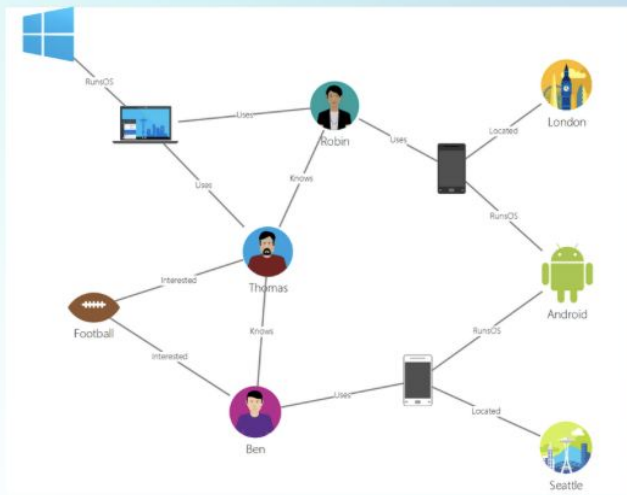- Fast in-memory processing

WHY USE ALT GRAPH?

Some Common Use Cases:
- Bill of materials graph
- social media
- knowledge graphs

- If visualizing a problem as a database, and it appears as a graph means it should be implemented with a graph database
- Fast in-memory processing
- Lower cosmos DB Ru cost
- Simple to comprehend conceptually
- Based on SQL

WHAT WE DID

Set up in Azure

- Created Cosmos Database
- Azure Cache for Redis
- Storage Account
- Data Factory

Create Environment

- Copied Github locally on one machine
- Data on machine
- Wrangle the data
- Running software development using Gradle