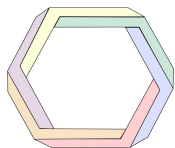


Ephemeral Data Handling in Microservices

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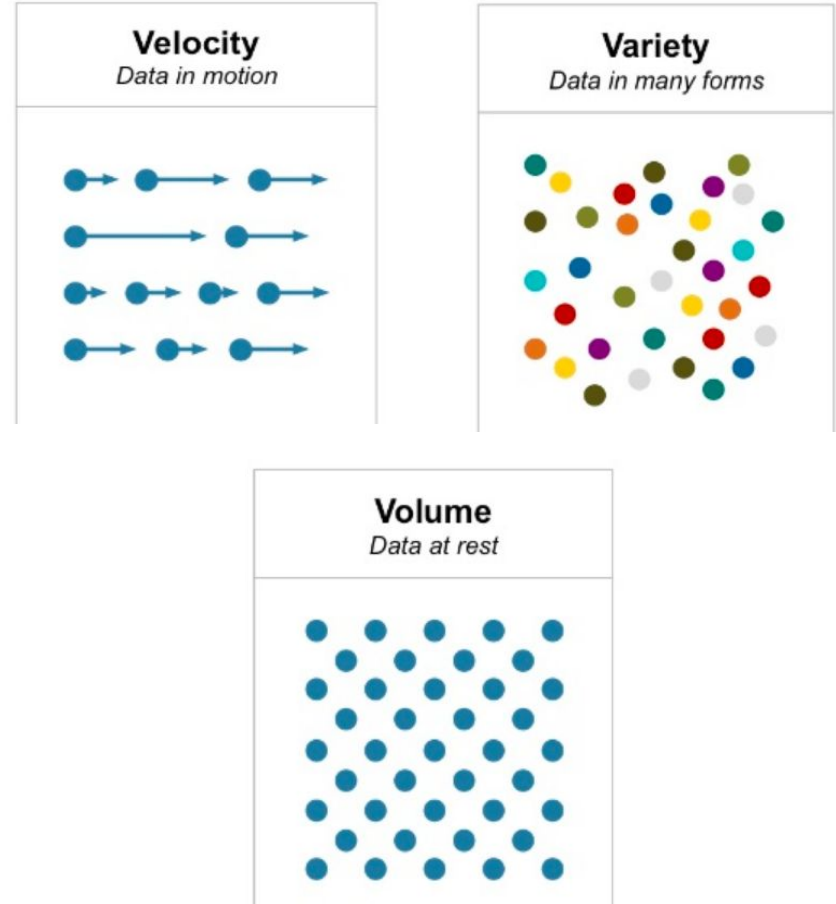
Agenda

What do we want from ephemeral data handling?

How do we want to handle data?

Data handling with TQuery (examples & demo)

What do we want from data handling?



What is
ephemerality?



Just an example

1. Acquire credentials to access the smart watch of a patient
2. Collect biometric data from the smart watch
3. Match data against the given dates
4. Project only the fields of interest (e.g. temperature)
5. Anonymize data

TQuery

Framework for ephemeral data handling
(query language + execution engine, implemented in Jolie)

How do we want to handle data?

General purpose PL

Query Languages

DBMS-based

Library-based

Few words about query languages

Relational approach

LINQ

CQ Engine

Document-based approach

MongoDB aggregation
framework

MQuery

TQuery

Data handling meets TQuery

Variety

Jolie

Velocity

Ephemerality

Ephemerality

In-memory data
handling

Just an example

```
credentials
```

```
|>getTemperature@SmartWatch
```

```
|>match{date==20181128 || date==20181129 || date==20181130}
```

```
|>project{t in temperatures, pseudoID in patient_id}
```

```
|>temps;
```

Ok, what else I
can do with
TQuery?

Match

Project

Unwind

LookUp

Group

Demo time!

Thank You!