

Implementing State Management



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Module Overview



State management building block

Dapr components

- Switch between backing stores

Sidecar API URLs

Dapr SDKs

- Simplified access to the sidecar

Implement a shopping basket



Dapr State Management Building Block

key: value

“UserName”: “Mark”



When should I
use the Dapr
state
management
building block?

What if I already have a database?

- Dapr does not force you to use its building blocks

Key-value pairs

- e.g. preferences, configuration, session state
- Database might be overkill
- Simple, cheap, fast backing stores

GloboTicket shopping basket

- Only requires short-term retention



Benefits of Dapr State Management

Swappable Backend Stores

e.g. Redis,
MongoDb etc.

Multiple State Stores

Simple API

HTTP request to
get and set state

Isolated state by default

Can also be
shared

Time to Live (TTL)

Concurrency

Querying

Bulk Operations

Encryption



Demo



Using the Dapr state management building block

- Direct access with HTTP requests



Dapr Component Definitions



By default, “daprun” will use
the global components



Dapr State Store URLs

`http://localhost:3500/v1.0/state/statestore`

3500 is the default Dapr sidecar port

Environment variable: **DAPR_HTTP_PORT**

Versioned APIs allow for **backwards compatibility**

If you can make HTTP requests you can use Dapr

Dapr SDKs make it even easier



Dapr client SDKs simplify
accessing Dapr building blocks



Demo

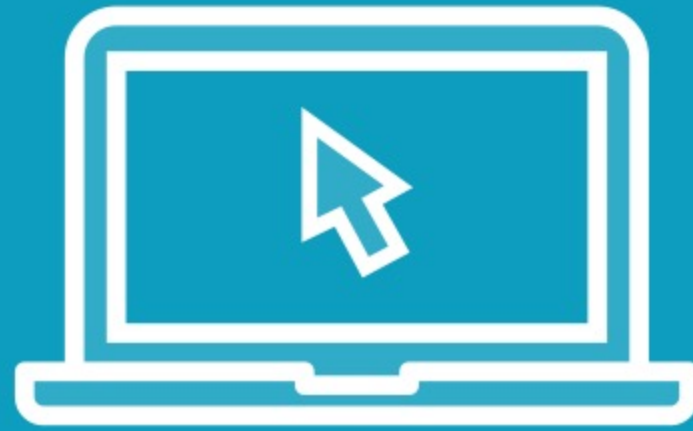


Scripts to start GloboTicket in self-hosted mode

- Uses “dapr run”



Demo



Running GloboTicket in self-hosted mode

- Frontend and catalog microservices



Demo



Use the Dapr state store in GloboTicket to implement the shopping basket



Demo



Testing the Dapr state store



Demo



**Switch to a different backend store for
state management**



Summary



Dapr state management building block

Dapr components

- Global components

Pluggable backend state stores

- e.g. Redis and Azure Blob Storage

.NET Dapr SDK

GloboTicket demo application



Dapr State Management Building Block



Up Next:
Invoking Services

