UI5con

GraphQL and sap.ui.mdc

A Powerful Team for Metadata-Driven Apps

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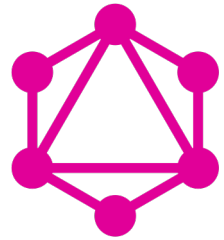

sap.ui.mdc

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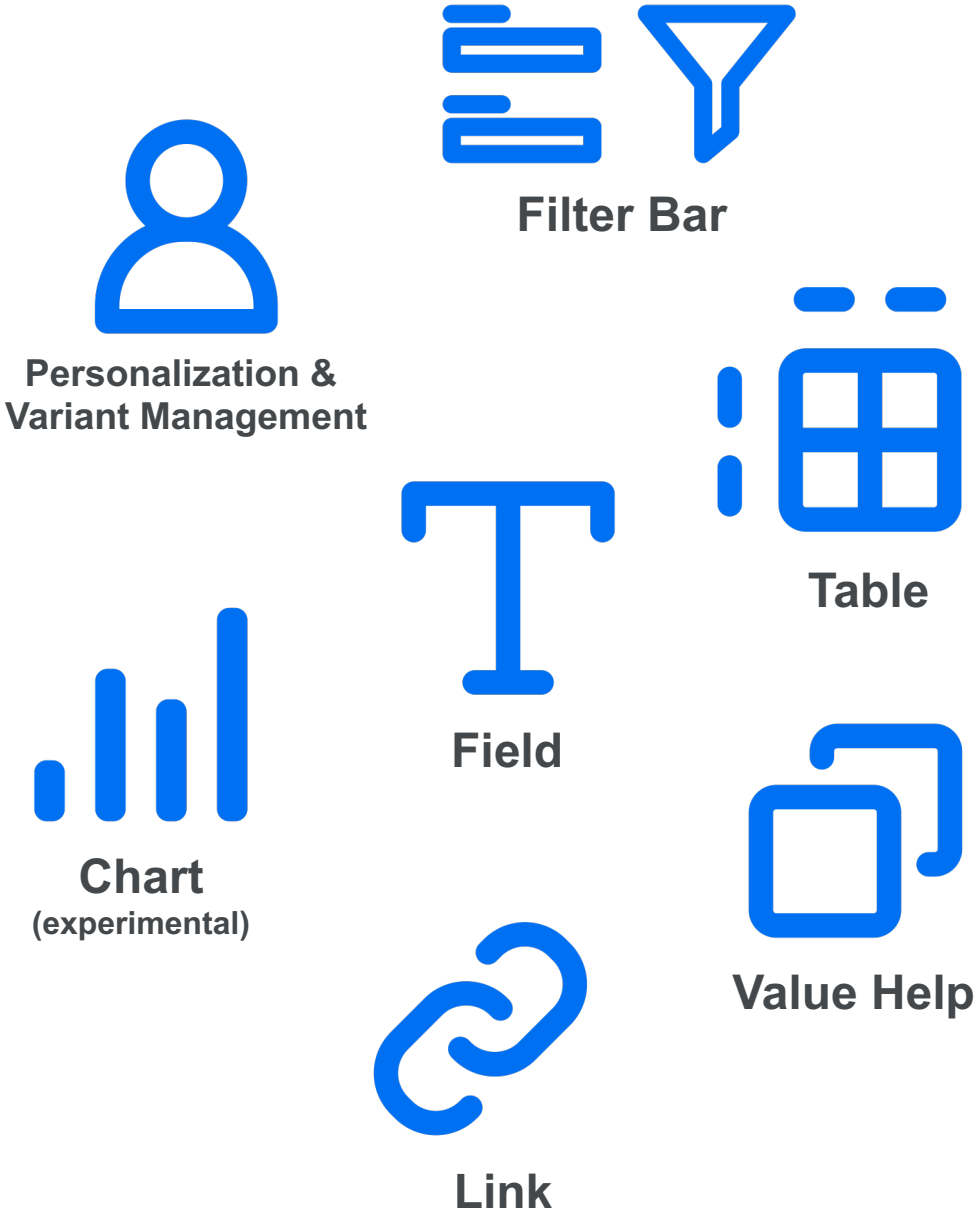
What is sap.ui.mdc?

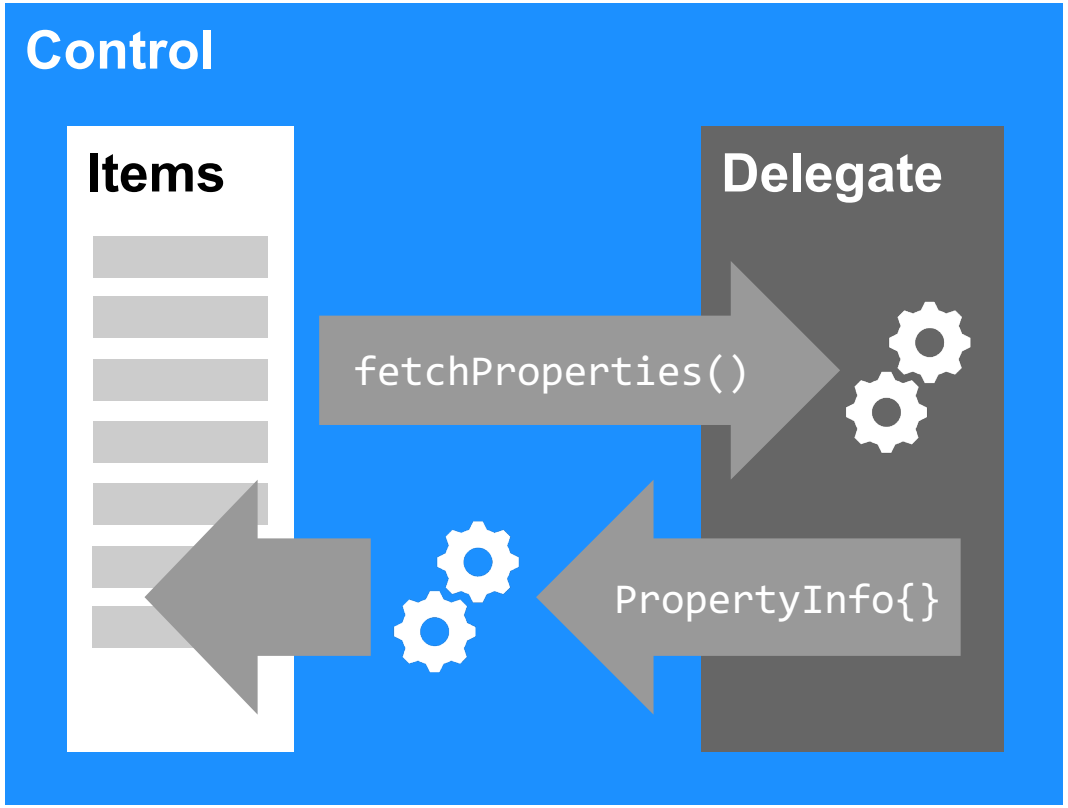
- Control library
- For application/framework development
- For building metadata-driven controls
- For any UI5 data model or protocol
- Base of SAP Fiori Elements Floorplans and Flexible Programming Model for OData V4

- Generally available with UI5 version 1.124
- Even better with UI5 version 2.0!



Architectural Overview

Brief and simplified



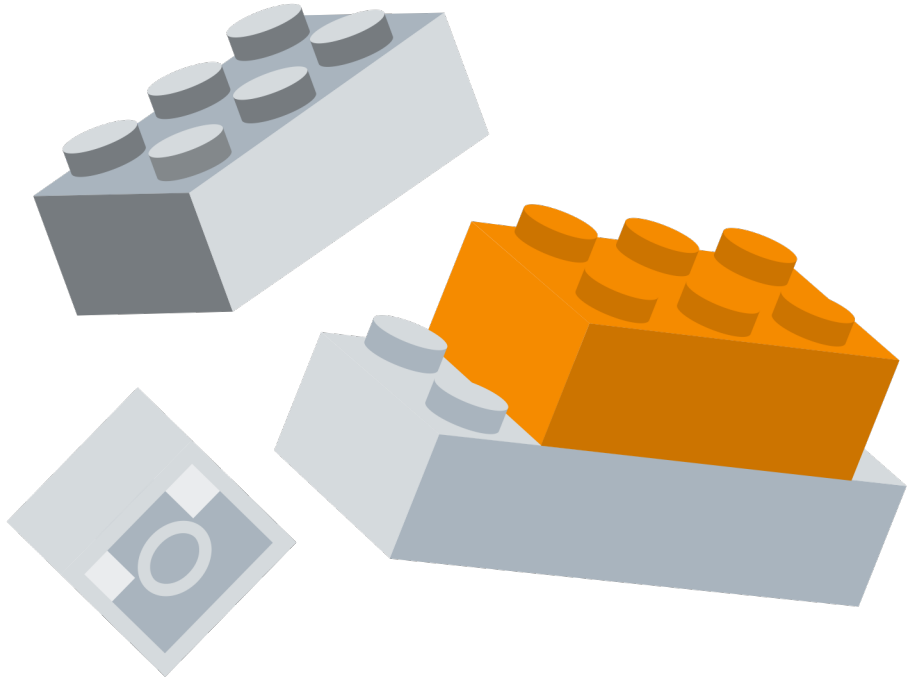
Control

- Implements Fiori UX design
- Creates UI based on metadata & p13n

Delegate

- Interpretes service metadata
- Provides PropertyInfo to the control
- Provides creation of items
- Provides specific behavior via callback

GraphQL & Apollo



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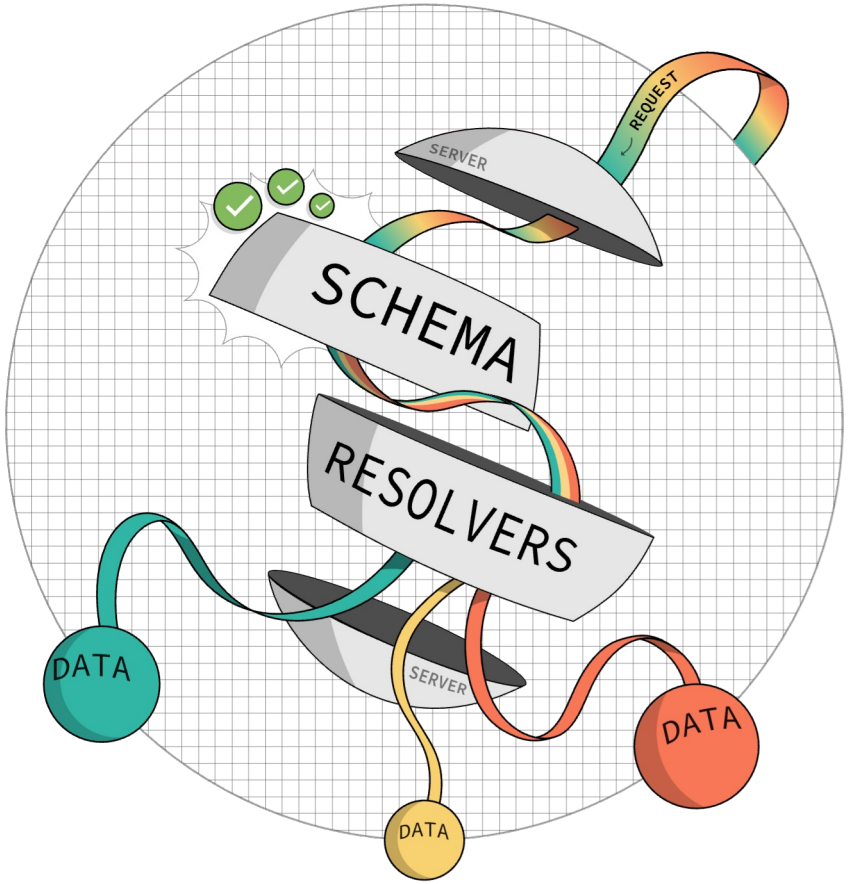
What is GraphQL?

GraphQL is a query language for your APIs

- Declarative Query Language
- Single endpoint design
- Strongly Typed
- Introspective
- Efficient Data Loading
- Real-time data updates
- Decoupling Client and Server
- Evolution-Friendly

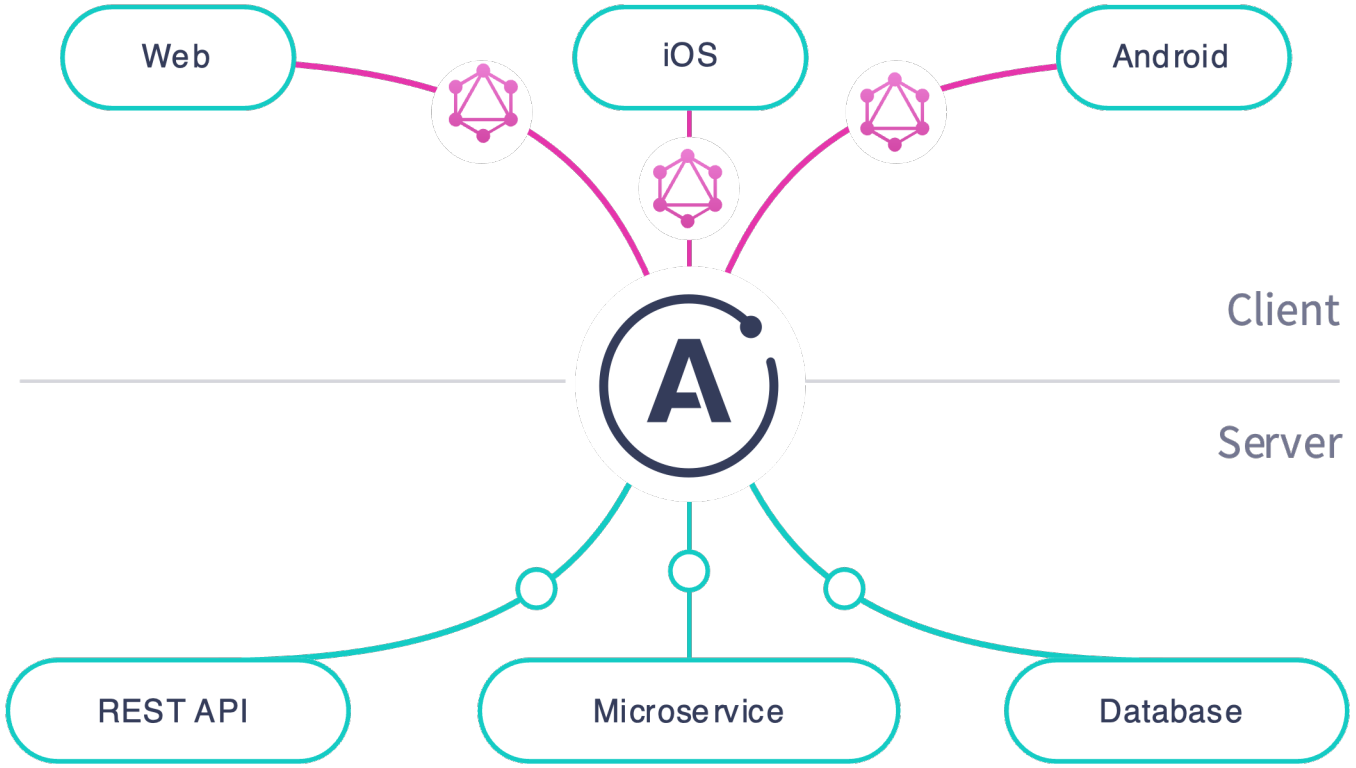


Source: https://graphql.com/learn/how-does-graphql-work/ (01.06.2024)

What is APOLLO ?

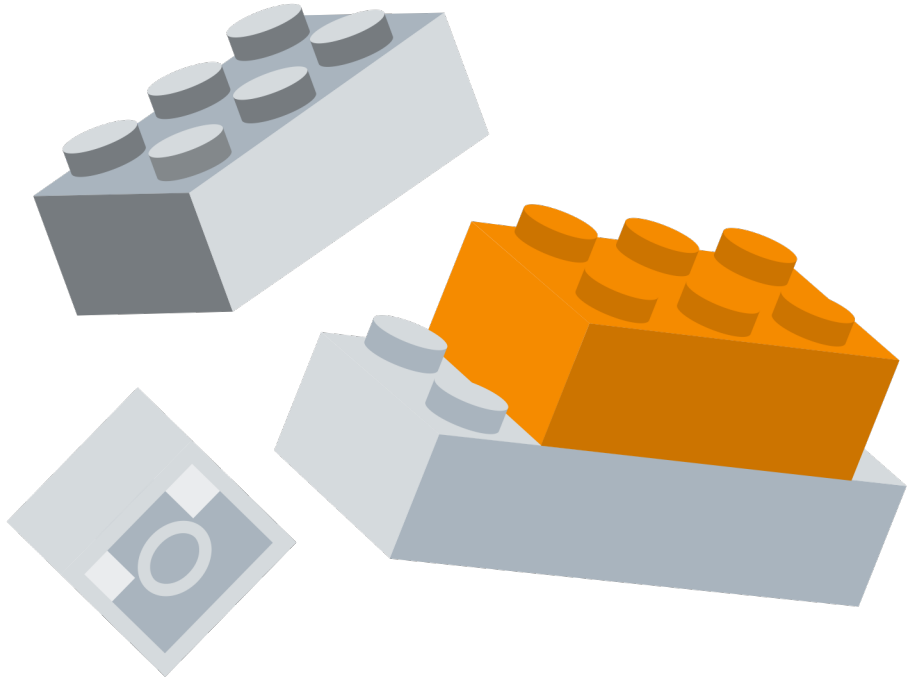
Apollo GraphQL platform offers an ecosystem for building, managing, and scaling GraphQL-based applications

- Apollo Server
- Apollo Client
- Tooling
- Cloud Services



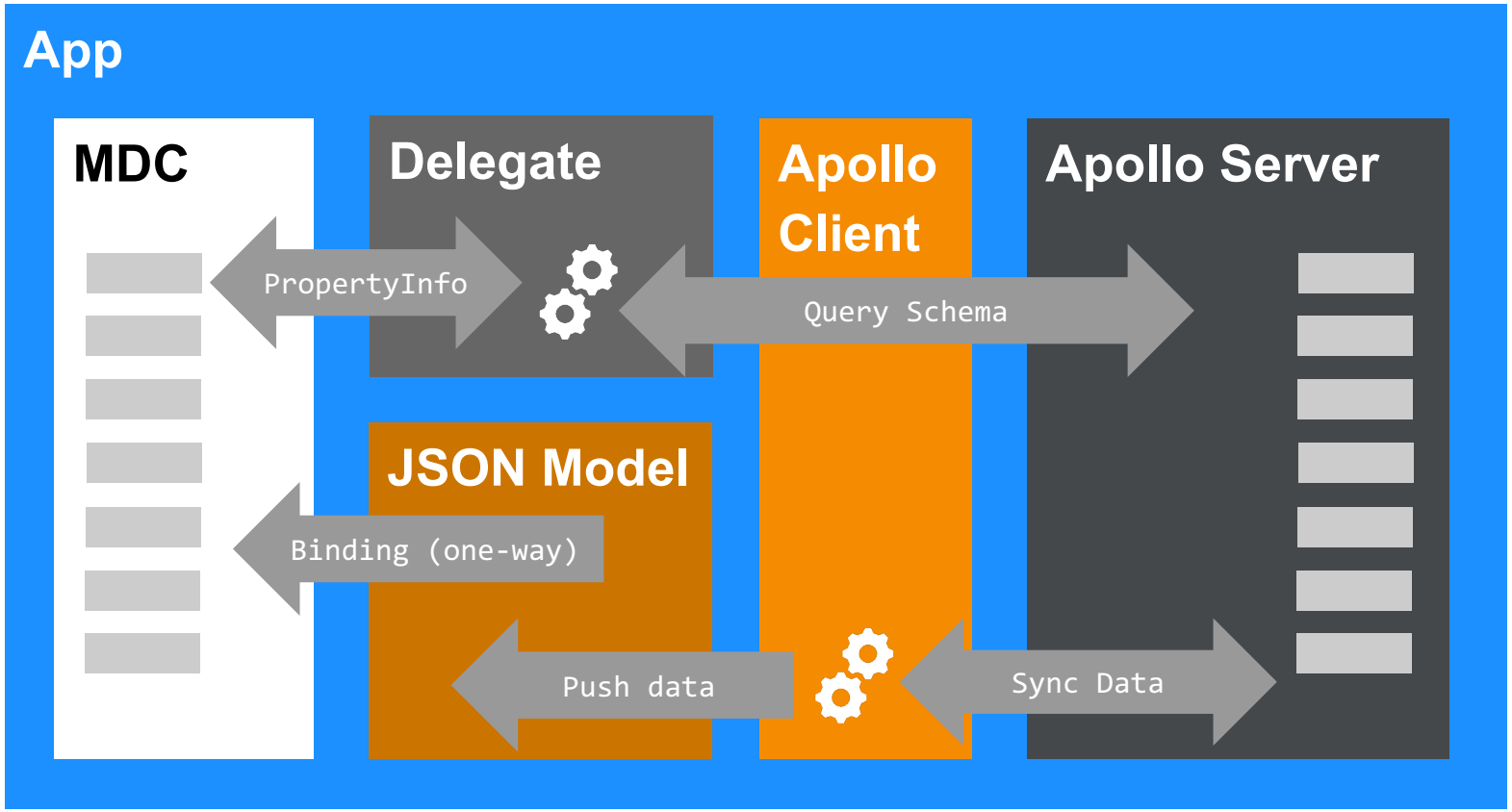
Source: https://master--apollo-docs-index.netlify.app/docs/intro/platform/ (01.06.2024)

Demo



Application Architecture Overview

Brief and simplified



MDC

- Display data based on P13n and PropertyInfo

Delegate

- Maps schema to PropertyInfo

JSON Model

- Provides one-way data binding

Apollo Client

- Sync model and server data
- Updates based on publish/subscribe

Apollo Server

- Provides schema
- Provides data
- Provides subscriptions for events

"Simple things should be simple, complex things should be possible."

Alan Kay

Outlook & Key Takeaways

Outlook

- MDC Chart: Improvements & General Availability
- MDC Form: In Progress
- Docs & Samples: Ongoing Evolution

Key Takeaways

- MDC enables metadata-driven applications
- MDC can be used with any UI5 model / protocol
- The library is now generally available

Resources

Learn more about sap.ui.mdc, Apollo, and GraphQL

MDC in Demo Kit: https://openui5.hana.ondemand.com/topic/1dd2aa91115d43409452a271d11be95b

Apollo: https://www.apollographql.com/

GraphQL: https://graphql.org/

Sample Project: https://github.com/bendkt/ui5con2024-graphql-mdc

UI5Con 2020 - Mission Apollo: https://www.youtube.com/watch?v=r1XChmnl5gw

Apollo Sample Project: https://github.com/petermuessig/ui5-sample-apollo-reloaded

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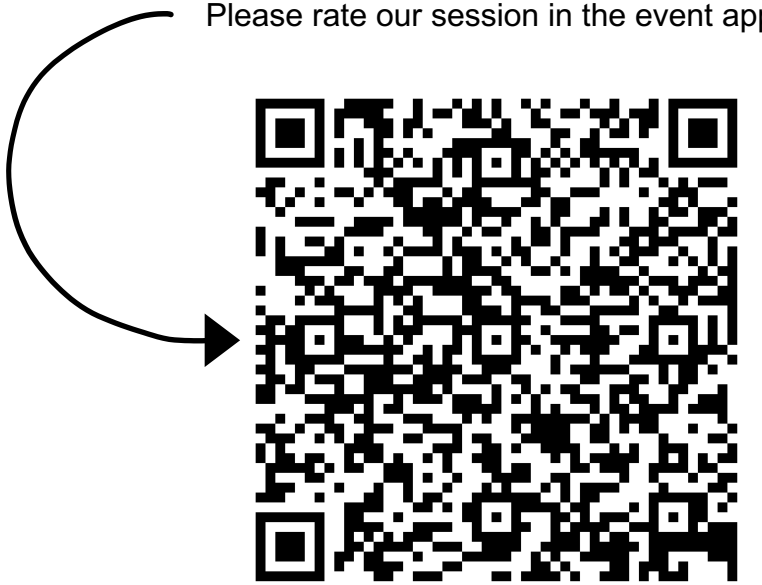

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