

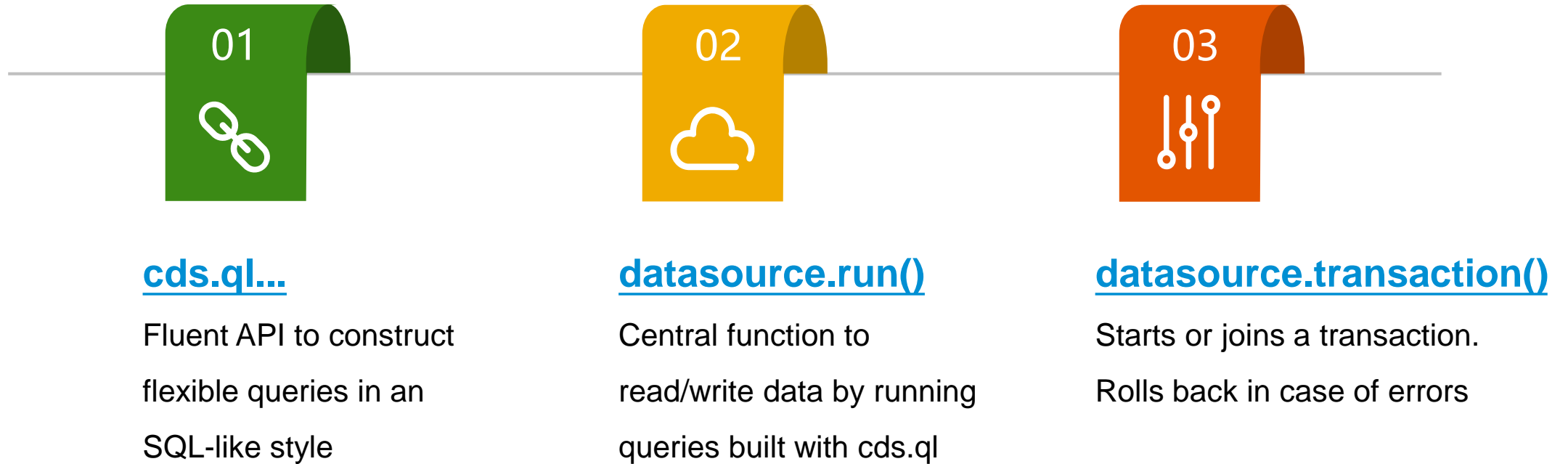


Week 2: Development Tasks

Unit 6: Accessing Data from Code

Accessing Data from Code

Introduction to CDS APIs



Accessing Data from Code

Run CDS query

```
module.exports = srv => {  
  
  srv.on ('READ','Books', (req)=>{  
  
    const db = srv.transaction(req)  
  
    // following two statements are equivalent  
  
    const books1 = await db.run (SELECT.from(Books).where({ ID:111 })))  
    const books2 = await db.read(Books).where({ ID:111 })  
  
    // call another service, which could be remote or local one  
    const other = cds.connect.to('other-service')  
    const otherTx = other.transaction(req) //passes the request context  
    otherTx.run(SELECT.from(Books))  
  
  })  
}
```

.transaction() – Start or join a transaction

.run() – Run the query

.read() – Convenient wrapper around .run

CDS query language (CQL) – examples

```
module.exports = srv => {
  srv.on('READ','Books',(req)=> {
    const db = srv.transaction(req)
    const { Books } = srv.entities

    // INSERT book values, positionally matching the specified .columns.
    db.run( INSERT.into(Books)
      .columns('ID','title','author_id','stock')
      .values ( 201,'Wuthering Heights', 101, 12))

    // Update book, altering 2 elements with expressions
    db.run( UPDATE('Books')
      .set ({
        stock: { '-=:1 },
        lastChanged: Date.now()
      }).where ({ ID: 1 })))

    // DELETE books matching an expression
    db.run( DELETE.from('Books')
      .where ({ stock:{ '<':1 } }) )
  })
}
```

The API resembles well-known SQL constructs, but

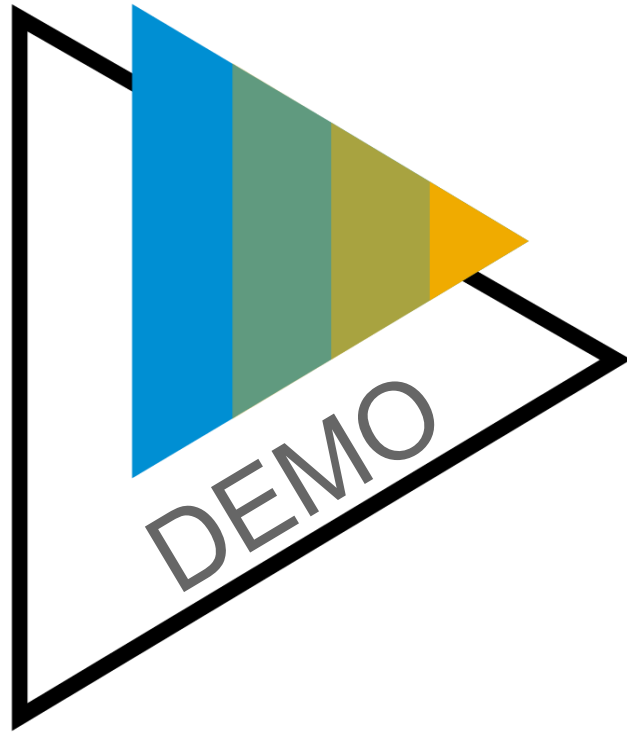
- Is not locked in to SQL and can be used to capture any kind of queries
- Can be applied to different data sources, e.g. OData endpoints

→ See unit 4.2 ‘connecting to remote services’

See [documentation](#) for more

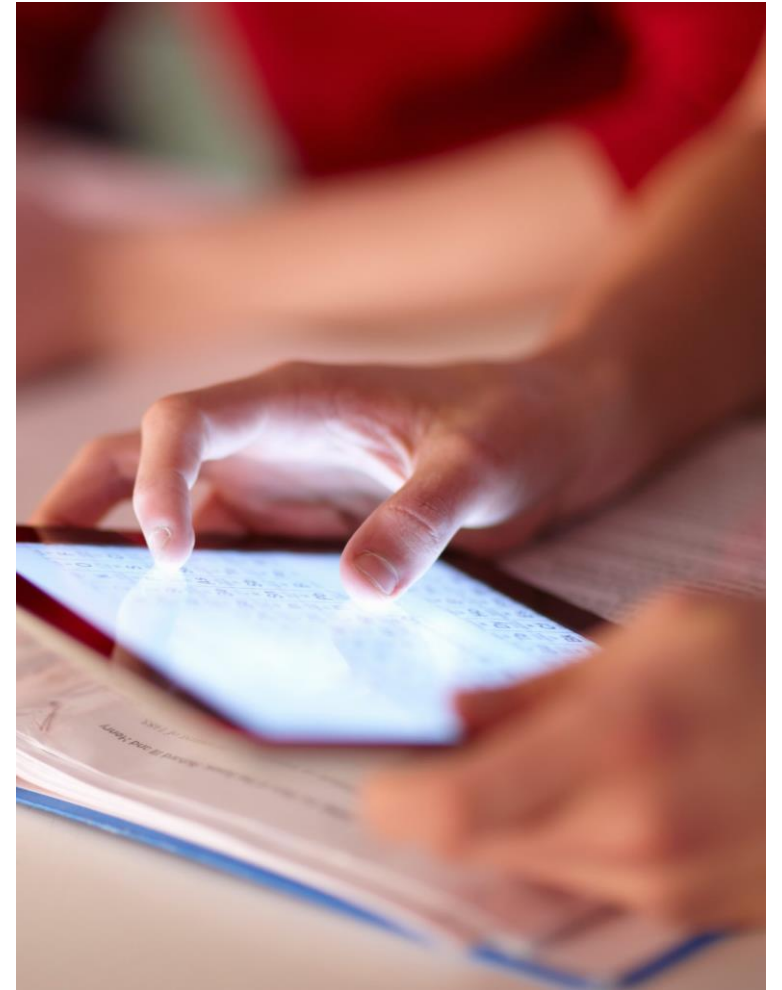
Accessing Data from Code

Demo



What you've learned in this unit

- How to access data in custom handlers
- How to build and run a query with CDS QL
- The advantages of CDS QL



Thank you.

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