Entity Relationships

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Overview

The types of relationships

The directions of the relationships

Annotations used for relationships

Embedded classes

Collections of embedded classes

Types of Relationships
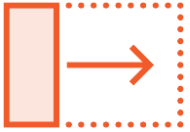
One-to-many

Many-to-one

Many-to-many

One-to-one

Direction of the Relationship

Unidirectional

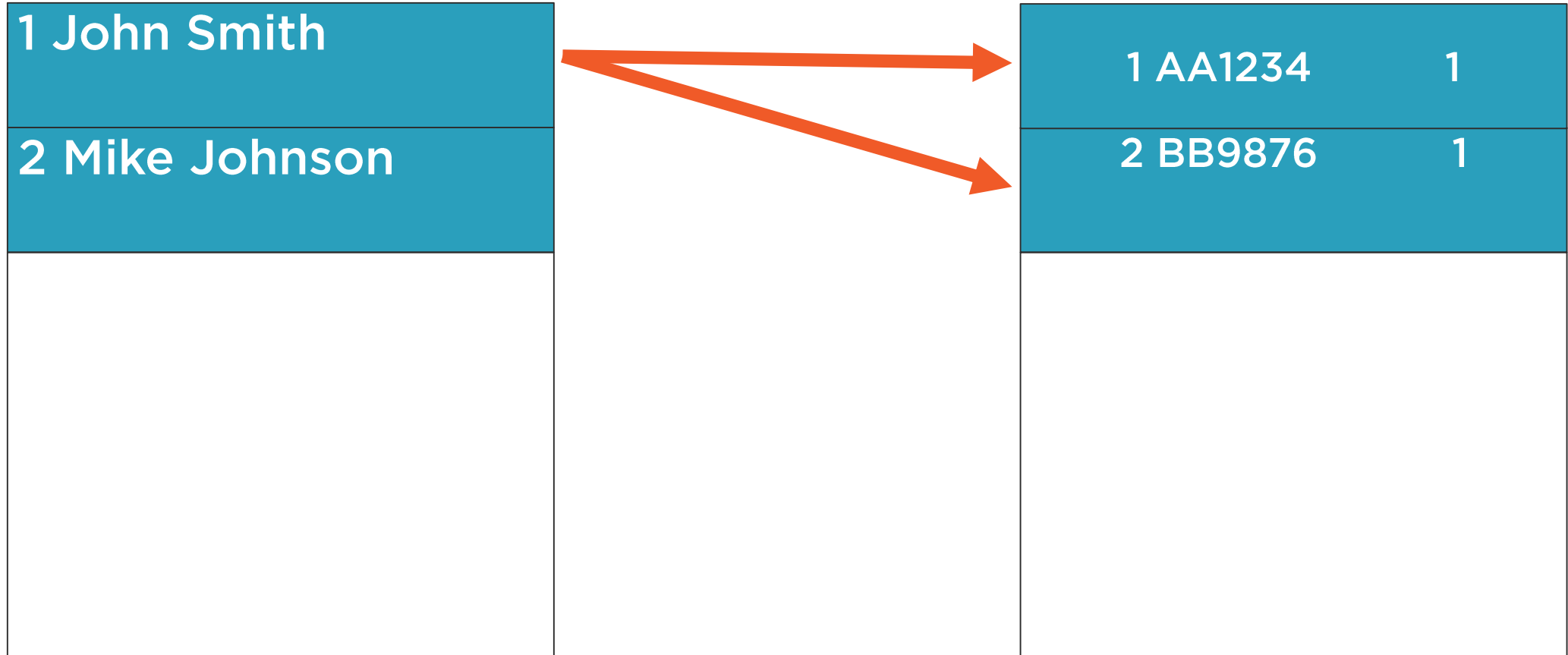**Bidirectional**

Owning Side

Any relationship has an owning side
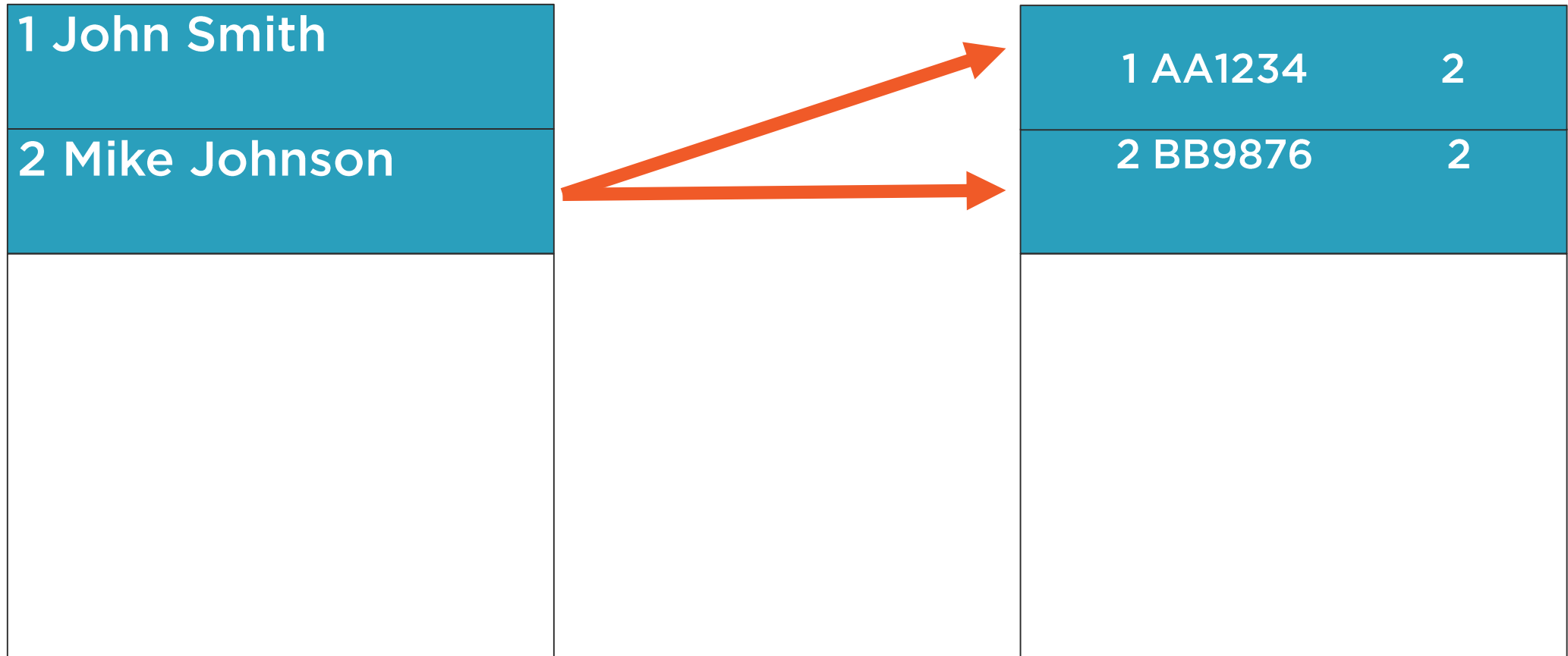
Owning side drives the updates to relationship in a database
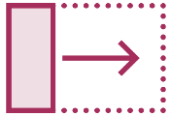
The many part is always the owning side

Changing the Relationship

1 John Smith		
2 Mike Johnson		

1 AA1234	1
2 BB9876	1

Changing the Relationship

Annotations to Relationships

@OneToMany

@ManyToOne

@OneToOne

@ManyToMany

Demo

Define one-to-many relationships
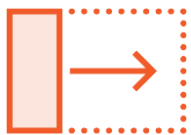
Define many-to-one relationships

Demo

Define many-to-many relationships

Annotations for Relationship Definition

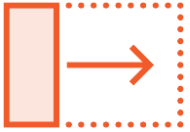# Annotations for Relationship Definition

@JoinTable

@JoinColumn

@JoinColumns

@JoinTable

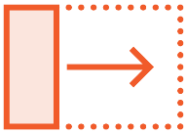Cross-reference table for the mapping of relationship

On the owning side of relationship

Parameters

@JoinColumn

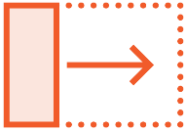Specifies a column for joining an entity association

Name parameter

referencedColumnName parameter

@JoinColumns

Mapping for composite foreign keys

Groups @JoinColumn annotations

Value parameter

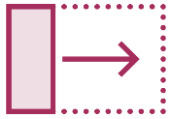# Demo

Join tables on one column

Demo

Join tables on multiple columns

Embeddable Classes

Embeddable Classes

Fine-grained classes representing entity state

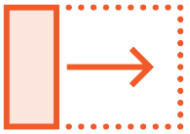Do not have persistent identity of their own

Cannot be shared across persistent entities

Only as part of the state of the entity to which they belong
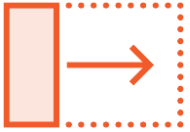
Embeddable Classes Annotations

@Embeddable

@AttributeOverride

@AttributeOverrides

Collections of Embeddable Classes

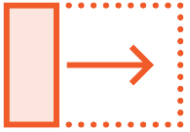**Collections of basic types or embeddable classes**

@ElementCollection

@CollectionTable

Maps of Embeddable Classes

Key and value: either a basic type or an embeddable class

@MapKeyColumn

@Column

Demo

Embedding classes in entities

Demo

Embedding collections of classes in entities

Demo

Embedding maps of classes in entities

Summary

- Types and directions of relationships
- Annotations to define relationships
- Embedded classes
- Collections of embedded classes
- Maps of embedded classes