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<http://blog.bar-solutions.com>



About me...

Experience since 1997
Discovered PL/SQL in 1999
Oracle ACE since 2011
Oracle ACE Director since 2019
Modern Oracle Database Programming 2023

bar-solutions.com
blog <http://blog.bar-solutions.com>

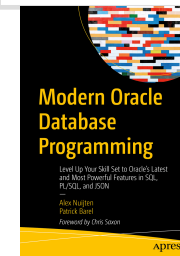
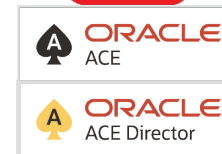
All things
ORACLE <http://allthingsoracle.com>

OTEC
MAGAZINE <http://www.otechmag.com>

Plugins for PL/SQL Developer
<http://plugins.bar-solutions.com>

[www.red-gate.com/
simple-talk/author/
patrick-barel/](http://www.red-gate.com/simple-talk/author/patrick-barel/)

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@patch72



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Modern Oracle Database Programming

Level Up Your Skill Set to Oracle's Latest
and Most Powerful Features in SQL,
PL/SQL, and JSON

Alex Nuijten
Patrick Barel

Foreword by Chris Saxon

apress®



The Oracle ACE Program

400+ technical experts helping peers globally



- The Oracle ACE Program recognizes and rewards community members for their technical and community contributions to the Oracle community
- 3 membership levels: Director, Pro, and Associate
- Nominate ~~yourself~~ or a colleague at ace.oracle.com/nominate
- Learn more at ace.oracle.com

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ACE Member Benefits



Key Benefits

Cool **swag***, Digital awards for social media, Oracle CloudWorld pass*, & more



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Exclusive **monthly virtual meetings** with product development teams + engaging guest speakers



Direct Access to Product Management

Multiple **direct communication channels** to product management and fellow ACEs



Networking

In-person & virtual networking opportunities for ACEs to **connect with product development** and each other.



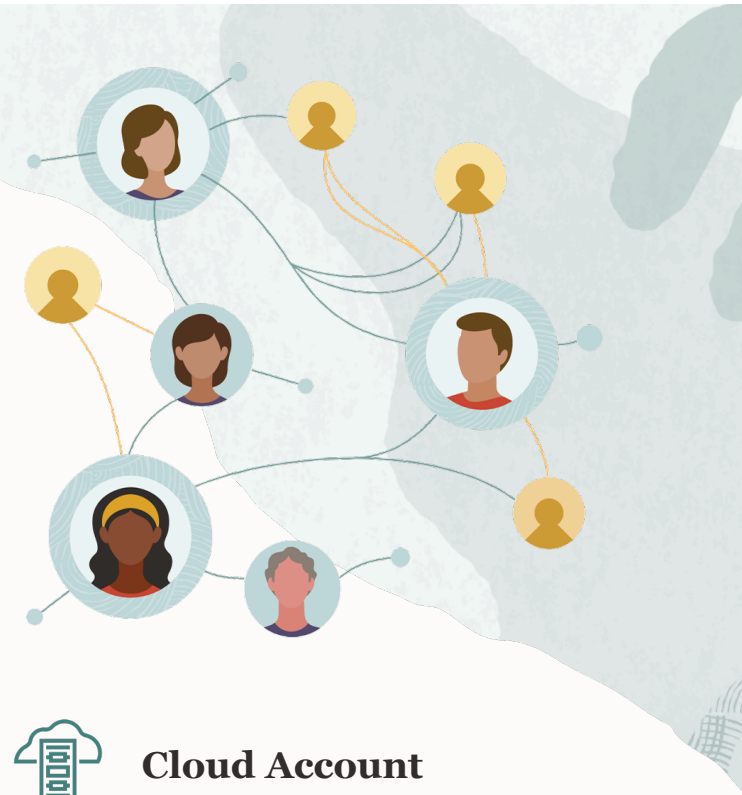
Cloud Account

\$5k USD Cloud account*



Travel Support

ACE Directors are eligible for travel support to give presentations or lead workshops at conferences globally



Oracle Cloud Infrastructure

New Free Tier

oracle.com/cloud/free



Always Free

Services you can use for unlimited time

+

30-Day Free Trial

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Mentor and Speaker Hub

Our goal is to *connect* speakers with mentors to assist in *preparing* technical sessions and *improving* presentation skills

Interested? Read more and get in touch

<https://mashprogram.wordpress.com>

SYMPOSIUM⁴²

Created by the community, to support the community

Sharing of reliable knowledge

Supporting the various user groups and individuals



<https://sym42.org/>

Oracle Database 23ai

Patrick Barel, Qualogy

March 21, 2025



QUALOGY

Oracle Database

23ai

App Simple

Boolean
Datatype

Joins In
Update/Delete

Drop/Create
If [Not] Exists

Developer
Role

Group By
Alias/Position

Annotations

Update
Returning
Clause

JSON
Relational
Duality
View

Data Use Case
Domains

Table
Values
Constructor

Schema
Level
Privileges



Drop / Create if [not] exists

Boolean datatype

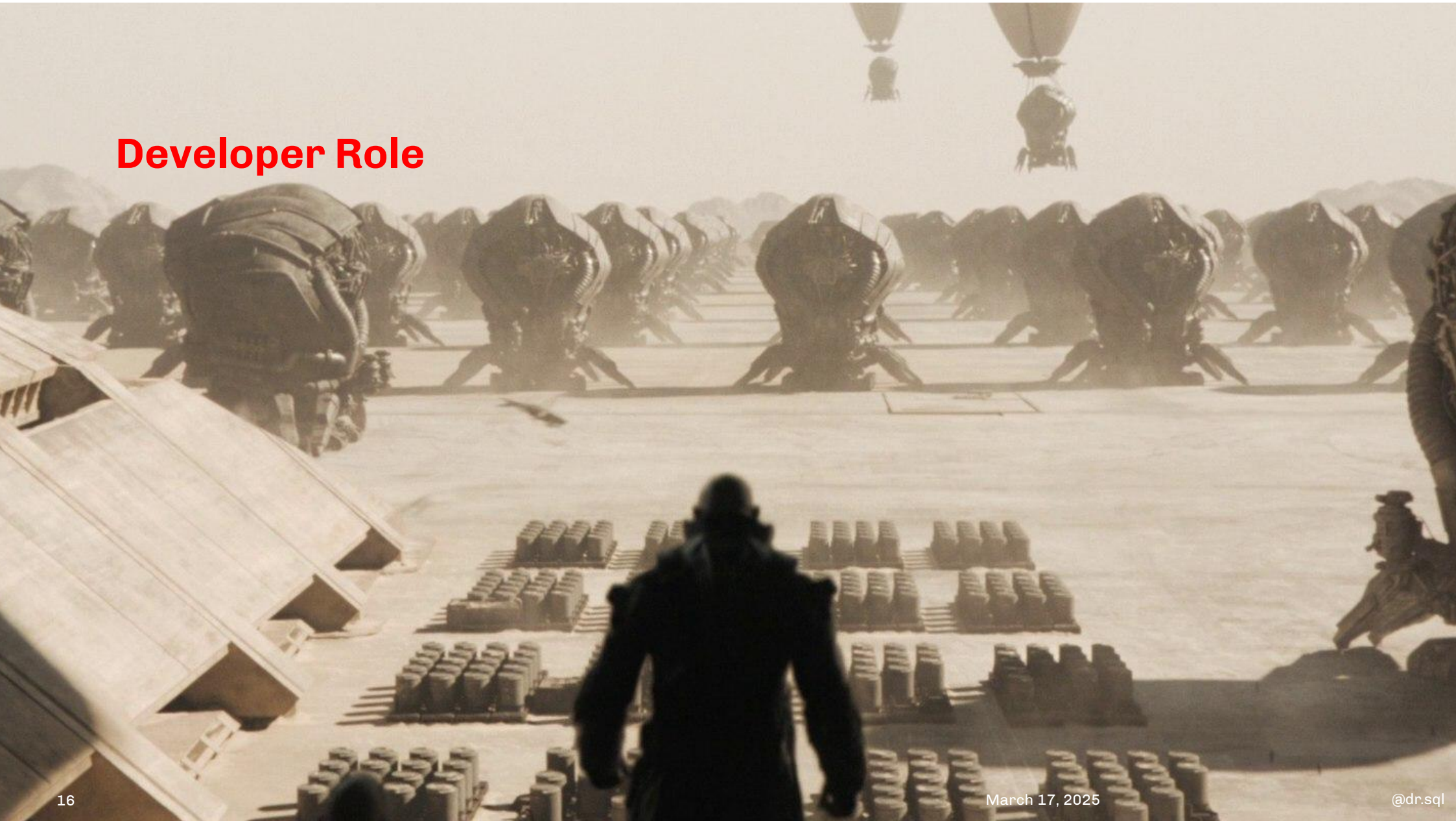
Group by Alias or Position



Joins in Update/Delete

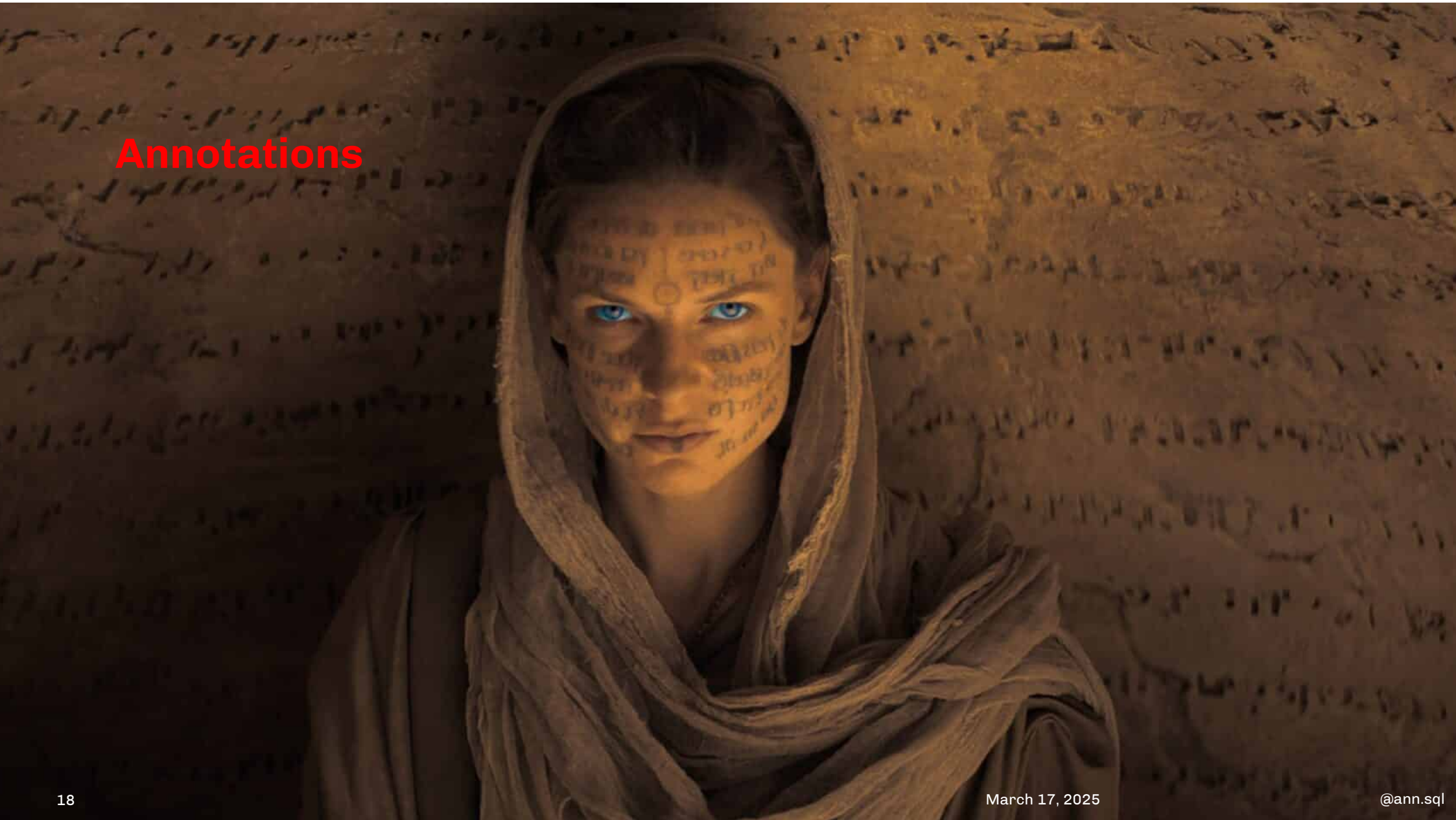
Update Returning clause

Developer Role



Schema Level privileges

Annotations



Data Use Case domains





Table Values constructor

JSON Relational Duality Views



Q&A



Please fill in your
evaluations

