



ORACLE®

USER MANAGEMENT FOR DATABASES (UM4DB)

Kevin Moulton, CISSP

Senior Sales Consulting Manager - Security

The Problems DBAs have to deal with

- User Management
- Password Management
- Compliance



Database User Management

- Granting access
 - Requesting Access
 - Manager approval
 - Access creep
 - Application users
 - Privileged users
 - Shared accounts
 - Non-production databases
- Manual Processes
 - Costly
 - Non-standard
 - Error-prone





Password Management

**Help desk
tickets**

**Password
Policies**

Compliance

- Regulations
 - Sarbanes-Oxley
 - PCI DSS
 - HIPAA
 - 21 CFR Part 11
 - Massachusetts 201 CMR 17
- Auditors issuing warnings on “uncontrolled” database access
- Separation of duties



The Answer



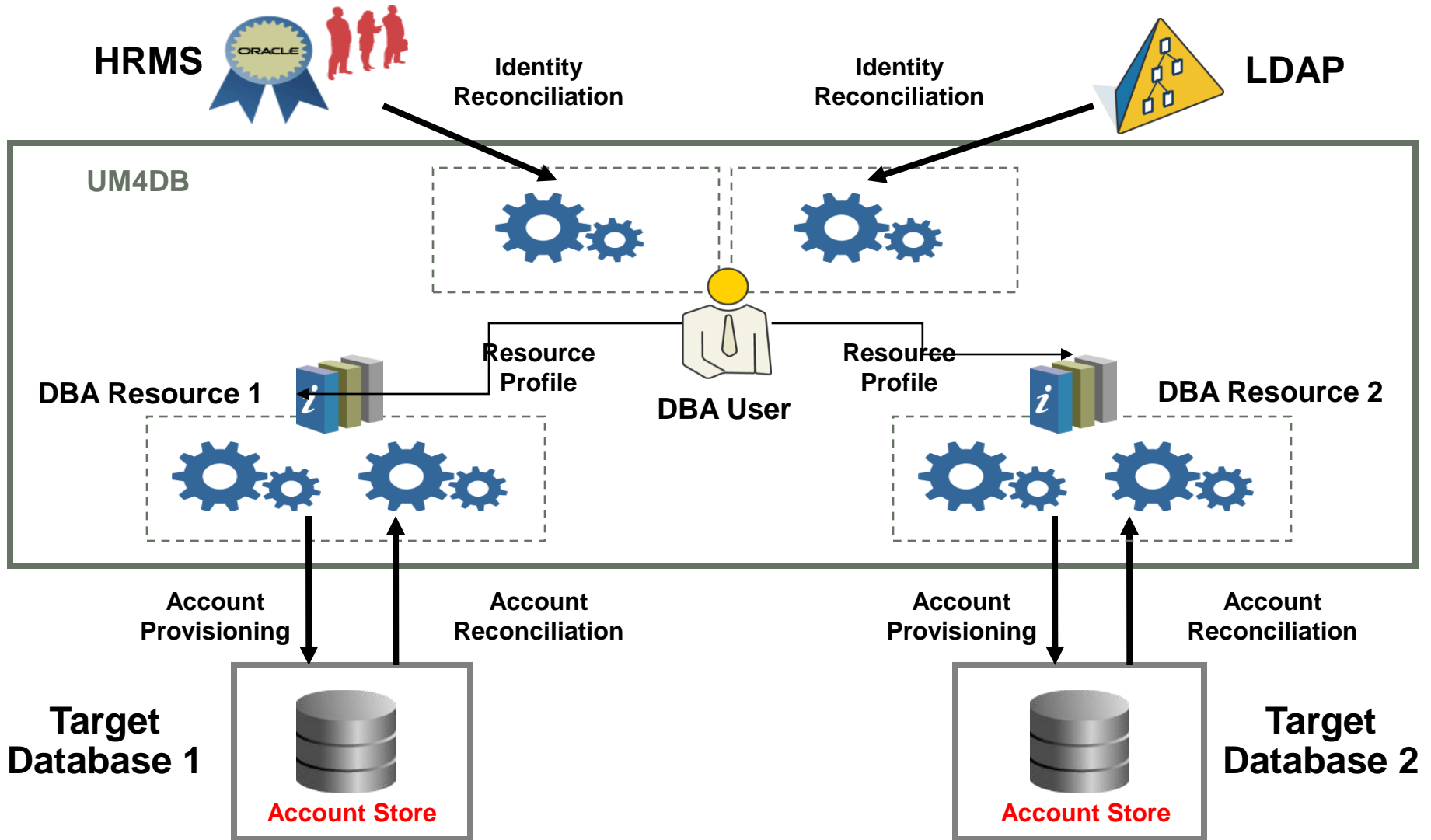
Oracle User Management for Databases

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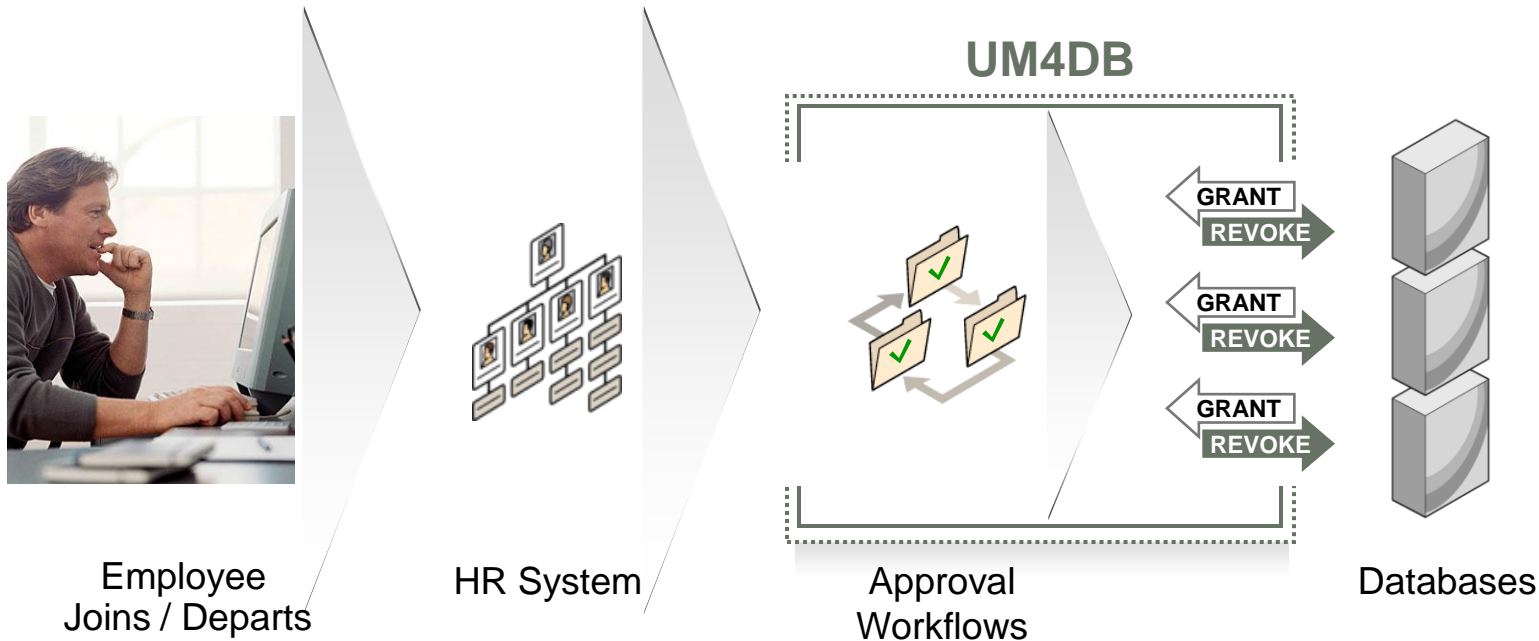
User Management, Password Management, Compliance

UM4DB

Identity Reconciliation and Account Management



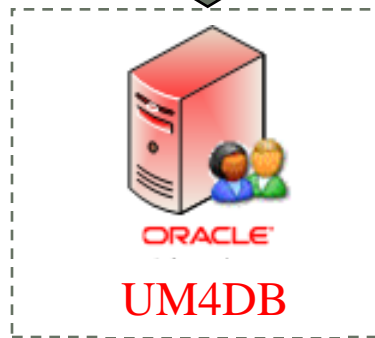
Automated Database Administration



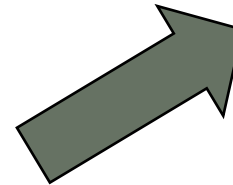
- Automate Account Create/Modify/Delete
- Identify orphaned/rogue accounts
- Certify and Report on “Who has access to what”
- Self-service requests
- Auditing/Attestation

New DBA Example

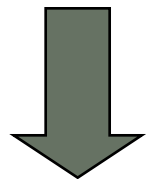
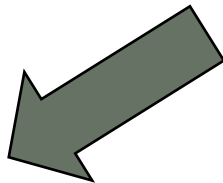
HR Enters New User Data



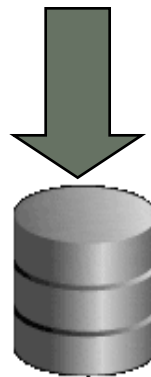
Manager Notified of Account Information



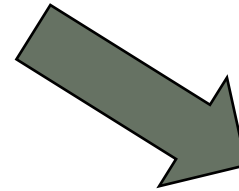
New account on Oracle



New account on Sybase

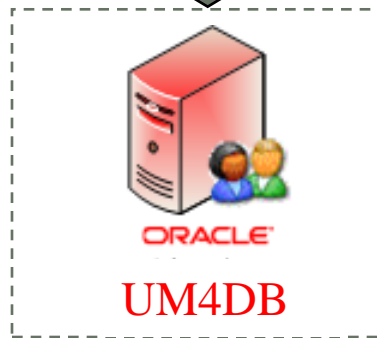
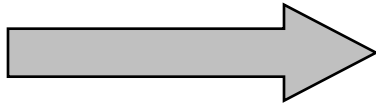


New account on MS SQL

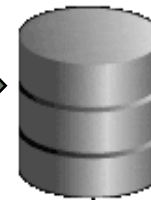
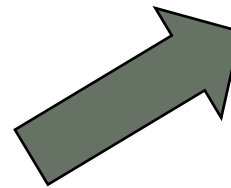


DBA Transfers

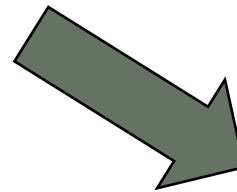
HR Enters Employee Transfer Data



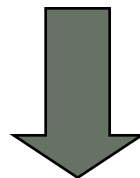
Manager Notified of New Account Information



New account
on DB2



Change privileges in MS SQL



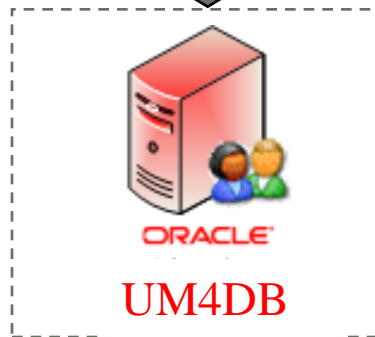
No change on Sybase



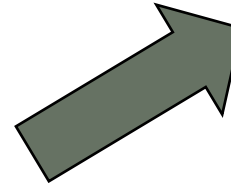
Remove from Oracle

DBA leaves the organization

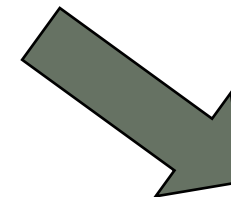
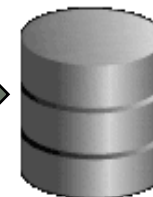
HR Enters 'Termination' Status and Date



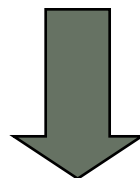
Manager Notified of User Termination



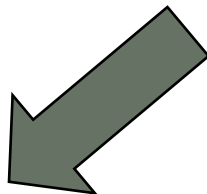
Remove from
DB2



Disable SQL Account



Remove from Sybase



Disable Oracle
account

How does it work?



A new employee is hired...

ORACLE Identity Manager

Welcome System Administrator HOME | LOGOUT | ABOUT

- My Account
- My Resources
- Requests
- To-Do List
- Users
 - Create
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- Organizations
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- Access Policies
- Resource Management
- Deployment Management
- Reports
- Generic Technology Connector
- Attestation
- Help

Create User

You may create a new user from this page.

* Indicates Required Field

User ID	* djeter	
First Name	* Derek	
Middle Name		
Last Name	* Jeter	
Status		
Organization	* Xellerate Users	Clear
User Type	* End-User	
Employee Type	* DBA Rookie	
Manager ID	JGIRARDI	Clear
Email		
User Disabled	<input type="checkbox"/>	

[Create User](#) [Cancel](#)

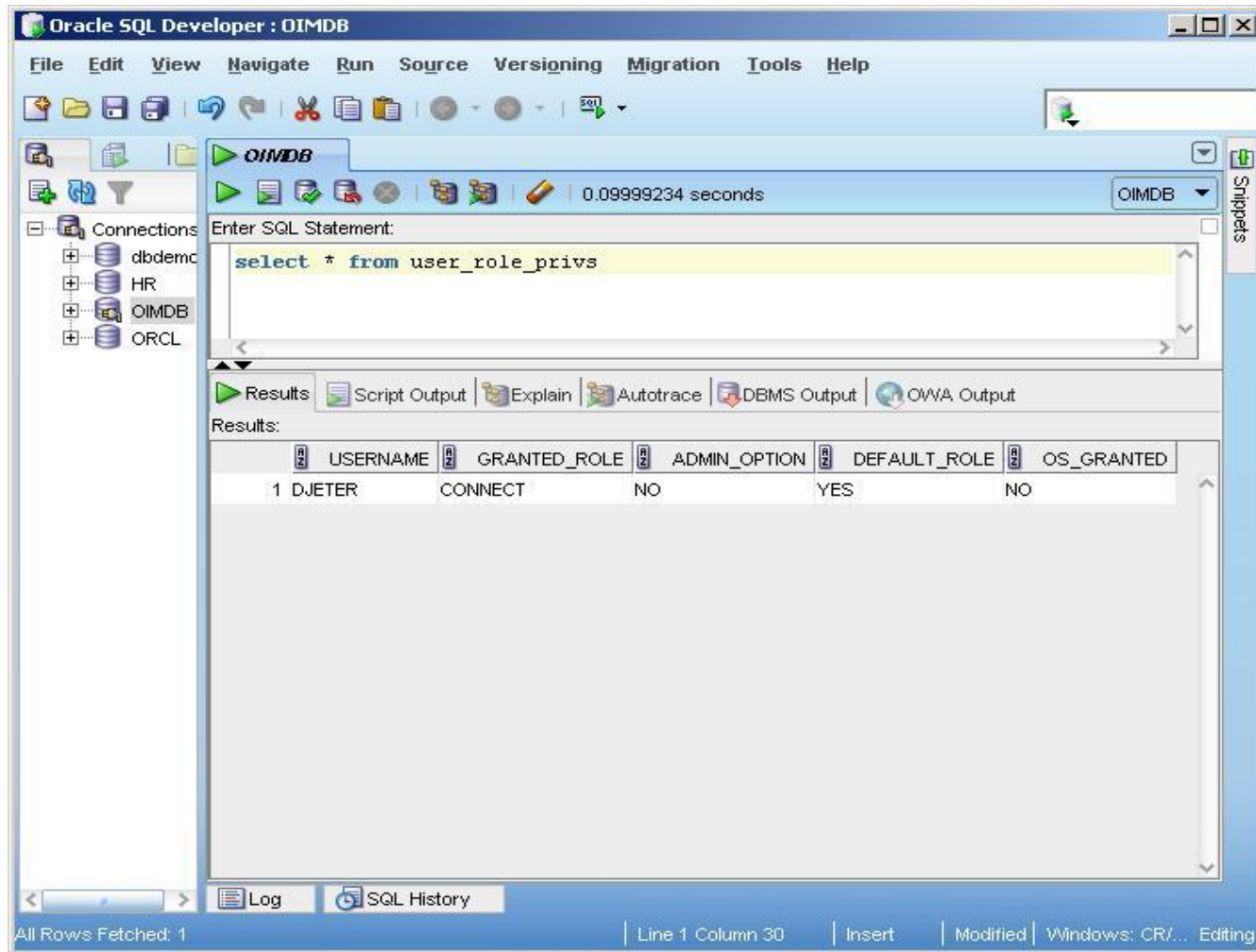
Password	* <input type="password"/>
Confirm Password	* <input type="password"/>
User Locked	<input type="checkbox"/>
Start Date	<input type="text"/>
End Date	<input type="text"/>
Provisioning Date	<input type="text"/>
Provisioned Date	<input type="text"/>
Deprovisioning Date	<input type="text"/>
Deprovisioned Date	<input type="text"/>
Change Password at next login	<input checked="" type="checkbox"/>

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User Management, Password Management, Compliance

The new employee has the access he needs!



Viewing database access

ORACLE Identity Manager

Welcome System Administrator

- My Account
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- User Groups
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- Help

[User Detail](#) >> [Resource Profile](#)

User Name : [DJETER](#)
First Name : Derek
Last Name : Jeter

Results 1-1 of 1

Resource Name	Status	Description	Request ID	Resource Form	Process Form	Enable	Disable	Revoke
Database Access Oracle User RO	Provisioned	90			View Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="button" value="Enable"/>	<input type="button" value="Disable"/>	<input type="button" value="Revoke"/>

[Provision New Resource](#)

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Database Access Provisioning form for Oracle User

You can view additional details about this user: [Select...](#)

IT Resource: **Oracle DB** Temporary Tablespace: **TEMP**

Username: Password: Default Tablespace: Datafile Size (in MB):

Grant/Revoke Roles

Results 1-1 of 1

Role
CONNECT

First | Previous | Next | Last

DBA is granted additional privileges

ORACLE Identity Manager

Welcome System Administrator

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- Reports
- Generic Technology Connector
- Attestation
- Help

Edit User

You can edit a user's profile from this page.

* Indicates Required Field

User ID	* DJETER	
First Name	* Derek	
Middle Name		
Last Name	* Jeter	
Status	Active	
Organization	* Xellerate Users	Clear
User Type	* End-User	
Employee Type	* DBA Pro	Clear
Manager ID	Full-Time Employee Part-Time Employee Temp Intern Consultant DBA Manager DBA Pro DBA Rookie	
Email		

[Save](#) [Cancel Edit](#)

User Disabled

User Locked

Start Date

End Date

Provisioning Date

Provisioned Date

Deprovisioning Date

Deprovisioned Date

Change Password at next logon

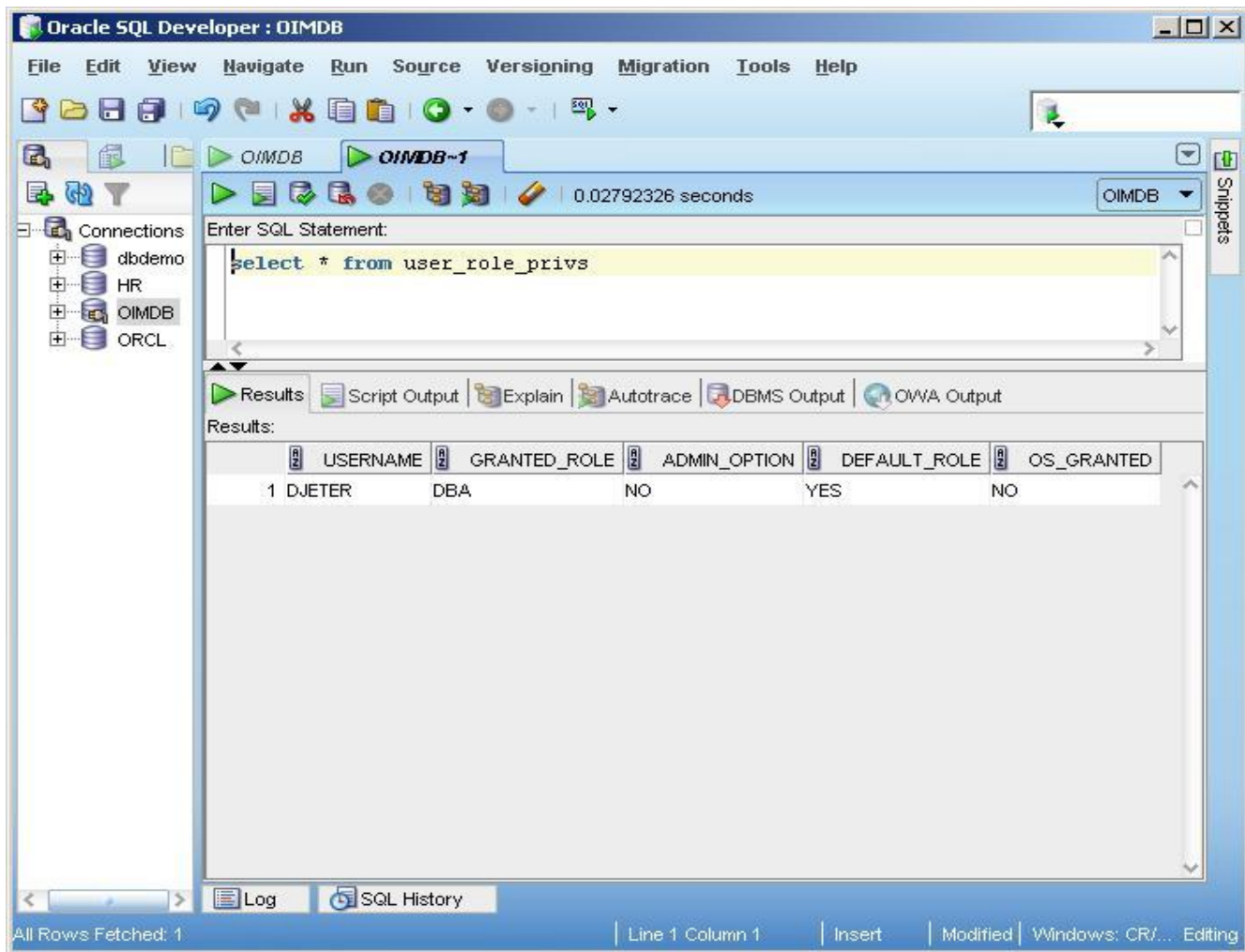
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="text"/>	Calendar
<input type="text"/>	Calendar
<input type="text"/>	Calendar
<input type="text"/>	Calendar
<input type="text"/>	Calendar
<input type="text"/>	Calendar
<input checked="" type="checkbox"/>	

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DBA connects with new privileges!



You can edit the additional details data for this form:

* Indicates required field

IT Resource

Username

Password

Default Tablespace

Datafile Size (in MB)

Temporary Tablespace

Profile Name

Account Status

Save

Close

* Oracle DB

Clear

Database Access Provisioning form for Oracle User >> Grant/Revoke Roles

Role

Clear

Add

Listed below are the added Database Access Provisioning form for Oracle User >> Grant/Revoke Roles entries. You can select specific entries that you want to remove.

Role	Remove
CONNECT	<input type="checkbox"/>
	<input type="checkbox"/>
	Remove

Save

Close

Resources to be denied by this access policy



There are no resources to be denied by this access policy.

Groups for this access policy

Change

Group Name

DBA Rookie

[Back To Access Policies Search Result](#)

Attestation/Recertification

ORACLE Identity Manager

Welcome System Administrator

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- Reports
- Generic Technology Connector
- Attestation
 - Create
 - Manage
 - Dashboard
- Help

Attestation Process Details

You can view additional details about this attestation process:

Name DBA SOX Attestation
Code SOX_AUD_001
Description Attest All DBA Access for SOX Compliance
Status Active
Type Access Rights

User Scope

No User Scope Defined

Resource Scope

Attribute		Condition	Value
Resource Name	Contains		Oracle

Reviewer Type Each User's Manager

Schedule Run every 3 months
Last Start September 9, 2009 12:00:06 PM
Next Start December 9, 2009 1:00:04 PM

Grace Period 10

Process Owner Group SYSTEM ADMINISTRATORS
E-mail process owner if reviewer refuses attestation request - No

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Manager attests to privileges



The screenshot shows the Oracle Identity Manager Administrative and User Console login page. On the left is a navigation menu with links for Self-Register, Create Request, Track Request, HELP, Registration Help, Login Help, and Forgot Password?. The main content area displays a welcome message and login instructions. It includes input fields for User ID (containing 'tfrancona') and Password (masked with dots), both marked as required. There are 'Login' and 'Clear' buttons at the bottom. A hand cursor is pointing at the 'Login' button.

ORACLE Identity Manager

Self-Register
Create Request
Track Request

HELP
Registration Help
Login Help
Forgot Password?

Welcome to the Oracle Identity Manager Administrative and User Console.

To log in, enter your User ID and password.

*Indicates Required Field

User ID:
* tfrancona

Password:
*

Login Clear

Selecting an Attestation Job from To-Do List

ORACLE Identity Manager

Welcome Terry Francona

[HOME](#) | [LOGOUT](#) | [ABOUT](#)

- ▶ My Account
- ▶ My Resources
- ▶ Requests
- ▶ To-Do List
 - Pending Approvals
 - Open Tasks
 - **Attestation**
- ▶ Users
- ▶ Organizations
- ▶ User Groups
- ▶ Access Policies
- ▶ Resource Management
- ▶ Deployment Management
- ▶ Reports
- ▶ Generic Technology Connector
- ▶ Attestation
- ▶ Help

Attestation Request Inbox

Your Pending Attestation Requests

Results 1-1 of 1

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Process Names	Process Code	Data Type	Delegated By	Current Request
DBA SOX	SOX_AUD_001	Access Rights		September 9, 2009 12:21:08 PM

[First](#) | [Previous](#) | [Next](#) | [Last](#)

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User Management, Password Management, Compliance

Reviewing Employee Privileges

ORACLE Identity Manager

Welcome Terry Francona

[HOME](#) | [LOGOUT](#) | [ABOUT](#)

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 - Pending Approvals
 - Open Tasks
 - Attestation**
- Users
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- User Groups
- Access Policies
- Resource Management
- Deployment Management
- Reports
- Generic Technology Connector
- Attestation
- Help

Attestation Request

Process: [SOX_AUD_001] DBA SOX Attestation

Request Time: September 9, 2009 12:21:08 PM

Attest the following data and specify appropriate action:

You must save your actions on this page before going to the next page.

☐ Hide records where action has already been specified.

Results 1-2 of 2

[First](#) | [Previous](#) | [Next](#) | [Last](#)

User	Resource	Descriptive Data	Last Attested	Comments	Actions			
					Certify	Reject	Decline	Delegate
David Ortiz [DORTIZ]	Database Access Oracle User RO	93	September 9, 2009 12:18:11 PM		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mike Lowell [MLOWELL]	Database Access Oracle User RO	96	Never		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Submit Attestation

Update Existing Comments and Delegation Information

Save

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User Management, Password Management, Compliance

Manager attests to privileges

ORACLE Identity Manager

Welcome Terry Francona

HOME | LOGOUT | ABOUT

- My Account
- My Resources
- Requests
- To-Do List
 - Pending Approvals
 - Open Tasks
 - Attestation**
- Users
- Organizations
- User Groups
- Access Policies
- Resource Management
- Deployment Management
- Reports
- Generic Technology Connector
- Attestation
- Help

Attestation Request

Process: [SOX_AUD_001] DBA SOX Attestation

Request Time: September 9, 2009 12:21:08 PM

Attest the following data and specify appropriate action:
You must save your actions on this page before going to the next page.

☐ Hide records where action has already been specified.

Results 1-2 of 2

User	Resource	Descriptive Data	Last Attested	Comments	Actions			
					Certify	Reject	Decline	Delegate
David Ortiz [DORTIZ]	Database Access Oracle User RO	93	September 9, 2009 12:18:11 PM		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mike Lowell [MLOWELL]	Database Access Oracle User RO	96	Never		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Submit Attestation

Update Existing Comments and Delegation Information

Save

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User Management, Password Management, Compliance

Attestation is submitted

ORACLE Identity Manager

Welcome Terry Francona

- ▶ My Account
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- ▶ Requests
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 - Attestation
- ▶ Users
- ▶ Organizations
- ▶ User Groups
- ▶ Access Policies
- ▶ Resource Management
- ▶ Deployment Management
- ▶ Reports
- ▶ Generic Technology Connector
- ▶ Attestation
- ▶ Help

Attestation Request Confirmation

Process: [SOX_AUD_001] DBA SOX Attestation

Request Time: September 9, 2009 12:21:08 PM

Review the information, and click Submit to attest the request.

Results 1-2 of 2

User	Resource	Descriptive Data	Reviewer Action
David Ortiz [DORTIZ]	Database Access Oracle User RO	93	Reject
Mike Lowell [MLOWELL]	Database Access Oracle User RO	96	Certify

Confirm Submit

Cancel Submit

Rejected!

New / Select Database Connection

Connection Name	Username
HR	hr@//db...
OIMDB	djeter@/...
ORCL	sys@/Moc...
dbdemo	sys@/Moc...

Connection Name: OIMDB
Username: dortiz
Password: *****
☒ Save Password

Oracle Access

Role: default
Connection Type: Basic
☐ OS Authentication
☐ Proxy Connection

Hostname: localhost
Port: 1521
☒ SID: oimdb
☐ Service name

Status : Failure -Test failed: ORA-01017: invalid username/password; logon denied

Buttons: Help, Save, Clear, Test, Connect, Cancel

DBA resource profile reflects change in access

ORACLE Identity Manager

Welcome System Administrator

HOME | LOGOUT |

My Account

My Resources

Requests

To-Do List

Users

• Create

• Manage

Organizations

User Groups

Access Policies

Resource Management

Deployment Management

Reports

Generic Technology Connector

Attestation

Help

[User Detail](#) >> [Resource Profile](#)

User Name : DORTIZ

First Name : David

Last Name : Ortiz

Results 1-1 of 1

First | Previous | Next

Resource Name	Status	Description	Request ID	Resource Form	Process Form	Enable	Disable	Revoke
Database Access Oracle User RO	Revoked	93			View Edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="button" value="Enable"/>	<input type="button" value="Disable"/>	<input type="button" value="Revoke"/>

First | Previous | Next

ORACLE

User Management, Password Management, Compliance

Audit Trail

ORACLE Identity Manager

Welcome System Administrator





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[User Detail](#) >> [Resource Profile](#) >> [Resource Provisioning Details](#)

The following are the provisioning tasks for the resource. You can also enable, disable, or revoke this resource from the user.

Database Access Oracle User RO provisioning details for David Ortiz[DORTIZ]

Results 1-6 of 6

Task Name	Task Status	Date Assigned	Assigned To
System Validation	Completed	September 9, 2009	 System Administrator [XELSYSADM]
Create User	Completed	September 9, 2009	 System Administrator [XELSYSADM]
Add Role or Grant	Completed	September 9, 2009	 System Administrator [XELSYSADM]
User Attestation Event Occurred	Completed	September 9, 2009	 Terry Francona [TFRANCONA]
Delete User	Completed	September 9, 2009	 Terry Francona [TFRANCONA]
User Attestation Event Occurred	Completed	September 9, 2009	 Terry Francona [TFRANCONA]

Enable

Disable

Revoke

Add Task

Account History

Resource Name : Database Access Oracle User RO

Resource Administrator User Group(s) : SYSTEM ADMINISTRATORS

Resource Authorizer User Group(s) : SYSTEM ADMINISTRATORS

Activity Type : Created

Results 1-12 of 12

First Name	Last Name	User ID	Organization	Status	Employee Type	Manager's User ID	Manager Name
arnold	armstrong	AARMSTRONG	Xellerate Users	Active	Full-Time Employee		
Barry	Armstrong	BARMSTRONG	Xellerate Users	Active	Full-Time Employee		
Charles	Armstrong	CHARMSTRONG	Xellerate Users	Active	DBA Rookie	XARMSTRONG	Xavier Armstrong
David	Armstrong	DARMSTRONG	Xellerate Users	Active	DBA Pro		
Eric	Armstrong	EARMSTRONG	Xellerate Users	Active	DBA Rookie		
Frank	Armstrong	FARMSTRONG	Xellerate Users	Active	DBA Pro	XARMSTRONG	Xavier Armstrong
Garry	Armstrong	GARMSTRONG	Xellerate Users	Active	DBA Rookie	XARMSTRONG	Xavier Armstrong
Harry	Armstrong	HARMSTRONG	Xellerate Users	Active	DBA Rookie	XARMSTRONG	Xavier Armstrong
Robert	Armstrong	RARMSTRONG	Xellerate Users	Active	DBA Pro	XARMSTRONG	Xavier Armstrong
Derek	Jeter	DJETER	Xellerate Users	Active	DBA Pro	JGIRARDI	Joe Girardi
David	Ortiz	DORTIZ	Xellerate Users	Active	DBA Pro	TFRANCONA	Terry Francona
Mike	Lowell	MLOWELL	Xellerate Users	Active	DBA Pro	TFRANCONA	Terry Francona

Resource Name : Database Access Oracle User RO

Resource Administrator User Group(s) : SYSTEM ADMINISTRATORS

Resource Authorizer User Group(s) : SYSTEM ADMINISTRATORS

Activity Type : Deleted

Results 1-3 of 3

First Name	Last Name	User ID	Organization	Status	Employee Type	Manager's User ID	Manager Name
Frank	Armstrong	FARMSTRONG	Xellerate Users	Active	DBA Pro	XARMSTRONG	Xavier Armstrong
Robert	Armstrong	RARMSTRONG	Xellerate Users	Active	DBA Pro	XARMSTRONG	Xavier Armstrong
David	Ortiz	DORTIZ	Xellerate Users	Active	DBA Pro	TFRANCONA	Terry Francona

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Database User Management History

User Resource Access History - Report Display

[Change Input Parameters](#)

This page displays the report you requested.

You can filter the report data by using the following fields:

User ID	<input type="text" value="dortiz"/>
	<input type="text"/>
	<input type="text"/>
Status	<input type="text"/>
Employee Type	<input type="text"/>
<input type="button" value="Filter"/>	<input type="button" value="Clear"/>

Results 1-2 of 2

[First](#) | [Previous](#)

User ID : DORTIZ

Start Date :

End Date :

Identity Creation Date : September 9, 2009 12:13:19 PM

Results 1-2 of 2

First Name	Middle Name	Last Name	Organization	Manager Name	Status	Employee Type	Resource	Status	Resource Identifier	Provisioning Start	Provisioned By	Effective From	Effective To
David		Ortiz	Xellerate Users	Terry Francona	Active	DBA Pro	Database Access Oracle User RO	Provisioned	93	September 9, 2009 12:13:20 PM	Access Policy - DBA Pro AP	September 9, 2009 12:13:21 PM	September 9, 2009 12:24:56 PM
David		Ortiz	Xellerate Users	Terry Francona	Active	DBA Pro	Database Access Oracle User RO	Revoked	93	September 9, 2009 12:13:20 PM	Access Policy - DBA Pro AP	September 9, 2009 12:24:56 PM	

Database Account History

Resource Access List History - Report Display

[Change Input Parameters](#)[CSV Export](#)

This page displays the report you requested.

You can filter the report data by using the following fields:

Employee Type

Status

[Filter](#)[Clear](#)

Results 1-15 of 15

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Last Name	First Name	User ID	Account ID	Organization	Employee Type	Status	Resource Status	Effective From Date	Effective To Date
armstrong	arnold	AARMSTRONG	21	Xellerate Users	Full-Time Employee	Active	Provisioned	June 26, 2009 5:13:24 PM	
Armstrong	Barry	BARMSTRONG	22	Xellerate Users	Full-Time Employee	Active	Provisioned	June 26, 2009 5:48:24 PM	
Armstrong	Charles	CHARMSTRONG	42	Xellerate Users	DBA Rookie	Active	Provisioned	June 27, 2009 5:03:04 PM	
Armstrong	David	DARMSTRONG	43	Xellerate Users	DBA Pro	Active	Provisioned	June 27, 2009 5:24:06 PM	
Armstrong	Eric	EARMSTRONG	61	Xellerate Users	DBA Rookie	Active	Provisioned	June 27, 2009 6:46:11 PM	
Armstrong	Frank	FARMSTRONG	62	Xellerate Users	DBA Pro	Active	Provisioned	June 27, 2009 7:02:56 PM	June 27, 2009 8:18:04 PM
Armstrong	Frank	FARMSTRONG	62	Xellerate Users	DBA Pro	Active	Revoked	June 27, 2009 8:18:04 PM	
Armstrong	Garry	GARMSTRONG	63	Xellerate Users	DBA Rookie	Active	Provisioned	June 27, 2009 7:13:58 PM	
Armstrong	Harry	HARMSTRONG	64	Xellerate Users	DBA Rookie	Active	Provisioned	June 27, 2009 7:22:19 PM	
Armstrong	Robert	RARMSTRONG	81	Xellerate Users	DBA Pro	Active	Provisioned	June 29, 2009 12:55:07 PM	June 29, 2009 1:15:26 PM
Armstrong	Robert	RARMSTRONG	81	Xellerate Users	DBA Pro	Active	Revoked	June 29, 2009 1:16:54 PM	
Jeter	Derek	DJETER	84	Xellerate Users	DBA Pro	Active	Provisioned	September 9, 2009 12:03:24 PM	

Attestation Report

You can filter the report data by using the following fields:

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Filter

Clear

Results 1-6 of 6

[First](#) | [Previous](#) | [Next](#) | [Last](#)

Attestation Request ID : 24

Attestation Process Name : [DBA SOX Attestation](#)

Request Initiated : September 9, 2009 12:21:08 PM

Request Completed :

Number of Items in Request : 6

Certified : 1

Rejected : 1

Open : 4

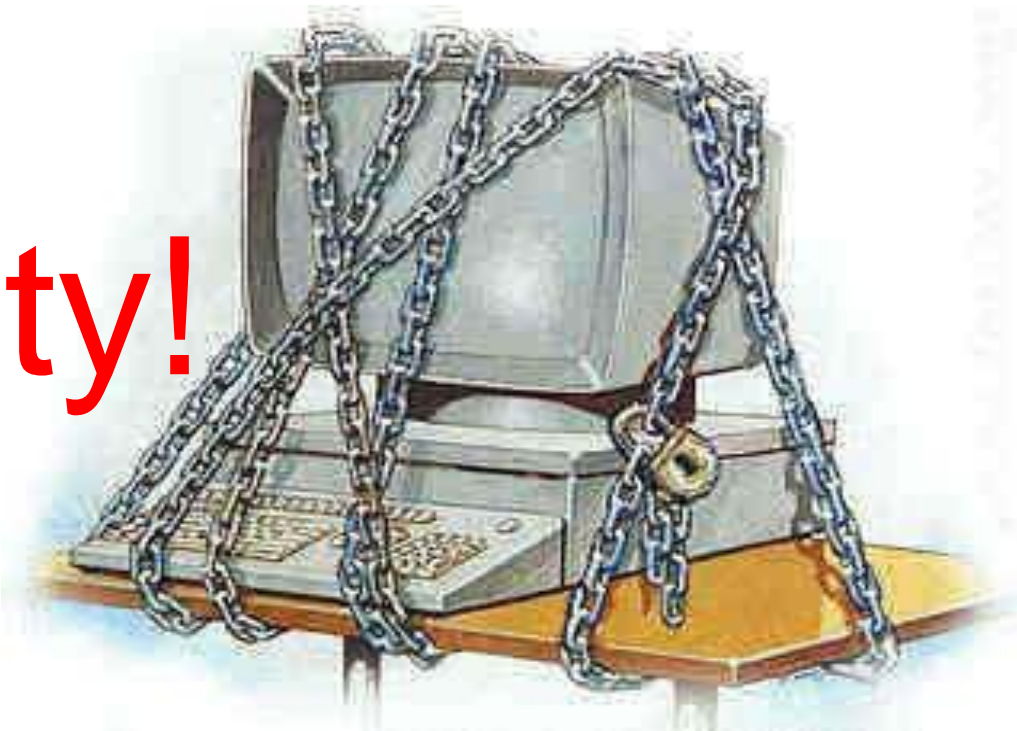
Results 1-6 of 6

User ID	First Name	Last Name	Resource	Descriptive Data	Reviewer First Name	Reviewer Last Name	Action Taken
CARMSTRONG	Charles	Armstrong	Database Access Oracle User RO	45	Xavier	Armstrong	None
GARMSTRONG	Garry	Armstrong	Database Access Oracle User RO	69	Xavier	Armstrong	None
HARMSTRONG	Harry	Armstrong	Database Access Oracle User RO	73	Xavier	Armstrong	None
DJETER	Derek	Jeter	Database Access Oracle User RO	90	Joe	Girardi	None
DORTIZ	David	Ortiz	Database Access Oracle User RO	93	Terry	Francona	Reject
MLOWELL	Mike	Lowell	Database Access Oracle User RO	96	Terry	Francona	Certify

Oracle UM4DB

- User Management
- Password Management
- Compliance

Security!



kevin.moulton@oracle.com

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User Management, Password Management, Compliance



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