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ADempiere
The Professional Open Source Business Suite

Module 8
Security

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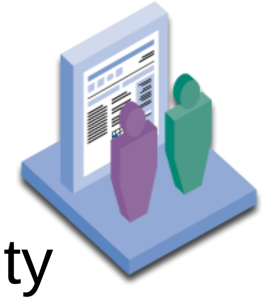
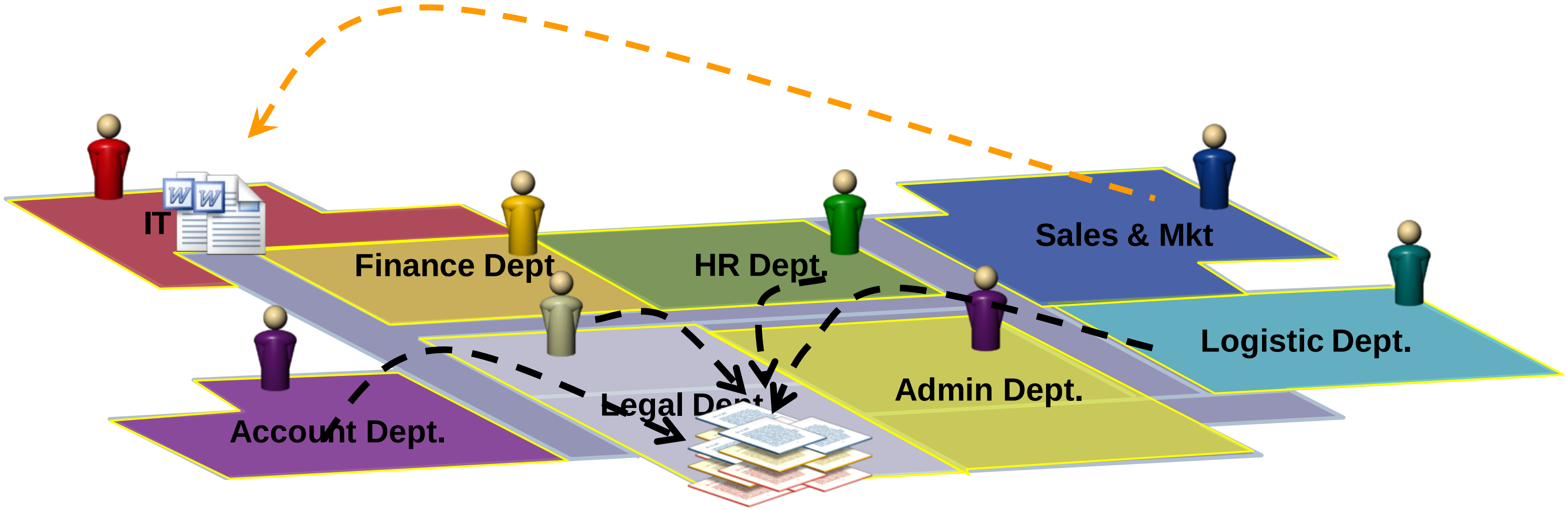
ADempiere|ERP

Module Objectives

- Set up Users and Roles
- Understanding about System / Client / Organization
- Understanding about Role Security and Data Security



Security Access in Real Life ERP System



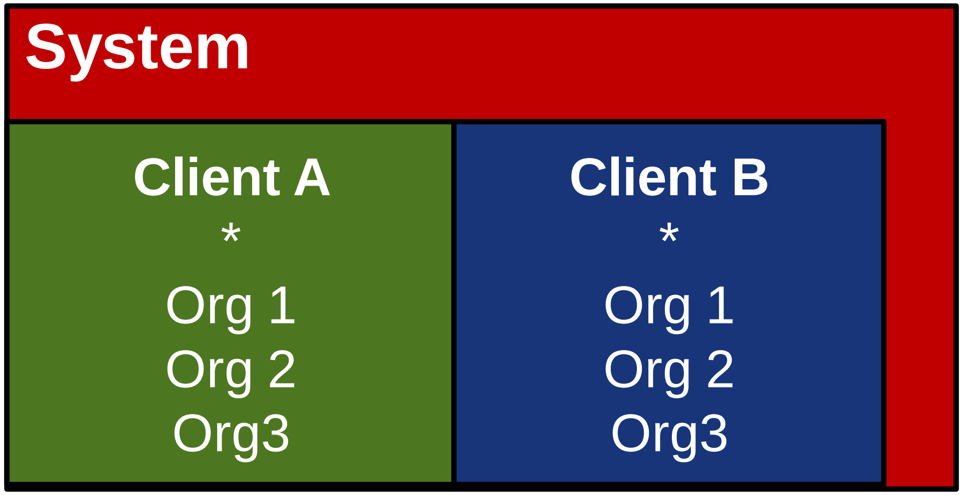
What we face?

In a real **ERP implementation**, there are **many people,** i.e., General Manager, Accounting Manager, Warehouse Manager, Accounting staff, warehouse staff, shipping staff, and so on) involved in operating the system.

Because **every individual has his or her own responsibilities** in the organization, the system should help the organization **manage the access rights** to information and perform activities in the system.

Data Layers

- **System**
  - System Definition
  - Shared Setup
- **Client**
  - Client/Org Definition
  - Shared Setup
- **Organization**
  - Transactions



Module 8.1
Role Security

Access Levels

Security Access
=
User (role) login to the ADempiere
What Functions they have the right to access

Role

Windows, Table, Form,
Process, Tasks, Rules

User Level

1. Client
2. Organization
3. Client + Organization
4. System

Note: *give default access to features, but can always overwrite.*

Data Access Level

1. All
2. Client only
3. Client + Organization
4. Organization
5. System only
6. System + Client

Example Scenario on **Default** Access Level

Object	Data Access Level	System	Client + Org	Organization
🗗	System	X		
▦	System + Client	X	X	
⇄	Client + Organization		X	X
⚙	All	X	X	X

Configuring Role Access Rights

Role Level

Optional

- □ Access all Orgs
- □ Maintain Change Log
- □ Show accounting
- □ Can Report
- □ Can Export

Org Access

- Window Access
- Process Access
- Form Access
- Task Access
- Doc Action Access

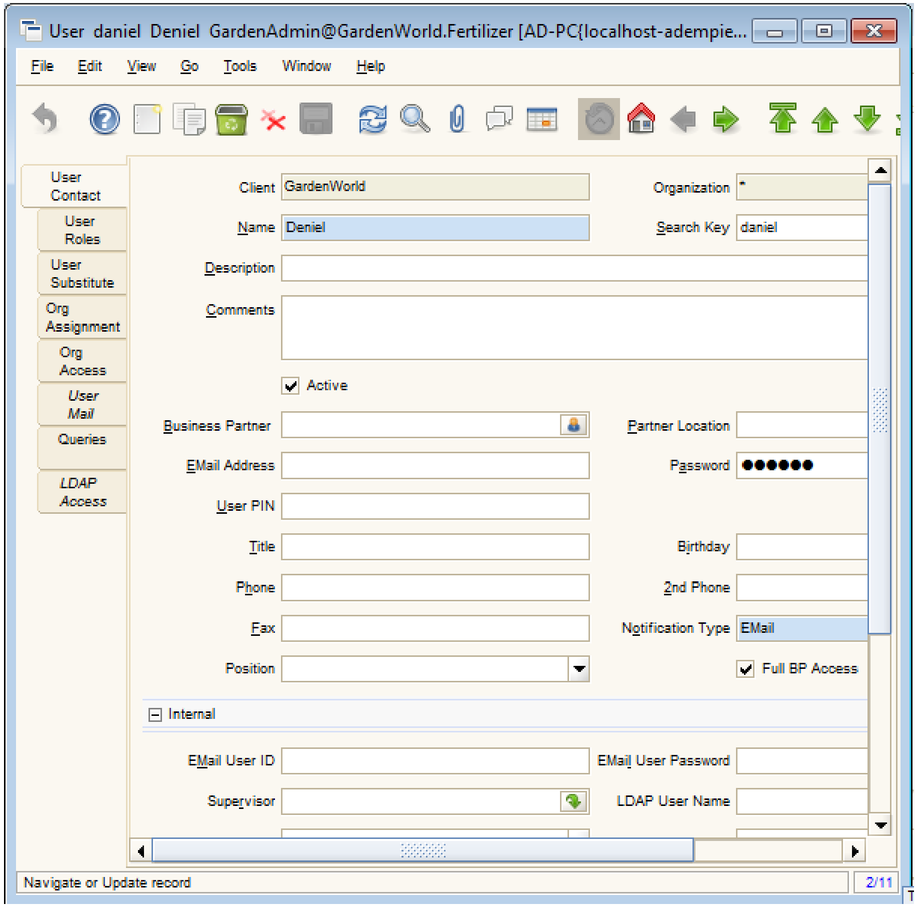
WORKSHOP

Create new user

- Login to ADempiere as **Client**
  - **Username:** GardenAdmin
  - **Password:** GardenAdmin
  - **Role:** GardenWorld Admin
  - **Client:** GardenWorld
  - **Organization:** Fertilizer
- Create 2 new users
  - Open **User** window
  - Create new users with following information

Field	1st user	2nd user
Org	*	*
Name	Daniel	Moses
Search Key	Daniel	Moses
Password	123456	123456

These users are not yet connected to any role, so they still can not access the system quite yet. If you try to login, there will be no role seletion in the login dialog.



User daniel Deniel GardenAdmin@GardenWorld.Fertilizer [AD-PC{localhost-adempie...

Client: GardenWorld

Organization: *

Name: Deniel

Search Key: daniel

Description:

Comments:

☑ Active

Business Partner:

Partner Location:

EMail Address:

Password: ●●●●●●

User PIN:

Title:

Birthday:

Phone:

2nd Phone:

Fax:

Notification Type: EMail

Position:

☑ Full BP Access

⊟ Internal

EMail User ID:

EMail User Password:

Supervisor:

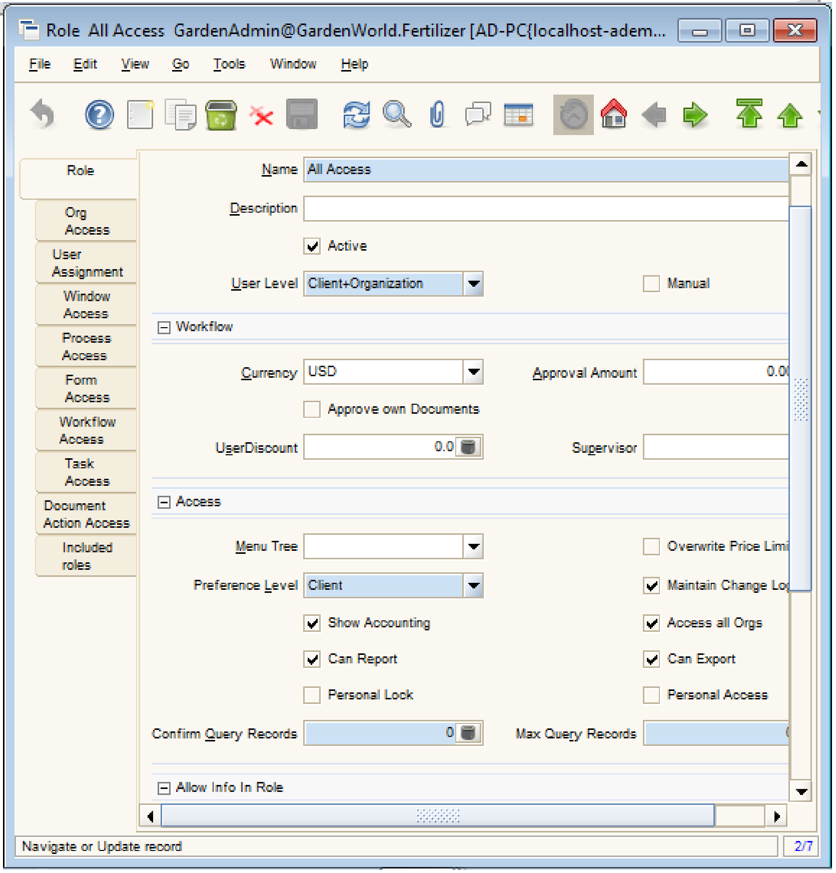
LDAP User Name:

Navigate or Update record 2/11

Create new roles

- Create 2 new roles
  - Open **Role** window
  - Create new roles with following information

Field	1st Role	2nd Role
Org	*	*
Name	All Access	Restricted Access
User Level	Client + Organization	Organization
Manual	No	Yes
Preference Level	Client	Organization
Maintain Change Log	Yes	Yes
Show Accounting	Yes	No
Access all Orgs	Yes	No
Can Report	Yes	Yes
Can Export	Yes	Yes



Role All Access GardenAdmin@GardenWorld.Fertilizer [AD-PC{localhost-adem...

Name	All Access		
Description			
	☑ Active		
User Level	Client+Organization		□ Manual
Currency	USD	Approval Amount	0.0
	□ Approve own Documents		
UserDiscount	0.0	Supervisor	
Menu Tree			□ Overwrite Price Limi
Preference Level	Client		☑ Maintain Change Lo
	☑ Show Accounting		☑ Access all Orgs
	☑ Can Report		☑ Can Export
	□ Personal Lock		□ Personal Access
Confirm Query Records	0	Max Query Records	

Navigate or Update record 2/7

- For the All Access role, select all of the checkboxes in the Allow Info in Role fields group.

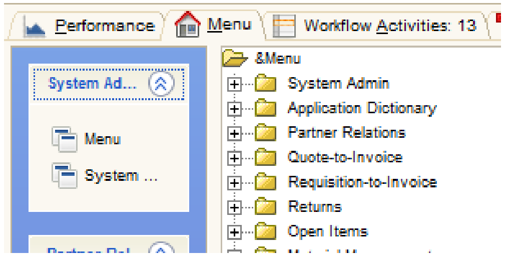
All Access** role (which has the **Manual** checkbox deselected), the Window Access, Process Access, Form Access, Workflow Access, Task Access, and Document Action Access **will be granted automatically, based on User Level selection.

Assign User to new role

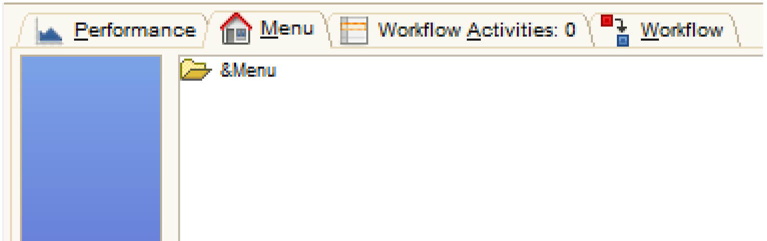
- Assign user to role **All Access**
  - Open **Role** window
  - With **Role = All Access** selected
  - Click on **User Assignment** tab
  - Click **New**
    - **Organization:** *
    - **User:** Daniel
  - Click **Save**
- Assign user to role **Restricted Access**
  - Open **Role** window
  - With **Role = Restricted Access** selected
  - Click on **User Assignment** tab
  - Click **New**
    - **Organization:** *
    - **User:** Moses
  - Click **Save**
  - At this point, user Moses still not can not login as it has no Organization assigned yet.
- Assign user to role **Restricted Access**
  - With **Role = Restricted Access** selected
  - Click on **Org Access** tab
  - Click **New**
    - **Organization:** Fertilizer
  - Click **Save**

At this point we already created 2 roles.

***All Access** role will have access to every org and every role feature, i.e., Maintain Change Log, Show Accounting (Accounting Tab, Post Account button, etc.), Can Report (view and print report), Car Export (export data out of the system)*



***Restrict Access** role can access only access Fertilizer org and have no access to any window / form / process yet.*

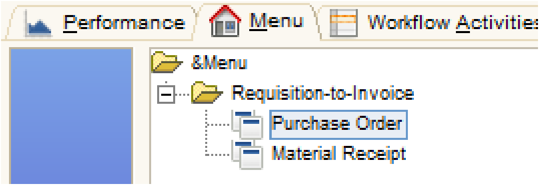


Assign Window Access to a role

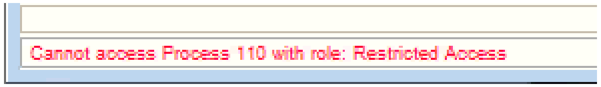
- Assign 2 windows to **Restricted Access** role.
  - Open **Role** window
  - With Role = **Restricted Access** selected, click on **Window Access** tab.
  - Assign following windows.

Field	**1st data**	**2nd data**
Org	*	*
Window	Purchase Order	Material Receipt
Read/Write	Selected	Selected

- Test login with **Restricted Access** role and see the change.
  - Logoff and login again,
    - **Name:** Moses
    - **Password:** 123456
    - **Role:** Restricted Access
  - View the Menu, now you will see the 2 windows.



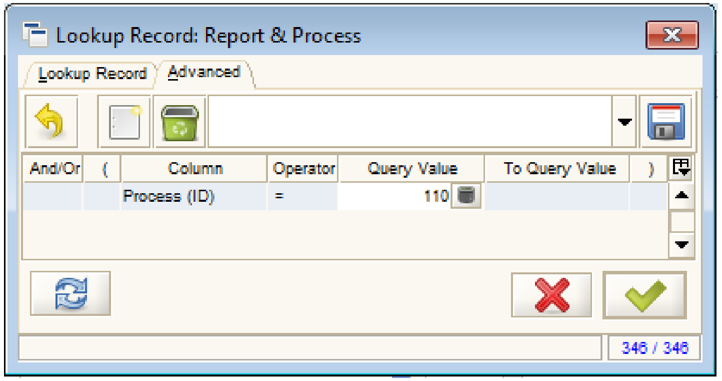
- Test Printing Purchase Order Form
  - Open Purchase Order window.
  - With any opening Purchase Order, click on **Print Preview** button.
  - You will notice that report is not opened. This is because, this role still don't have access right to the **Report Process** for this window.
  - Look at the bottom left of the window, a message is shown, **Cannot access Process 110**


Cannot access Process 110 with role: Restricted Access

At this point, user only have access to the window, but not the underlining report process. Next step we will also assign the access to the ***Process***

Assign Process Access to a role

- Find out the Process name of Process ID 110
  - Logoff and login again,
    - **Name:** System
    - **Password:** System
    - **Role:** System Administrator
  - Open **Report & Process** window.
  - On **Lookup** window, click on **Advanced** tab
    - **Column:** Process (ID)
    - **Operator:** =
    - **Query Value:** 110



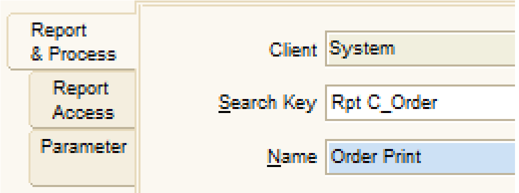
Lookup Record: Report & Process

Lookup Record | Advanced

And/Or	(	Column	Operator	Query Value	To Query Value	)
		Process (ID)	=	110		

346 / 346

  - Click **OK** to search
  - The result show that the Search Key for this Process ID 110 is **Rpt C_Order**



Client: System
Search Key: Rpt C_Order
Name: Order Print

- Assign Process to **Restricted Access** role
  - Logoff and login again,
    - **Name:** GardenAdmin
    - **Password:** GardenAdmin
    - **Role:** GardenWorld Admin
  - Open **Role** window
  - With **Role = Restricted Access** selected, click on **Process Access** tab.
  - Assign following process
    - **Organization:** *
    - **Process:** Rpt C_Order
    - **Read/Write:** Selected
  - Now, try to login as Restricted Access role again and test print preview a Purchase Order. **It should work!**

*We will not test for **Workflow/Form/Document Action Access** here. The same concept apply.*

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Module 8.2
Data Access Restriction

Data Access Restriction

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Data Level

Role Data Access

- Personal Lock
- Record Access
- Table Access
- Column Access
- Report Access
- Export Access

Optional

□ Encrypted Feature

□ Obscure Feature

WORKSHOP

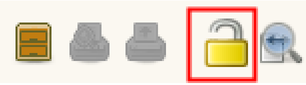
Scenario 1

- Any user that can open Purchase Order window will see Document Types
  - MM Receipt
  - MM Receipt with Confirmation

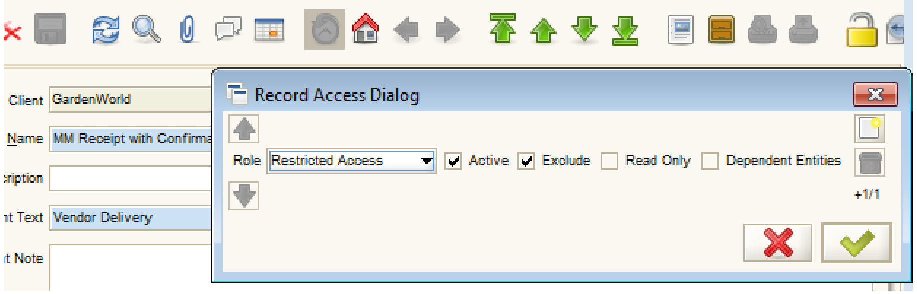
- What if we want to restrict users in **Restricted Access** role to use only **MM Receipt** document type and not **MM Receipt with Confirmation**?

Restrict a Record Access to a Role

- Login to ADempiere as **Client Admin**
  - **Username:** GardenAdmin
  - **Password:** GardenAdmin
  - **Role:** GardenWorld Admin
- Enable **Personal Lock** to Admin
  - Open **Role** window.
  - Lookup for **Role = GardenWorld Admin**
  - Select **Personal Lock** field and **Save** change
  - Logout and re-login as GardenWorld Admin again.
  - Now, this GardenWorld Admin role will have Personal Lock icon in and opening window.



- Block the Document Type **MM Receipt with Confirmation** from **Restricted Access** role
  - Open **Document Type** window
  - With record **Document Type = MM Receipt** selected, click **Ctrl** button + **Personal Lock** icon
  - A dialog will open, select **Role** = **Restricted Access** and click **OK**



Client GardenWorld

Name MM Receipt with Confirma

nt Text Vendor Delivery

Record Access Dialog

Role Restricted Access ☑ Active ☑ Exclude □ Read Only □ Dependent Entities

  - Now the Restriction to this record for the role is created.
- Login again as **Restricted Access** role
  - Open Purchase Order window, click **New**
  - Only **MM Receipt** is listed for DocType

*This restriction apply only when **New** record. If you want to restrict all dependent records, also check **Dependent Entities** checkbox in Record Access Dialog.*

2 ways to remove lock

- *From the **Record Access Dialog***
- *From **Role Data Access** window | **Record Access** tab*

Scenario 2

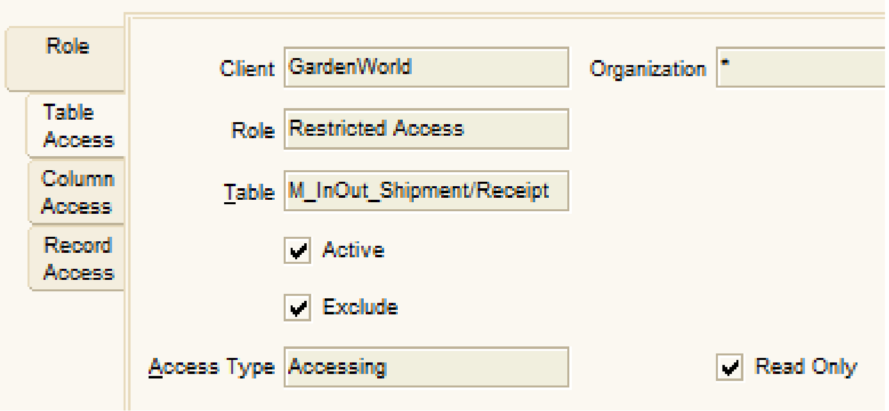
- Suppose that you need to grant access to a **Restricted Access** role that can only **read or view** the **Material Receipt** window and **cannot add or alter any information in this window**.

- And we want to control this access in the Table level, not just interface layer, how do we do?

  (Interface Layer, we can still use Role's Window Access to control)

Restrict a Table Access to a Role

- Login to ADempiere as **Client Admin**
  - **Username:** GardenAdmin
  - **Password:** GardenAdmin
  - **Role:** GardenWorld Admin
- Find the document's target table.
  - opening the **Material Receipt** window and clicking on Record Info. In this case, the table name is **M_InOut**.
- Restrict the Table **M_InOut** from **Restricted Access** role
  - Open **Role Data Access** window
  - Click **Table Access** tab
  - Click **New**
    - **Table:** M_InOut_Shipment/Receipt
    - **Exclude checkbox:** Selected
    - **Access Type:** Accessing
    - **Read Only:** Selected
  - Click **Save**



Client	GardenWorld	Organization	*
Role	Restricted Access		
Table	M_InOut_Shipment/Receipt		
	☑ Active		
	☑ Exclude		
Access Type	Accessing		☑ Read Only

- Re-Login again as **Restricted Access** role
  - Open **Material Receipt** window
  - Now, only **read-only access** and will not be able to alter or add any information.

*In addition, this **Role Data Access** window | **Table Access** tab can also use to restrict the access to **Report** and **Export** for the specified table and **role**.*

*For **Report** restriction, choose **Access Type = Reporting***

*For **Export** restriction, choose **Access Type = Exporting***

Scenario 3

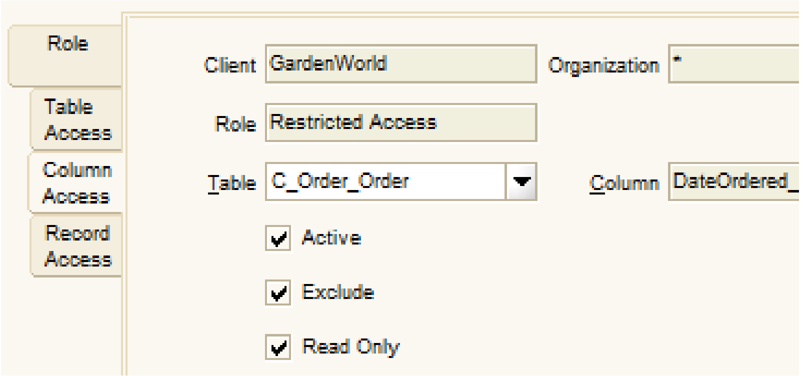
- Well, what we need is just to make sure that this role cannot alter the Purchase Order's Date Ordered only. We need anyone who is connected with this role to use a default Date Ordered.

- How to we do that to **Restricted Access** role?

Restrict a Column Access to a Role

- Login to ADempiere as **Client Admin**
  - **Username:** GardenAdmin
  - **Password:** GardenAdmin
  - **Role:** GardenWorld Admin

- Restrict the Column Table **M_InOut** from **Restricted Access** role
  - Open **Role Data Access** window
  - Click **Column Access** tab
  - Click **New**
    - **Table:** C_Order_Order
    - **Column:** DataOrdered_Date Ordered
    - **Exclude checkbox:** Selected
    - **Read Only:** Selected
  - Click **Save**



Client GardenWorld Organization *

Role Restricted Access

Table C_Order_Order Column DateOrdered_

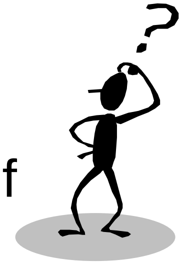
☑ Active

☑ Exclude

☑ Read Only

- Re-Login again as **Restricted Access** role
  - Open **Purchase Order** window
  - Now, column **Date Ordered** will be read-only.

Test Your Knowledge



1. All Client will share the Same System Configuration but different Client Configuration?
2. A user in ADempiere can be assigned for more than 1 Role of the same client?
3. We can create a Client user that can access to all other Clients in ADempiere?
4. In Role window, what is **Manual** field used for? I.e., What different when it is Checked and it is Not Checked?
5. We can restrict a record access to a User?

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