

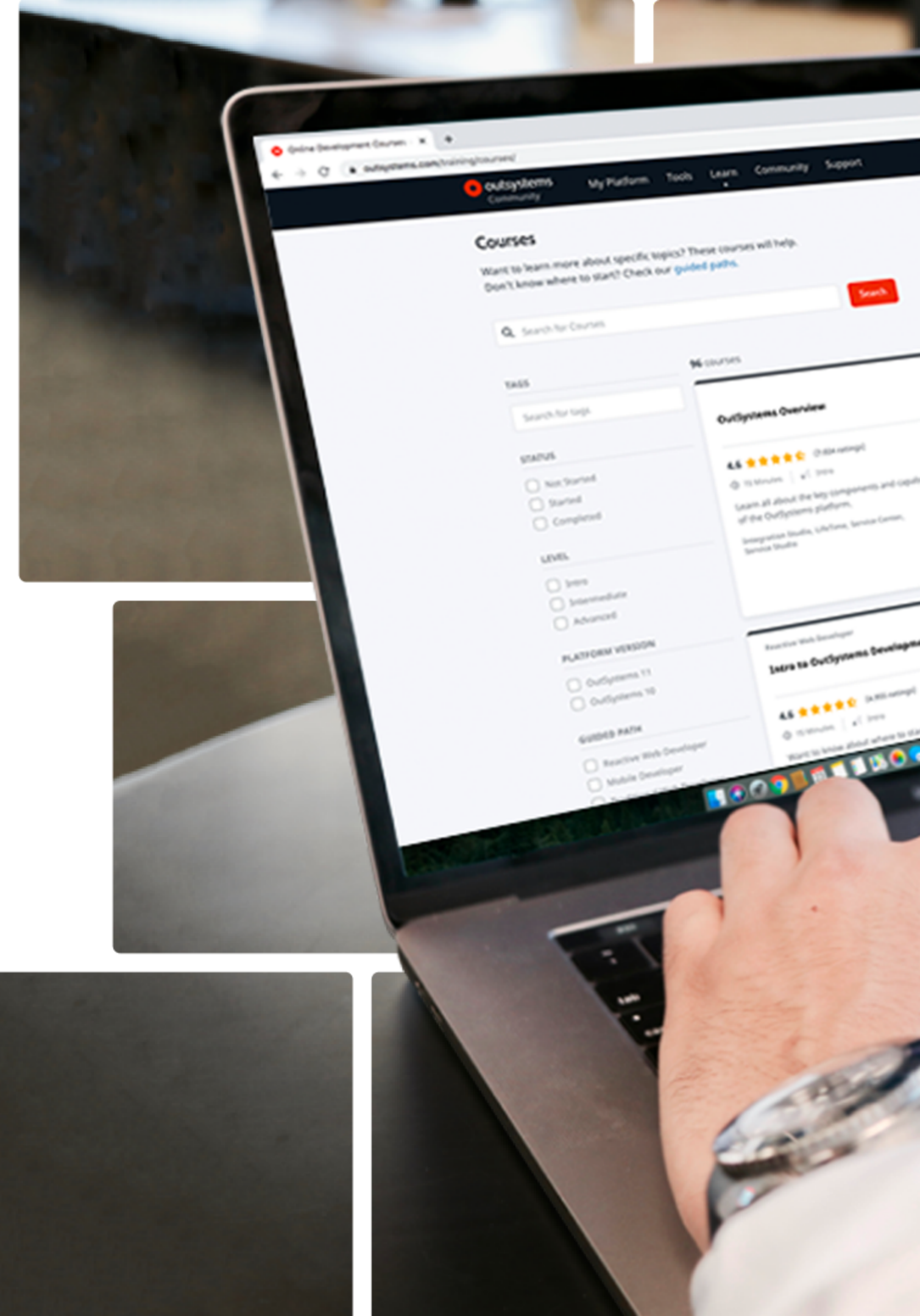


# Role-based Security

Access Control

Users and Roles

Checking Permissions

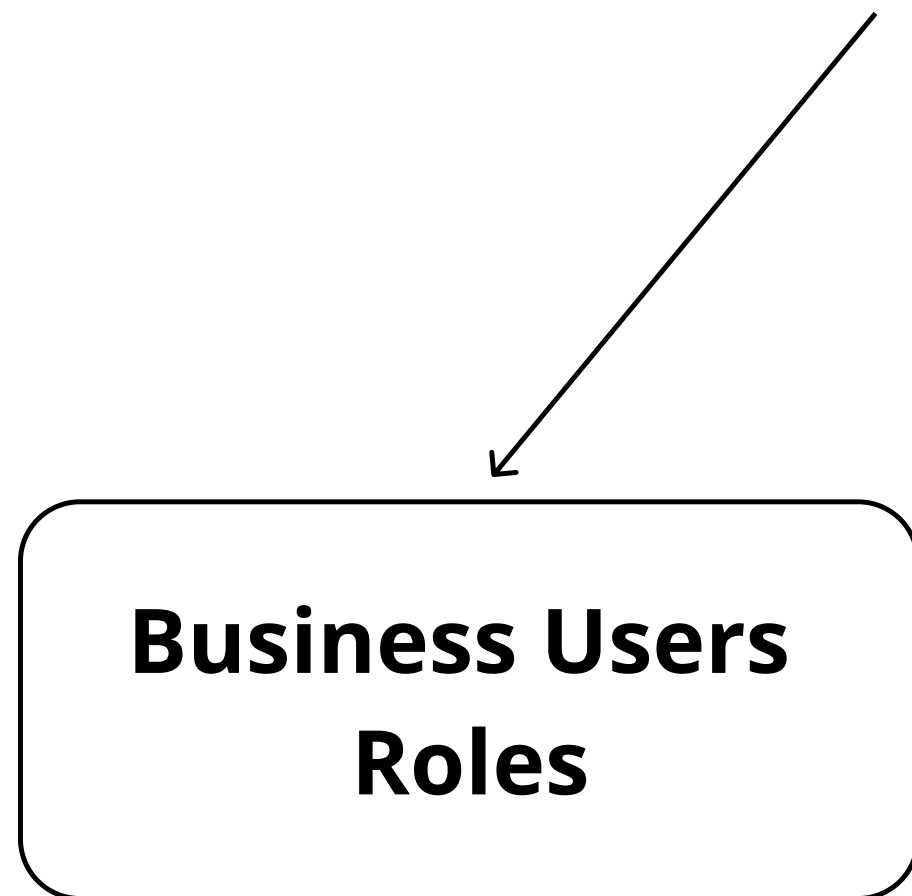


# What is Access Control?

Access control determines and enforces  
**who** can do **what**.

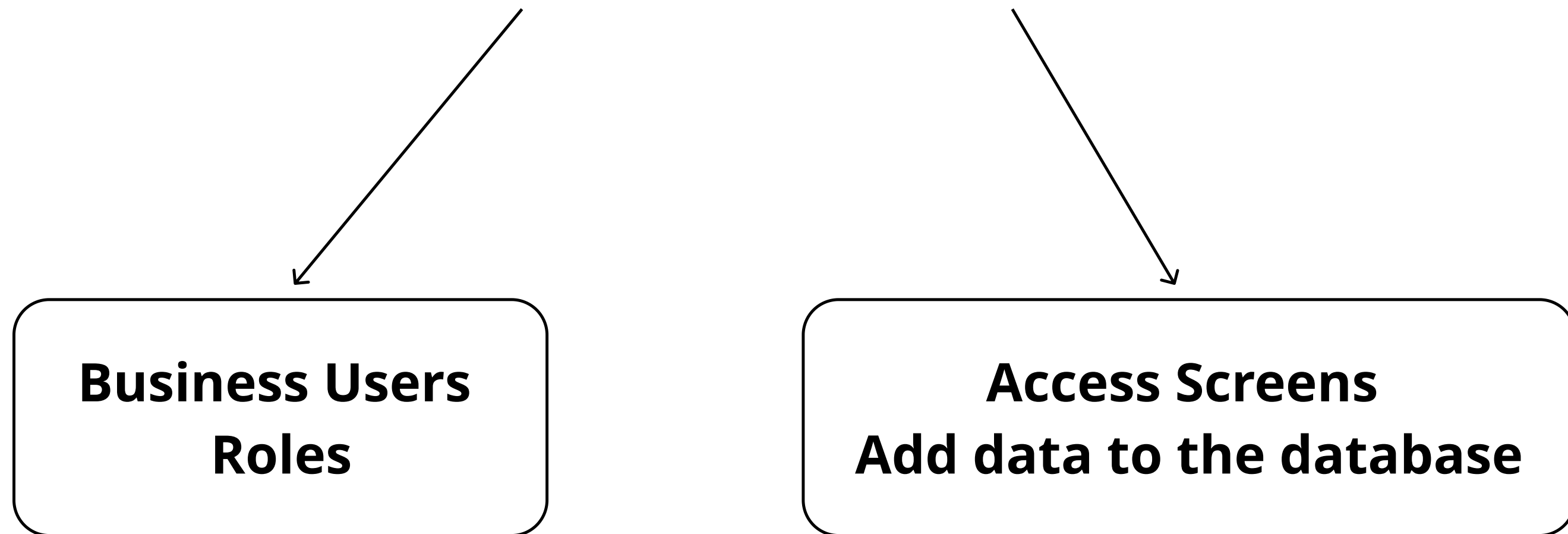
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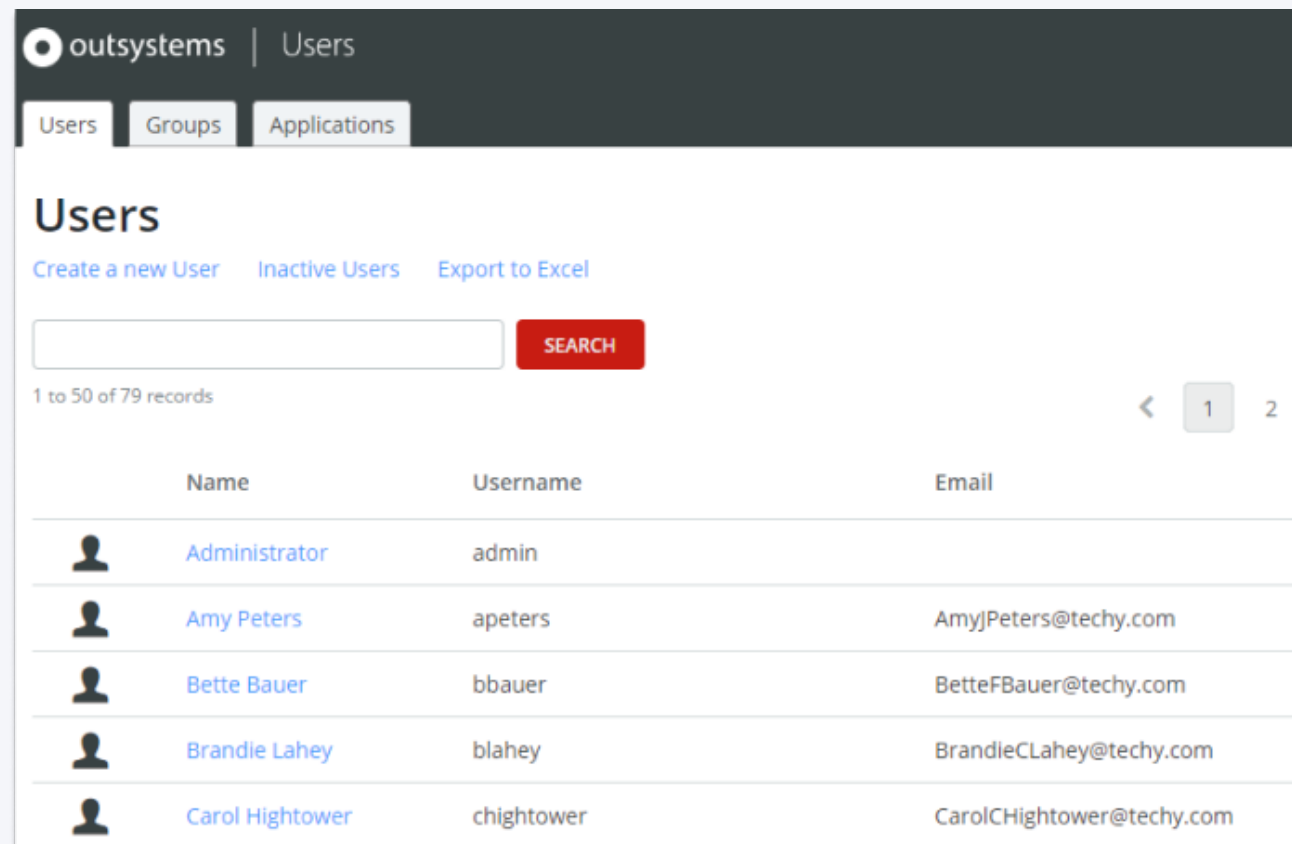
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# Authentication and Authorization

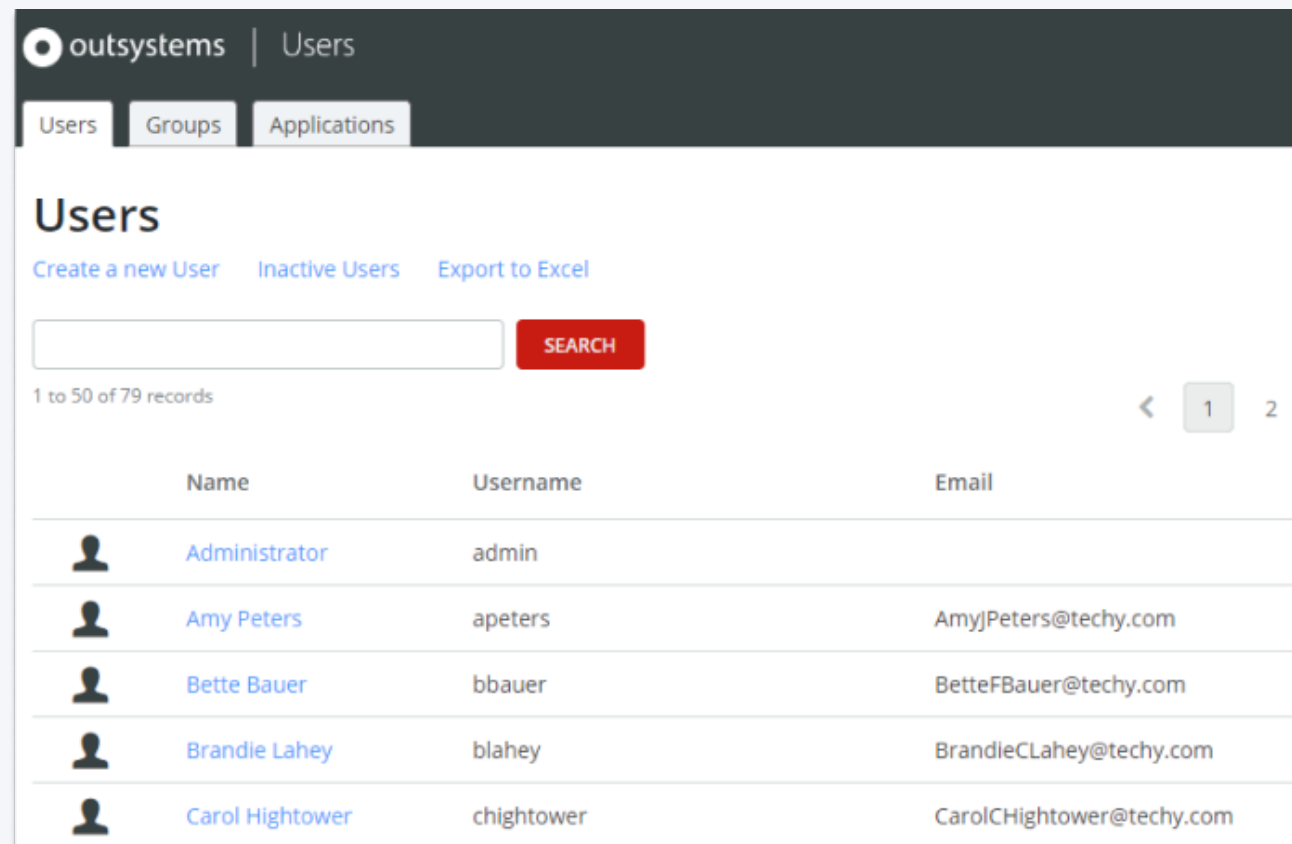
- Access control comprises **Authentication** and **Authorization**
- Authentication
  - Identify who is accessing the application
  - Validate user credentials (e.g. username and password)
- Authorization
  - Check if a user can execute a task
  - Validate if a user was granted the required permissions

# Users








- End-users are created and managed in the built-in Users application
  - Default OutSystems end-user provider
  - `https://<your_server>/Users`

# Users

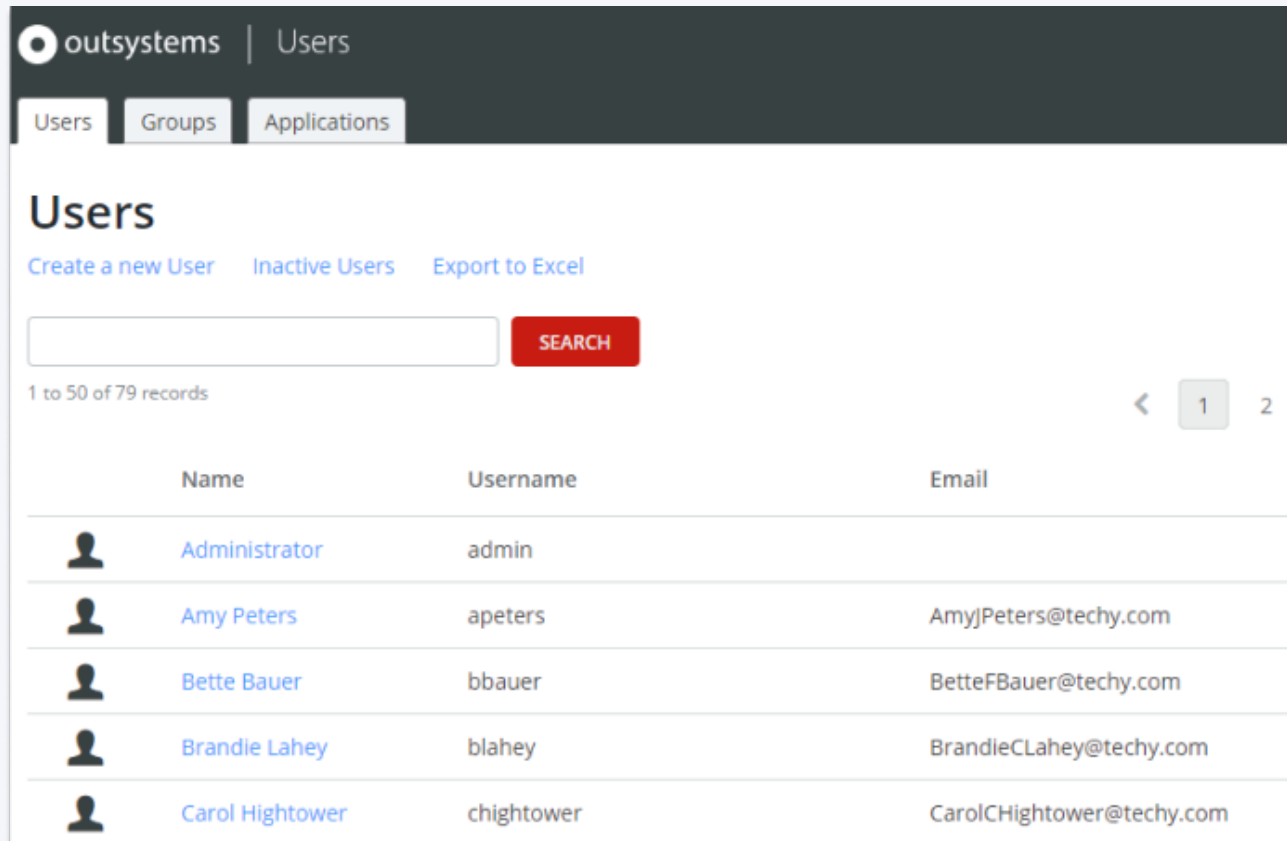







The screenshot shows the OutSystems 'Users' application interface. At the top, there's a dark header with the 'outsystems' logo and the title 'Users'. Below the header, there are tabs for 'Users', 'Groups', and 'Applications'. The 'Users' tab is active. Under the 'Users' tab, there are links for 'Create a new User', 'Inactive Users', and 'Export to Excel'. A search bar with a red 'SEARCH' button is present. Below the search bar, it says '1 to 50 of 79 records'. A table lists users with columns for 'Name', 'Username', and 'Email'. The table contains five rows of user data.

	Name	Username	Email
	<a href="#">Administrator</a>	admin	
	<a href="#">Amy Peters</a>	apeters	AmyJPeters@techy.com
	<a href="#">Bette Bauer</a>	bbauer	BetteFBauer@techy.com
	<a href="#">Brandie Lahey</a>	blahey	BrandieCLahey@techy.com
	<a href="#">Carol Hightower</a>	chightower	CarolCHightower@techy.com

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- The core information of a user is the username and password

# Users



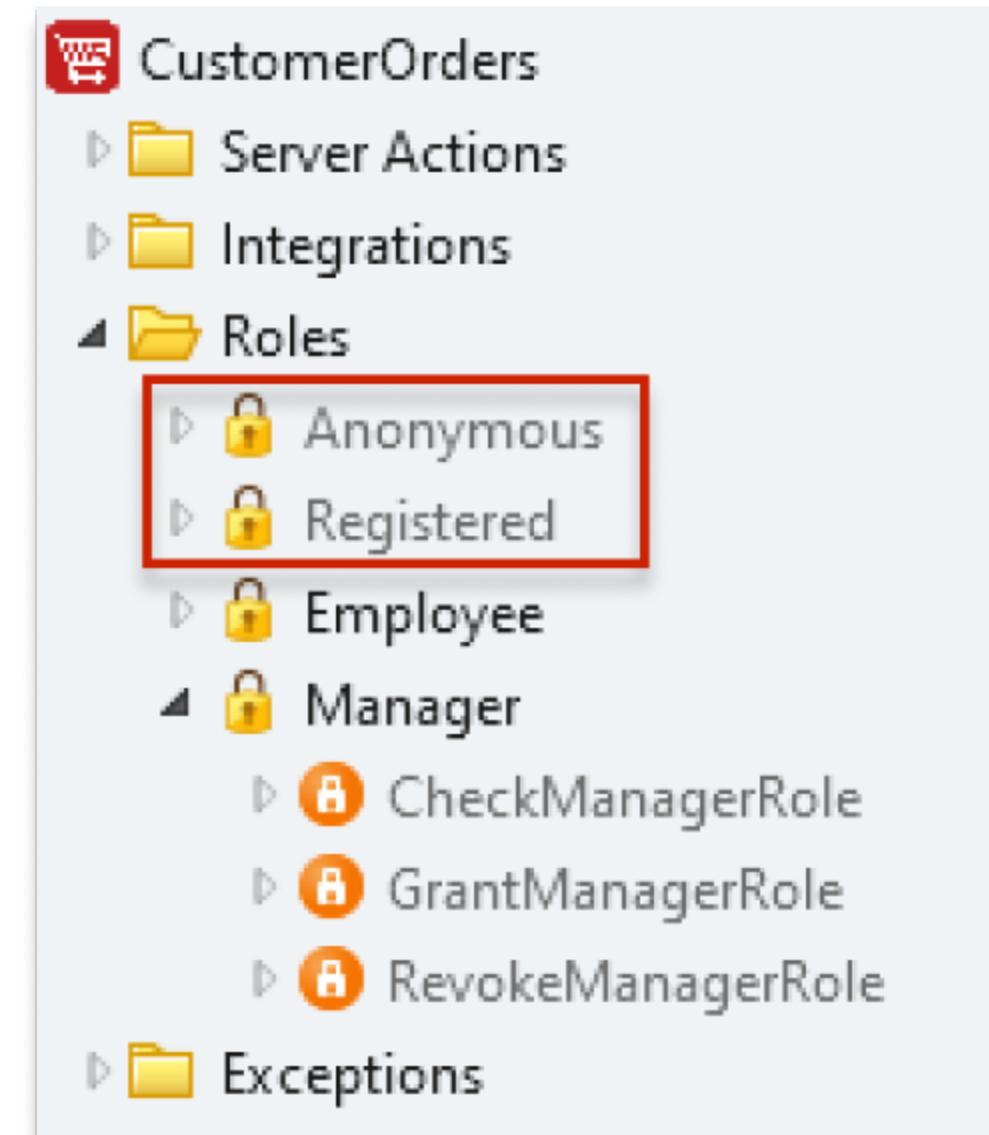
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- End-users are created and managed in the built-in Users application
  - Default OutSystems end-user provider
  - `https://<your_server>/Users`
- The core information of a user is the username and password
- Can be created programmatically
  - Actions from the Users module



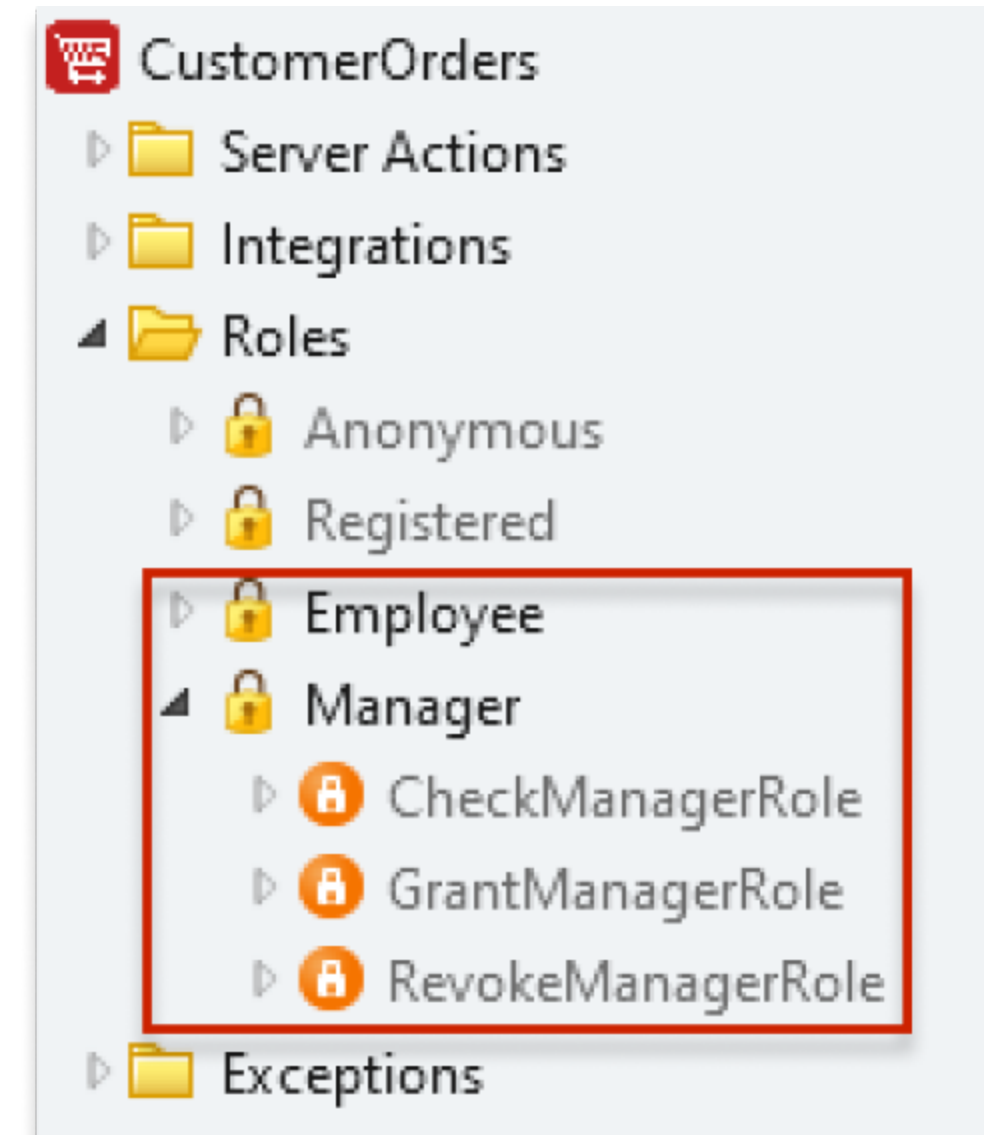
# Roles

- Authorization is granted via Roles
- Built-in Roles
  - Anonymous
  - Registered
- All logged in end-users have the **Registered Role**



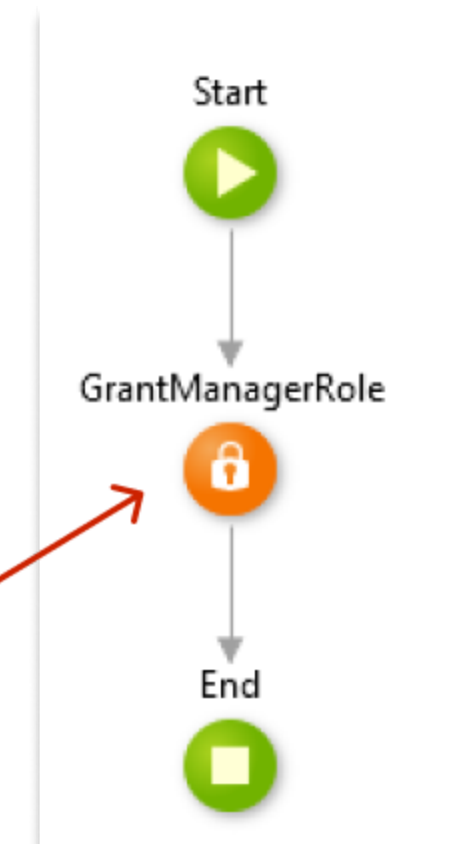
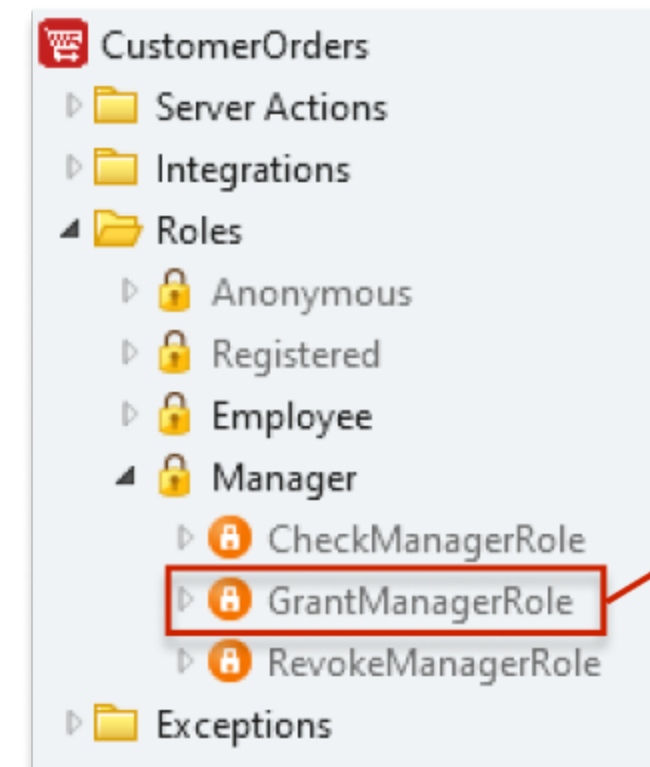
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- Built-in Roles
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- All logged in end-users have the **Registered** Role
- Application-specific Roles can be created
  - Each Role has **Check**, **Grant** and **Revoke** Actions



# Granting Authorization

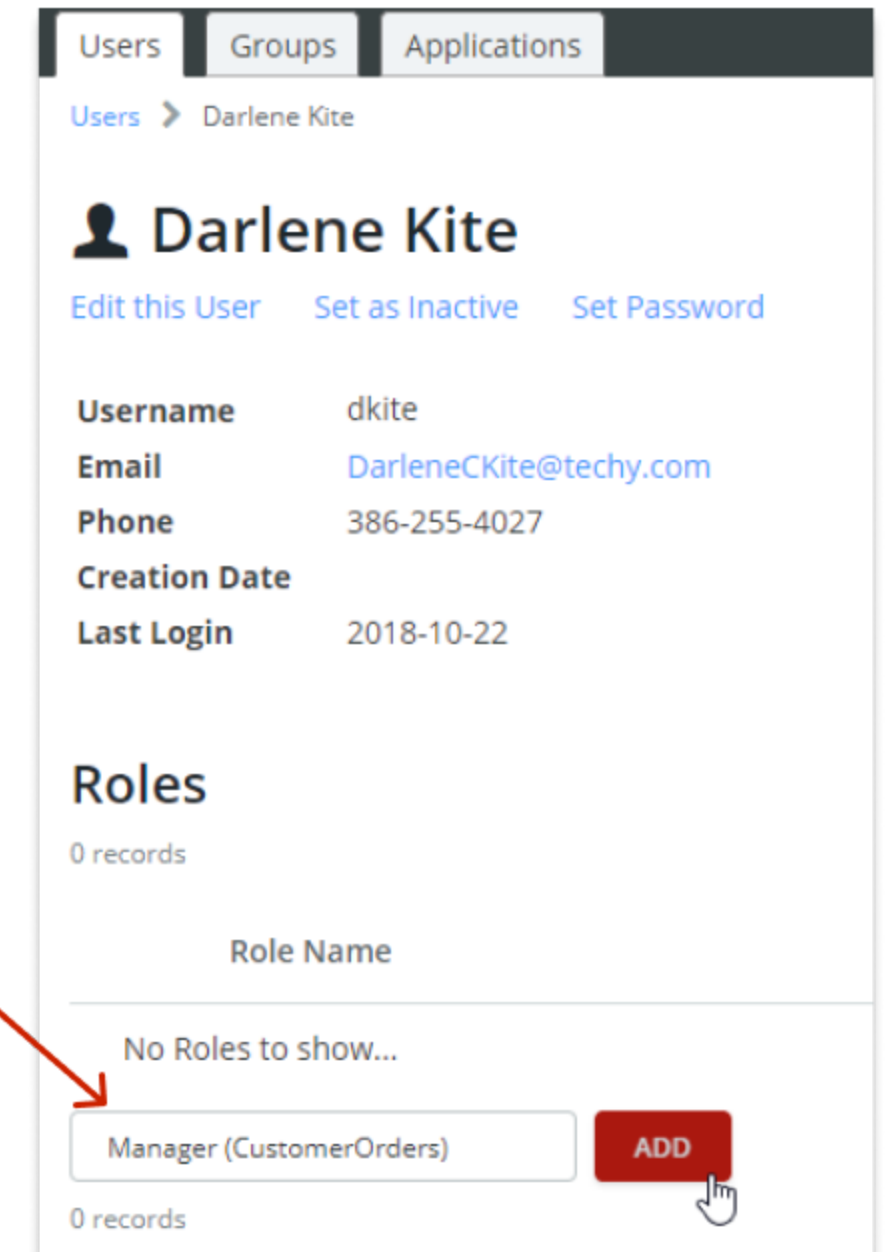
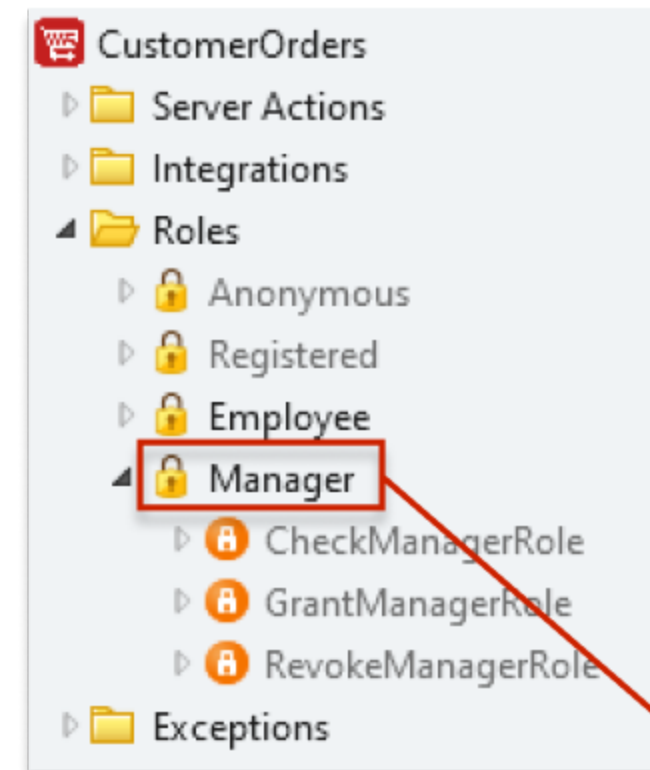
- Authorization is granted via Roles
  - Roles can be assigned to Users
- Authorization can be managed:
  - Programatically
    - Grant and Revoke Actions
    - Can be used in Server Actions



GrantManagerRole Run Server Action	
Name	GrantManagerRole
Action	GrantManagerRole ▼
UserId	UserId ▼

# Granting Authorization

- Authorization is granted via Roles
  - Roles can be assigned to Users
- Authorization can be managed:
  - Programmatically
    - Grant and Revoke Actions
    - Can be used in Server Actions
  - Manually in the Users app

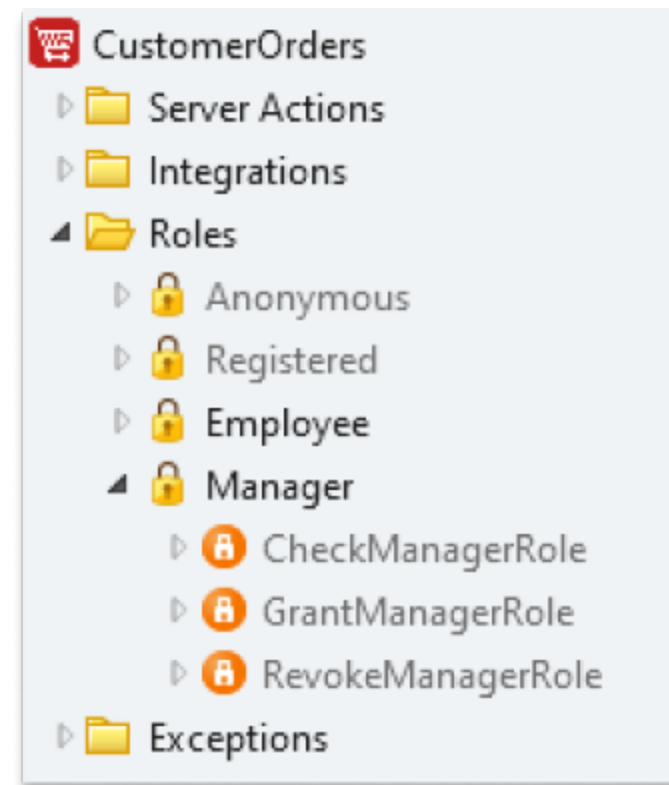


# Checking Permissions

Roles can be checked in  
**Screens** and **Actions**

# Checking Permissions on Screens

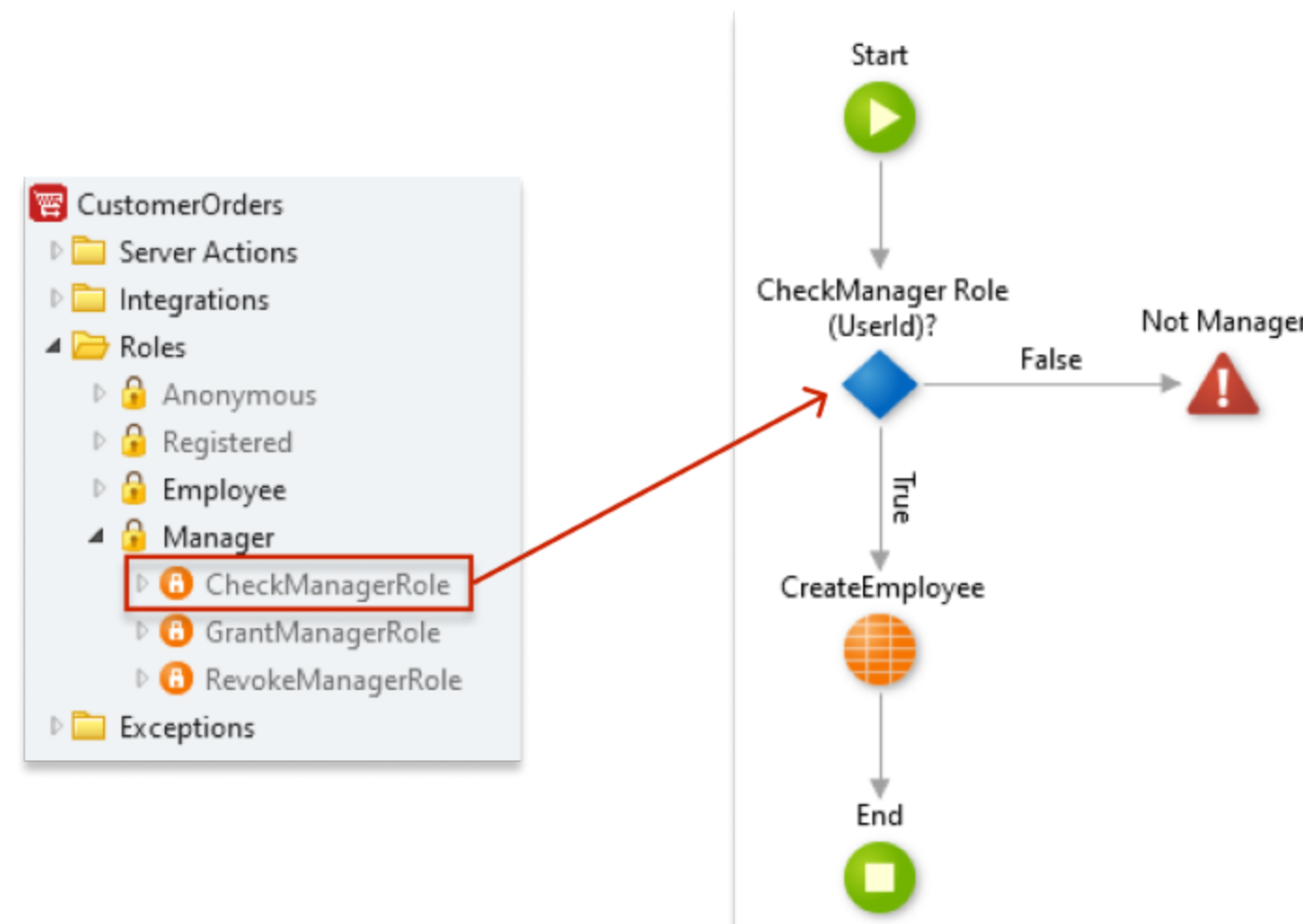
- Screen Roles property
  - Enforces a user to have one of the Roles to access the Screen



Orders Web Screen	
Name	Orders
Description	...
Public	No
Title	
Roles	
Anonymous	<input type="checkbox"/>
Registered	<input type="checkbox"/>
Employee	<input checked="" type="checkbox"/>
Manager	<input checked="" type="checkbox"/>

# Checking Permissions on Actions

- *Check<RoleName>Role(UserId)* Action
  - Checks if a user has the Role
  - Can be used in If statements on server actions




# Access Control in OutSystems



# Access Control in OutSystems

## Define the User

 outsystems | Users

Users

Groups






Applications

### Users

[Create a new User](#) [Inactive Users](#) [Export to Excel](#)

SEARCH

1 to 50 of 79 records

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Grant a Role to a User

Darlene Kite

Edit this User

Set as Inactive

Set Password

Username

dkite

Email

DarleneCKite@techy.com

Phone

386-255-4027

Creation Date

Last Login

2018-10-22

Roles

0 records

Role Name

No Roles to show...

Manager (CustomerOrders)

ADD

0 records

# Access Control in OutSystems

Define the User

outsystems | Users

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Groups

Applications

Users

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Define / Check Permissions

