

Role-based Security



Access Control

Users and Roles

Checking Permissions

What is Access Control?

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



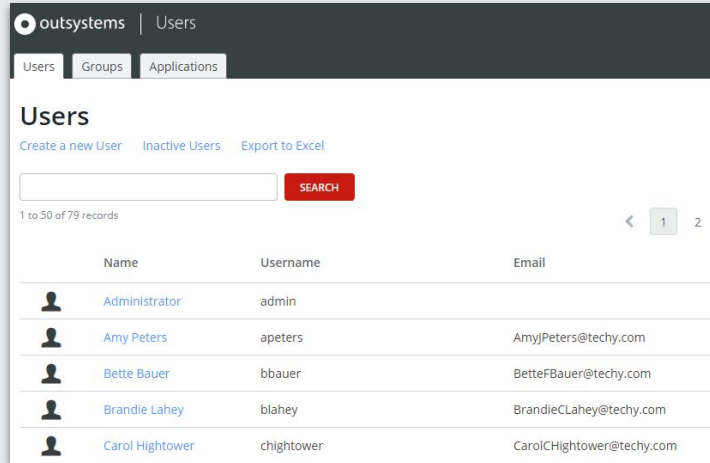
**Business Users
Roles**

**Access Screens
Add data to the database**

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



Name	Username	Email
Administrator	admin	
Amy Peters	apeters	AmyJPeters@techy.com
Bette Bauer	bbauer	BetteFBauer@techy.com
Brandie Lahey	blahey	BrandieCLAhey@techy.com
Carol Hightower	chightower	CarolCHightower@techy.com

- 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

Users

outsystems | Users

Users Groups Applications

Users

Create a new User Inactive Users Export to Excel

SEARCH

1 to 50 of 79 records

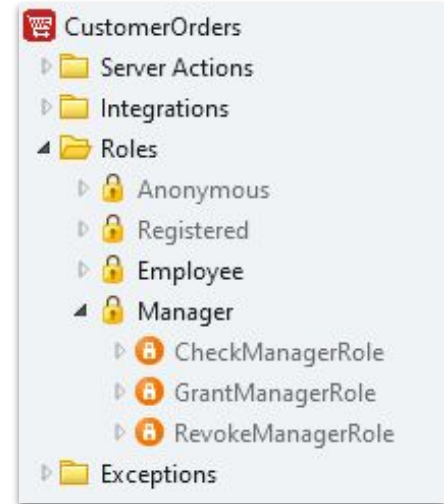
Name	Username
Administrator	admin
Amy Peters	apeters
Bette Bauer	bbauer
Brandie Lahey	blahey
Carol Hightower	chightower

- Users
 - UI Flows
 - Server Actions
 - EncryptPassword
 - GetEffectiveAuthProviderEspaceld
 - Group_CreateNew
 - Group_Delete
 - Group_Update
 - IPAddress_GetBlockedStatus
 - IPAddress_GetBlocks
 - IPAddress_Unblock
 - PasswordAutocompleteValue
 - UseActiveDirectoryAuthentication
 - UseIntegratedAuthentication
 - UseLDAPAuthentication
 - User_CanChangePassword
 - User_Create**
 - User_CreateOrUpdate**
 - User_DeletelfNoRoles

- 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

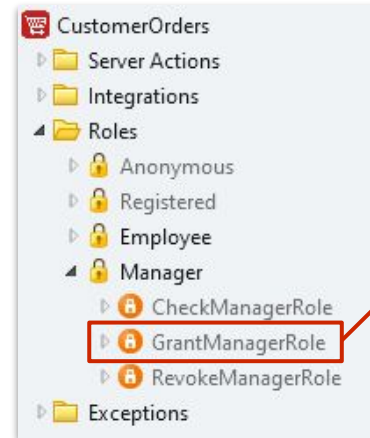
Roles

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



Granting Authorization

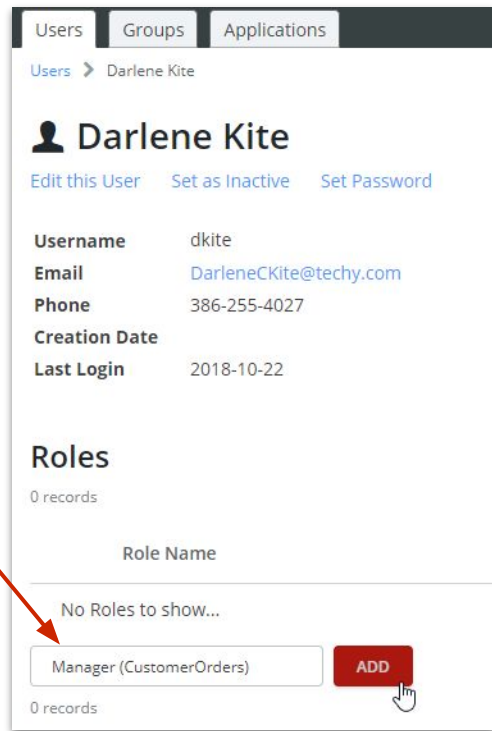
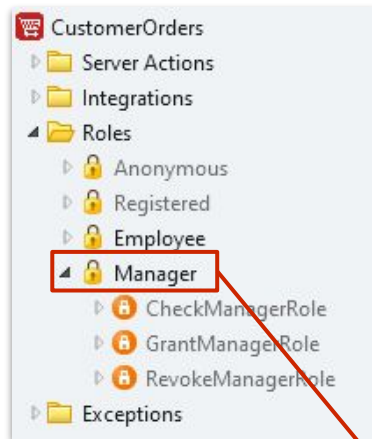
- Authorization is granted via Roles
 - Roles can be assigned to Users
- Authorization can be managed:
 - Programatically
 - Grant and Revoke Actions
 - Can be used in Server Actions



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:
 - Programatically
 - Grant and Revoke Actions
 - Can be used in Server Actions
 - Manually in the Users app

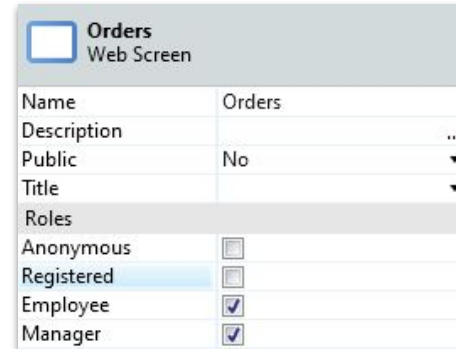
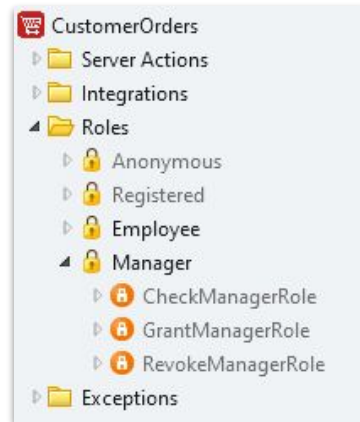


Checking Permissions

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

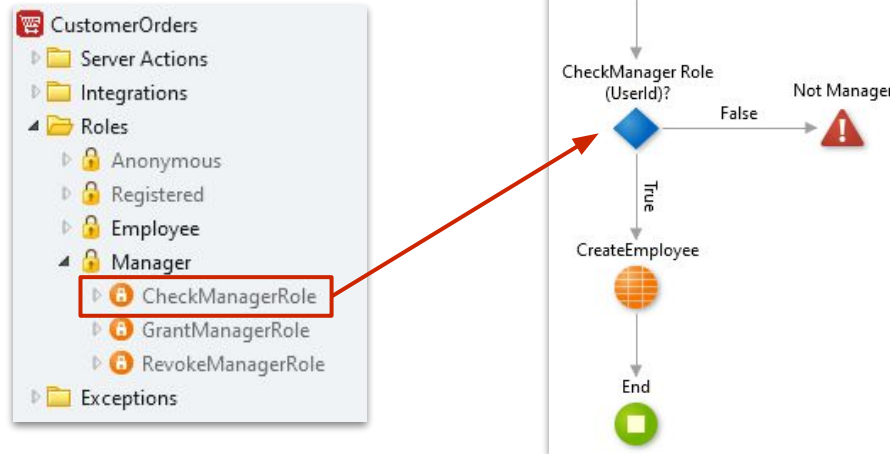
Checking Permissions on Screens

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



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

Define the User

The screenshot shows the 'Users' management page in OutSystems. At the top, there's a navigation bar with 'Users', 'Groups', and 'Applications' tabs. Below this, there's a 'Users' section with links for 'Create a new User', 'Inactive Users', and 'Export to Excel'. A search bar is present with a 'SEARCH' button. Below the search bar, it indicates '1 to 50 of 79 records'. A table lists users with columns for 'Name' and 'Username'. The table contains five entries: Administrator (admin), Amy Peters (apeters), Bette Bauer (bbauer), Brandie Lahey (blahey), and Carol Hightower (chightower).

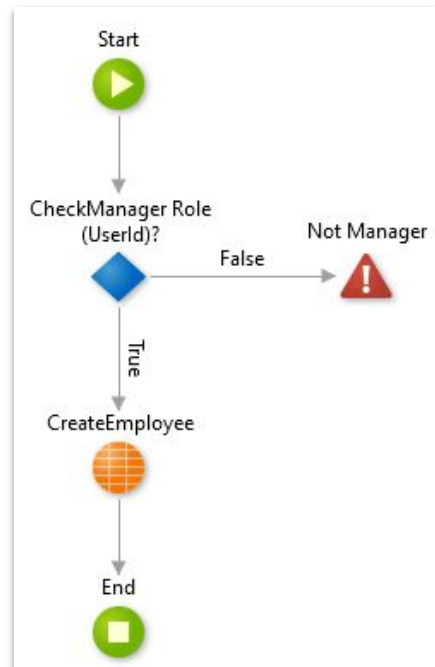
Name	Username
Administrator	admin
Amy Peters	apeters
Bette Bauer	bbauer
Brandie Lahey	blahey
Carol Hightower	chightower

Grant a Role to a User

The screenshot shows the user profile for 'Darlene Kite'. It includes links to 'Edit this User', 'Set as Inactive', and 'Set Password'. The user's details are listed: Username (dkite), Email (DarleneCKite@techy.com), Phone (386-255-4027), Creation Date, and Last Login (2018-10-22). Below this, there's a 'Roles' section showing '0 records'. A table for roles is visible, with a header 'Role Name'. The table is currently empty, showing 'No Roles to show...'. At the bottom, there's a text input field containing 'Manager (CustomerOrders)' and a red 'ADD' button with a hand cursor icon.

Role Name
Manager (CustomerOrders)

Define / Check Permissions



Questions?

Thank you
