System Security

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Acumatica
The Cloud ERP

Timing and Agenda

November 25, 2024 - 10:00-11:00 AM PT

Day 1

Lesson 1.1: Activating Acumatica ERP and Enabling Features

Lesson 1.2: Configuring System-Wide Security

November 26, 2024 - 10:00-11:00 AM PT

Day 2

Lesson 2.1: Configuring User Roles

Lesson 2.2: Setting Up User Access

Lesson 2.3: Encrypting with Digital Certificates

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Timing and Agenda

November 27, 2024 - 10:00-11:00 AM PT

Day 3

Lesson 3.1: Using System-Wide Security Auditing

Lesson 3.2: Using Field-Level Auditing

Lesson 4.1: Configuring Two-Factor Authentication

Day 1

Scott McLaughlin
Acumatica Sponsored Professional Race Car Driver

Company Structure

The SweetLife Fruits & Jams company is a midsize company located in New York City. The company consists of the following branches:

• SweetLife Head Office and Wholesale Center: This branch of the company consists of a jam factory and a large warehouse where the company stores fruit (purchased from wholesale vendors) and the jam it produces. Warehouse workers perform warehouse operations by using barcode scanners or mobile devices with barcode scanning support.

• SweetLife Store: This branch has a retail shop with a small warehouse to which the goods to be sold are distributed from the company's main warehouse. This branch is also planning on selling goods via a website created on an e-commerce platform to accept orders online. The e-commerce integration project is underway.

• SweetLife Service and Equipment Sales Center: This branch is a service center with a small warehouse where juicers are stored. This branch assembles, sells, installs, and services juicers, in addition to training customers' employees to operate juicers.

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Operational Activity

The company has been operating starting in the 01-2023 financial period. In November 2023, the company started using Acumatica ERP as an ERP and CRM system and migrated all data of the main office and retail store to Acumatica ERP. The equipment center has begun its operations in 01-2024 in response to the company's growth.

The base currency of the company and its subsidiaries is the US dollar (USD). All amounts in documents and reports are expressed in US dollars unless otherwise indicated.

SweetLife Company Sales and Services

Each SweetLife company's branch has its own business processes, as follows:

• SweetLife Head Office and Wholesale Center: In this branch, jams and fruit are sold to wholesale customers, such as restaurants and cafes. The company also conducts home canning training at the customer's location and webinars on the company's website.

• SweetLife Store: In the store, retail customers purchase fresh fruit, berries, and jams, or pick up the goods they have ordered on the website. Some of the goods listed in the website catalog are not stored in the retail warehouse, such as tropical fruits (which are purchased on demand) and tea (which is drop-shipped from a third-party vendor).

• SweetLife Service and Equipment Sales Center: This branch assembles juicers, sells juicers, provides training on equipment use, and offers equipment installation, including site review and maintenance services. The branch performs short-term service provision.

The company has local and international customers. The ordered items are delivered by drivers using the company's own vehicle. Customers can pay for orders by using various payment methods (cash, checks, or credit cards).

Muffins & Cakes Company Sales and Services

The Muffins & Cakes branches have the following business processes:

• Muffins Head Office & Wholesale Center: In this branch, baked goods and products for baking are sold to wholesale customers, such as restaurants and cafes. The company also conducts baking classes at customer locations.

• Muffins Store: In the store, small retail customers purchase baked goods, or pick the goods ordered on the website.

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Company Purchases

The company purchases fruits and spices from large fruit vendors for sale and for jam production. For producing jams and packing jams and fruits, the company purchases jars, labels, and paper bags from various vendors. For the internal needs of the main office and store, the company purchases stationery (printing paper, pens, and pencils), computers, and computer accessories from various vendors. The company also purchases juicers and juicer parts from large juicer vendors and either purchases the installation service for the juicers or provides the installation service on its own, depending on the complexity of the installation. The Muffins & Cakes company also purchases stationery (printing paper, pens, and pencils) and advertising services

Part 1: Preparing an Instance for Implementation

Lesson 1.1: Activating Acumatica ERP and Enabling Features

Learning Objectives

In this lesson, you will learn how to do the following:

• Activate a new Acumatica ERP instance and enable features that are included in your license.

Figure: Activation status of initial features
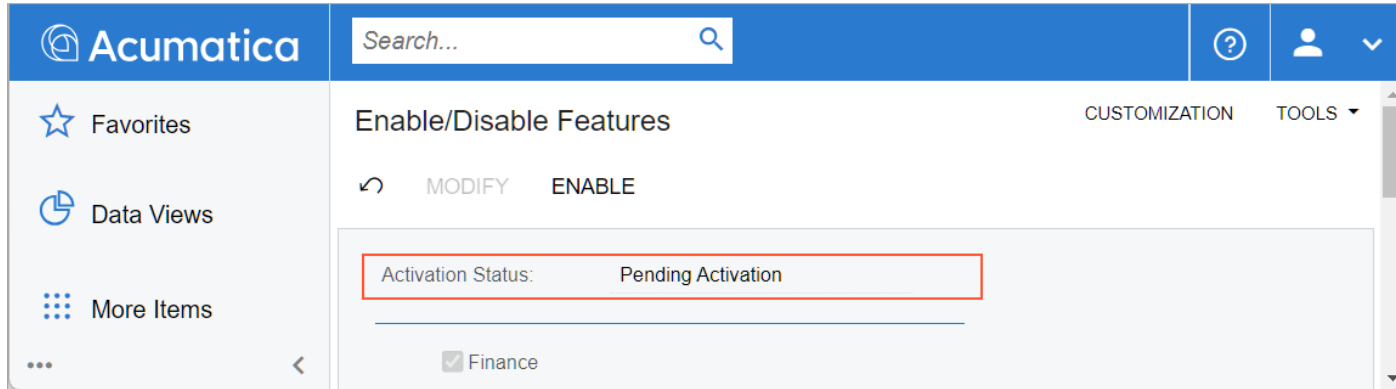
Figure: Activation status of the enabled features

Lesson 1.1: Activating Acumatica ERP and Enabling Features

- You can create no more than 10 tenants per instance.

- All tenants that you create have the Test Tenant status.

- The watermark is added to all printed forms and reports.

- Only two conventional users can concurrently use the system.

- Only two API users can concurrently use the system.

Preparing an Instance: To Enable Features and Activate the License

Story

Suppose that the SweetLife Fruits & Jams company has purchased an Acumatica ERP subscription in Acumatica Business Cloud. The instance has been installed by SaaS engineers. You, as a system administrator, have received the instance URL and the credentials to the admin user. Now you need to prepare the instance for implementation. You are the first one to sign in to the instance, and activate and license it with the product key you have obtained from the sales representative. The company has purchased the S1 license tier with three concurrent users and five tenants. In addition to the default set of features, your company has purchased the basic functionality associated with the Inventory and Order Management group of features.

Figure: License Monitoring Console

License Monitoring Console

LICENSE   STATISTICS   WARNINGS   CONSTRAINT HISTORY

License Status:	Valid
* License Tier:	S Series, Tier 1

LICENSE DETAILS

Monthly Number of Commercial Transactions:	1000
Monthly Number of ERP Transactions:	20000
Database Storage Included (GB):	1

RECOMMENDED MAXIMUMS

Daily Commercial Transactions:	100
Daily ERP Transactions:	2000
Concurrent Users:	3

SYSTEM CONSTRAINTS

Maximum Number of Web Services API Users:	10
Maximum Number of Concurrent Web Services API Requests:	3
Maximum Number of Web Services API Requests per Minute:	50
Maximum Number of Lines per Transaction:	1000
Maximum Number of Serial Numbers per Document:	2000
Maximum Number of Employees Paid by Month:	0

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Lesson 1.2: Configuring System-Wide Security

Learning Objectives

In this lesson, you will learn about the following:

• The tools we recommend that you use for ensuring that access to your tenant in implementation is secure.

• Setup a password policy

• Setup an Account lockout policy

Preparing an Instance: To Configure Secure Access for Implementers

Story

Suppose that the SweetLife Fruits & Jams company has purchased a cloud subscription for Acumatica ERP. You, as a system administrator, need to configure the secure access for the production tenant of the Acumatica ERP instance.
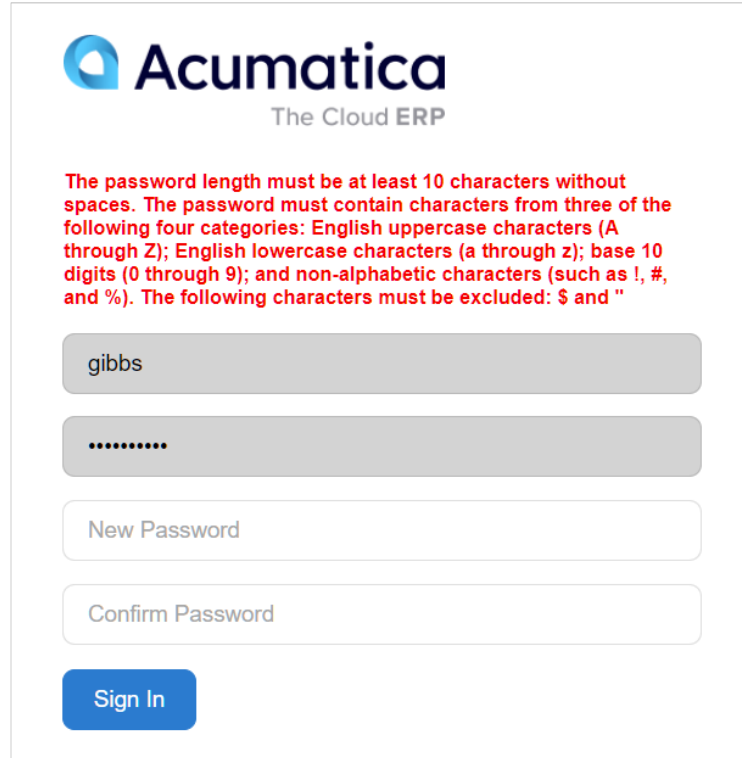
The company has the following security requirements:

- Users should change their passwords twice a year—that is, every 180 days.

- The minimum password length is 10 symbols without spaces.

- A password must include Latin uppercase and lowercase letters, digits, or special characters, except for $ and ".

- A user has three attempts to enter a valid password; if an invalid password is entered on the fourth attempt, the user will be locked out for 15 minutes.

- The system should reset the lockout counter when it has been 10 minutes since the first failed sign-in. That is, if a user enters the third invalid password 11 minutes after the first failed attempt, the system will not lock out the user, because the count of failed attempts was restarted 10 minutes after the first failed attempt.

The following people are to be involved in the implementation process:

- You—Kimberly Gibbs, the system administrator with the SweetLife Fruits & Jams company

- Jerry Prado, who is an implementation consultant with the Adaptabiz company, one of Acumatica's partners

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Figure: Custom alert message for incorrect password

Figure: Account lockout alert message

Day 2

Clive Coffee
Acumatica Customer

Part 2: Securing Access to the System

Lesson 2.1: Configuring User Roles

Learning Objectives

In this lesson, you will learn how to do the following:

- Create a user role and specify access rights to system objects for this role

- Modify access rights to system objects for a copy of an existing role

- Give access to only particular forms in the system and revoke access to all other system objects

- Review the access rights a role has to system objects

User Roles: To Configure Roles for Four Access Tiers

Story

Suppose that the SweetLife Fruits & Jams company has purchased an Acumatica ERP subscription in Acumatica Business Cloud. The instance has been installed by SaaS engineers, and a basic company configuration has been performed. The company has decided to have four access tiers:

- Configurator: Roles from this tier give access to only the configuration settings of a functional area.

- Manager: Roles from this tier allow users to work with the entities, inquiries, and reports of a functional area without any restrictions and view configuration settings.

- Clerk: Roles from this tier allow users to only add new records and edit record details within a functional area.

- Auditor: Roles from this tier allow users to only view records, inquiries, and reports associated with a functional area.

You, as a system administrator, have decided to start implementation of the tiers with the general ledger functional area, and you will define one role for each tier. By default, the forms related to this area are grouped under the **Finance** workspace.

User Roles: To Configure a Role with Granular Access

Story

Suppose that the CFO of the SweetLife Fruits & Jams company has decided that only employees authorized by the CFO are allowed to reprint checks. To accommodate this requirement, you, as a system administrator, have decided to create a granular role that will give access to only the reprinting of checks and forbid access to this operation for all other roles. As a result, only users that have full access to accounts payable (that is, only users that are assigned a role that gives this access) can be authorized to reprint checks by being assigned this granular role on request from the CFO.

Figure: The list of roles assigned to the selected user that affect the user's access to the Reprint element

User Roles: To Modify Access Rights for a Copied Role

Story

Suppose that you are a system administrator, and because of the company's growth, you now have an assistant. Initially, the assistant will help you with the creation of user accounts for the new employees. Then you will decide what other responsibilities the assistant will have. To accommodate the assistant's current job responsibilities, you have decided to copy your existing role (Administrator) and modify access rights for the copy.

Lesson 2.2: Setting Up User Access

Learning Objectives

In this lesson, you will learn how to do the following:

• Create a user account and assign roles, which combine to provide the access rights necessary for the user to perform job responsibilities, to the user account

• Assign a role to multiple users

• Modify access for an existing user account

• Review users' access to system objects

User Access: To Add a User Account

Story

Suppose that you, as a system administrator, have received a request to add a user account for a new employee, Sarah Kent, who has taken the position of a warehouse worker. The request has been justified and approved by the corresponding manager.

User Access: To Assign a Role to Multiple Users

Story

Suppose that you, as a system administrator, have received a number of access requests to the generic inquiries that are exposed through the OData protocol—that is, the generic inquiries for which the Expose via OData check box is selected on the Generic Inquiry (SM208000) form. The access to these inquiries is provided by the predefined BI role.

The access requests for the following users have been justified and approved by their respective managers:

- Ian Pick, sales department lead (with the username pick)
- Bill Owen, marketing manager (with the username owen)

User Access: To Modify Access for a User Account

Story

Suppose that you, as a system administrator, have received a request to modify access for Andrew Barber (formerly a warehouse worker) because of his transfer to a new job position—packline operator. This request has been justified and approved by his manager.

Lesson 2.3: Encrypting with Digital Certificates

Learning Objectives

In this lesson, you will learn how to do the following:

- Upload digital certificates to be used for database encryption or PDF signing.

- Replace the default encryption method used for Acumatica ERP database with a certificate of your choice.

- Configure the signing of PDF files generated for reports in the system.

Digital Certificates: To Encrypt the Database

Story

Suppose that SweetLife Fruits & Jams company has decided to replace the default encryption algorithm used in Acumatica ERP to encrypt sensitive data stored in the database with some other encryption certificate because of company security polices. You, as a system administrator, have been asked to configure the replacement.

Day 3

Quality Material Handling
Acumatica Customer

Part 3: Monitoring User Activities

Lesson 3.1: Using System-Wide Security Auditing

Learning Objectives

In this lesson, you will learn how to do the following:

- Enable the auditing of specific user and system activities

- Review the audit trails related to selected system events

System-Wide Security Auditing: Process Activity

Story

Suppose that in addition to the auditing of user activities that is configured by default, the management of your company would like to track the publication of customizations and forced user sign-outs because of the maximum number of users (as specified in the license) being exceeded.

Lesson 3.2: Using Field-Level Auditing

Learning Objectives

In this lesson, you will learn how to do the following:

- Configure users' access to the field-level auditing capabilities according to their job descriptions

- Configure the level of detail to be audited for a specific form

- Turn on and off auditing for a specific form

- Review the audit trail for a specific record

Figure: The available Audit History command for the Journal Transactions form

Field-Level Auditing: Implementation Activity

Story

Suppose that the corporate controller of the SweetLife Fruits & Jams company has requested that you, a system administrator, set up the auditing of changes made by users to the fields displayed on the Invoices and Memos (AR301000) form.

Figure: Audit history for the invoice

Audit History: AR Invoice/Memo

Type: Invoice   **Reference Nbr.:** 000117   ↓ Expand All   ↑ Collapse All

Created By: gibbs   **Last Modified By:** gibbs
Created Through: AR301000   **Last Modified Through:** AR301000
Created On: 5/13/2024 8:08:09 AM   **Last Modified On:** 5/13/2024 8:08:23 AM

Date: 5/13/2024 8:08:23 AM   **User:** gibbs   **Screen:** AR301000
▾ Changes:
AR Document Modified

Type	Reference Nbr.	Cash Discount Balance	Batch Nbr.	Status
Invoice	000117	0.0		Balanced
Invoice	000117	18.66	AR000188	Open

Date: 5/13/2024 8:08:22 AM   **User:** gibbs   **Screen:** AR301000
▾ Changes:
AR Transactions Modified

Tran. Type	Reference Nbr.	Line Nbr.	Ext. Price	Amount
INV	000117	1	311	311.0
INV	000117	1	622	622.0

AR Invoice/Memo Modified

Type	Reference Nbr.	Detail Total	Misc. Charges	Unpaid Balance
Invoice	000117	311.00	311.00	311.00
Invoice	000117	622.00	622.00	622.00

AR Document Modified

Type	Reference Nbr.	Amount	Balance	Cash Discount
Invoice	000117	311.00	311.00	9.33
Invoice	000117	622.00	622.00	18.66

Date: 5/13/2024 8:08:09 AM   **User:** gibbs   **Screen:** AR301000
▸ Changes:

Version: 24.101.0039   **Customization:** None

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Field-Level Auditing: Process Activity

Story

Suppose that the corporate controller of the SweetLife Fruits & Jams company, Jasmine Reece, has decided to review an audit trail for a recently canceled purchase order. The corporate controller would like to review the audit trail for the order directly from the Purchase Orders (PO301000) form, as well as changes to the document on the Audit History (SM205530) inquiry form.

Figure: Audit history for the purchase order

Audit History: Purchase Order

Type: Normal   **Order Nbr.:**

000026

↓ **Expand All**   ↑ **Collapse All**

Created By: wiley   **Last Modified By:** wiley
Created Through: PO301000   **Last Modified Through:** PO301000
Created On: 12/31/1899 7:00:00 PM   **Last Modified On:** 12/31/1899 7:00:00 PM

Date: 10/19/2024 10:17:34 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			
Date: 10/19/2024 10:17:21 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			
Date: 10/19/2024 10:17:12 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			
Date: 10/19/2024 10:16:43 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			
Date: 10/19/2024 10:16:27 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			
Date: 10/19/2024 10:16:06 AM	**User:** wiley	**Screen:**	PO301000
▸ Changes:			

Version: 24.101.0039   **Customization:** None

Figure: Audit history for a purchase order

Figure: General information about a document

Part 4: Using Multifactor Authentication Methods

Lesson 4.1: Configuring Two-Factor Authentication

Learning Objectives

In this lesson, you will learn how to do the following:

- Activate two-factor authentication system-wide and individually for a user

- Generate a list of access codes

- Configure the delivery of access codes by email or through a short message service (SMS) message

- Authenticate yourself by using an access code generated with a mobile device or by approving a push request

Figure: Confirm dialog box for the activation of two-factor authentication

Figure: The default authentication method
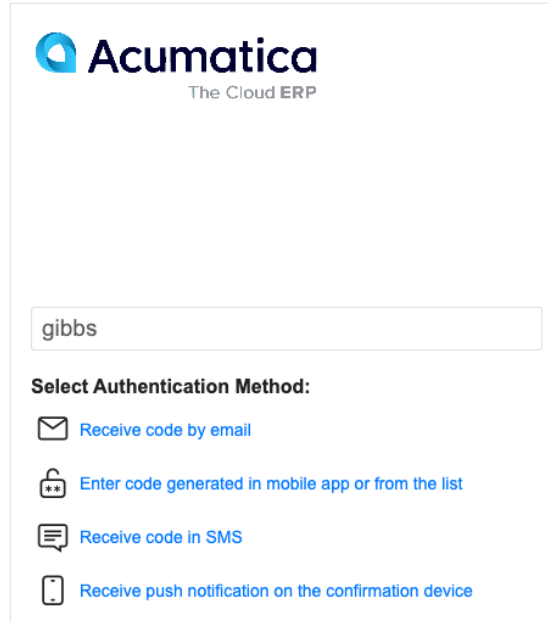
Figure: The available authentication methods

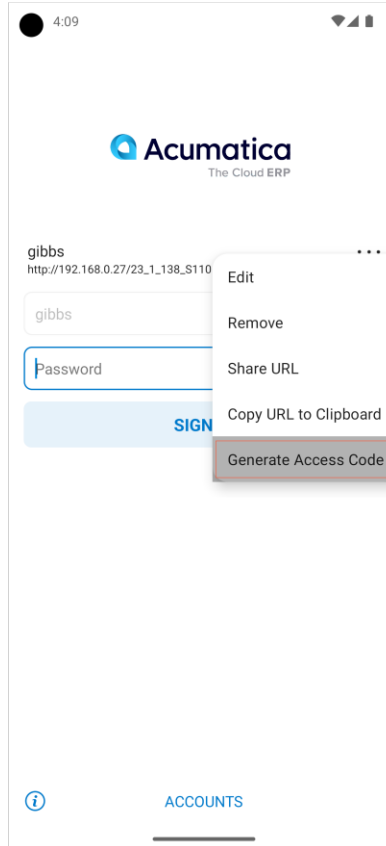# Figure: Generation of an access code by using the mobile app

Figure: An approval request sent by the system as a push notification
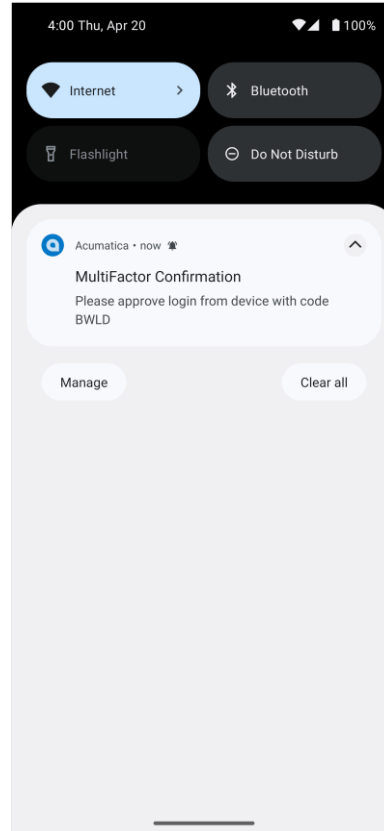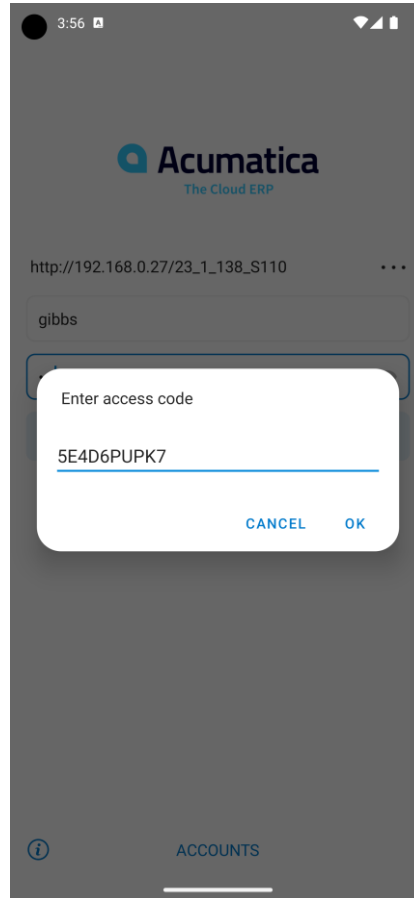
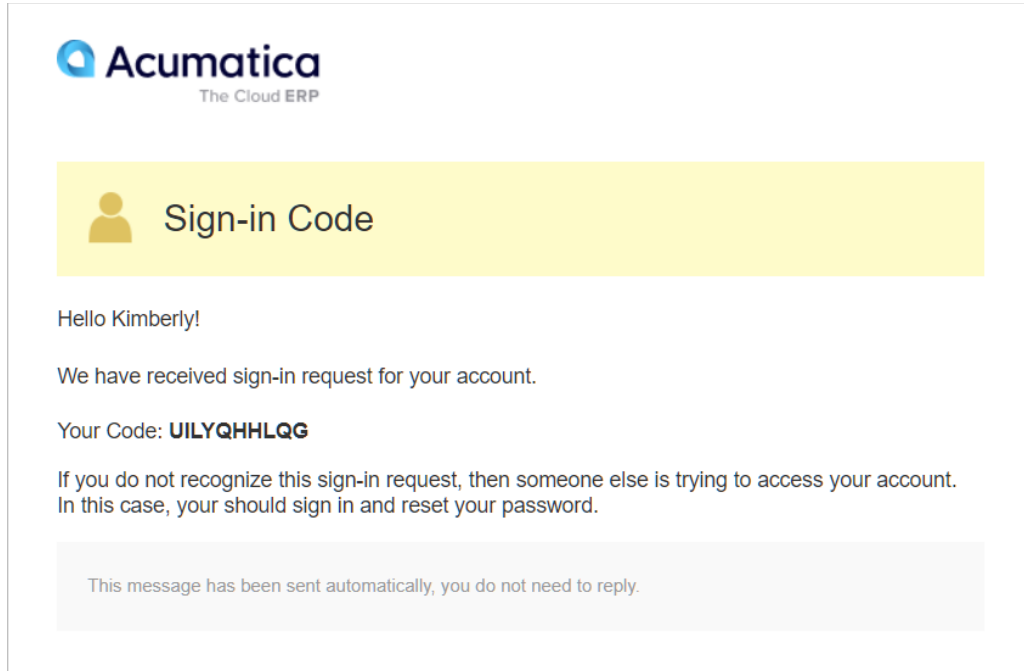# Figure: The Approve button in the Acumatica mobile app

First Sign-In to the Mobile App

Figure: Sample email with an access code

Two-Factor Authentication: Implementation Activity

Story

Suppose that the SweetLife Fruits & Jams company has decided to use two-factor authentication to prevent unauthorized system access. The users of the system should be able to authenticate themselves by using an access code received from the system administrator, a one-time code received by email, or the Acumatica app.

You, as a system administrator, have decided to first test the activation for yourself and then activate it for all users.

Thank you!

Minusha Weerasuriya