Using Liferay Objects

Exercises Script

# Exercise 1: Slides

Slide 17:

In this Exercise, we’ll create two Liferay Objects for Mondego to use on their platform.

Slide 18:

We have the following Objectives for this exercise. We will:

Create a Liferay Objects for New Accounts

And create a Liferay Object for PTO Requests

Slide 19:

These are the steps we have for this exercise:

Create a Picklist for Account Types

Create a Liferay Object for New Accounts

Add Entries for the New Accounts Object

Create a Picklist for Mondego Departments

Create a Liferay Object for Internal PTO Requests

Create Some PTO Requests Using the PTO Request Object

Slide 20:

Additionally, we have a bonus exercise which we won’t cover in this video, but you can complete on your own. The bonus exercise is:

Create a new Liferay Object for Account Activity. Be sure to include fields for Customer Name, Transaction Amount, Account Number, and Account Type.

# Exercise 1: Content

Part 1:

First up, we need to make sure we’re signed into our Mondego platform as an Administrator. If you followed the prerequisites, this will be the [test@mondego.com](mailto:test@mondego.com) account. We’ll begin by creating a Picklist to use in the first Liferay Object that we will create in this exercise.

Once signed in, open the *Global Menu* and navigate to *Control Panel > Objects > Picklists*.

Click the Add icon in the upper right.

Type *Account Type* for Name and click Save. We’ll now add some options for our picklist.

Click on the new *Account Type* picklist. Click the Add icon, type *Checking* for Name and click Save. We’ll repeat this process and add options for *Savings* and *Individual Retirement.*

Finally, we’ll click Save to save our picklist.

Part 2:

Next, we’ll create a Liferay Object for New Accounts.

Open the *Global Menu* and navigate to *Control Panel > Object > Objects*.

Click the Add icon.

Type *New Account* for Label.

Type *New Accounts* for Plural Label and click Save.

To edit our new Object, we’ll click *New Account*.

We can choose the scope of our object by clicking the arrows under Scope.

Go ahead and choose Site.

We can click the arrows under Panel Category Key to control where our new application appears in the Liferay DXP UI.

Choose *Site Administration > People*. This means our New Account Object will appear under the *People* section of the *Site Administration Panel*.

Click Save. Be careful not to click Publish here as this will remove our ability to edit our Object.

Part 3:

At this point, we can start adding some fields to our new Object. We’ll start by adding some fields with basic contact information.

Click the Fields tab at the top of the page.

Click the Add icon.

Type *Account Holder* for Label.

Choose String for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Email* for Label.

Choose String for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Phone Number* for Label.

Choose Long for Type.

Click the slider next to Mandatory.

Click Save.

Part 4:

Now we’ll add the remaining fields to our Object and publish it.

Click the Add icon. Refresh the page if it takes a while to load.

Type *Account Type* for Label.

Choose Picklist for Type.

Choose Account Type for Picklist.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Initial Balance* for Label.

Choose BigDecimal for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Date of Request* for Label.

Choose Date for Type.

Click the slider next to Mandatory.

Click Save.

Click the Details tab.

Click Publish.

Part 5:

Now that our New Accounts Object is published, we’ll go ahead and add some entries.

Open the Global Menu.

Click on the *Mondego Group* site.

Go to *People > New Accounts* in the *Site Administration Panel*.

Click the Add icon.

Type *Mercedes Dantes* for Account Holder.

Choose Checking for Account Type.

Choose today's date for Date of Request.

Type *mdantes@gmail.com* for Email.

Type *2500.00* for Initial Balance.

Type *5557879546* for Phone Number.

Click Save.

Click the Add icon.

Type *Albert Smith* for Account Holder.

Choose *Savings* for Account Type.

Choose today's date for Date of Request.

Type *asmith@faria.com* for Email.

Type *1780.45* for Initial Balance.

Type *5556069364* for Phone Number.

Click Save.

Part 6:

Now, we’ll create a picklist to use with our second Liferay Object that we will create in this exercise.

Go to *Control Panel > Object > Picklists* in the *Global Menu*.

Click the Add icon in the upper right.

Type *Mondego Departments* for Name.

Click Save.

Click Mondego Departments to begin adding options to the picklist.

Click the Add icon.

Type *Banking* for Name.

Click Save.

Click the Add icon.

Type *Financial Security* for Name.

Click Save.

Click the Add icon.

Type *Investments* for Name.

Click Save.

Click the Add icon.

Type *Marketing* for Name.

Click Save.

Repeat the process one more time for the *Design* department and click Save to save the picklist.

Part 7:

Next, we’ll create a Liferay Object for PTO Requests from Mondego employees.

Go to *Control Panel > Object > Objects* in the *Global Menu*.

Click the Add icon.

Type *PTO Request* for Label.

Type *PTO Requests* for Plural Label.

Click Save.

Click PTO Request to edit our new Object.

Click the arrows under Scope.

Choose Site.

Click the arrows under Panel Category Key.

Choose *Site Administration > People*.

Click Save.

Part 8:

Now, we’ll add some initial fields to our PTO Request Object.

Click the Fields tab at the top of the page.

Click the Add icon.

Type *Name* for Label.

Choose String for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Department* for Label.

Choose Picklist for Type.

Choose *Mondego Departments* for Picklist.

Click the slider next to Mandatory.

Click Save.

Part 9:

Now we’ll finalize our PTO Request Object*.*

Click the Add icon.

Type *Start Date* for Label.

Choose Date for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *End Date* for Label.

Choose Date for Type.

Click the slider next to Mandatory.

Click Save.

Click the Add icon.

Type *Duration* for Label.

Choose String for Type.

Click the slider next to Mandatory.

Click Save.

Click the Details tab.

Click Publish.

Part 10:

Now that we’ve published our PTO Requests Object, we can go ahead and add some entries to our newly created Object.

Open the Global Menu.

Click on the *Mondego Group* site.

Go to *Site Administration > People > PTO Requests* on the Mondego Group Site.

Click the Add icon.

Choose *Marketing* for Department.

Type *16.00h* for Duration.

Choose today's date for Start Date.

Choose tomorrow's date for End Date.

Type *Naomi Engel* for Name.

It is important to note that since we did not specify a particular layout for this Object, these fields may appear in varying orders, so feel free to input the information in whatever order the fields appear in your instance.

Click Save.

Click the Add icon.

Choose *Banking* for Department.

Type *8.00h* for Duration.

Choose a date next week for Start Date.

Choose the same date for End Date.

Type *Bethany Park* for Name.

Click Save.

*(End of Video 1)*

# Exercise 2: Slides

Slide 32:

In this exercise, we’ll demonstrate how to integrate Liferay Objects with other Liferay applications, including Forms and Workflows.

Slide 33:

Our Objectives for this exercise are to:

Integrate the New Accounts Object with a Form

Create a Workflow for Approving New Account Entries

And Display the New Account Entries Using a Collection

Slide 34:

We’ll take the following steps:

Create a New Account Application Form

Integrate the New Account Application Form with the New Accounts Object

Create a Workflow for New Account Application Form Entries

Submit an Entry for the New Account Application Form

Review the New Account Entry

Create a Display Page Template for New Account Entries

And Finally Create a Private Page to Display New Account Entries

Slide 35:

There is also a Bonus Exercise you can complete on your own after the video:

Create a workflow for reviewing PTO requests that includes at least two different reviewers. Submit a request and go through the approval process using the newly created workflow.

# Exercise 2: Content

Part 1:

In order to effectively use our New Accounts Object, we need both a simple way for customers to apply and a method for Mondego employees to authorize these applications. We’ll accomplish this by integrating the Object with a new form and assigning a workflow to New Account entries.

As usual, make sure to sign in to the Mondego platform as an Administrator.

Go to *Content & Data > Forms* in the *Site Administration* *Panel*.

Click the Add icon.

Type *New Account Application* where it reads *Untitled Form*.

*Type A form for processing applications for new accounts* where it reads *Add a short description for this form*.

Click the Settings icon.

Part 2:

Now we’ll integrate our new form with our New Accounts Object.

Choose *Object* under Select a Storage Type.

Choose *New Account* under Select Object.

Click Done.

Drag and Drop a Text field onto the first page of the form.

Type *Name* for Label.

Click the slider next to Required Field.

Click the Advanced tab.

Choose *Account Holder* under Object Field.

Click the Back arrow.

Drag and Drop a Text field onto the form.

Type *Email* for Label.

Click the slider next to Required Field.

Click the Advanced tab.

Choose *Email* under Object Field.

Click the Back arrow.

Drag and Drop a Numeric field onto the form.

Type *Phone Number* for Label.

Click the slider next to Required Field.

Click the Advanced tab.

Choose *Phone Number* under Object Field.

Click the Back arrow

Part 3:

Now we’ll add the remaining fields to the form.

Drag and Drop a Select from List field onto the form.

Type *Account Type* for Label.

Click the slider next to Required Field.

Click the Advanced tab.

Choose *Account Type* under Object Field.

Click the Back arrow.

Drag and Drop a Numeric field onto the first page of the form.

Type *Initial Balance* for Label.

Click the slider next to Required Field.

Select Decimal under *My numeric type is*:.

Click the Advanced tab.

Choose *Initial Balance* under Object Field.

Click the Back arrow.

Drag and Drop a Date field onto the first page of the form.

Type *Date of Request* for Label.

Click the slider next to Required Field.

Click the Advanced tab.

Choose *Date of Request* under Object Field.

Click the Back arrow.

Click Publish.

Part 4:

Now, we’ll create a workflow to use for new entries for our New Accounts Object.

Open the *Global Menu*.

Click on the *Mondego Group* site.

Go to *Applications > Workflow > Process Builder* in the *Global Menu*.

Click the Add icon.

Type *Account Approval Process* where it reads Untitled Workflow.

Click on the *End Node*.

Delete the default connector by clicking the *x* next to the End Node.

Drag and Drop a Task node into the workspace.

Double-click the newly added Task node.

Type *Review 1* for Name.

Click Save.

Choose Role under Assignment Type next to Assignments.

Choose *Site Content Reviewer* under Role.

Click Save.

Drag and Drop a Task node into the workspace.

Double-click the newly added Task node.

Type *Review 2* for Name.

Click Save.

Choose Role under Assignment Type next to Assignments.

Choose *Site Administrator* under Role.

Click Save.

Click the StartNode.

Double-click the Name value in the Properties tab that opens.

Type *Submitted* for the Name.

Click the Save button.

Click the EndNode.

Double-click the Name value in the Properties tab that opens.

Type *Approved* for the Name.

Click the Save button.

Part 5:

Now we’ll add some transition arrows to our workflow.

Drag a Transition arrow from the Submitted node to the Review 1 Task. To drag a transition, place your cursor on the edge of the node so that you see a thin plus (+) sign. When it appears, click and drag the arrow to the next node, connecting it by positioning it to see the orange circle.

Drag a Transition arrow from the Review 1 Task to the Review 2 Task.

Drag a Transition arrow from the Review 2 Task to the Approved node.

Part 6:

Next, we’ll name the transitions and publish our workflow.

Click the first Transition from *Submitted* to *Review 1*.

Double-click the Name value in the Properties tab to edit it.

Type *Submit for Review* for the Name.

Click the Save button.

Click the Transition going from *Review 1* to *Review 2*.

Double-click the Name value in the Properties tab to edit it.

Type *Initial Approval* for the Name.

Click the Save button.

Click the last Transition from *Review 2* to *Approved*.

Double-click the Name value to edit it.

Type *Final Approval* for the Name.

Click the Save button.

Click Publish.

Part 7:

Next up, we want to assign our workflow to *New Account* entries.

Open the Global Menu.

Click on the Mondego Group site.

Go to *Configuration > Workflow* in the *Site Administration Panel*.

Click Edit next to *New Account*.

Choose *Account Approval Process*.

Click *Save*.

Part 8:

Now, we’ll add the New Account Application form to a page on the Mondego Site.

Click *Home* in the *Site Administration Panel.*

Click the Edit (small pencil) icon.

Click the plus (+) icon to open the Fragments and Widgets sidebar.

Drag and Drop a Container layout element onto the page.

Click Widgets.

Drag and Drop a Form widget into the Container element.

Click the Options icon in the Form widget.

Click Configuration.

Choose *New Account Application*.

Click Save.

Close the pop-up.

Click Publish.

Part 9:

Next up, we want to fill out our form to create a new entry for our New Accounts Object.

Fill out the fields of the New Account Application Form. The exact details here don't really matter so feel free to fill the form out as yourself, a friend, or your Administrative User. (Read aloud with the fields as you fill them out).

Click Submit when you’re done.

Part 10:

Next up, we want to go through our workflow to approve the New Account entry.

Sign out as your administrator. Before you do this, be sure that you have created two additional Users, added them as members of the Mondego Group Site, and assigned them the Roles of Site Content Reviewer and Site Administrator, respectively. For help with creating new Users, check out the Add Users and Mange Permissions module.

Sign in as your Site Content Reviewer.

Open the Personal Menu.

Click My Workflow Tasks.

Click the Assigned to My Role tab.

Click the Options icon.

Choose Assign to Me.

Click Done.

Click the Options icon.

Choose Initial Approval.

Click Done.

Part 11:

Now, we’ll approve the New Account entry as our Site Administrator.

Sign out as your Site Content Reviewer.

Sign in as your Site Administrator.

Open the Personal Menu.

Click My Workflow Tasks.

Click the Assigned to My Role tab.

Click the Options icon.

Choose Assign to Me.

Click Done.

Click the Options icon.

Choose Final Approval.

Click Done.

Part 12:

Next up, we’ll create a Display Page Template for New Account entries.

Sign out as your Site Administrator.

Sign in as your Platform Administrator.

Go to Design > Page Templates in the Site Administration Menu.

Click the Display Page Templates tab.

Click the Add icon.

Choose Blank for the Master Page.

Type New Accounts for Name.

Choose New Account for Content Type.

Click save.

Part 13:

Now, we will style our Display Page Template.

Drag and Drop a Container element onto the page.

Drag and Drop a Heading component into the Container.

Click the Heading.

Click element-text in the sidebar.

Choose Account Holder under Field.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Grid element onto the page underneath the Heading.

Click the Grid.

Choose 2 for Number of Modules.

Click the box to uncheck Show Gutter.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Paragraph component into the left section of the Grid.

Click the Paragraph.

Click element-text in the sidebar.

Choose Account Type under Field.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Paragraph component into the right section of the Grid.

Click the Paragraph.

Click element-text in the sidebar.

Choose Initial Balance under Field.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Separator component beneath the Grid.

Drag and Drop a Grid element onto the page underneath the Separator.

Click the Grid.

Choose 2 for Number of Modules.

Click the box next to Show Gutter.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Paragraph component into the left section of the Grid.

Click the Paragraph.

Click element-text in the sidebar.

Choose Email under Field.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Paragraph component into the right section of the Grid.

Click the Paragraph.

Click element-text in the sidebar.

Choose Phone Number under Field.

Click the add (+) icon to open the Fragments and Widget sidebar.

Drag and Drop a Separator component beneath the Grid.

Drag and Drop a Container element onto the page beneath the Separator.

Drag and Drop a Paragraph component into the Container.

Click the Paragraph.

Click element-text in the sidebar.

Choose Date of Request under Field.

Click Publish.

Part 14:

Finally, we’ll create a Private Page for displaying our New Account entries as a collection.

Go to Site Builder > Pages in the Site Administration Menu.

Click Pages where it reads Pages > Public Pages.

Click the Add icon.

Choose Private Page.

Click Blank for the template.

Type New Account Applications for Name.

Click Add.

Drag and Drop a Collection Display fragment onto the page.

Click the Collection Display.

Click the Add icon next to Select Collection.

Click the Collection Providers tab.

Choose New Accounts.

Choose Table under List Style.

Click Publish.

*(End of Video 2)*