

Lab on approvals

Week 10

School of Software

Faculty of Engineering and Information Technology

University of Technology Sydney



SCHOOL OF SOFTWARE

Overview of Lab tasks

- **Part 1**: Create a new custom object (Fees Discount) and a Tab in the Force.com PaaS.
- **Part 2**: Define the initial submission actions
- **Part 3**: Define the approval steps and associated actions for each step
- **Part 4**: Define the actions with the final approval, final rejection, and recall actions

Part 1 – Creating “Fees Discount” object

- 1: Create a new custom object (Fees Discount) in the Force.com PaaS.
- 2: The object should have the following custom attributes.
 - Discount ID (AutoID);
 - Discount Status (Picklist);
 - Requested Discount Percentage (Percentage); and
 - Client Requested For (Text).
- 3: In the page layout of the fees discount object add the button “Submit for Approval” and save the page layout
- 4: Define and associate a tab for the fees discount object.

Part 1 – Creating “Fees Discount” object

Standard Fields				
Action	Field Label	Field Name	Data Type	
	<u>Created By</u>	CreatedBy	Lookup(User)	
Edit	<u>Discount ID</u>	Name	Auto Number	
	<u>Last Modified By</u>	LastModifiedBy	Lookup(User)	
Edit	<u>Owner</u>	Owner	Lookup(User,Queue)	

Custom Fields & Relationships				
<div>NewField DependenciesSet History Tracking</div>				
Action	Field Label	API Name	Data Type	C
Edit Del	<u>Client requested for</u>	Client_requested_for__c	Text(40)	
Edit Del Replace	<u>Discount Status</u>	Discount_Status__c	Picklist	
Edit Del	<u>Requested Discount Percentage</u>	Requested_Discount_Percentage__c	Percent(3, 1)	

Part 1: Custom and standard fields of the “Fees Discount” object

Part 1 – Creating “Fees Discount” object

Picklist Values				
<div>NewReorderReplacePrintable ViewChart Colors ▼</div>				
Action	Values	Default	Chart Colors	Modified By
Edit Del	Approved	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:03 AM
Edit Del	Declined	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:03 AM
Edit Del	Requested	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:03 AM
Edit Del	Approved by the Dean	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:29 AM
Edit Del	Approved by the Head of Department	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:30 AM
Edit Del	Declined by the Head of Department	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:30 AM
Edit Del	Declined by the Dean	<input type="checkbox"/>	Assigned dynamically	Farookh Hussain , 8/2/2014 2:30 AM

Part 1: Picklist values for the field “Discount Status”

Part 1 – Creating “Fees Discount” object

The screenshot shows the 'Fees Discount Layout' editor. At the top, there's a toolbar with buttons: Save, Quick Save, Preview As..., Cancel, Undo, Redo, and Layout Properties. Below the toolbar is a left sidebar with a 'Fields' pane containing 'Buttons', 'Actions', 'Expanded Lookups', 'Related Lists', and 'Report Charts'. The 'Buttons' pane is active, showing a 'Quick Find' search bar and a list of buttons: Clone, Delete, Edit, and Sharing. A 'Submit for Approval' button is also visible in the main area. A blue arrow points from the 'Submit for Approval' button in the palette to the 'Standard Buttons' section at the bottom right. Another blue arrow points from the 'Save' button in the toolbar to the 'Fees Discount Sample' section. A third blue arrow points from the 'Submit for Approval' button in the palette to the 'Standard Buttons' section at the bottom right.

Step 3.1: Select the “Submit for approval” button from the palette

Step 3.2: Drop the “Submit for approval” along the standard buttons

Step 3.3: Save the page layout

Fees Discount Sample

Highlights Panel

Customize the highlights panel for this page layout...

Publisher Actions ⓘ

The publisher actions are currently inherited from the global publisher layout. You can [override the global publisher layout](#) to set a customiz

Fees Discount Detail

Standard Buttons

Edit Delete Clone Sharing Submit for Approval

Part 1: Adding the “Submit for Approval” button on the page layout

Part 2 – Initial Submission Actions

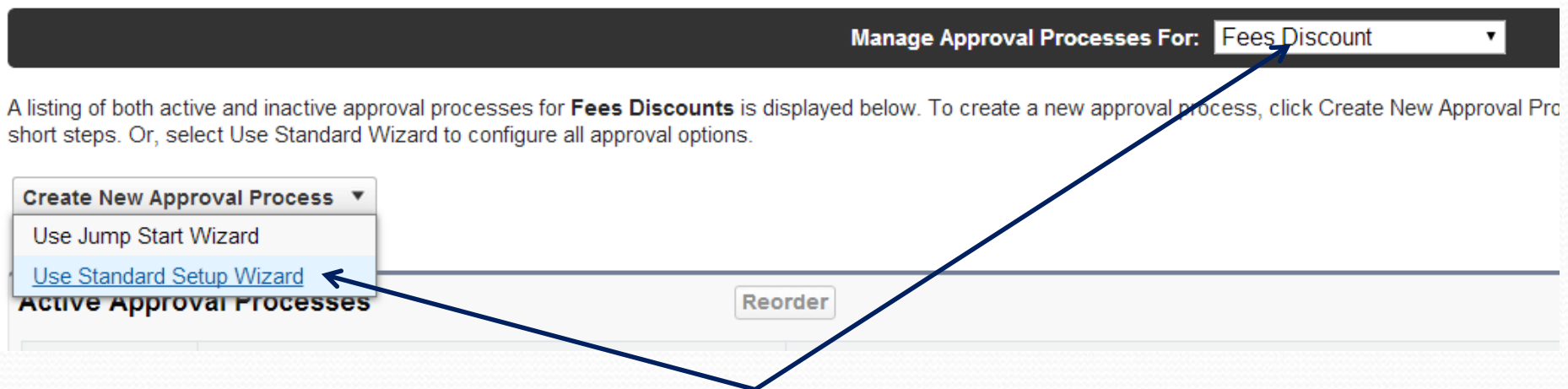
- The initial submission actions for this approval are as follows:
 - Field Update - Update the value of Discount Status to “Requested”
 - Email Alert - Send an automated acknowledge email to the person submitting for approval

Solution steps for Part 2

- **1:** Define an approval process on the “Fees Discount” object
- **2:** Enter the details for the approvals process
 - Approval process name; Approval process description, Approval process entry criteria; edit ability of record, automated approvers (if any); email to be sent to approvers; approval page layout, approval history; security settings; set of permitted initial submitters; and record recall actions.
- **3:** Define an field update action on “Discount Approval Status” pick list to update it to “Requested”

Solution steps for Part 2

- Define an approval process on the “Fees Discount” object
 - Go to Setup → Build → Create → Workflows and Approvals → Approval Processes
 - Select “Fees Discount” against the “Manage Approval Processes for” and Select “Use Standard Setup Wizard”



Part 2: Select “Fees Discount” and “Use Standard Setup Wizard”

Details of the approval process

Step 1. Enter Name and Description

Enter a name and description for your new approval process.

Enter Name and Description

Process Name

Unique Name



Description

Part 2: Enter the name and description of the approval process

Details of the approval process

Step 2. Specify Entry Criteria

If only certain types of records should enter this approval process, enter that criteria below. For example, only expense reports from emp

Specify Entry Criteria

Use this approval process if the following :

Field	Operator	Value	
<input type="text" value="Fees Discount: Client requested for"/>	<input type="text" value="not equal to"/>	<input type="text" value="NULL"/>	AND
<input type="text" value="Fees Discount: Requested Discount Percentage"/>	<input type="text" value="greater than"/>	<input type="text" value="0"/>	AND


Part 2: Specify the entry criteria for the approval process

Details of the approval process

Step 3. Specify Approver Field and Record Editability Properties

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to select a field from the picklist below. Also, when a record is in the approval process, it will always be locked-- only an administrator can edit the record.

Select Field Used for Automated Approval Routing

Next Automated Approver Determined By 

Use Approver Field of Fees Discount
Owner ☐

Record Editability Properties

- ☒ Administrators **ONLY** can edit records during the approval process.
- ☐ Administrators **OR** the currently assigned approver can edit records during the approval process.

Part 2: Specify settings of the edit ability of the record whilst in approval process and the automated approvers (if any)

Details of the approval process

Step 4. Select Notification Templates

Select the email template that will be used to notify approvers that an approval request has been assigned to them. Note that this template will be used for all steps for this process.

Email Template

Approval Assignment Email Template

New Discount Request Si 

Part 2: Specify the email template to be sent to approvers on successful submission of records

Details of the approval process

Step 5. Select Fields to Display on Approval Page Layout

The approval page is where an approver will actually approve or reject a request. Using the options below, choose the fields to display on the approval page.

Available Fields

--None--

Add



Remove

Selected Fields

Discount ID
Owner
Client requested for
Created By
Discount Status
Last Modified By
Requested Discount Percentage

Up



Down



[Click here to view a sample approval page.](#)

Approval Page Fields

☒ Display approval history information in addition to the fields selected above.

Security Settings

- ☒ Allow approvers to access the approval page only from within the salesforce.com application. (Recommended)
- ☐ Allow approvers to access the approval page from within the salesforce.com application, or externally from a web browser.

Part 2: Specify the fields to be displayed on the approval page layout, approval history, and external security settings

Details of the approval process

Step 6. Specify Initial Submitters

Using the options below, specify which users are allowed to submit the initial request for approval. For example, exp

Initial Submitters

Submitter Type

Search: for:

Available Submitters

Allowed Submitters

Add

Remove

Submission Settings

☒ Allow submitters to recall approval requests

Part 2: Specify the permitted initial submitters and whether they can allow the records to be recalled once submitted

Initial submission actions

- Add a field update action after the initial submission action
- This action will update the value of the Picklist “Discount Approval Status” to “Requested”

Initial Submission Actions i

[Add Existing](#) [Add New](#) ▼

Action	Type	Description
Edit Remove	Record Lock	Lock the record from
Edit Remove	Email Alert	Your request has been

Task
Email Alert
Field Update
Outbound Message

Part 2: Select “Field Update” to add an action to the set of initial submission actions

Initial submission action – Field update

Field Update Edit

SaveSave & NewCancel

Identification

Name

Update discount status to

Unique Name

Update_discount_status_

i

Description

Object

Fees Discount

Field to Update

Discount Status

Field Data Type

Picklist

Re-evaluate Workflow Rules after Field Change

☐

i

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Requested

--None--

Approved

Declined

Requested

Approved by the Dean

Approved by the Head of Department

Declined by the Head of Department

Declined by the Dean

Part 2: Update the Discount Status field to “Requested”

Part 3 – Approval Steps

- There are **two** approval steps
 - **Approval Step 1** – To be handled by the Head of Department
 - *Approval Actions* (**Step 1.1**)
 - Approval Action 1 → Update *Discount Status* on the record to *Approved by the Head of Department*;
 - Approval Action 2 → The submitter should be informed of that the approval request has been accepted by the Head of Department.
 - *Rejection Actions* (**Step 1.2**)
 - Rejection Action 1 → Update *Discount Status* on the record to *Declined by the Head of Department*;
 - Rejection Action 2 → The submitter should be informed of that the approval request has been declined by the Head of the Department.

Part 3 – Approval Steps

- **Approval Step 2** - To be handled by the Dean
 - *Approval Actions* (**Step 2.1**)
 - Approval Action 1 → Update the Discount Status on the record to *Approved by the Dean*;
 - Approval Action 2 → The submitter should be informed of that the approval request has been accepted by the Dean.
 - *Rejection Actions* (**Step 2.2**)
 - Rejection Action 1 → Update the Discount Status on the record to *Declined by the Dean*
 - Rejection Action 2 → The submitter should be informed of that the approval request has been declined by the Dean
- ***Assign yourself as the Dean, and one of your friends as the Head of Department.***

Defining approval Step 1

Step 1. Enter Name and Description

Enter a name, description, and step number for your new approval step.

Enter Name and Description

Approval Process Name

Discount Approval Automation

Name

Approval by the Head of School

Unique Name

Approval_by_the_Head_of_School



Description

This stage automates the approval on fee discount requests by the Head of School

Step 1: Name and description of the step 1 approval process

Defining Approval Step 1

Records which do not meet the specified criteria and are in the approval process should get approved automatically

Step 2. Specify Step Criteria

Specify whether a record must meet certain criteria before entering this approval step. If these criteria are not met, the approval process c

Specify Step Criteria

☐ All records should enter this step.

☒ Enter this step if the following , else :

Field	Operator	Value	
<input type="text" value="Fees Discount: Requested Discount Percentage"/>	<input type="text" value="greater or equal"/>	<input type="text" value="5"/>	AND
<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text"/>	AND

Step 1: Defining the criteria which records should enter this approval step


Defining Approval Step 1

Step 3. Select Assigned Approver


Specify the user who should approve records that enter this step. Optionally, choose whether the appro

Select Approver

☐ Let the submitter choose the approver manually.

☐ Automatically assign to queue. 

☒ Automatically assign to approver(s).




[Add Row](#) [Remove Row](#)

When multiple approvers are selected:

☒ Approve or reject based on the **FIRST** response.

☐ Require **UNANIMOUS** approval from all selected approvers.

☒ The approver's delegate may also approve this request. 

Step 1: Defining approvers for Step 1 approval

Actions with Approval Step 1

- **Step 1.1**: Actions on accepting:
 - **Field Update** (Update the Discount Status to “Approved by the Head of Department”)
 - **Email Alert** (Send email to the submitter of the approval)

Field update action

Field Update Edit

SaveSave & NewCancel

Identification

Name

Status Update

Unique Name

Status_Update

Description

Object

Fees Discount

Field to Update

Fees Discount: Discount Status

Field Data Type

Picklist

Re-evaluate Workflow Rules after Field Change

☐

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Approved by the Head of Department

--None--

Approved

Declined

Requested

Approved by the Dean

Approved by the Head of Department

Declined by the Head of Department

Declined by the Dean

Step 1.1: Automatically updating the “Discount Status” field in case the request is accepted by the Head of the Department

Email Alert action

Email Alert Edit Save Save & New Cancel

Edit Email Alert

Description

Unique Name ⓘ

Object

Email Template ⓘ

Protected Component ☐

Recipient Type Search: for: Find

Recipients

Available Recipients		Selected Recipients
User: Farookh Hussain User: Gloria Alice	<div>Add ▶ Remove ◀</div>	Record Creator

You can enter up to five (5) email addresses to be notified.

Additional Emails

Create and supply a customized email template for this action

Select the recipient of the email as the record creator only

Step 1.1: Automatically send email to the submitter, in case the request is accepted by the Head of the Department

Actions with Approval Stage 1

- **Step 1.2**: Actions on rejection:
 - **Field Update** (Update the Discount Status to “Declined by the Head of Department”)
 - **Email Alert** (Send email to the submitter of the approval)

Field update action

Field Update Edit

SaveSave & NewCancel

Identification

NameField Update - Rejected b

Unique NameField_Update_Rejected_ i

Description

ObjectFees Discount

Field to UpdateFees Discount: Discount Status

Field Data TypePicklist

Re-evaluate Workflow Rules after Field Change☐ i

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Declined by the Head of Department ▾

--None--
Approved
Declined
Requested
Approved by the Dean
Approved by the Head of Department
Declined by the Head of Department
Declined by the Dean

Step 1.2: Automatically updating the “Discount Status” field in case the request is declined by the Head of the Department

Email Alert action

Email Alert Edit Save Save & New Cancel

Edit Email Alert

Description

Unique Name

Object

Email Template

Protected Component ☐

Recipient Type Search: for: Find

Recipients

Available Recipients		Selected Recipients
User: Farookh Hussain User: Gloria Alice	<div>Add ▶ Remove ◀</div>	Record Creator

Create and supply a customized email template for this action

Select the recipient of the email as the record creator only

Step 1.2: Automatically send email to the submitter in case the request is declined by the Head of the Department

Approval Step 1 with actions

Approval Step 1 definition

Approval Steps i

Action	Step Number	Name	Description	Criteria	Assigned Appro
Hide Actions Edit	1	Approval by the Head of School	This stage automates the approval on fee discount requests by the Head of School	Fees Discount: Requested Discount Percentage GREATER OR EQUAL 5 , else Approve	User: Gloria Alice

✓ Approval Actions

[Add Existing](#) [Add New](#) ▼

Action	Type	Description
Edit Remove	Field Update	Status Update
Edit Remove	Email Alert	Approved by Head of Department

✗ Rejection Actions

[Add Existing](#) [Add New](#) ▼

Action	Type	Description
Edit Remove	Field Update	Field Update - Rejected by the HoD
Edit Remove	Email Alert	Declined by the Head of Department

Approval Step 1 actions

Figure: Approval Step 1 with actions on acceptance and rejection

Approval Step 2


- Defining step 2 approval

Step 1. Enter Name and Description

Enter a name, description, and step number for your new approval step.

Previous Approval Step Information	
Step Number:	1
Name:	Approval by the Head of School
Criteria:	Fees Discount: Requested Discount Percentage GREATER OR EQUAL 5
Assign To:	User : Gloria Alice

Enter Name and Description

Approval Process Name	Discount Approval Automation
Name	<input type="text" value="Approval by the Dean"/>
Unique Name	<input type="text" value="Approval_by_the_Dean"/> 
Description	<div>This email alert sends an email to the submitter that the Dean's approval has been procured.</div>

Step 2: Name and description of the step 2 approval process

Approval Step 2

Details of the previous approval step

Step 2. Specify Step Criteria

Specify whether a record must meet certain criteria before entering this approval step. If these criteria are not met, the approval process can skip to the next step.

Previous Approval Step Information

Step Number:	1
Name:	Approval by the Head of School
Criteria:	Fees Discount: Requested Discount Percentage GREATER OR EQUAL 5
Assign To:	User : Gloria Alice

Specify Step Criteria

- ☐ All records should enter this step.
- ☒ Enter this step if the following :

Field	Operator	Value	
<input type="text" value="Fees Discount: Requested Discount Percentage"/>	<input type="text" value="greater than"/>	<input type="text" value="8"/>	AND

Step 2: Defining the criteria which records should enter this approval stage

Approval Step 2

Step 3. Select Assigned Approver

Specify the user who should approve records that enter this step. Optionally, choose whether the approver's delegate is also allowed to approve these records.

Previous Approval Step Information	
Step Number:	1
Name:	Approval by the Head of School
Criteria:	Fees Discount: Requested Discount Percentage GREATER OF
Assign To:	User : Gloria Alice

If the approval request is declined, then **both** the reject actions associated with this approval stage (Step 2), and the final rejection actions are executed, if this option is selected **only**

Select Approver

- ☐ Let the submitter choose the approver manually.
- ☐ Automatically assign to queue.
- ☒ Automatically assign to approver(s).

User

[Add Row](#) [Remove Row](#)

When multiple approvers are selected:

- ☒ Approve or reject based on the **FIRST** response.
- ☐ Require **UNANIMOUS** approval from all selected approvers.

☒ The approver's delegate may also approve this request. [i](#)

If the approval request is declined, then **only** reject actions associated with this approval stage (Step 2) are executed, if this option is selected.

Reject Behavior

What should happen if the approver rejects this request?

- ☒ Perform all rejection actions for this step **AND** all final rejection actions. (Final Rejection)
- ☐ Perform **ONLY** the rejection actions for this step and send the approval request back to the most recent approver. (Go Back 1 Step)

Step 2: Defining the approver for Approval step 2 and the reject behavior

Actions with Approval Step 2

- **Step 2.1**: Actions on accepting:
 - **Field Update** (Update the Discount Status to “Approved by the Dean”)
 - **Email Alert** (Send email to the submitter of the approval)

Approval Step 2 - Field update action

Field Update Edit

SaveSave & NewCancel

Identification

Name

Status Update approved l

Unique Name

Status_Update_approved*i*

Description

Object

Fees Discount

Field to Update

Fees Discount: Discount Status

Field Data Type

Picklist

Re-evaluate Workflow Rules after Field Change

☐*i*

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Approved by the Dean▼

Save

Save & New

Cancel

Step 2.1: Second Step Approval Field Update - Automatically updating the “Discount Status” field in case the request is accepted by the Dean

Approval Step 2 – Email alert action

Email Alert Edit

SaveSave & NewCancel

Edit Email Alert

DescriptionApproved by Dean

Unique NameApproved_by_Dean*i*

ObjectFees Discount

Email TemplateApproval by the Dean🔍

Protected Component☐

Recipient TypeSearch: User▼for: Find

Recipients

Available Recipients

User: Farookh Hussain
User: Gloria Alice

Add▶

Remove◀

Selected Recipients

Record Creator

Step 2.1: Second Step Approval Email Alert- Automatically notifying the submitter in case the request is accepted by the Dean

Actions with Approval Step 2

- **Step 2.2**: Actions on rejection:
 - **Field Update** (Update the Discount Status to “Declined by the Dean”)
 - **Email Alert** (Send email to the submitter of the approval)

Approval Step 2 - Field update action

Field Update Edit


SaveSave & NewCancel

Identification

Name

Status Update declined b

Unique Name

Status_Update_declined_ 

Description

Object

Fees Discount


Field to Update

Fees Discount: Discount Status

Field Data Type

Picklist

Re-evaluate Workflow Rules after Field Change

☐ 

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Declined by the Dean

SaveSave & NewCancel

Step 2.2: Second Step Approval Field Update - Automatically updating the “Discount Status” field in case the request is declined by the Dean

Approval Step 2 – Email alert action

Create an email alert to associate with one or more workflow rules, approval processes, or entitlement processes. When changing an email alert, click the **Edit** button.

Email Alert Edit

SaveSave & NewCancel

Edit Email Alert

Description


Unique Name

Object


Email Template

Protected Component

Declined by the Dean

Declined_by_the_Dean 

Fees Discount

Your approval request has 

☐

Recipient Type

Recipients

Search:

User ▼


 for:


Find

Available Recipients

User: Farookh Hussain ▲
User: Gloria Alice

Add





Remove

Selected Recipients

Record Creator ▲

Step 2.2: Second Step Approval Email Alert- Automatically notifying the submitter in case the request is declined by the Dean

Part 4 – Final approval and final rejection actions

- Final approval actions:
 - Action 1 (Field update): Automatically update the discount status field on the record to “*Approved*” ;
 - Action 2 (Task): Assign a task to the submitter, requesting him to inform the student that the request has been accepted.
- To define final approval actions, go to the section “Final Approval Actions” in the Approval Definition



Figure: Select “Add New” in the final approval actions section to define new actions

Field update as a Final Approval Action

Field Update Edit

SaveSave & NewCancel

Identification

NameField Update - Finally app

Unique NameField_Update_Finally_ap*i*

DescriptionThis field update updates the discount status picklist to "Approved"

ObjectFees Discount

Field to UpdateFees Discount: Discount Status

Field Data TypePicklist

Re-evaluate Workflow Rules after Field Change☐*i*

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

Approved

--None--

Approved

Declined

Requested

Approved by the Dean

Approved by the Head of Department

Declined by the Head of Department

Declined by the Dean

Figure: Defining a field update to set the value of Discount Status to “Approved” on final acceptance

Task as a Final Approval Action

Edit Task

Please inform the student

Create a task to associate with one or more workflow rules, approval processes, or entitlement processes. When changing a task, any modifications will apply to all rules, approvals, or entitlement processes associated with this task.

Save Save & New Cancel

Edit Task

Object	Fees Discount	Status	In Progress
Assigned To	Fees Discount Owner	Priority	Normal
Subject	Please inform the student		
Unique Name	Please_inform_the_stude		
Due Date	Fees Discount: Created Date	plus	7 days
Notify Assignee	<input checked="" type="checkbox"/>		
Protected Component	<input type="checkbox"/>		

Assign the task to the person who submitted the record (i.e., Owner)

Figure: Defining a task to be assigned to the record submitter on final acceptance

Part 4 – Final approval and final rejection actions

- Final rejection actions:
 - Action 1 (Field update): Automatically update the discount status field on the record to “*Rejected*” ;
 - Action 2 (Task): Assign a task to the submitter, requesting him to inform the student that the request has been declined.
- To define final rejection actions, go the section “Final Rejection Actions” in the Approval Definition

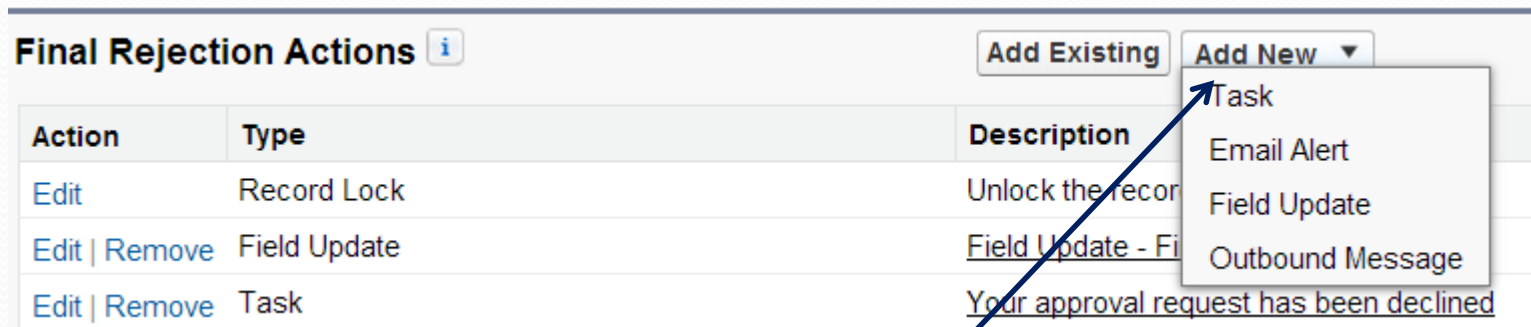


Figure: Select “Add New” in the final rejection actions section to add new actions

Field update as a Final Rejection Action

Field Update Edit Save Save & New Cancel

Identification

Name

Unique Name i

Description

Object Fees Discount

Field to Update Fees Discount: Discount Status

Field Data Type Picklist

Re-evaluate Workflow Rules after Field Change ☐ i

Specify New Field Value

Picklist Options

☐ The value above the current one

☐ The value below the current one

☒ A specific value

s

- None--
- Approved
- Declined**
- Requested
- Approved by the Dean
- Approved by the Head of Department
- Declined by the Head of Department
- Declined by the Dean

Figure: Defining a field update action to set Discount Status to “Declined”, as a final rejection action

Task as a Final Rejection Action

Configure Task

Create a task to associate with one or more workflow rules, approval processes, or entitlement processes. When changing a task, any modifications will apply to all rules, approvals, or entitlements.

Edit Task

Object	Fees Discount	Status	In Progress
Assigned To	Fees Discount Owner	Priority	Normal
Subject	Your approval request has		
Unique Name	Your_approval_request_h		
Due Date	Rule Trigger Date plus 7 days		
Notify Assignee	<input type="checkbox"/>		
Protected Component	<input type="checkbox"/>		

Assign the task to the person who submitted the record (i.e., Owner)

Figure: Defining a task to be assigned to the record submitter on final rejection