

# How to: How to configure the Add List Item Reference Event in K2 Designer for SharePoint and make use of the referenced item.

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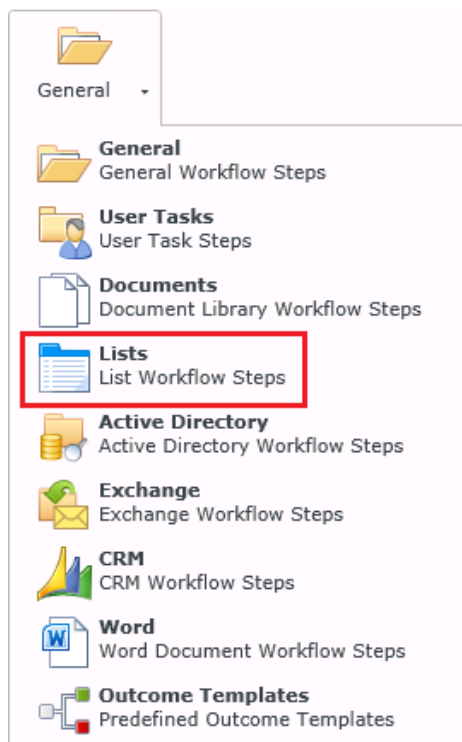
## Introduction

The K2 Designer for SharePoint allows for a SharePoint List Item to be referenced from a SharePoint List other than the one the K2 workflow is deployed to. The referenced SharePoint List Item can then be copied, deleted or edited via the K2 workflow. These functions as well as a quick scenario will be discussed in this document.

## Configure the Add List Item Reference Event

To configure the Add List Item Reference Event in a K2 Designer for SharePoint workflow, follow the steps below. Note that these steps do not include a complete K2 workflow, but rather a brief explanation on how to configure the event and how to use the information in other SharePoint List Item events:

- Create two SharePoint Lists, for example Custom Lists called List A and List B.
- Add columns to List A.
- Add list items with values for the columns to List A.
- Create a K2 Designer for SharePoint workflow from List B.
- Select the **List Workflow Steps** menu item from the General Dropdown menu as shown in the image below:

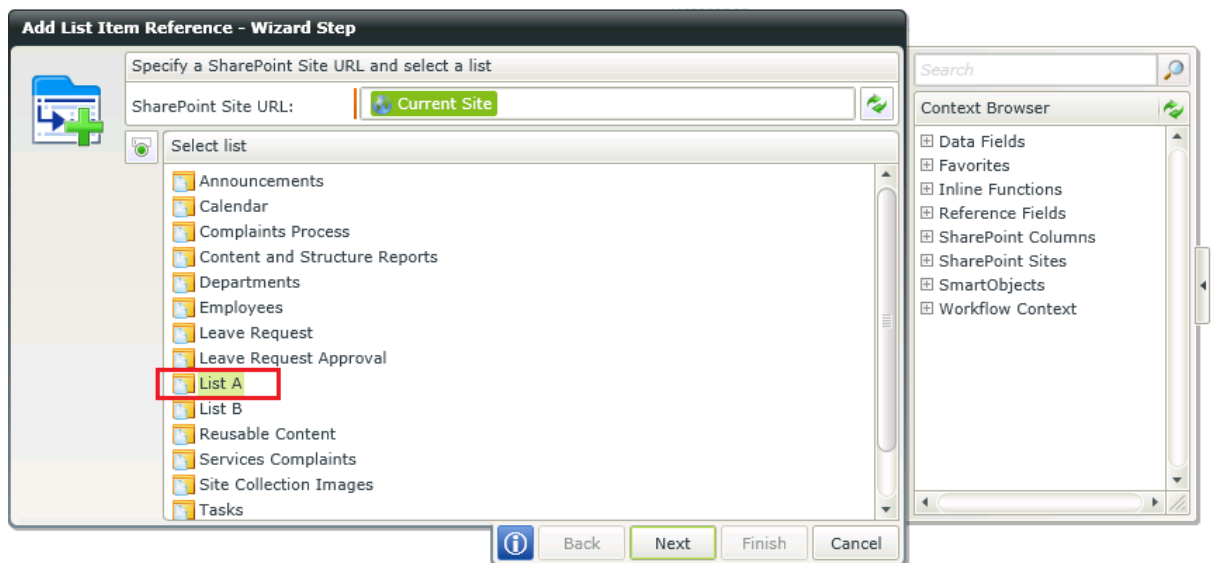


- All the workflow steps related to SharePoint List items will display.

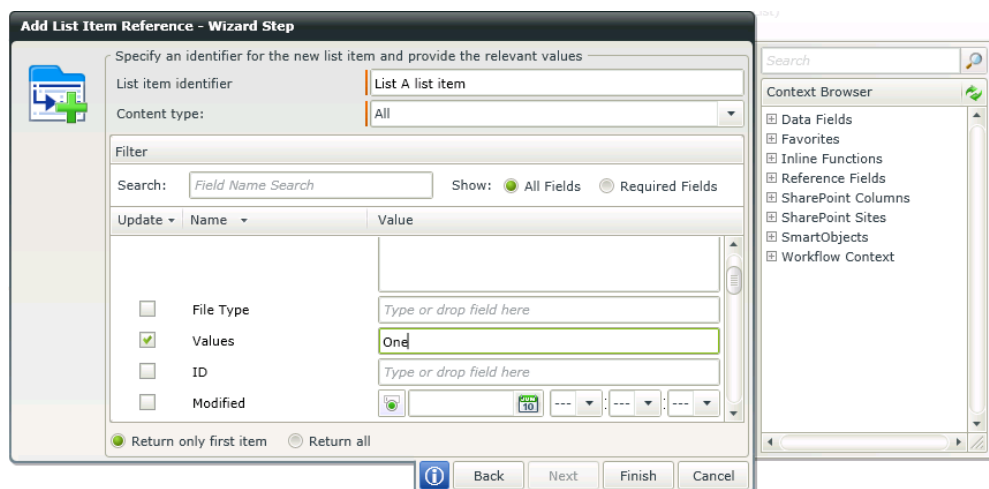
- Drag the Add List Item Reference event to an activity on the design canvas as shown in the image below:



- The Add List Item Reference wizard will open and can now be configured.
- Select the relevant SharePoint Site and List to be referenced as shown in the image below:



- Click Next.
- The List Item Identifier is created by default, however it can be changed.
- Select the Content Type from the Dropdown menu.
- Select a column and enter the value for the column. This is to identify the item that needs to be referenced.
- Select to either return the first item or return all items containing the specified value.



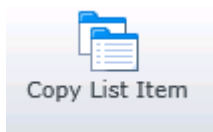
- For a full explanation on the configuration on this page of the wizard, refer to the **Add List Item Reference** topic under K2 Designer for SharePoint in the K2 Documentation.

- Click Finish.
- The referenced item can now be copied to another SharePoint List, edited or deleted from the SharePoint List.

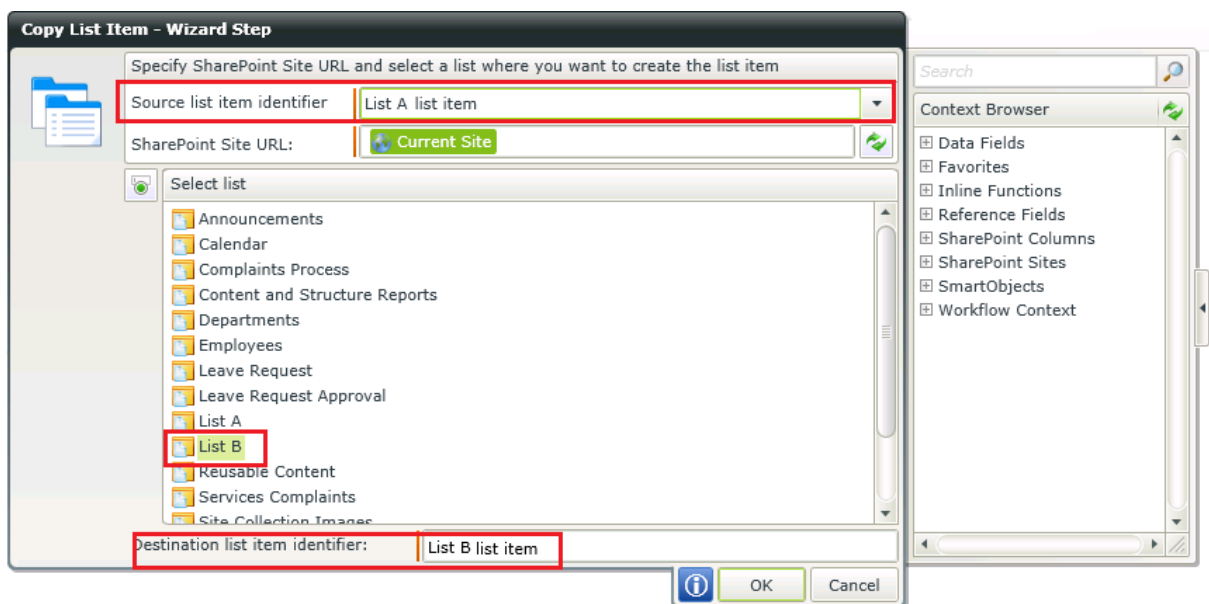
## Copy the referenced item

The list item referenced in the section above can now be used to make a copy of the item in a different SharePoint List. The steps below are based on the continuing of the process design started in the previous section in this document. To copy the referenced item to another SharePoint list, follow the steps below:

- Add an outcome to the Add List Item Reference activity.
- Drag the Copy List Item event to the activity on the design canvas of the workflow. See image below:



- To select the item referenced in the Add List Item Reference event, click on the Dropdown next to **Source list item identifier** and select the identifier as specified in the Add List Item Reference event.
- Select the SharePoint List where the item must be copied to. The **Destination list item identifier** will be created by default but can be changed.



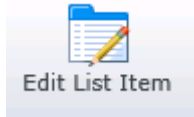
- Click OK.
- Running an instance of the final process containing this event will copy the referenced item to the destination SharePoint list.
- For more detail on configuring the Create List Item event, refer to the **Create List Item** topic under K2 Designer for SharePoint in the K2 Documentation.

NOTE: It is important to know that the values of the columns for the referenced list item cannot be retrieved and therefore it cannot be manipulated using the Copy List Item wizard. This will only make a copy of the referenced item to the destination SharePoint List selected.

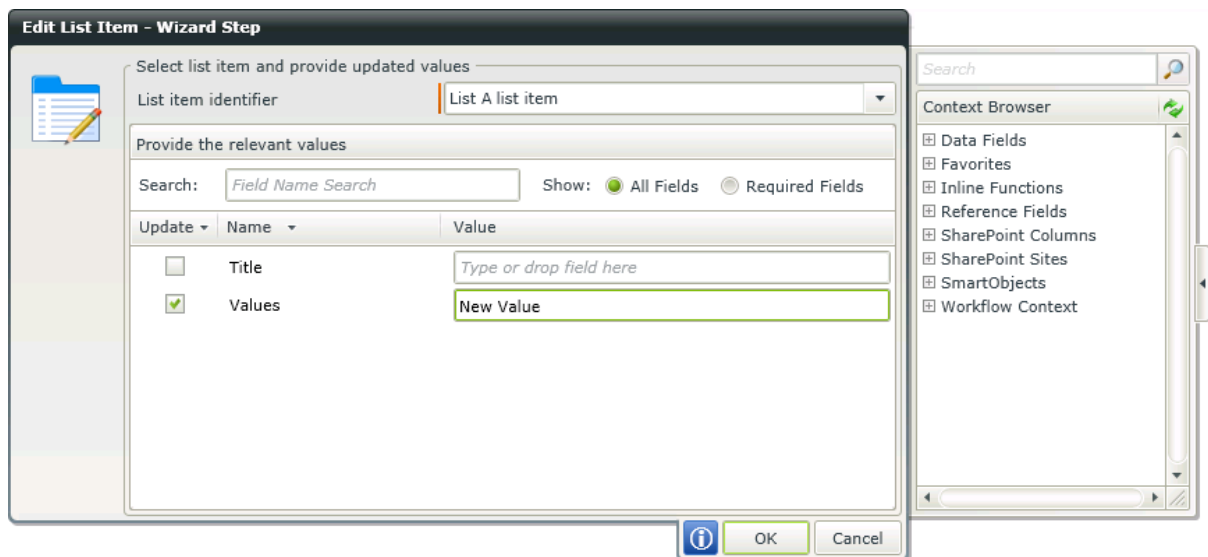
## Edit the referenced item

The item referenced previously can also now be edited through the current process. Follow the steps below to edit the referenced item:

- Drag the Edit List Item event to an activity on the design canvas of the workflow.



- The Edit List Item wizard will open.
- Select the List item identifier specified in the Add List Item Reference event, from the Dropdown.
- Select a column that will be edited.
- Enter the new value for the column in the value field. The value can be typed or dragged from the context browser. Again it is important to know that the current value of that column cannot be retrieved and then used to calculate the new value. This is important to know when Inline Functions are used for example.



- Click OK.
- Running an instance of the final process containing this event will edit the value of the specified column for the referenced item in the SharePoint List.

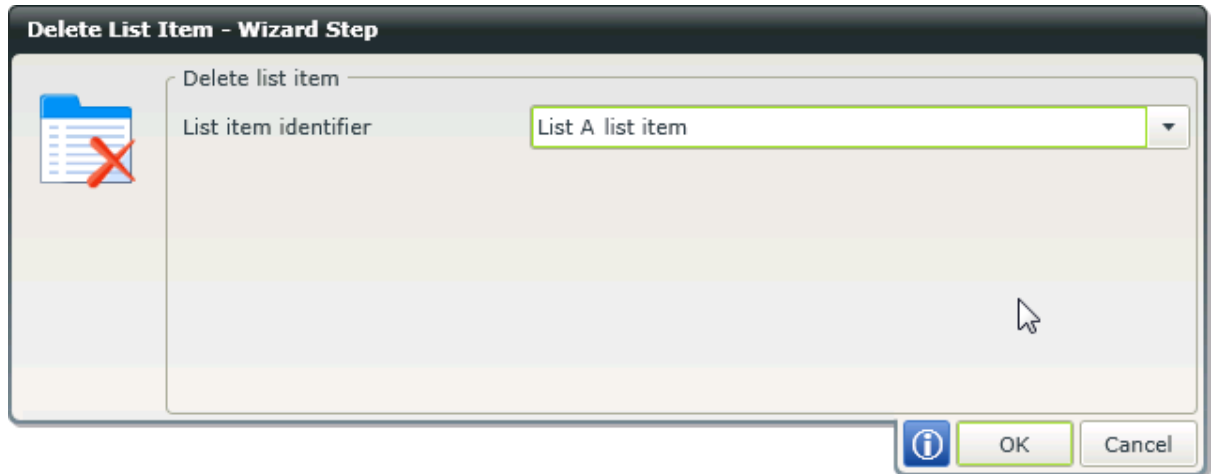
## Delete the referenced item

The List item referenced as above can now also be deleted using the same process it was referenced in. To delete the referenced item from the SharePoint list it was referenced from, follow the steps below:

- Drag the Delete List Item event to an activity on the design canvas.



- The Delete List Item wizard will open.
- Select the List item identifier. This will be the identifier specified for the referenced item.



- Click OK.
- Running an instance of the final process containing this event will delete the referenced item from the SharePoint List it was referenced from.

## Using the Add List Item Reference Event in a Scenario

Now let us have a look at using the Add List Item Reference event in a scenario. The step by step scenario explained in this section is based on a basic K2 Designer for SharePoint process with minimum columns and data in the SharePoint Lists. The process and SharePoint columns can be expanded on in real life scenarios. The idea of the scenario is to have two lists, one for employee access only and a separate list for management access. The list for managers will be used to review the requests, approve or decline the request and to update the employee list with the final decision. Follow the instructions below:

### Step 1: Create and Configure the SharePoint Lists and Items

#### List 1 –Leave Request

- Create a SharePoint Custom List and name the list **Leave Request**.
- For this scenario the Leave Request list will be used for an employee to submit a request.
- Add four columns to the Leave Request list all as text columns for this example. The columns will be Name, Surname, Leave Type and Request Status.

#### List 2 –Leave Request Approval

- Create another SharePoint Custom List and name the list **Leave Request Approval**.
- This list will be used for the manager of the employee to review the leave request and approve or decline the request.

- Add the same four columns to this list as for the Leave Request list.
- The image below reflects what the end result will be for both lists:

<input type="checkbox"/>		Title	Name	Surname	Leave Type	Request Status
There are no items to show in this view of the "Leave Request" list. To add a new item, click "New".						
<a href="#">Add new item</a>						

## Step 2: Design and deploy the K2 Designer for SharePoint processes

### Process 1 – Submit Leave Request

- Open the K2 Designer for SharePoint from the Leave Request list using the K2 Workflow access point as shown below:



- Select to create a new workflow.
- Name the workflow **Submit Leave Request**.
- Select the **Start Workflow when item is created** start option.
- In the Folio field type **Leave Request for** and drag the Name and Surname fields from the Context Browser>SharePoint Columns.

**Workflow Settings - Workflow Name**

Specify the workflow details

Name:

Description:

Category:

Additionally, include the following

☐ Start Workflow Manually

☒ Start Workflow When Item Is Created

☐ Start Workflow When Item Is Changed

Specify the folio field (used to identify the workflow instances)

Folio:

Context Browser

Search

SharePoint Columns

- ☒ Content Type
- ☒ Created
- ☒ Created By
- ☒ Folder Child Count
- ☒ ID
- ☒ Item Child Count
- ☒ Leave Type
- ☒ Modified
- ☒ Modified By
- ☒ Name
- ☒ Request Status

Back Next Finish Cancel

- Click **Next**
- No additional Data Fields are required for this scenario. Click **Next**.
- The Start Form will not be configurable due to the Start Option previously selected. Click **Next**.
- Click **Next** on the outcomes page.
- Assign **Start Rights** and **View Participate** rights to all employees.

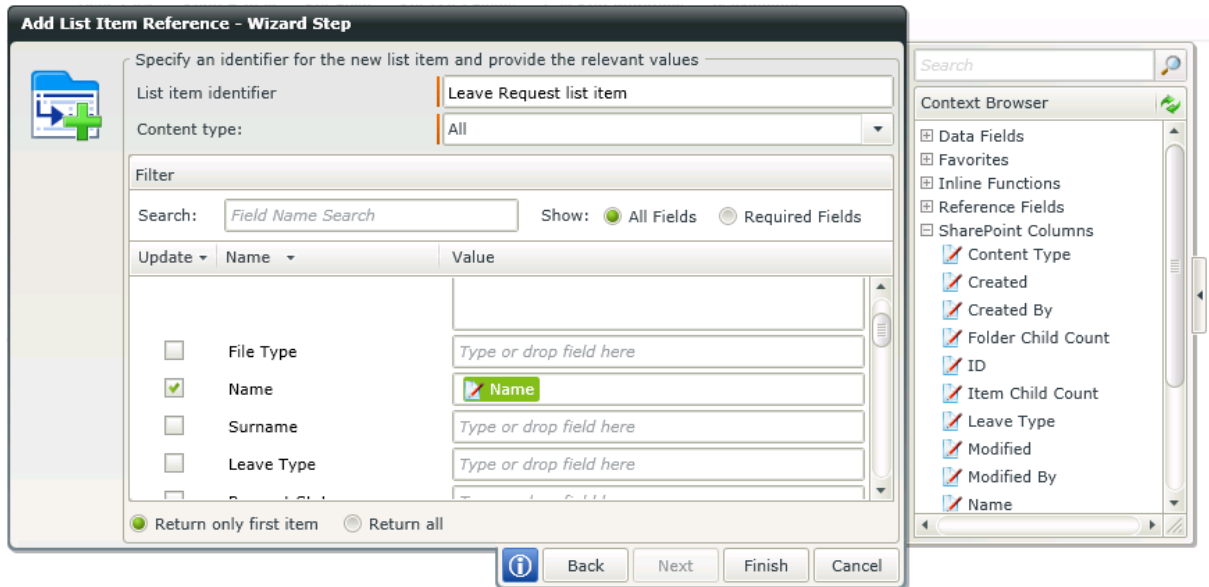
- Click **Finish**.
- Select the **List Workflow Steps** from the General Dropdown menu.
- Drag the **Copy List Item** event to the design canvas of the workflow.
- Leave the Source list item identifier and Site URL as per default values.
- Select the **Leave Request Approval** list as the destination list.
- Click **Finish**.
- Click on the File Dropdown menu and select **Deploy**.
- Run through the deploy wizard to complete the deployment of the workflow.

## Process 2 – Leave Request Approval

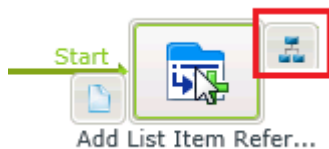
- Open the K2 Designer for SharePoint from the **Leave Request Approval** list
- Select to create a new workflow and name the workflow **Leave Request Approval**.
- Select the "Start Workflow when item is created" start option.
- In the Folio field type **Leave Request Approval** and drag the Title and Surname fields from the Context Browser>SharePoint Columns.

The screenshot shows the 'Workflow Settings - Workflow Name' dialog box. The 'Name' field is 'Leave Request Approval' and the 'Category' is 'Portal - Leave Request Approval'. Under 'Additionally, include the following', the option 'Start Workflow When Item Is Created' is selected. The 'Folio' field contains 'Leave Request Approval' followed by two selected fields: 'Title' and 'Surname'. To the right, the 'Context Browser' shows a list of SharePoint columns with checkboxes, including 'Content Type', 'Created', 'Created By', 'Folder Child Count', 'ID', 'Item Child Count', 'Leave Type', 'Modified', 'Modified By', 'Name', and 'Request Status'. At the bottom of the dialog are buttons for 'Back', 'Next', 'Finish', and 'Cancel'.

- Click **Next**
- No additional Data Fields are required for this scenario. Click **Next**.
- The Start Form will not be configurable due to the Start Option previously selected. Click **Next**.
- Click **Next** on the outcomes page.
- Assign **Start Rights** and **View Participate** rights to all managers.
- Click **Finish**.
- Select the **List Workflow Steps** from the General Dropdown menu.
- Drag the Add List Item Reference event to the design canvas of the workflow.
- Select the **Leave Request** List.
- Click **Next**.
- Select the Name column checkbox.
- Drag the **Name** field from the Context Browser>SharePoint Columns to the value of the Name column.



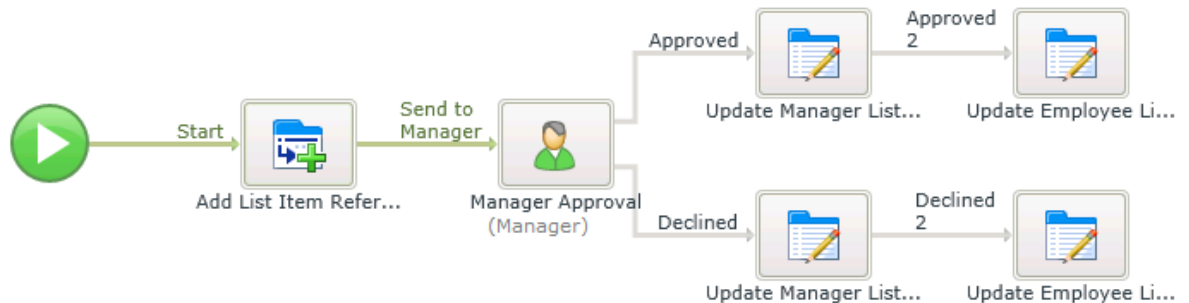
- Click **Finish**.
- Hover over the configured Add List Item Reference Event and select the outcomes icon as per the image below:



- Add an outcome named **Send to Manager**.
- Click **Finish**.
- From the Lists Dropdown menu, select the **General Workflow Steps**.
- Drag the **User Task** step to the new activity on the design canvas of the workflow.
- Configure the User Task with two outcomes named **Approved** and **Declined**.
- On the User Form, drag the Name, Surname and Leave Type columns from the Context Browser>SharePoint Columns.
- Add **Manager** as the destination user. Note that the employee's managers must be configured in Active Directory to be able to use this setting.
- **Finish** the wizard.
- Click on the **General** Dropdown menu and go to List Workflow Steps again.
- Drag the **Edit List Item** event to the approved activity on the design canvas.
- Select the **Leave Request Approval** list item identifier from the Dropdown.
- Select the Request Status column and type **Approved** as the value of the column.
- Right click on the activity and click on Configure Workflow Steps.
- Name the activity **Update Manager List Status**.
- Click **Next**.
- Add an outcome named **Approved 2**.
- Click **Finish**.
- Perform the same configuration steps for the Declined activity and type **Declined** as the value of the Request Status column. The outcome will be named **Declined 2**.
- Drag the **Edit List Item** event to the **Approved 2** activity on the design canvas.
- Select the **Leave Request** list item identifier from the Dropdown.
- Select the Request Status column and type **Approved** as the value of the column.



- This will update the Request Status column for the Leave Request list in order for the employee to see the status of the request.
- Perform the same configuration steps for the **Declined 2** activity and type **Declined** as the value of the Request Status column.
- The workflow will resemble the following:



- Click on the File Dropdown menu and select **deploy**.
- Run through the deploy wizard to complete the deployment of the workflow.

### Step 3: Running an instance of the K2 Designer for SharePoint processes

Finally we can now run these processes to see the behavior of the Add List Item Reference event configuration. Follow the steps below to start and complete process instances of the two processes configured:

- Open the **Leave Request** custom list as an employee and add a new item.
- Enter the employee **name** and **surname**.
- Enter **Vacation** as the Leave Type for example.
- Enter **New Request** as the Request Status for example.

Leave Request - New Item

Edit

Save Cancel Paste Cut Copy Attach File Spelling

Commit Clipboard Actions Spelling

Title \* Mr

Name Peter

Surname Parker

Leave Type Vacation

Request Status New Request

Save Cancel

- Click **Save**.

- An instance of the Submit Leave Request process will start and will copy this item to the Leave Request Approval list.
- After the item has been copied, a new instance of the Leave Request Approval process will also start and the List Item Reference will be created.
- The image below shows how the item will reflect in both lists. Note the Request Status:

<input type="checkbox"/>		Title	Name	Surname	Leave Type	Request Status	Portal - Leave Request
		Mr	Peter	Parker	Vacation	New Request	In Progress

- At this point there will be a worklist item for the manager to action.
- Open K2 Workspace>Worklist or K2 Process Portal>K2 Worklist as the manager.
- Open the worklist item.
- Select the **Approved** action and click Submit.
- Refresh the **Leave Request** and **Leave Request Approval** Lists and see that the Request Status has been edited from **New Request** to **Approved**.
- The image below shows how the item will reflect in both lists after being edited. Note the Request Status:

<input type="checkbox"/>		Title	Name	Surname	Leave Type	Request Status	Portal - Leave Request
		Mr	Peter	Parker	Vacation	Approved	Completed