ServiceNow Application Developer

Workflow > Exercise: Create NeedIt Tasks

In this exercise, you will create a before Business Rule to set the *State* field value on new NeedIt records to *Awaiting Approval*. You will also create a *NeedIt Task* table and use the *NeedIt Approval* workflow to create the *NeedIt Task* records.

Create the Set State Awaiting Approval Business Rule

In the last Exercise, you manually set the *State* field value to *Awaiting Approval* in order to trigger the *NeedIt Approval* workflow. In this part of the exercise, you automate setting the *State* field value to *Awaiting Approval* for new *NeedIt* records.

1. If the *NeedIt* application is not open in Studio from the last exercise, open it now.
   a. In the main ServiceNow browser window, use the Application Navigator to open **System Applications > Studio**.
   b. In the *Select Application* dialog, click the **NeedIt** application.

2. Create a Business Rule.
   a. In Studio, click the **Create Application File** link.
   b. In the *Filter...* field enter the text **Business** OR select **Server Development** from the categories in the left hand pane.
   c. Select **Business Rule** in the middle pane as the file type then select the **Create** button.

3. Configure the Business Rule:

    Name: **NeedIt Set State Awaiting Approval**

    Table: **NeedIt [x_<your_company_code>_needit_needit]**

    Active: **Selected (checked)**

    Advanced: **Selected (checked)**

4. Switch to the *When to run* section and continue configuring the Business Rule:

    When: **before**

    Insert: **Selected (checked)**

5. Switch to the **Advanced** section.

6. Copy this script and paste it into the *executeRule* function in the *Script* field. Do not overwrite the template; paste the script after the *Add your code here* comment.

```
current.state = 14;
```

7. Click the **Submit** button.

▶ **QUESTION**: What does a *State* value of *14* mean?

Test the Business Rule

1. In the main ServiceNow browser window (not Studio), use the Application Navigator to open **NeedIt > Create New**.

2. Configure the new *NeedIt* record.

   a. Set the *Requested for* to **Adela Cervantsz**.

   b. Leave the *State* field value at the default value of **Requested**.

   c. Enter the values of your choice in the mandatory fields.

▶ **QUESTION**: Why do you have to test with *Adela Cervantsz* as the *Requested for*?

3. Click the **Additional actions** menu () and choose the **Save** menu item. Do not click the *Submit* button as that will navigate away from the form.

4. What value does the *State* field have after saving? It should be *Awaiting Approval*. If not, debug and re-test.

Create the NeedIt Task Table

NeedIt requests are for services from various departments. Each *NeedIt* request could result in several tasks that are required to fulfill the request. In this part of the exercise, you create a *NeedIt Task* table. Tasks created to fulfill *NeedIt* requests will be records on the *NeedIt Task* table. For purposes of this exercise, only one *NeedIt Task* is created for each approved *NeedIt* request.

1. Create a table.

   a. In Studio, select the **Create Application File** link.

   b. In the *Filter...* field enter the text **Table** OR select **Data Model** from the categories in the left hand pane.

   c. Select **Table** in the middle pane as the file type then select the **Create** button.

2. Configure the table:

    Label: **NeedIt Task**

    Name: **(this field value is automatically populated)**

    Extends table: **Task**

    Create module: **Selected (checked)**

    Create mobile module: **Selected (checked)**

    Add module to menu: **NeedIt**

3. Switch to the **Controls** section and configure the controls:

    Auto-number: **Selected (checked)**

    Prefix: **NITASK**

    Number: **3000**

    Number of digits: **6**

    User role: **(this field value is automatically populated)**

4. Switch to the **Application Access** section and configure the controls:

    Accessible from: **All application scopes**

    Can read: **Selected (checked)**

    Can create: **Selected (checked)**

    Can update: **Selected (checked)**

5. Click the **Submit** button on the table form.

Modify the NeedIt Task Table Form

1. Create a form for the *NeedIt Task* table.

   a. In Studio, select the **Create Application File** link.

   b. In the *Filter...* field enter the text **Form** OR select **Forms & UI** from the categories in the left hand pane.

   c. Select **Form** in the middle pane as the file type then select the **Next** button.

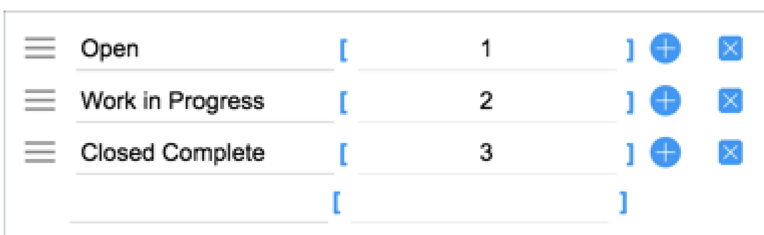
   d. Select the **NeedIt Task [x_<your_company_code>_needit_needit_task]** table.

   e. Click the **Create** button.

2. The *State* field was inherited from the *Task* table. The inherited *State* field choices are not all relevant to the *NeedIt Task* table so the choices must be customized.

   a. Click the **Edit field** button for the *State* field ( ).

   b. Remove all of the choices except *Open*, *Work in Progress*, and *Closed Complete*. Click the **Remove** button ( ) next to a choice to remove the choice from the list.

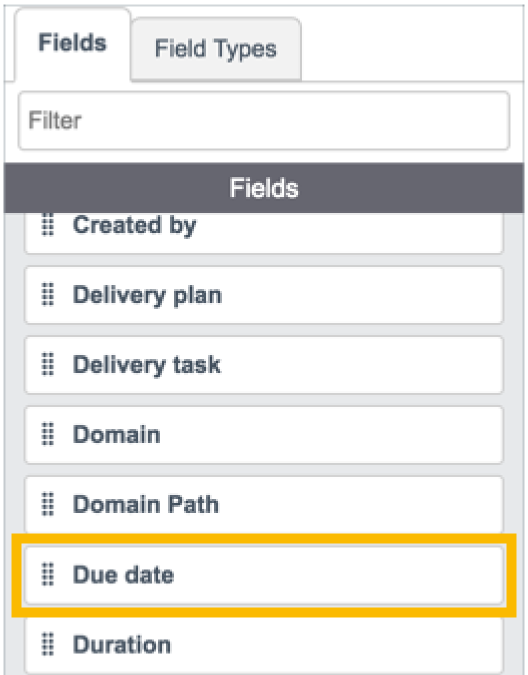


   c. Close the *Properties* dialog by clicking the **Close** button ( ).

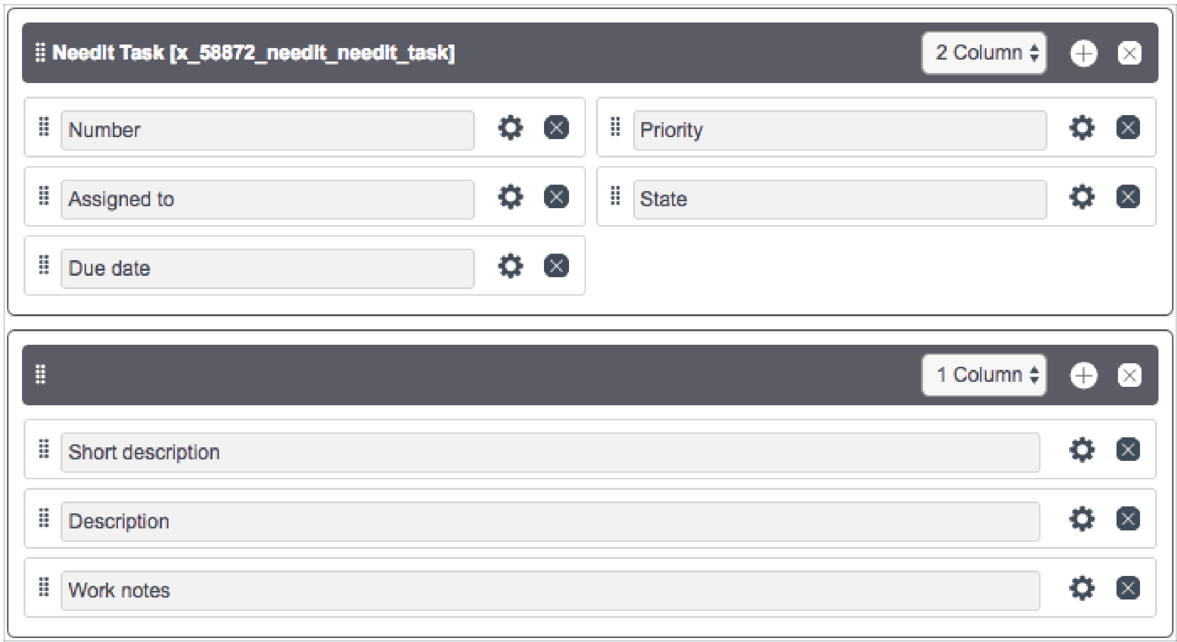
3. Add the existing *Due date* field to the *NeedIt Task* form.

   a. Select the **Fields** tab in the Field Navigator.

   b. Drag the **Due date** field from the *Fields* tab to the location of your choice on the form.



4. Remove the *Configuration item*, *Active*, and *Parent* fields from the form. To remove a field, click the **Remove** button ( ). The form should look like this. Your *Due date* field might be in a different location.



5. Click the **Save** button on the Form Designer.

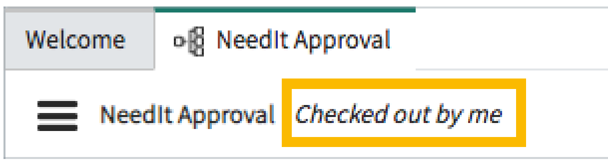
Add a Create Task Activity to the NeedIt Approval Workflow

1. If not still open from the last Exercise, open the *NeedIt Approval* workflow for editing in Studio.

   a. In Studio, use the Application Explorer to open **Workflow > Workflow > NeedIt Approval**.

   b. Verify the workflow is checked out to you.

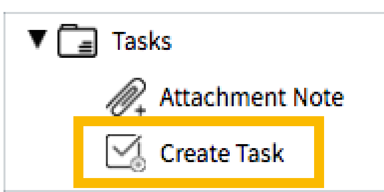
   

   c. If the workflow is *not* checked out to you, click the **Workflow Actions** menu () and select the **Checkout** menu item.

2. Switch to the **Core** tab in the Palette.

3. Expand the **Tasks** category.

4. Locate the **Create Task** activity.



5. Click, hold, and drag the **Create Task** activity into the canvas. Hover the activity over the transition between the *Set State to Approved* and *End* activities. When the transition turns blue, drop the activity.

6. Configure the Create Task activity:

    Name: **Create NeedIt Task**

    Task type: **NeedIt Task [x_<your_company_code>_needit_needit_task]**

    Task values from: **Values**

7. Add a script to set the *Short description*, *Description*, *Due date*, and *Assigned to* field values on the *NeedIt Task* record using values from the *NeedIt* record.

    a. Scroll to the *Script* section.

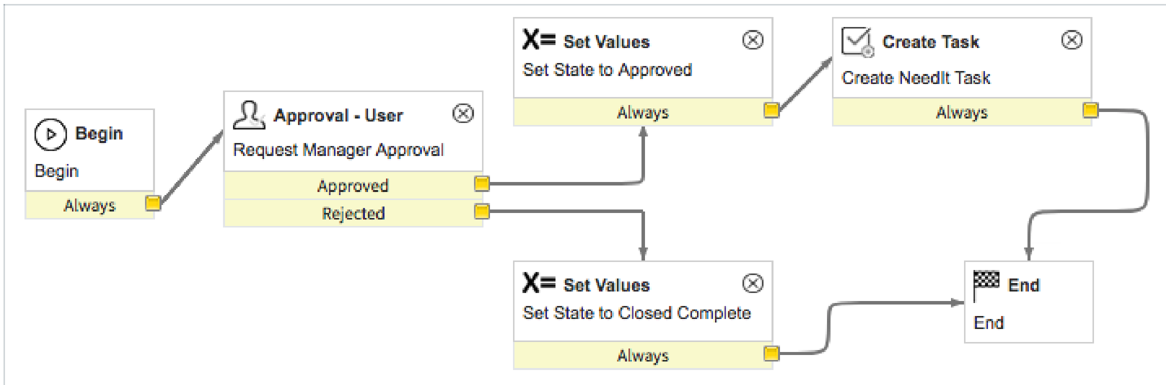
    b. Select the **Advanced** option.

    c. Paste this script into the *Advanced Script* field. Paste the script at line 6 (after the comments in the template).

```
task.short_description = current.u_request_type + ' : ' +
current.u_what_needed + ' : ' + current.short_description;
task.description = current.description;
task.due_date = current.u_when_needed;
task.assigned_to = "beth.anglin";
```

    d. Click the **Submit** button.

8. Examine the Workflow. Verify there are transitions into and out of the *Create Task* activity. Your workflow layout on the canvas might be different than the layout in the image. As long as the transitions correctly connect the activities, the layout does not matter.



Test the NeedIt Approval Workflow - Approve

1. Trigger the workflow.

   a. In the main ServiceNow browser window (not Studio), open **NeedIt > Create New**.

   b. Configure the new *NeedIt* request.

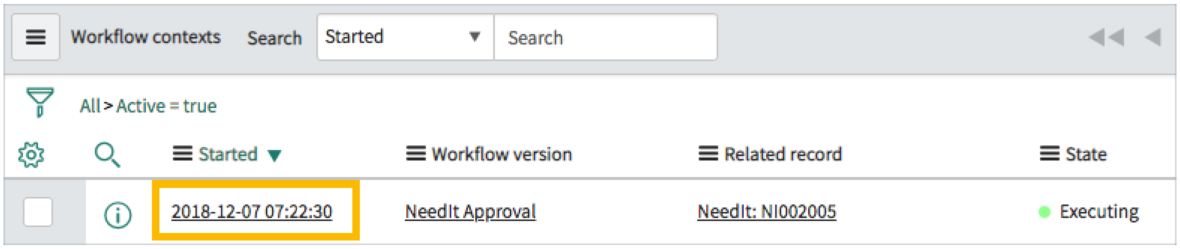
      i. Set the *Requested for* to **Adela Cervantsz**.

      ii. For all other fields, use the value of your choice: *Short description*, *Description*, and all mandatory fields. Do not change the value in the *State* field value.

      iii. Click the **Submit** button.

2. Use the Application Navigator to open **Workflow > Live Workflows > Active Contexts**.

3. Click the Started **timestamp** for the *NeedIt Approval* workflow context.



4. Examine the *Related record* field. This field contains the record number of the record for which the workflow is executing.

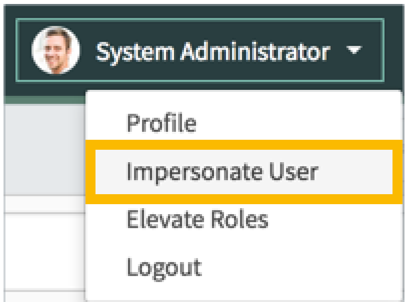
5. In the *Workflow Executing Activities* related list (tab), note which activity is currently executing. The workflow should be stopped on the Request Manager Approval Activity.

6. In the Related Links, click the **Show Workflow** link. The Workflow is stopped on the *Approval - User* activity.

7. Impersonate Adela's manager and approve the *NeedIt* request.

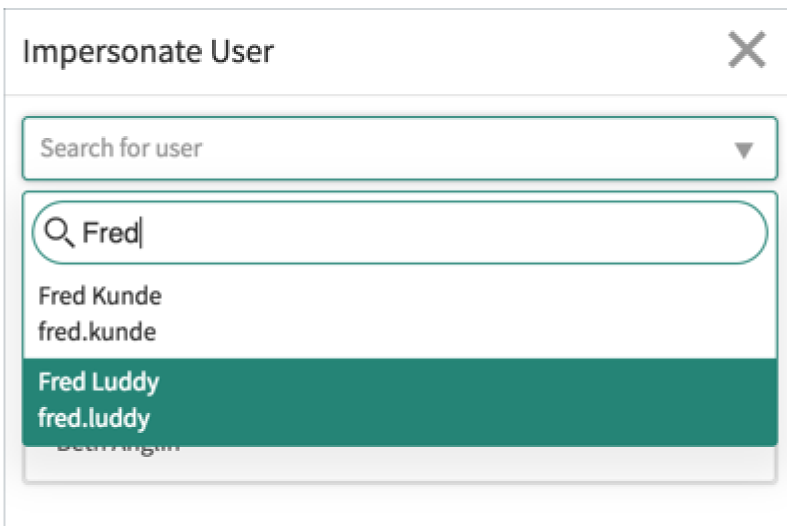
   a. Impersonate **Fred Luddy**.

      i. In the main ServiceNow browser window, open the **User menu** by clicking your user name in the ServiceNow banner. Select the **Impersonate User** menu item.



      ii. In the *Search for user* field, type **Fred**.

      iii. In the drop-down list, click **fred.luddy**.



      iv. Examine the *User menu* in the ServiceNow banner. You should now be **Fred Luddy**.

b. Approve the *NeedIt* request.

i. Use the Application Navigator to open **Service Desk > My Approvals**.

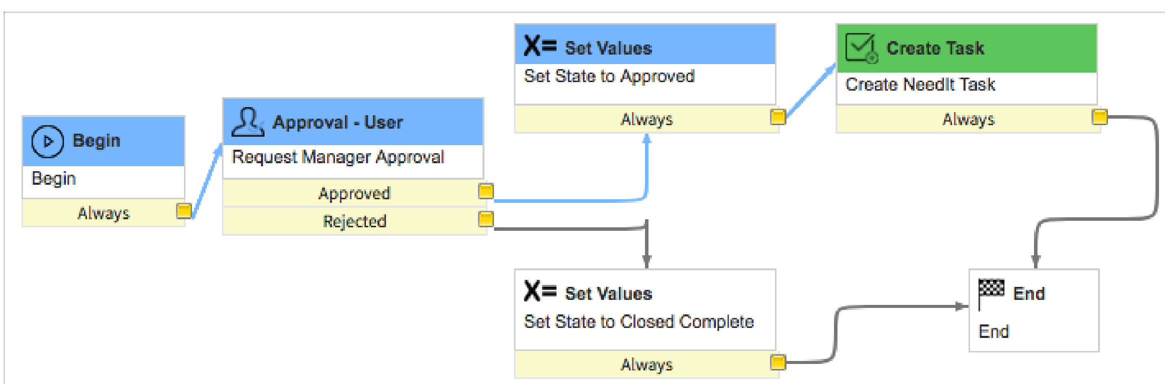
ii. Locate the Approval for the **NeedIt** record with the *State* field value of **Requested**.

iii. Right-click on the **Requested** link and select the **Approve** menu item.
OR

iv. Click the **Requested** link to open the record then click the **Approve** button.

8. Impersonate the **System Administrator** user.

9. Switch to the tab displaying the Workflow context diagram. Click the **Refresh** button ( ) to update the diagram. The workflow should be stopped on the *Create Task* activity. The Workflow will remain on the *Create Task* activity until the activity is closed.



10. Use the Application Navigator to open **NeedIt > NeedIt Tasks**. If *NeedIt Tasks* is not available, reload the page in the browser and try again.

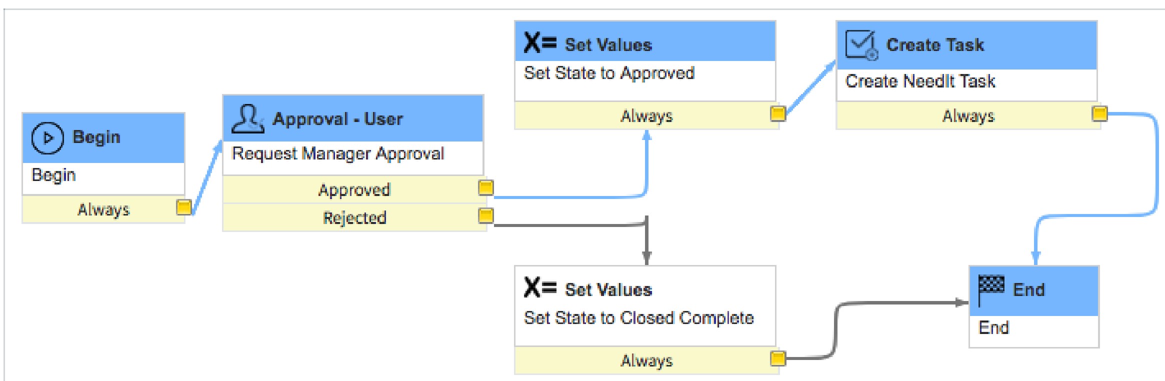
11. You should have one *NeedIt Task* record. Open the record.

12. Examine the *NeedIt Task* record fields. The *Short description*, *Description*, and *Due date* fields should have been populated by the *Create Task* activity based on the values in the *NeedIt* request record. If not, debug and re-test.

13. Change the *State* field value to **Closed Complete**.

14. Click the **Update** button.

15. Switch to the tab displaying the Workflow context diagram. Click the **Refresh** button () to update the diagram. The workflow execution should be completed.



Challenge

Modify the *NeedIt Approval* workflow to set the State field value on the *NeedIt* request record to *Closed Complete* when the *NeedIt Task* record created by the workflow is *Closed Complete*. To practice with a new activity type, use a ***Run Script*** **(https://docs.servicenow.com/bundle/madrid-servicenow-platform/page/administer/orchestration-activity-designer/task/t_CreateARunScriptActivity.html)** activity.

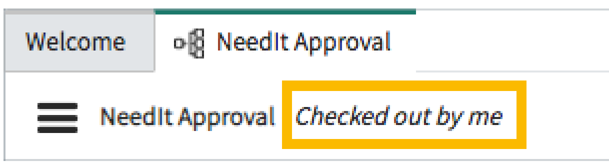
> **HINT**: Use the script you created in the *NeedIt Set State Awaiting Approval* Business Rule as a model. The *NeedIt Set State Awaiting Approval* Business Rule sets the *State* field value to *Approved*. The script you write in the *Run Script* activity must use the correct value for a *State* field value of *Closed Complete*.

▶ **CHALLENGE SOLUTION**:

Publish the NeedIt Approval Workflow

The *NeedIt Approval* workflow is fully tested and functioning as expected. Publish the workflow so it executes for all users and not just the user who checked out the workflow.

1. Return to the browser window that contains the checked out *NeedIt Approval* workflow.



2. Open the **Workflow Actions** menu ( ) and click the **Publish** menu item.

3. When publication is complete, the status is updated.