# **Template –** **ExecuteQuery to Populate a Grid**

The template named “Template – Execute Query Populate Grid Example” is applicable to CampusNexus Student.

## Purpose and Outcome

This template provides a form sequence and supporting workflow that uses an ExecuteQuery activity to retrieve a data set and then loop through each data row to populate a grid. Based on the term selected by the user, the query is executed and billing information is displayed in a grid.

Graphical user interface, text, application

Description automatically generated

The sequence requires the following:

* A complete **Student record** must exist in the CampusNexus Student database.
* The student must have a **Portal login** to log into this authenticated sequence.

## Prerequisites

The template was built with Forms Builder using the applications listed below. The template is forward compatible with later versions of the listed applications.

|  |  |
| --- | --- |
| **Application** | **Minimum Version** |
| Forms Builder Designer and Renderer | 3.7 |
| Web Client for CampusNexus Student | 21.1 |
| Workflow Composer | 3.0.x |
| Packages installed from Package Manager in Workflow Composer | Activities and Contracts (V1) 21.1.0  Activities and Contracts (V2) 21.1.0  Forms Builder Contracts 3.6.x |
| Workflow Tracking Database | N/A |
| Staff STS 2.1 | 2.1 |

## Step 1: Download and Import the Template

1. Download the template file to your environment (local drive or network location).
2. Log into **Forms Builder** and select the **Form Designer tile**.
3. Click the **Export/Import** tile.
4. Select the **Import** tab.
5. Click **Select exported file** and navigate to the downloaded template file.
6. Click **Import**.

* [Export/Import](https://help.campusmanagement.com/FB/3.x/Content/ExportImport.htm)

### The following forms will be imported:

* RegBillv3-1
* RegBillv3-2
* RegBillv3-3
* GeneralEndStateForm

## Step 2: In Form Designer…

1. From the **Forms** slide out, select the **RegBillv3-1** form.
2. Customize the form for your environment. Modify properties on fields/components to make them required, etc., or add/remove fields on form.

* [Fields](https://help.campusmanagement.com/FB/3.x/Content/Fields.htm) and [Components](https://help.campusmanagement.com/FB/3.x/Content/Components.htm)

1. **Save** the form.
2. Repeat steps 1-3 for the remainingforms as appropriate for your institution.

**Notes**:

* Do not change the properties of the Grid component in the RegBill3-3 form. The Property Names in the grid correlate with assign statements and queries in the workflow. The results of the ExecuteQuery activity are bound to the grid.
* Do not enable the Add, Edit, or Delete options in the grid. The grid is meant to be read- only.

Graphical user interface, table

Description automatically generated

## Step 3: In Sequence Designer…

1. Locate the **RegBillv3** sequence in the Sequences pane.
2. Click **Save As** to create a copy of the sequence/workflow and customize the copy for your use. This way you can always refer to the original sequence/workflow you downloaded.
3. Optional - Customize the sequence properties for your environment.
4. Optional - Add a custom style (theme) for your campus.

* [Themes](https://help.campusmanagement.com/FB/3.x/Content/Themes.htm)

1. Select your saved sequence in the Sequences pane.
2. In the Properties Pane, as **End State Form**, select the imported “GeneralEndStateForm”.
3. **Save** the sequence**.**

## Step 4: In Workflow Composer…

1. Open the workflow for your saved sequence.

* [Opening Workflows for Sequences](https://help.campusmanagement.com/FB/3.x/Content/HostedEnv.htm)

1. Explore the arguments, variables, states, and transitions to get an understanding of the workflow logic. This is a state machine workflow. Each form is a state. The arrows are transitions from one state to another.

* [State Machine Workflows](https://help.campusmanagement.com/FB/3.x/Content/StateMachineWorkflows.htm)

1. You do not need to modify anything is the workflow if you did not modify the Grid component.

Note that the ExecuteQuery activity on the RegBill3-3 state uses a complex query which retrieves charges that are posted or pending for the student for the selected term:

"select SaBillCode.Descrip+' '+'(Pending)' as Descrip, SaPendingCharge.Amount, SaPendingCharge.Type, SaPendingCharge.DateAdded as Date, (select AdTerm.Descrip from AdTerm(nolock) where AdTerm.AdTermID= SaPendingCharge.AdTermID ) as TermDescrip, 0 AS CourseAmount, '' AS CourseDescription from dbo.SaPendingCharge SaPendingCharge Inner Join dbo.SaBillCode SaBillCode (nolock) on SaPendingCharge.SaBillCodeID=SaBillCode.SaBillCodeId inner join AdTerm (nolock) on AdTerm.AdTermID = case when SaPendingCharge.RegAdTermID IS not null then SaPendingCharge.RegAdTermID else SaPendingCharge.AdTermID end where SaPendingCharge.SyStudentID =" + SyStudentId.ToString + "and SaPendingCharge.AdTermId =" + Test.ToString + "Union All Select SaTrans.Descrip, SaTrans.Amount, SaTrans.Type, SaTrans.[Date] as Date, AdTerm.Descrip as TermDescrip, IsNull (SaTransCourseAmount.Amount, 0) AS CourseAmount, AdCourse.Descrip AS CourseDescription From dbo.SaTrans (nolock) inner join AdTerm (nolock) on AdTerm.AdTermID = SaTrans.AdTermID left join saTransCourseAmount on saTrans.saTransID = saTransCourseAmount.saTransID left join AdCourse on AdCourse.AdCourseID = SaTransCourseAmount.AdCourseID where SaTrans.SyStudentID =" + SyStudentId.ToString + "and SaTrans.AdTermId =" + Test.ToString

## Step 5: In Forms Renderer…

Select your sequence and try it out!

* [Sequence List](https://help.campusmanagement.com/FB/3.x/Content/SequenceList.htm)

1. Find your sequenceand copy the **URL** to the clipboard.
2. Paste the URL into a browser and complete the form sequence.
3. Login to Portal as a student and verify that the grid displays the appropriate data for a selected term.

## Step 6: Lastly…

Once your updated sequence has been tested successfully, it is recommended that you disable the workflow for the original Template version.

1. In Workflow Composer, in the Server section of the ribbon, click **Open**.
2. Find the workflow named **RegBillv3**.
3. Clear the **Enabled** check box and click **Save**.