Session ID: TECH-B08

Session Title:

Forms Experience Builder Tapas – Multiple Stages and Open Role

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1 Introduction

This is session focuses on a few of the more complex areas of application design within FEB. We will teach you how to build a multi-stage workflow that leverages "open" roles.

2 Environment

The following software has been installed and successfully configured on an IBM SoftLayer device for this lab exercise:

- IBM Forms Server – Forms Experience Builder 8.6.1

The files required for the lab are stored in the directory `C:\techb08_labfiles`

2.1 User IDs and Passwords

You will be using the following user IDs and passwords throughout the lab.

Purpose	User ID	Password
Windows® Logon	**`WAS_ADMIN`**	**`password`**
Experience Builder User	**`Instructor will provide`**	
Portal	**`Instructor will provide`**	
Connections	**`Instructor will provide`**	

2.2 Accessing Forms Experience Builder

To access Forms Experience Builder, open a web browser and enter the URL:

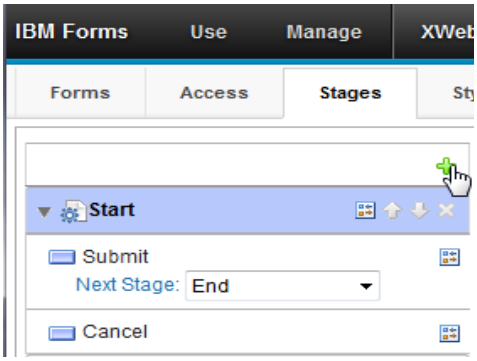
http://atlanta.ibmcollabcloud.com/forms

3 Create the application

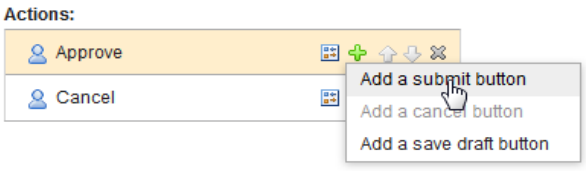
All of the UI components of the application have been provided for you, since the focus of this exercise is to work with stages and access permissions. Since we don't have a full LDAP configured with the environment this application provides a "mapping" table that connects users with managers so that we can test out this form to its fullest.

4 Adding New Stages to your application

1. Click on the **Stages** tab.
2. Create a new stage by clicking on the green plus icon.



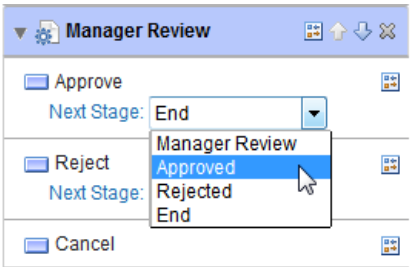
3. Expand the newly created stage by clicking on the arrow next to the name and then click its properties icon.
4. Change the **title** to "**Manager Review**" and then on the Advanced tab change the **ID** to "**ST_MgrReview**".
5. Click on the properties icon for the default submit button. Change its **title** to "**Approve**" and its **ID** on the Advanced tab to **S_Approve**.
6. Click **OK** to close the Action Properties dialog.
7. Add a new submit button by clicking the **green plus** next to either of the two existing buttons and select **Add a submit button**.



8. Click on the properties icon for the new button and change its **title** to "**Reject**" and its **ID** on the Advanced tab to **S_Reject**.
9. Click **OK** to close the Action Properties dialog.
10. Click **OK** to close the Stage Properties dialog.
11. Add two more stages. Change the **title** of the first to "**Approved**" by clicking the title and then

directly editing it and then open the properties to change the **id** to **ST_Approved**. Change the **title** of the second to "**Rejected**" and its **id** to **ST_Rejected**.

12. Expand the **Manager Review** stage. Change the **Approve** button to point to the **Approved** stage by selecting it from the dropdown. Change the **Reject** button to point to the **Rejected** stage by selecting it from the dropdown.



13. Expand the **Start** stage. Change the **Submit** button to point to the **Manager Review** stage.

Now that we have our basic workflow structure in place, let's recap. The employee opens the form fills it out and submits it to the manager review stage. The manager will receive an email with a link to the form, they will open it and either approve or reject the request. In both cases the employee will receive an email indicating the managers action.

5 Configuring the Access Permissions

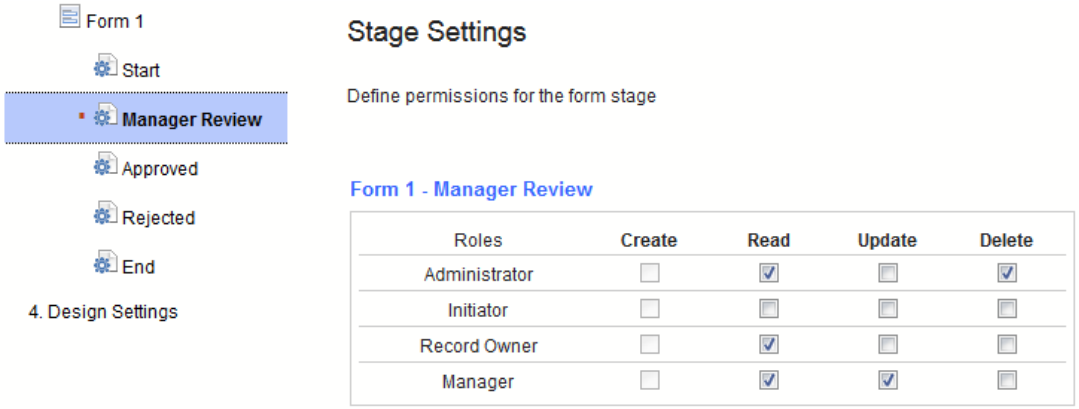
Before we can configure the emails that get sent when we submit the form we need to setup our roles and access permissions.

1. Click on the **Access** tab.
2. Click on the green plus to create a role that will be used for the current employee's manager. Change the role name to **Manager** and click the radio labeled **Open**.

3. Now that we have created the role, we need to set its permissions. We are not going to Assign any users, because this will be a dynamic role where the member will be added at run-time using a service. Click **Stage Settings**.

Now we need to to check each stage and set the permissions according to our goal. The default behavior for the start stage is that all authenticated users can launch the form and submit (create), therefore we will not change it.

4. Click the **Manager Review** stage and then give the **Manager** role **Read** and **Update** permission.



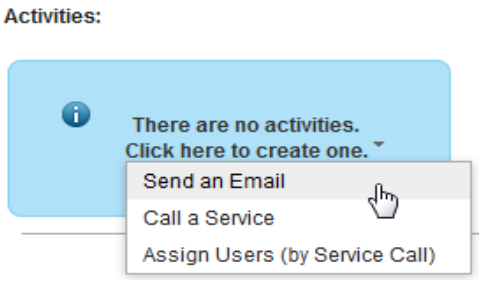
5. Click the **Approved** stage and give the **Manager** role **Read** and **Update**.
6. Click the **Rejected** stage and give the **Manager** role **Read** and **Update**.

Now that the Access permissions are configured we can move on to the next step.

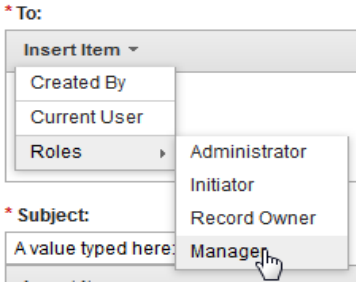
6 Configuring Email Submit Activities

Now lets go back and configure all the emails for each stage. The first email that we will create is the one that gets sent to the manager indicating that they must take action on an employee submission.

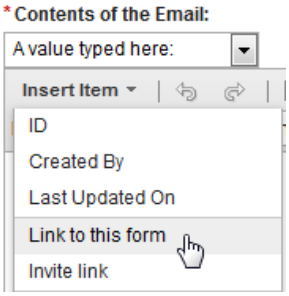
1. Click on the **Stages** tab.
2. Expand the **Start** stage and click on its properties icon for the **Submit** button. In the properties dialog click on the **Basic** tab.
3. Scroll down until you find the **Activities** section. Add an **Assign Users (by Service Call)** activity.
4. Add a **Send an Email** activity.



5. For the **To** field, click the **Insert Item** dropdown and select **Roles … Manager**.

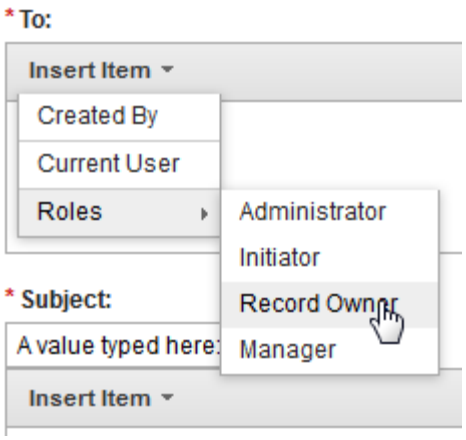


6. In the **Subject** enter something like "ACTION REQUIRED – Employee Leave Request".
7. In the **Contents of the Email** enter something like: "Please review your employee's leave request by clicking on the link below" and then click the **Insert Item** dropdown and insert **Link to this form**. This will insert a link that will open the specific form. At this time you cannot edit the text of the link.



8. Click **OK** to close the email properties.
9. Click **OK** to close the Submit button properties.

Now you can go back and configure an email on the **Approve** and **Reject** buttons in the **Manager Review** stage. These emails will be sent to the **Record Owner**, which will be the user that initially submitted he record. You will find the R**ecord Owner** as a selection under the **Roles** heading in the Email configuration dialog.

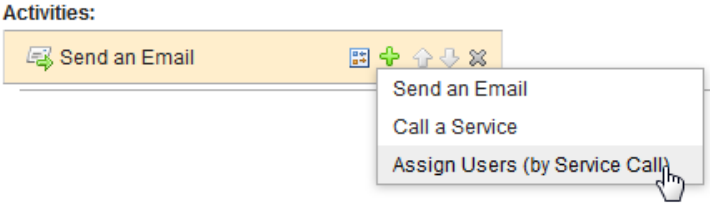


7 Configure Dynamic Role Assignment

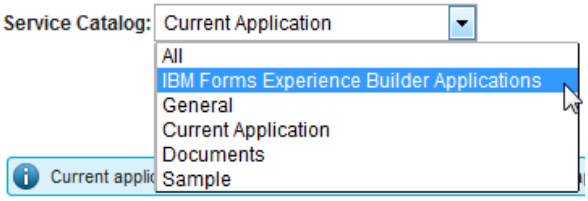
Now we need to make sure that the manager to whom the email is sent has access to the submitted record. In this next section we will dynamically assign the employee's manager to the manager role as part of the submit process.

1. Click on the **Stages** tab.
2. Expand the **Start** stage and click the properties button for its **Submit** button.
3. Scroll down to the **Activities** section on the **Basic** tab and click the green plus icon to add a new activity.

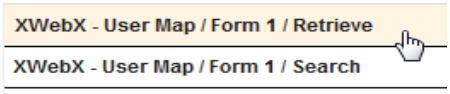
4. Add the **Assign Users (by Service Call)** activity.



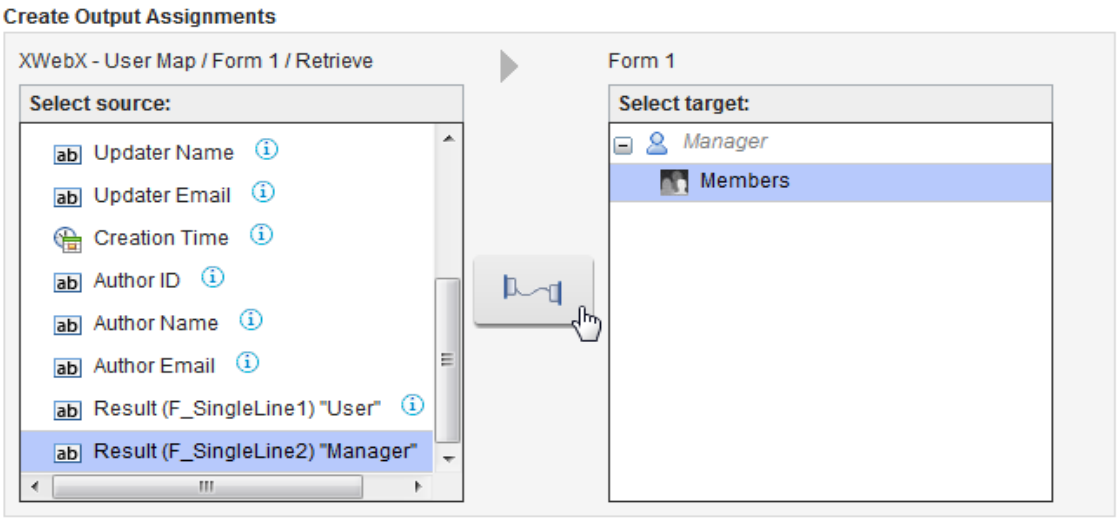
5. Change the **Service Catalog** to IBM Forms Experience Builder Applications.



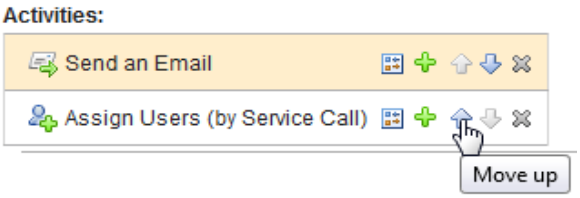
6. Enter **XWebX – User Map** in the search field and click the magnifying glass or press enter.
7. Select the **Retrieve** service. And click **Next**.

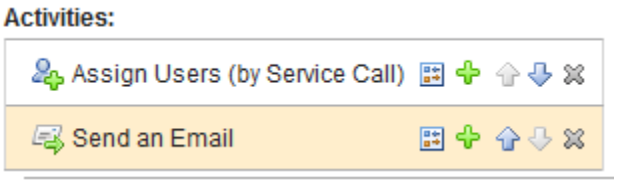


8. In the **Select source** window select **Current User.** In the **Select target** window select **Retrieve by (F_Singleline1) User** then click the **Assign Input** button. Click **Next**.
9. In the **Select source** window select **Result (F_SingleLine1) Manager.** In the **Select target** window select expand **Manager** and select **Members** then click the **Assign Input** button. Click **OK**.



10. Now move the Assign User activity before the Email activity by clicking on the up arrow. This will insure that the service call gets called first, setting the user's manager into the manager role. The end result will look like:





When you assign a user dynamically it applies to just the one record, rather then the static way where the role assignments apply to all the records. This allows you to create a very dynamic application and provide the precise level of security that is required.

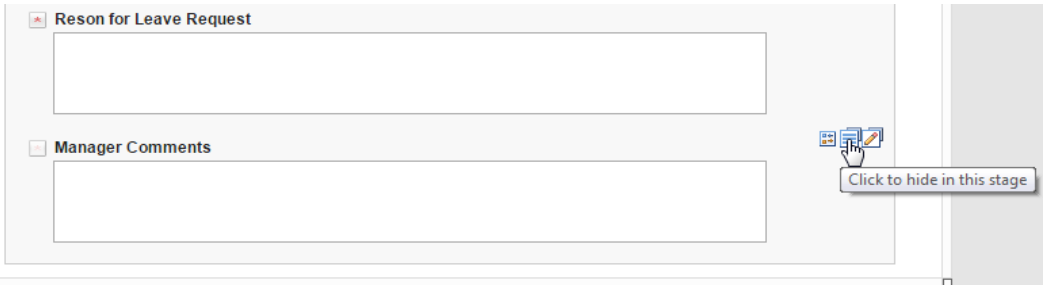
8 Test The Application

1. Save and deploy the form.
2. Launch the form, fill out the fields and click **Submit**.
3. We don't have any way of checking the email for the user, but we can verify that the manager now owns the record.
4. Log out of FEB.
5. Find your user in the User's Spreadsheet and login to FEB as the listed manager.
6. Click View Responses for the application.
7. You should see your test record that was submitted.

9 Control Section Visibility Based on Stage

In this section we will add some behavior to make it even more dynamic. Let's say that you want the manager to be able to add his/her comments before submitting. We need to add a field for the the manager to enter comments but we want to make sure the field is only visible in the manager review stage.

1. Add a **Multi-line Entry** to the canvas below the Reason for Leave Request field.
2. Stretch the field so that is spans both columns and change the label to "Manager Comments". In the **Properties** dialog on the **Basic** tab set the **Width** to **Full Width** and click **OK**.
3. Click on the **Stages** tab.
4. Expand the **Start** stage.
5. Hover over the "Manager Comments" field and click the icon labeled "Click to hide in this stage":



This will insure that the Manager Comments field is not shown when the employee initially launches the form. We will leave it visible in all the other stages since once the record is complete we might want all parties to be able to view the comments.

6. Save and deploy the application.
7. Now go back launch the form as an employee and note the manager field is not visible.
8. Login as the manager, access the View Responses, select the record and then note that the manager comment is visible.

This concludes the lab. Hopefully you can see how using stages and dynamic roles could be used to build some interesting applications. If you have any questions or want to learn more talk to the instructor or check out our resources listed in the next section.

10 Resources

10.1 Forms Experience Builder DevWorks Community

There is a forum where you can ask questions, a wiki where we post code and other examples and an Ideation Blog where you can post ideas for new features. Please considir joining today!

https://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=05651788-f17f-4309-a5c6-698e67acd9c1&successMessage=label.action.confirm.community.join

10.2 Support

http://www.ibm.com/support

10.3 Forms Experience Builder Documentation

http://www-10.lotus.com/ldd/lfwiki.nsf/xpDocViewer.xsp?lookupName=Forms+Experience+Builder+8.5+documentation#action=openDocument&content=catcontent&ct=prodDoc

10.4 Register for Further Forms Training

http://www-304.ibm.com/events/idr/idrevents/detail.action?meid=10361&ieid=4513&from=find

10.5 FEB on Greenhouse

https://greenhouse.lotus.com/forms/login/org/index.html