How to Create a Flow

This guide will focus on the steps needed to create a "Flow" using the Microsoft *Power Automate* program.

Flow Design

- Define the process. [Be sure to reference the ***Guide- Design (How to create a Process)*** document].
- Create a mock Flow (to "visualize" the process).
- Have the end-user confirm that the Flow meets their needs.

Gather Flow Components

- **Owner**- Determine who will be the "Owner" of the Flow. Since all emails/approvals will be sent from the owner's email account, this person should be able to respond to questions from end-users.
- **Email Addresses**- Collect all names/emails for Approvers/Reviewers for each step of the Flow.
- **Email Text** - Collect Flow text for all Emails/Approvals.
- **Form**- Create (or have the end-user create) an MS Form to be used as the Flow *Trigger* (most processes start with a request that provides needed information).
- **Team**- Determine if the Flow will be assigned to an existing Team or if the creation of a new Team is necessary. *Note*: All Team members will have access to the Flow (including data).
- **Join Team**- Have the Flow owner add you to the Team.

Build the Flow Structure

- Review the MS Form (refine if needed).
- Move the MS Form to the Team (if necessary).
- Create an Excel table based on required data (use the **Template- Excel Template to Create a List** spreadsheet). This includes MS Form data and any fields of data needed to process the request (e.g. fields for approver's name, email, and comments).
    - Spreadsheet must start with **Submitter** (will be the KEY column for the Flow).
    - Remove unneeded columns from spreadsheet.
    - Add needed columns to spreadsheet.
- Export the Excel table to create a SharePoint List (all Teams have a SharePoint website and the export will create a new List webpage).
    - Select **Design** tab and select the **Export tool**.
    - Select **Export Table to SharePoint List**.
    - Enter the SharePoint site address in the *Address* field (e.g. *https://sunypotsdam.sharepoint.com/teams/**CCI-CenterforCreativeInstruction***. The address will contain the team name).
    - Enter a name for the List.
    - Select **Next** (You may be asked to login to O365).
    - Select **Finish** and **OK**.
- Format the SharePoint List page:

  - Reorganize the columns (move important columns to the left and unimportant columns to the right).
  - Change column settings (e.g. change columns that will have paragraphs of information to *multi-line data*).
  - Add the ID and Created fields (these are internal fields within a SharePoint List).
- Make the List page visible on the SharePoint home site (for easy access).
  - Go to team SharePoint site.
  - Select the **Site Contents** tab.
  - Open the List webpage and copy the URL (from the browser window).
  - Select the **Home** tab.
  - Select the **Edit** link (at bottom of left-pane).
  - Move your cursor to a space between tabs (e.g. just below the *Documents* tab).
  - Select the **+ icon** to add a page.
  - Paste the List URL in the *Address* field.
  - Enter a name in the *Display name* field.
  - Select **OK**.
  - Select **Save** button.
  - Select **Home** tab and confirm the List page is accessible.

Create the Flow or Edit a Flow Template

If you are creating a flow from scratch, you can now use Power Automate and your mock Flow design to construct a Flow. The following steps outline how to modify an existing Flow (a template) to serve as a new Flow. The CCI has several “Approval” and “Reminder” templates.

- Select a Flow that best matches your process (your new Flow).
- Upload the Flow template to your *Power Automate* account and name the file.
- Add a permanent Owner and the Team to the Flow (this will move the Flow into the *Team flows* tab).
- Turn Off the Flow (if necessary).
- Edit the Flow (starting with the Trigger, update each of the actions):
  - Update the **Trigger** (normally, the trigger is an MS Form).
    - Get the *Share* link for the Form and copy the last part of the URL starting after ID (this is the Form ID).
    - Select the X to remove the listed Form ID.
    - Select the *Form id* field and select the **Enter custom value** option.
    - Paste the new Form ID.
  - Update the **Get Data** action (same as trigger link).
  - Update the **Add Data** to List action:
    - Select the Site Address (SharePoint Team).
    - Select the List Name (name of Flow List).
    - Remove *Dynamic Content* from all fields.
    - Save Flow, exit Flow, re-enter Flow, and return to *Add Data* action.
    - Add **Dynamic Content** to the corresponding fields.
    - **Save** Flow.

  - Change **Emails Address** in *Approval* and *Send Email* actions to you (the tester). [*Optionally, if you can coordinate testing with Approvers, you can add their emails now.*]
  - Update **Emails (Text)**:
    - Change *Subject* line text
    - Change email Text (use the Editor to add Bold, Italics, etc.)
    - Remove *Dynamic Content* (content from previous Flow)
    - Add *Dynamic Conten*t (content from new Flow)
    - Save Flow.
  - Update **Approvals**:
    - Change *Subject* line text
    - Change body Text (use Markup language to add Bold, Italics, etc.)
    - Remove *Dynamic Content* (content from previous Flow)
    - Add *Dynamic Conten*t (content from new Flow)
    - Save Flow.
  - Update **Approval Responses** (these are a combination of actions that are normally bundled within an *Apply to each* action).
    - Open *Apply to each* and open the **List is Updated** action.
    - Select the Site Address (SharePoint Team).
    - Select the List Name (name of Flow List).
    - Remove *Dynamic Content* from the ID field.
    - Add the *ID - Dynamic Content* to the ID field.
    - Remove the *Response - Dynamic Content* (purple) from all fields.
    - Save Flow, exit Flow, re-enter Flow, and return to *List is Updated* action.
    - Add **Dynamic Content** (Approval Responses) to the appropriate fields.
    - **Save** Flow.
  - Update all **Control** actions (If/Then path actions)

Changing Names (Warning)

Each action in a Flow has a name and the Flow uses that name to point to an action. As a rule, I recommend that the *Action Names* are descriptive (they should clearly tell you what is happening in the Flow). That said, changing the action names does create more work. For example, if the action says ***Approval is sent to the DL Coordinator*** and you change it to ***Approval is sent to the Chair***, every action step that follows will need to be updated to point to the new name. If you don't make the change, the Flow will fail. So, starting with the trigger, if you are going to update the name, do it as you update each action (step by step). If you hop around, you are more likely to have to update an action you already updated because you changed the name of a corresponding step.

Test the Flow

Before you present the Flow to the Owner (Department/Office), you need to run the Flow to make sure that the conversion was done properly. Normally the email/approvals are done using the testers email address, but if you are sure the Flow was updated correctly, you could ask the real Approvers to participate in the test. Just make sure their emails are appropriately added to the Flow instead of your email.

- Turn ON the Flow (if necessary).

- Use the Trigger to start the Flow (this is normally the submission of an MS Form).
- Verify that the MS Form data was properly added to the SharePoint List.
- Confirm that each email was sent out correctly.
- Confirm that Approvals were sent out correctly.
- Verify that Approval data was properly added to the SharePoint List.
- If there are *Control* paths, make sure to submit data using the MS Form in such a way that all paths are tested.
- Once you've verified that the Flow is running properly, update the email addresses for all emails and approvals and run the test again (you will need to schedule this test with the approvers).

Transfer the Flow to the Owner

If you are transferring ownership of the Flow, make sure the owners and Approvers don't have any questions about how the Flow works. Schedule a meeting with the Owner and have them export and import the Flow (see the ***Instructions- How to Export and Import a Flow*** PDF).