

Lab 9. Creating a Business Process Flow

Author: Serge Luca aka "Doctor Flow"

Updated by: Dattatray-Patil

Learning Objectives: Be able to create a Business Process Flow and a Model-driven app that will consume it.

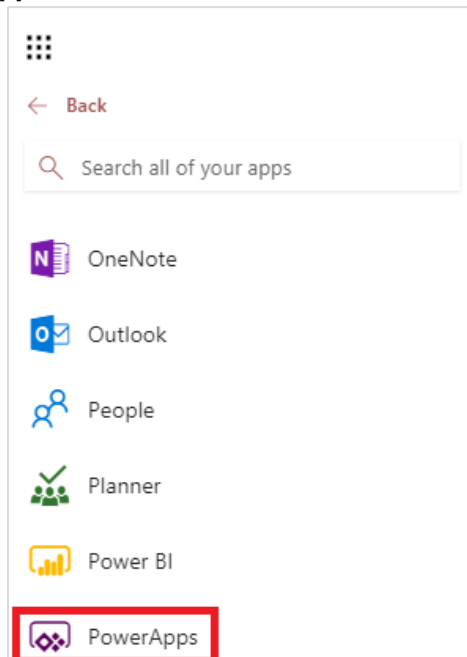
Scenario: You will create a Business Process Flow (BPF) that illustrates how to approve a loan. You will have to create business entities in CDS (Common Data service); these entities will be consumed by the BPF.

Prerequisites: During the lab the system will suggest you start a Premium trial subscription; you can accept it.

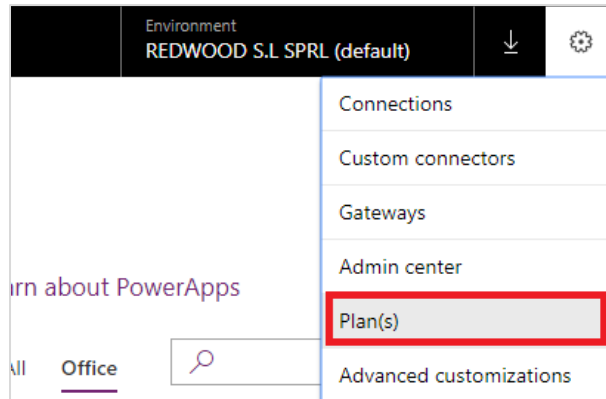
Duration : 25 minutes

Tasks:

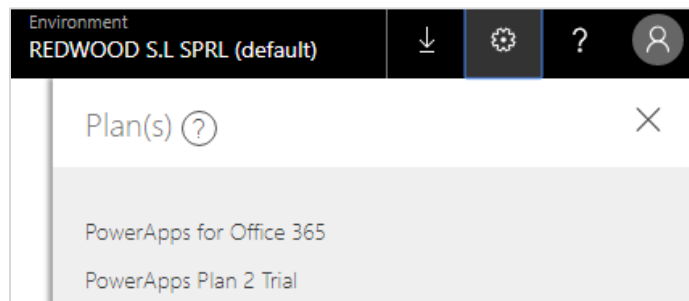
1. Go to the **PowerApps Studio**: <https://powerapps.microsoft.com> or by clicking on the **PowerApps app** in the **Office 365 App Launcher**:



2. If you are working on your own tenant, you first must have **PowerApps Plan 2** in order to be able to create **Model-driven apps**. To check your PowerApps plan, go to the following PowerApps menu:

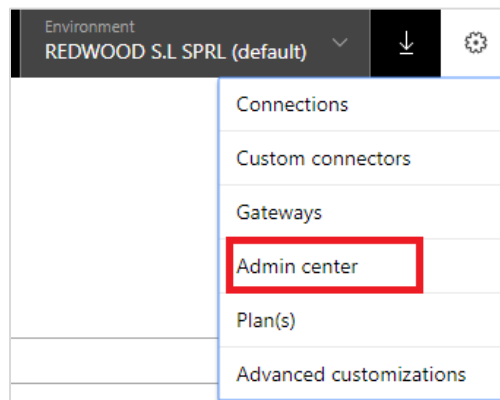


You should get **plan 2**:

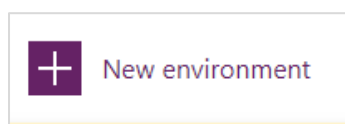


If that is not the case, move to the next step.

3. You can have a free trial version of PowerApps Plan 2. Connect to the [web site](https://powerapps.microsoft.com/en-us/pricing/) <https://powerapps.microsoft.com/en-us/pricing/> to start your trial. When the trial is generated, go to the **PowerApps Admin center**:



4. Click **New environment**:



5. Fill in the required information:

New environment

Create new environments for app and flow development and to maintain separate databases. [Learn more](#)

Environment name

Region ?

Europe (default) ▼

Can't be changed once your environment is created.

Environment type ?


Trial ▼

CancelCreate environment

6. Click **Create environment**.

7. The next step (Creating a Database) should not be done if your PowerApps trial account is part of the tenant created by the trainer. You will use the shared database

When requested, click **Create Database**:



✓ You created an environment

Do you want to create a database? (Recommended)

Your environment includes access to the Common Data Service. Create a database to start using it.

- Collect, store, and share data.
- Use data modeling
- Create custom forms
- Manage security and access to data

SkipCreate database

8. If the next screen you will provide more details on the **database settings**:

Create a database for this environment ?
Choose the currency and language your data should use.

Currency ?
EUR

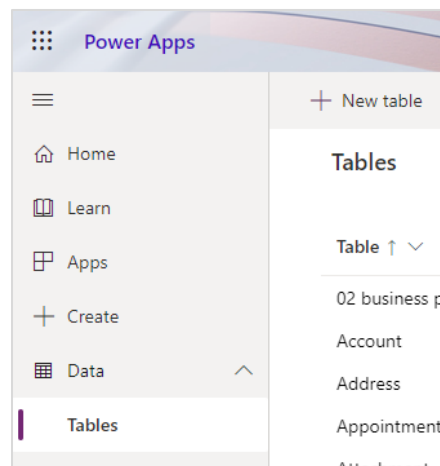
Language ?
English

☒ Include sample apps and data

By choosing **Create my database**, you agree Microsoft can use entity and field names that you create (but not content in the database tables) to help improve our common data model. These names may be stored in our diagnostic systems and copied across regions. [Learn more](#)

Cancel Create database

9. Click again on **Create database**.
10. Go to the list of environments and click on the newly created environment, and you will see that the database is being built.
11. Go back to the PowerApps portal <https://powerapps.microsoft.com> and select the [new environment](#):
12. Select the Data Menu and click on **Tables** from Left menu :



13. Click new **Tables** and create a **New table** called **Loan**:
14. Click **Next**. Click **Add field** to add a new field in this loan entity:

New table

✕

Display name *

Loan

Plural display name *

Loans

Name * ⓘ

cr462_ Loan

Primary Name Column ⓘ

Display name *

Name

Name * ⓘ

cr462_ Name

☐ Enable attachments (including notes and files)

More settings ▾

Create

Cancel

15. Create a field **Amount** (type **Currency**) like shown here:


Amount ✕

Display name *

Name * ⓘ

cr327_ Amount

Data type * ⓘ

 Currency ▼

☐ Required

☒ Searchable

16. Create a field **Account** (type **Customer**):


Account ✕

Display name *

Name * ⓘ

cr327_ Account

Data type * ⓘ

 Customer ▼

☐ Required

☒ Searchable

17. Create another field **Approval Status** based on the **Option Set** datatype

Display name *

Approval Status

Name * ⓘ

cr462_ ApprovalStatus

Data type * ⓘ

Choice

18. Click **Choice** and select **New option set**:

+New choice

A Yes or No boolean

Activity Type

Approval Status

Associated EntityType Code

Authentication Protocol

Category

Channel Activities

Chatbot Language

Approval Status

Display name *

Approval Status

Name * ⓘ

cr462_ ApprovalStatus

Data type * ⓘ

Choice

Choice *

Approval Status

Provide **3 options: Approved, Rejected, Pending**:

Approval Status

(

Display name *

Approval Status

Name *

cr462_ approvalstatus

View more

Items (3)

Approved	..
Rejected	..
Pending	..

Add new item

Approval Status ✕

Display name *

Approval Status

Name * ⓘ

cr462_ ApprovalStatus

Data type * ⓘ

Choice

Choice *

Approval Status

Edit choice

Default value

[No default value]

[No default value]

Approved

Rejected

Pending

19. Click **Save** and make **Approved** the default value:

20. Click Done.

21. Create a field **Signed** based on the **Yes/No** type and Yes should be the default value:

Signed

×

Display name *

Signed

Name * ⓘ

cr462_ Signed

Data type * ⓘ

⋮ Yes/No ▾

Items

☒ Yes

☐ No

Default value

Yes ▾

Required * ⓘ

Optional ▾

☒ Searchable ⓘ

22. Create the last field: **Send Money**:

Send Money

Display name *

Send Money

Name * ⓘ

cr462_ SendMoney

Data type * ⓘ

Yes/No

Items

☒ Yes

☐ No

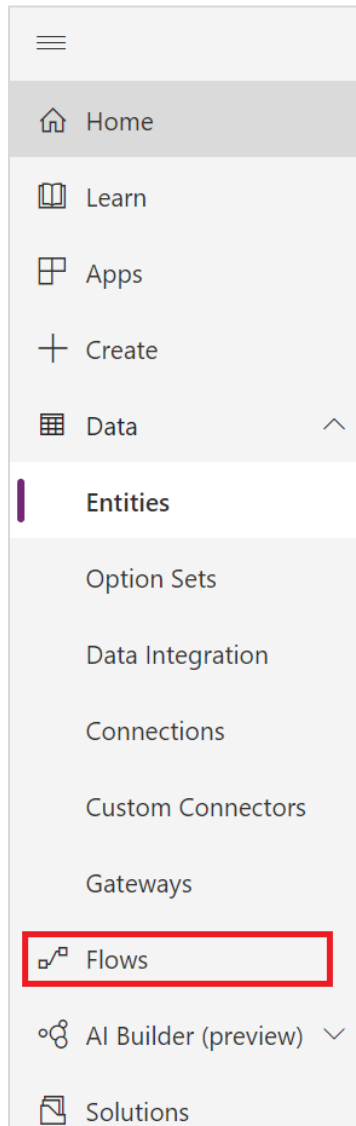
Default value

Yes

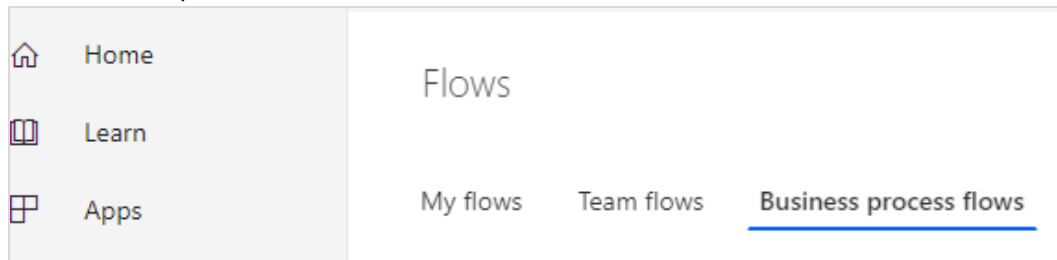
23. Save your field.
24. Save the entity.
25. The following table summarizes your entity Loan fields and settings:

Tables > Loan						
Columns Relationships Business rules Views Forms Dashboards Charts Keys Data						
Display name	Name	Data type	Type	Customizable	Required	Searchable
Account	cr462_account	Customer	Custom	✓	Optional	✓
Amount	cr462_amount	Currency	Custom	✓	Optional	✓
Approval Status	cr462_approvalstatus	Choice	Custom	✓	Optional	✓
Loan	cr462_loanid	Unique Identifier	Standard	✓	Required	✓
Name	cr462_name	Text	Custom	✓	Required	✓
Send Money	cr462_sendmoney	Yes/No	Custom	✓	Optional	✓
Signed	cr462_signed	Yes/No	Custom	✓	Optional	✓

26. Let's get back to Flow to create a new Business Process Flow. Make sure you are in the good environment.
Click on Flows in the left panel.



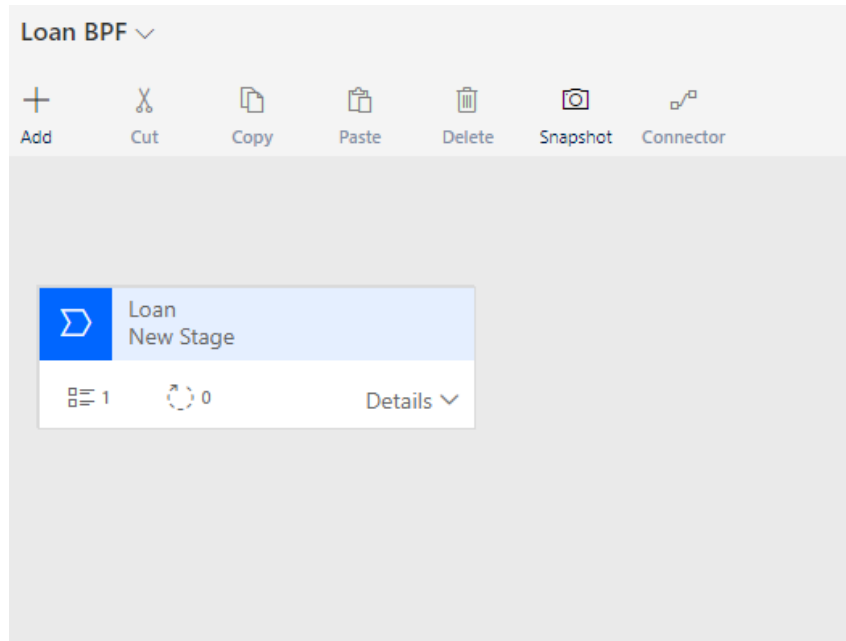
27. Click Business process Flows:



28. Click New and fill in the BPF Display Name and Name; associate it with your loan entity in "Common Data Service entity field:

A screenshot of a 'Build a business process flow' dialog box. The dialog has a title bar with a close button (X). On the left side, there is an illustration of a laptop displaying a process flow diagram with three steps, a blue circle with a plus sign, and a coffee cup. Below the illustration, there is text: 'Guide one or more end-users through a defined process to complete a multistep task.' and 'Examples: • Onboarding and training new employees • Nurturing sales leads and closing the loop on opportunities'. On the right side, there are three input fields: 'Flow name *' with the value 'Loan BPF', 'Name *' with the value 'new_loanbpf', and 'Choose an entity *' with a dropdown menu showing 'Loan' selected. At the bottom right, there are two buttons: 'Create' (blue) and 'Cancel' (white).

29. Click Next and the BPF designer will show-up:



30. Click the **Loan New Stage** and the stage property page, change the display name as **Loan basic info** and click on **Apply**:

Components

Properties

Stage

Display Name

Loan Basic Info

Category

Entity

Loan

31. In the stage, click the **Detail** and then select **Data Step #1**, In Property Tab name the step Name **Set Account Step**, select the **Account** data field, make it **Required**, and click **Apply**.

Loan

Loan Basic Info

1

0

Details ^

Steps (1)

↑↓

Data Step #1

New Step

Triggered Process (0)

Components

Properties

Data Step

Step Name

Set Account Step

Data Field

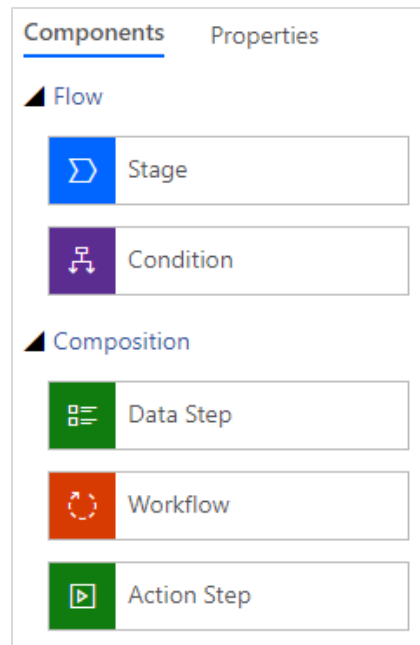
Account ▼

☒ Required

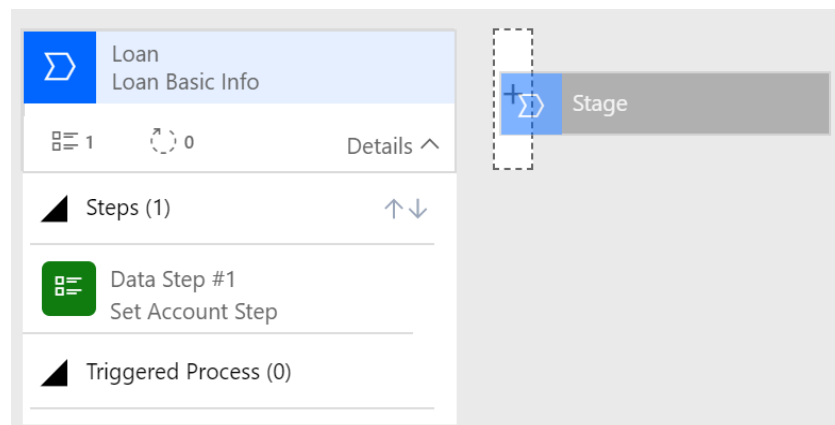
Sequence

1 ▼

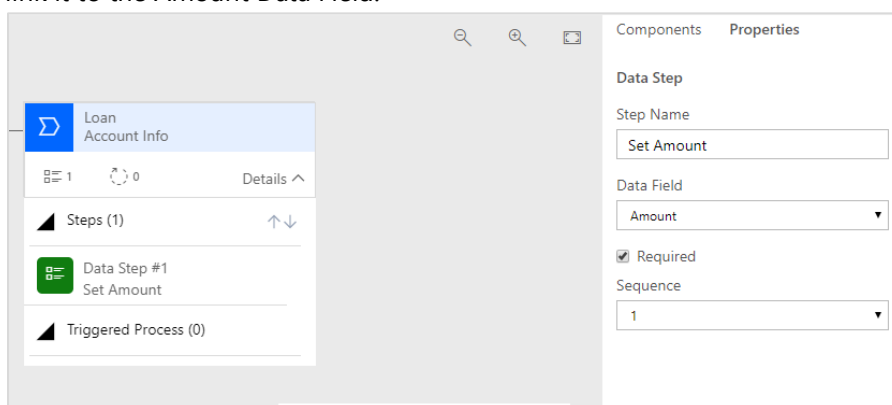
32. Click **Components** to add a new Stage:



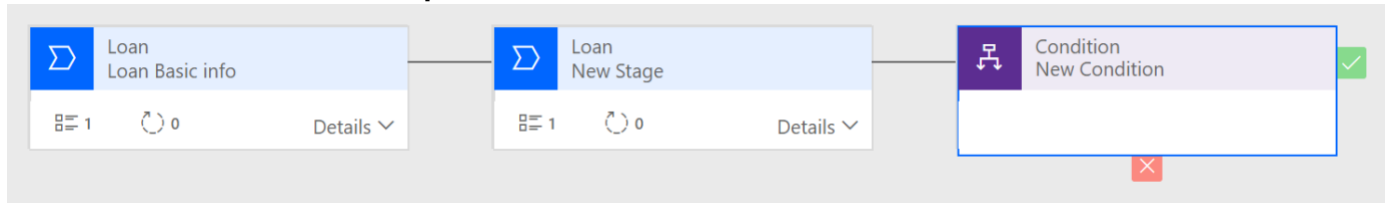
33. Click **Stage** and drag & drop a stage next to the current stage:



34. Name the Stage **Amount info** and like you did before, edit the data step of the new stage and link it to the Amount Data Field:



35. Click Apply.
36. Name the stage Loan Amount info.
37. Add a new **Condition Component**:



38. and define the rule as follow:

Condition

Display Name

Check if expensive

Rules [+ New](#)

Rule 1

Field

Amount

Operator

Is greater than

Type

Value

Value

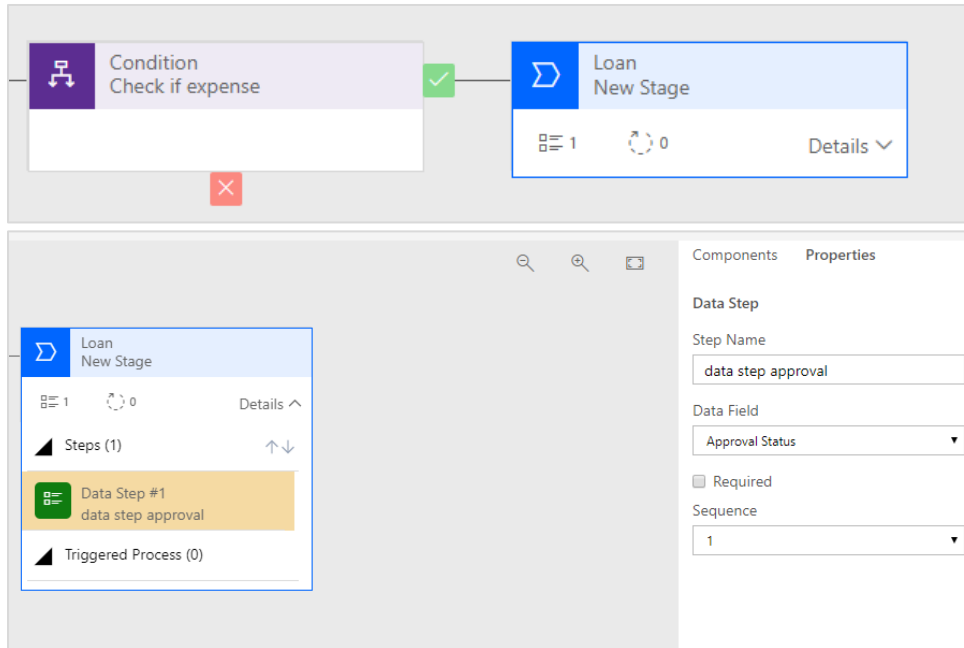
500.00

Condition Expression (Text View)

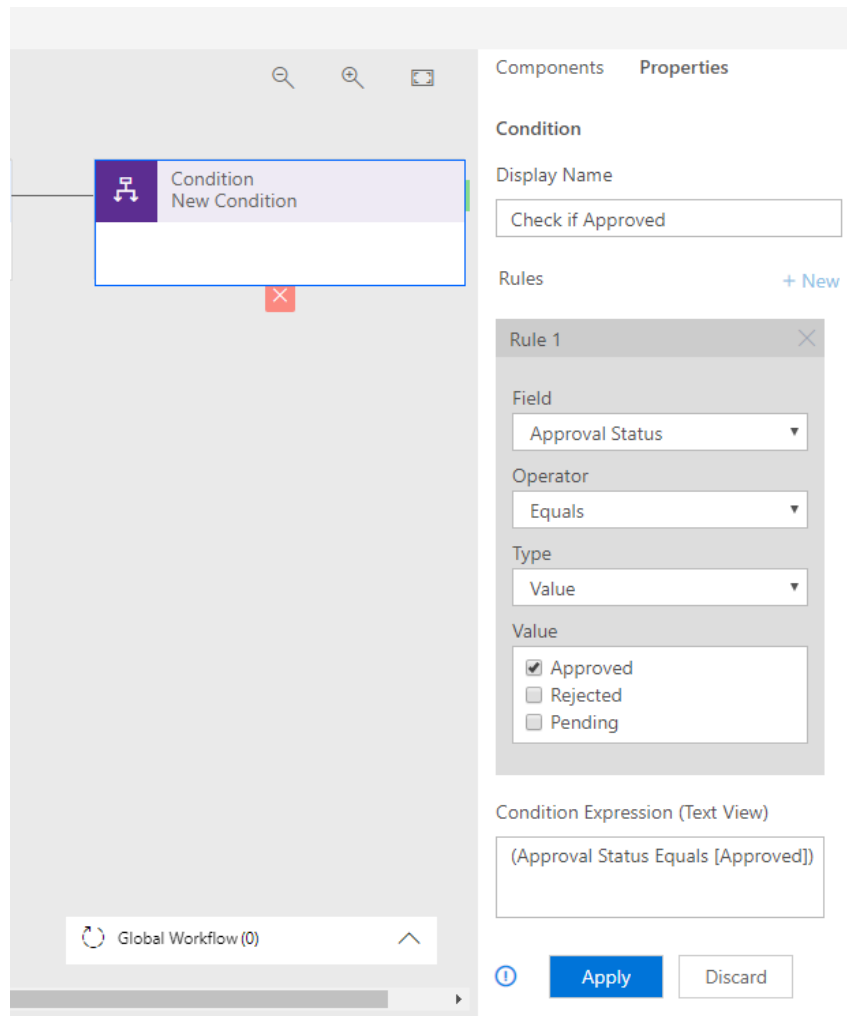
(Amount Is greater than [500])

[Apply](#) [Discard](#)

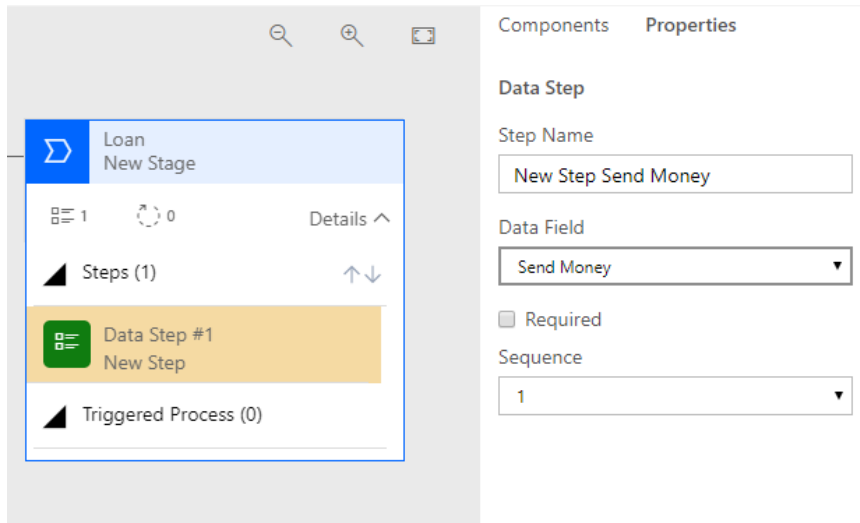
39. Add a **new stage** and name it **Approval**. Name the **data step Approval** and select the **field Approval Status** in Green tick section (Drag and Drop in Yes Section). Click Apply once done.



40. Add a **new Condition** and name it **Check if Approved** with the following rule:



41. Add a **new stage**, name it **Send Money** and associate the data set with the field **Send Money**. This should again in Yes section.



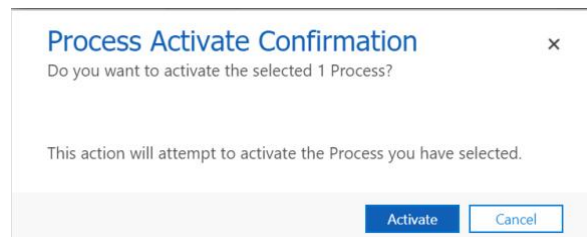
42. Eventually, the Flow should look like this:



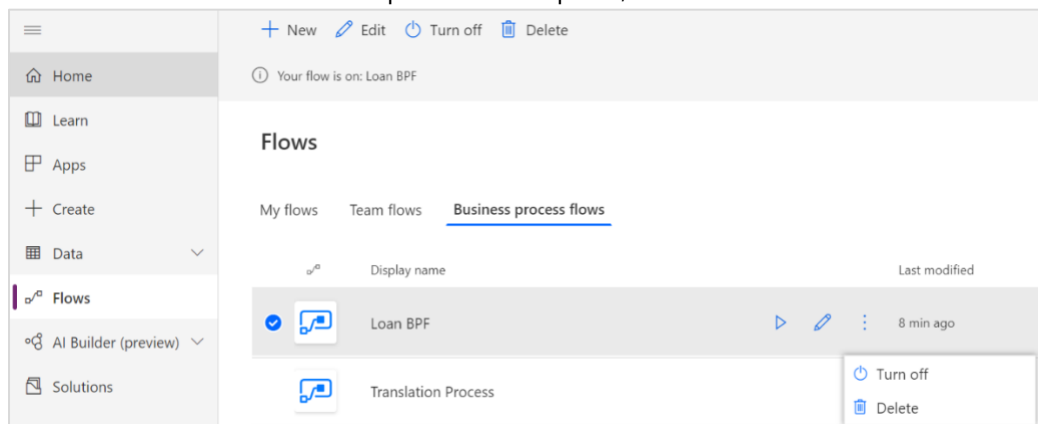
43. Click Save

44. Click Validate.

45. Click on Activate and confirm the activation:

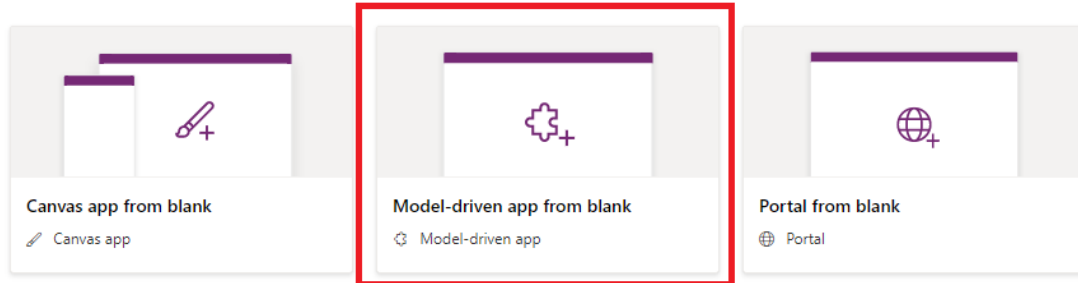


46. Make sure the Business process Flow is activated; go to the Flows menu, and your LoanBPF Flow should be visible in the Business process Flows panel; turn it on if needed.



47. Now in order to use the Business Process Flow, we must create a **Model-Driven** Apps associated with our loan Entity. Go to the PowerApps portal and create a new Model-Driven Apps:

Start from blank ⓘ



48. Name it Loan:

Name :*

Unique Name :*

Description:

Icon: ☒ Use Default Image


Unified Interface URL: https://orge37d24b4.crm4.dynamics.com/Apps/uniquename/cr327_Loan

☐ Use existing solution to create the App

☐ Choose a welcome page for the app

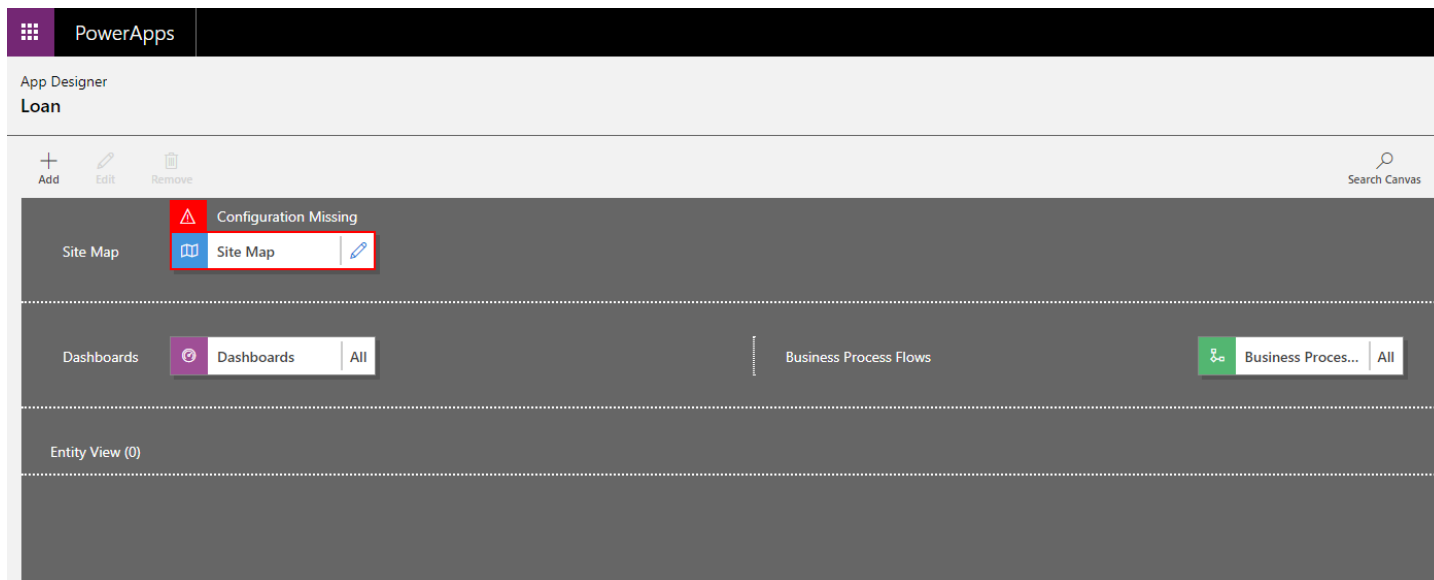
☐ Enable Mobile Offline

App Title:

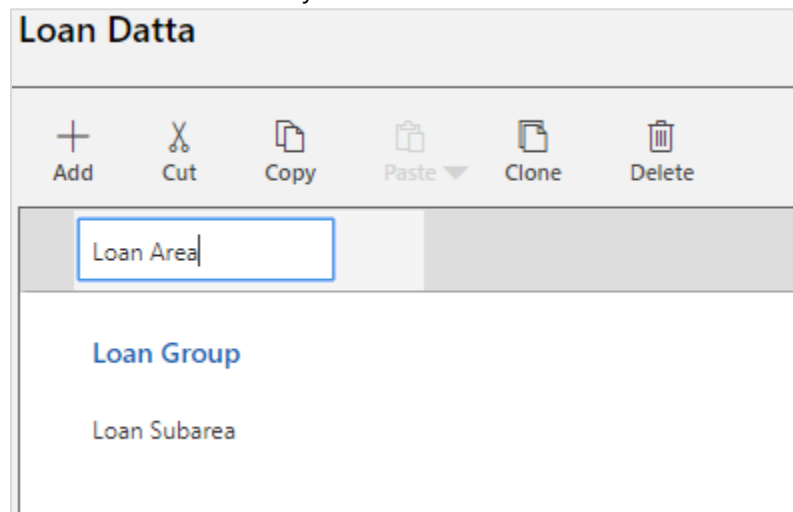

Loan

49. Click **Done**.

50. The App Designer will show-up:



51. Edit the **Site Map** component.
52. Rename the New Area to **Loan Area**.
53. Rename the New Group to **Loan Group**.
54. Rename the Sub Area to **Loan sub-area**.
55. Associate the Loan Subarea with the entity Loan:



Components

Properties

SUB AREA

General

Type

Entity

Entity *

Loan

URL

Default Dashboard

Select a dashboard

Title (1033)

Loan Subarea

Icon

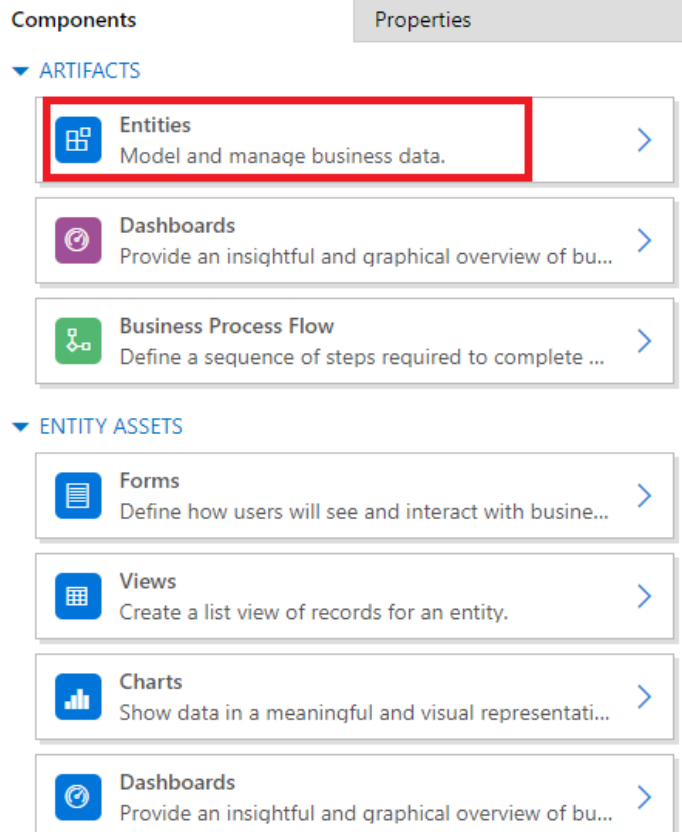
Use Default Image

ID *

New_SubArea

☐ Parameter Passing

56. Click Save and Close, and you will be redirected back to the App Designer screen.
57. In the Designer, Click on **Entities**:



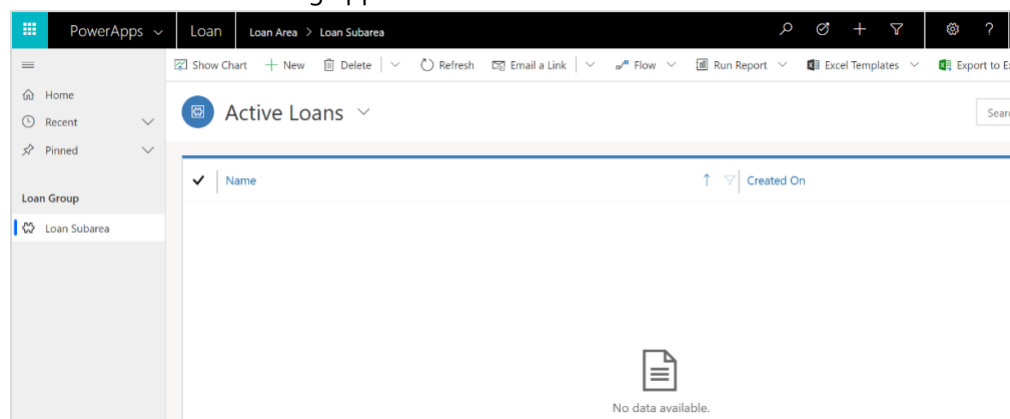
58. In the list of entities, **loan** has already been selected, but you still must select **Loan BPF**. This is important for the internal working of BPF. This extra step might be automated in the future.

59. Click Save.

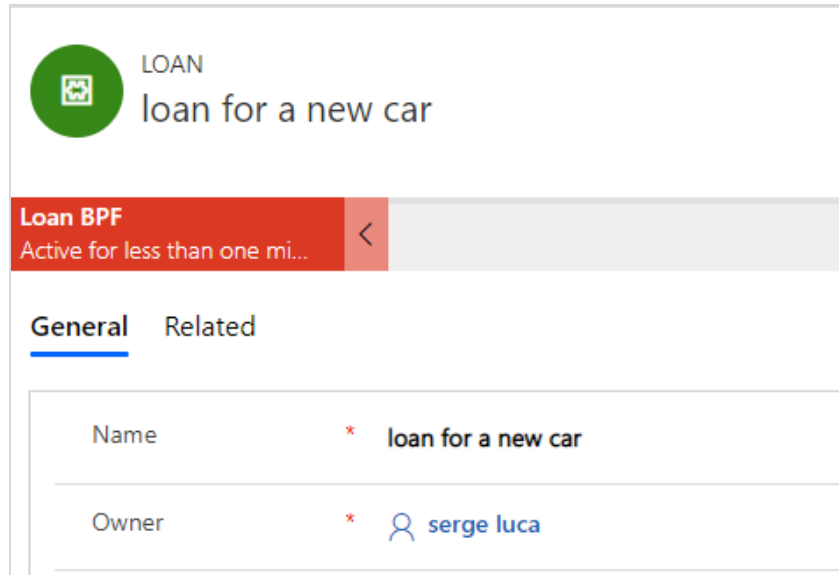
60. Click Publish.

61. Click Play.

62. You should see the following application:



63. If you click **New**, a new loan will be created. Set the Name to **loan for a new car** and save it:



LOAN
loan for a new car

Loan BPF
Active for less than one mi...

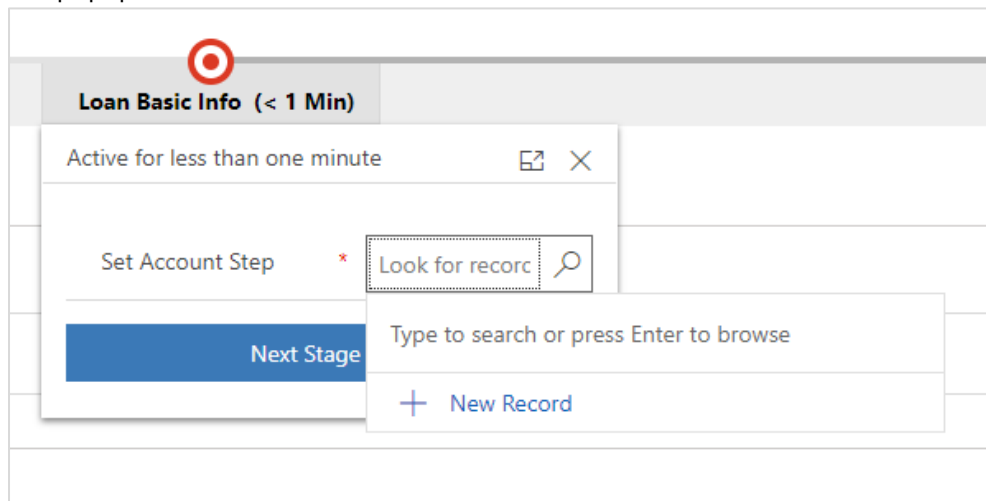
General Related

Name * loan for a new car

Owner * serge luca

64. Click on the stage **Loan Basic Info**; here, you need to define a **new account**:

65. A new popup will be visible, click on **Accounts** to create a new account.:



Loan Basic Info (< 1 Min)

Active for less than one minute

Set Account Step * Look for record

Next Stage

Type to search or press Enter to browse

+ New Record

66. Click **New Record** to create a new account, call it **Redwood** and click **Save and Close**:

Save Save & Close + New Flow

Account: Account
New Account

Summary Details

ACCOUNT INFORMATION

Account Name *	Redwood
Phone	---
Fax	---
Website	---
Parent Account	---
Ticker Symbol	---

67. In the Flow, go to the next stage:

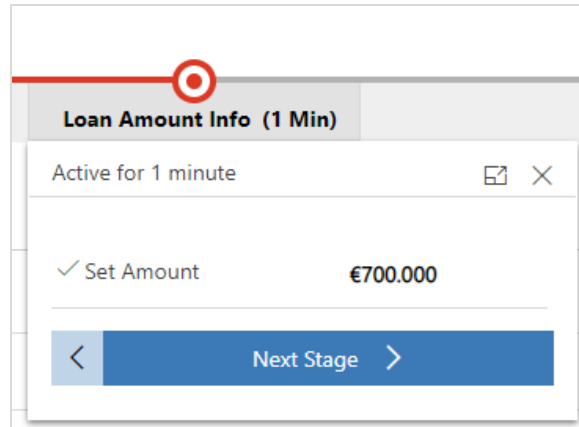
Loan Amount Info (< 1 Min)

Active for less than one minute

Set Amount

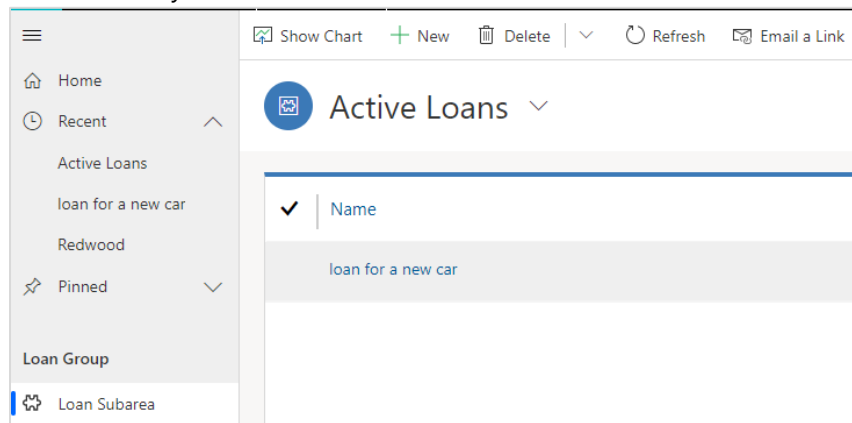
Finish

68. As you can see this is supposed to be the last step by default; however, if you add an amount higher than 500, you will see additional steps:

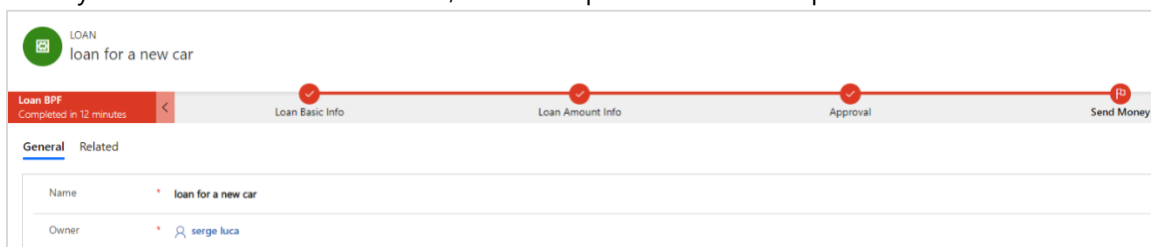


69. Click on **Next stage** until the end of the process.

70. Click on **Home** to see your list of entities:



71. If you click on **loan for a new car**, the whole process will show up:



72. Congratulation for your first Business Process Flow!

We need your feedback

Do you want to report an issue or to suggest something? We need your feedback:
<https://github.com/Power-Automate-in-a-day/Training-by-the-community/issues>