

# **Managing SharePoint Library Folders with Power Apps**

Power Apps can access folders, subfolders, and files by connecting to a SharePoint document library. Although you may be familiar with working with SharePoint lists, document libraries provide additional difficulties. How can you access files in a web browser, traverse up and down the folder structure, and display a hierarchy of files?

## **Introduction: The documents App.**

Employees at a software development company examine project files via the Customer Files app. Workers can open any file on the web browser and search through all of the files and folders kept in the SharePoint document library.

## **Setup The SharePoint Document Library Files & Folders**

Make use of the “**Documents**” document library by default. Next, create folders to browse while using the app and upload files. The following files and folders are used in the tutorial's example, but you are welcome to use a different set if you choose.

Here are some screenshots to help you see the structure of the files and directories mentioned above. These five folders are displayed when the Documents SharePoint document library is opened.

The screenshot shows the SharePoint interface for the 'Softree Technology' site. The top navigation bar includes the 'SharePoint' logo and a search box labeled 'Search this library'. Below the navigation bar, the site name 'Softree Technology' is displayed along with links for 'Home', 'Documents', 'Pages', 'Site contents', and 'Edit'. A secondary navigation bar contains a '+ New' button and options for 'Upload', 'Edit in grid view', 'Sync', 'Add shortcut to OneDrive', and 'Pin to Quick access'. The main content area is titled 'Documents' and shows a list of folders for the months of the year: January, February, March, April, and May. Each folder entry includes a color-coded icon, the folder name, a 'Modified' timestamp of 'About an hour ago', and the user 'Bibhuti Dakua' as the modifier.

Name	Modified	Modified By
January	About an hour ago	Bibhuti Dakua
February	About an hour ago	Bibhuti Dakua
March	About an hour ago	Bibhuti Dakua
April	About an hour ago	Bibhuti Dakua
May	About an hour ago	Bibhuti Dakua

January folder contains 4 word document files as in the screenshot.

This screenshot shows the contents of the 'January' folder within the 'Softree Technology' document library. The breadcrumb path is 'Documents > January'. The top navigation and secondary navigation bars are identical to the previous screenshot. The main content area displays a list of four Word document files. Each file entry includes a Word icon, the file name, a 'Modified' timestamp of 'About an hour ago', and the user 'Bibhuti Dakua' as the modifier.

Name	Modified	Modified By
Document1.docx	About an hour ago	Bibhuti Dakua
Document2.docx	About an hour ago	Bibhuti Dakua
Document.docx	About an hour ago	Bibhuti Dakua
Guide to enable app catalog.docx	About an hour ago	Bibhuti Dakua

February folder contains a folder named pdf files and 3 word documents files.

ST **Softree Technology** Home Documents Pages Site contents Edit

+ New Upload Edit in grid view Share Copy link Sync Add shortcut to OneDrive Download Export to Excel

Documents > February

Name	Modified	Modified By	Assigned to	Department
Pdf files	10 minutes ago	Bibhuti Dakua		
Slides-Concurrency-Synchronized-&-Concurrent-Collections.d...	A few seconds ago	Bibhuti Dakua	Sandeep G	IT
Slides-Concurrency-ArrayBlockingQueue-Consumer-Tasks (1).d...	A few seconds ago	Bibhuti Dakua	Debasis Rout	IT
Slides-Concurrency-ArrayBlockingQueue-Consumer-Tasks (2).d...	A few seconds ago	Bibhuti Dakua	SatabdiM	HR

Pdf files folder contains pdf files.

ST **Softree Technology** Home Documents Pages Site contents Edit

+ New Upload Edit in grid view Share Copy link Sync Add shortcut to OneDrive

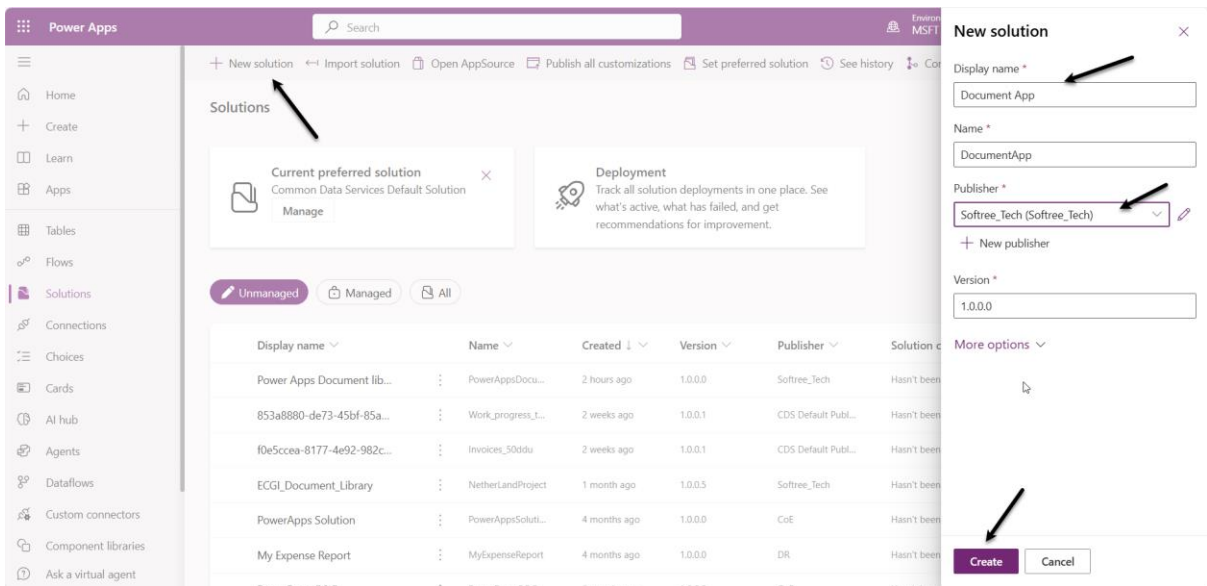
Documents > February > Pdf files

Name	Modified	Modified By
4. Employee-Leave-Validation-docx-1.pdf	A few seconds ago	Bibhuti Dakua
5. Project Management For Blog.pdf	A few seconds ago	Bibhuti Dakua
Health Plan Selector Mobile Application.pdf	A few seconds ago	Bibhuti Dakua

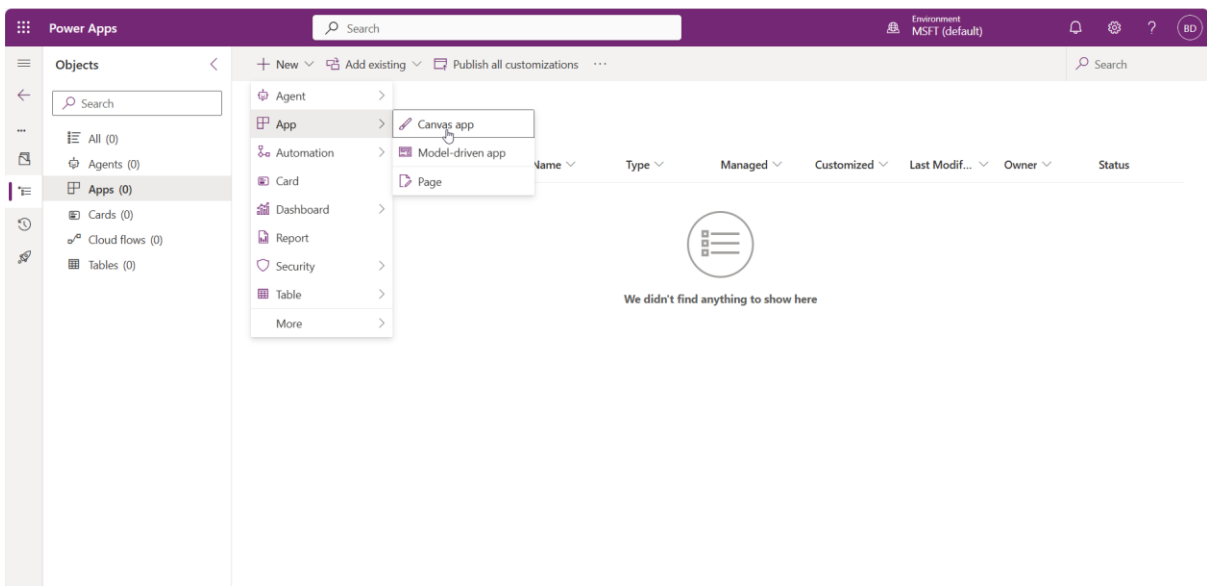
Go to [make.powerapps.com](https://make.powerapps.com)

Create a solution by clicking on solutions and + New Solution

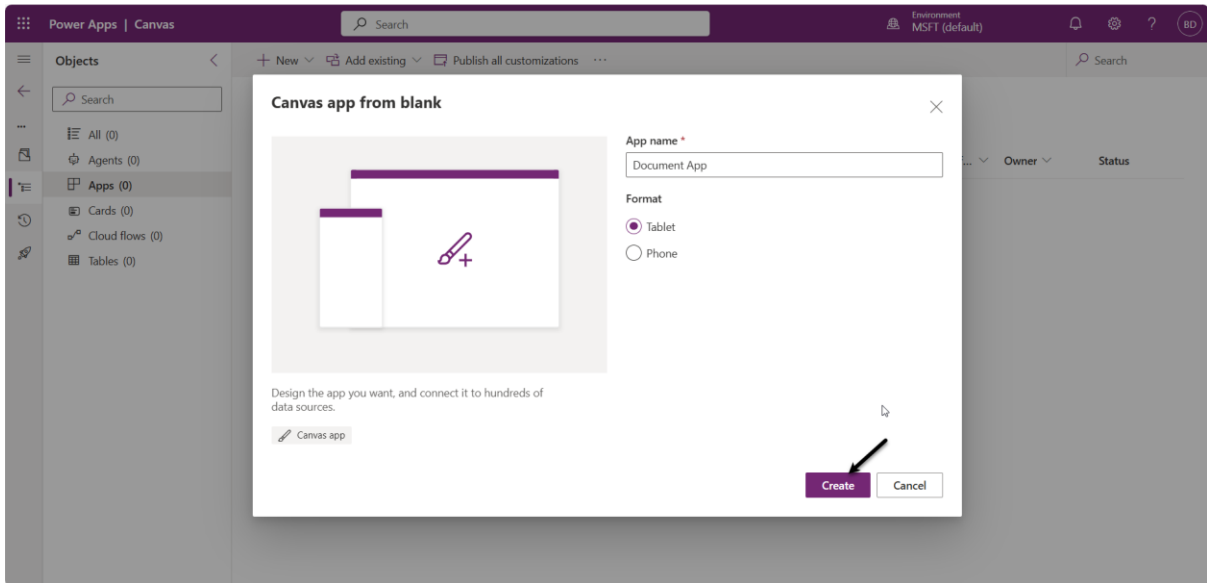
Please provide Display Name, Publisher and create.



## In Solution create an Canvas App

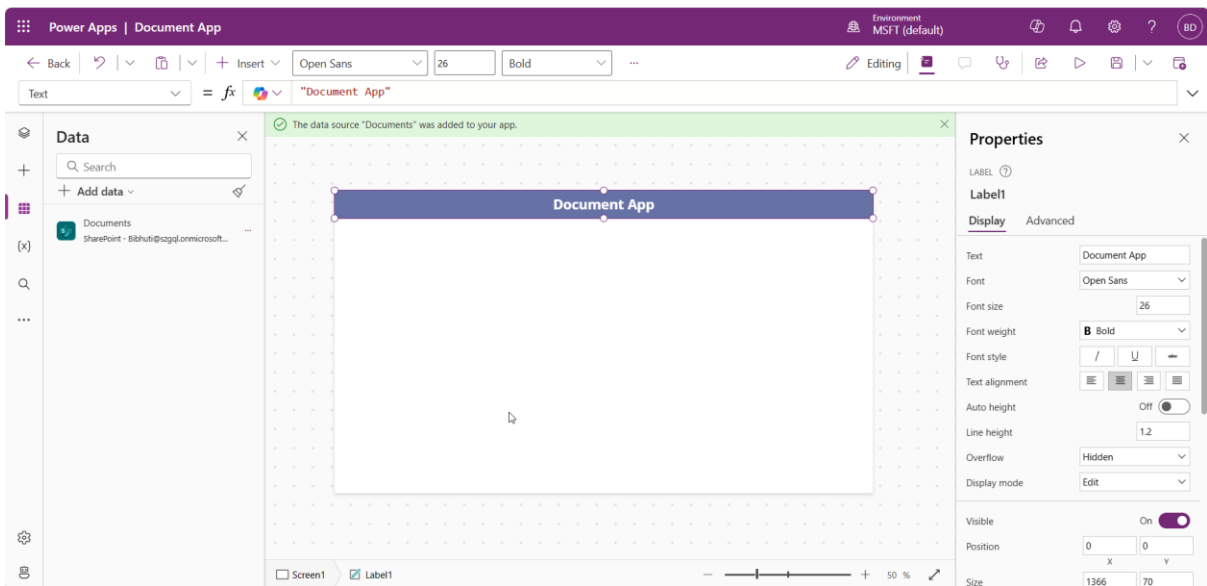


Choose Name of the app and create.

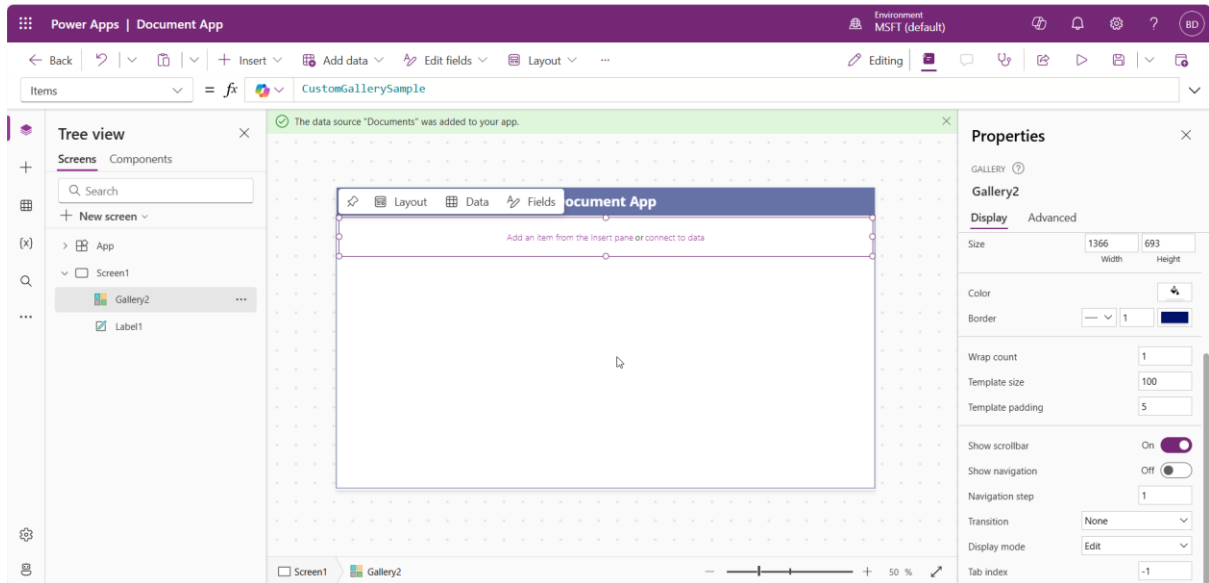


## Create A List Of Files And Folders Using A Gallery

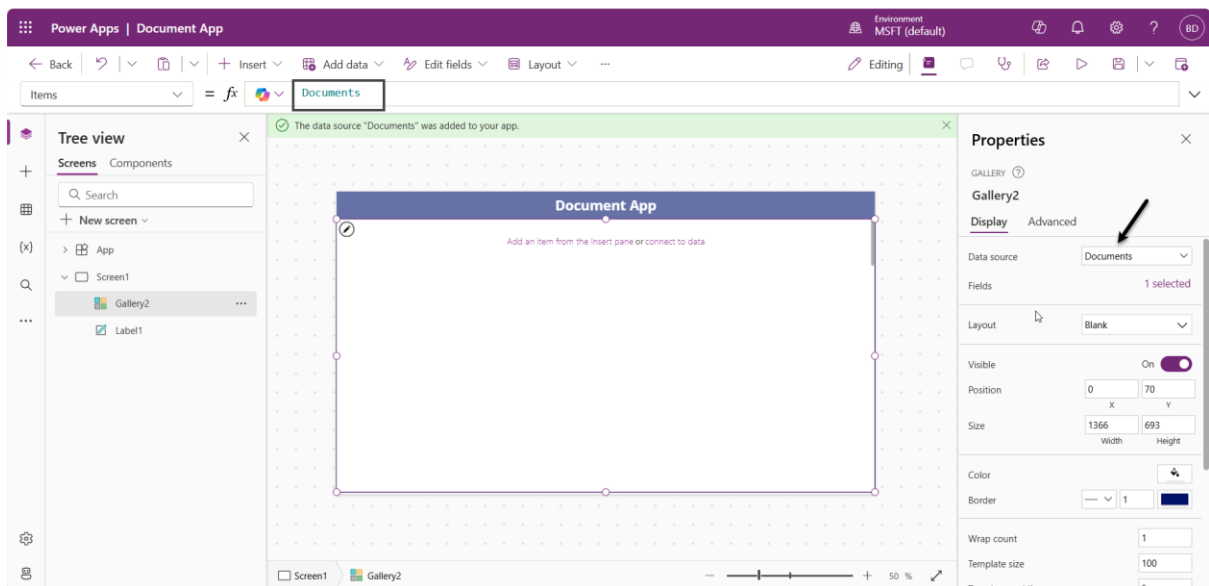
Insert a label to be used as a title bar at the top of the screen with the text “Document App”. Then connect the Customer Files SharePoint document library to the app as a data source.



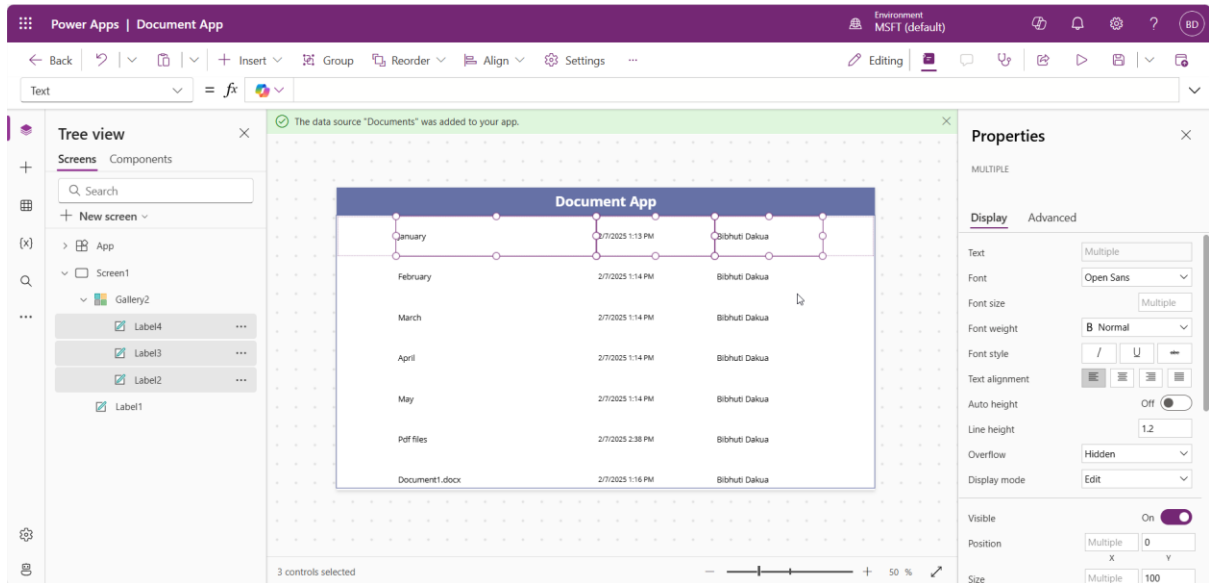
Next we will create a gallery to display the list of files & folders within the SharePoint document library. Create a gallery and place it in the empty space directly below the title bar.



Choose Documents as data source.



To display the file names/folder names, modified date and modified by add 3 new labels to the gallery as shown below.



and use this code in the Text property of each label.

```

ThisItem.'File name with extension'
ThisItem.Modified
ThisItem.'Modified By'.DisplayName

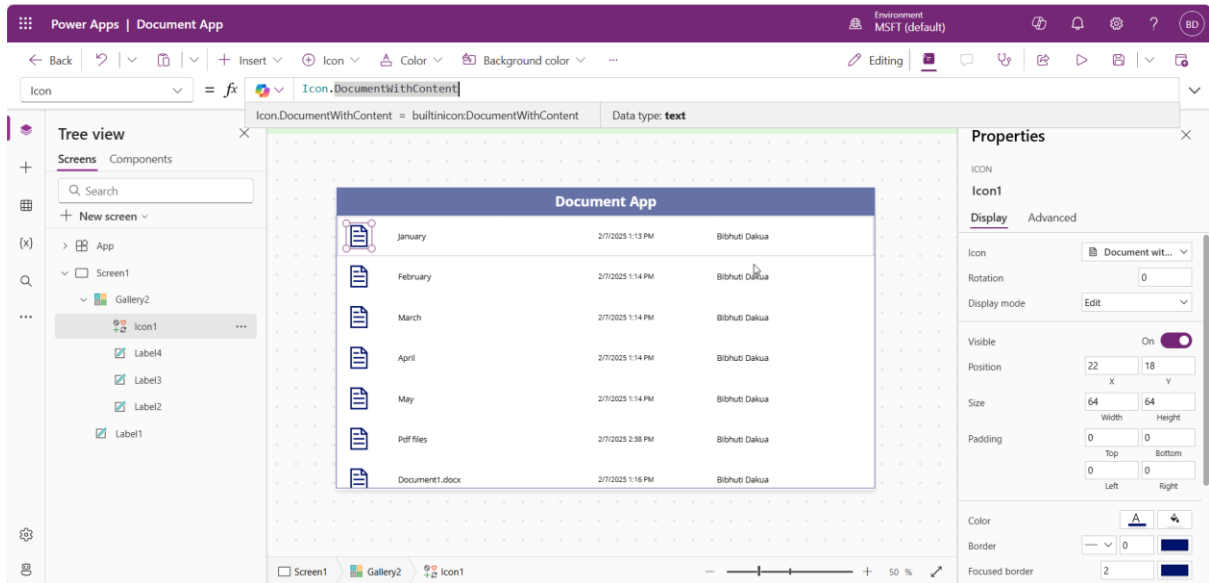
```

## Display File and Folder Icons In The Gallery

By looking at the icon to the left of the file or folder name, employees may immediately determine if they are looking at a file or a folder. Add a fresh icon to the gallery.

For that add a icon in the Gallery

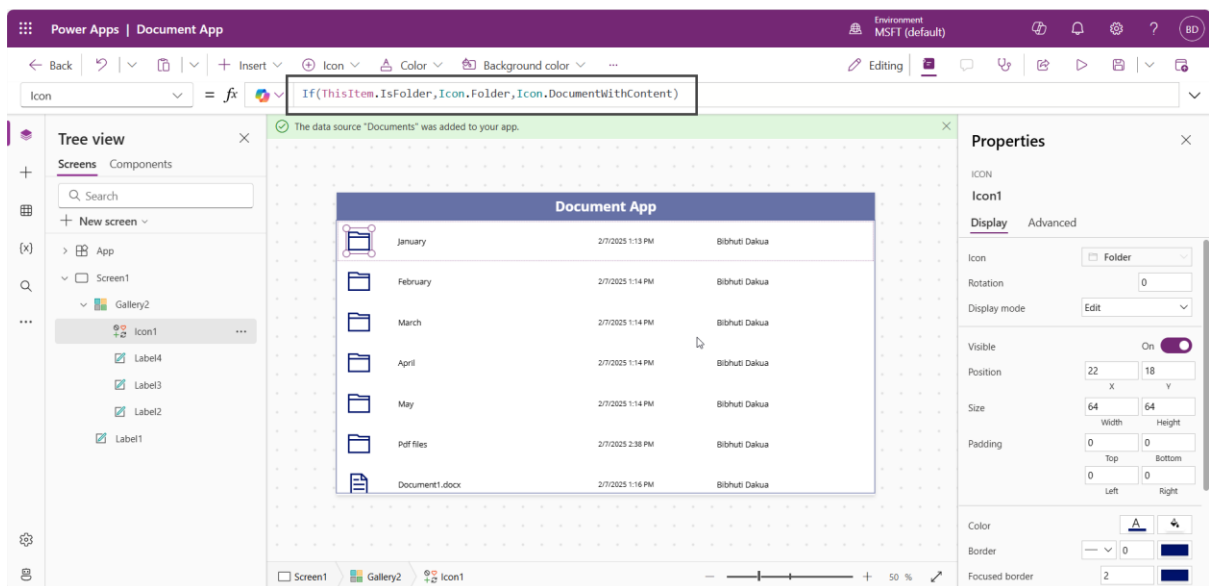
```
Icon.DocumentWithContent
```



However, we want a different image to appear in the row when looking at a folder.

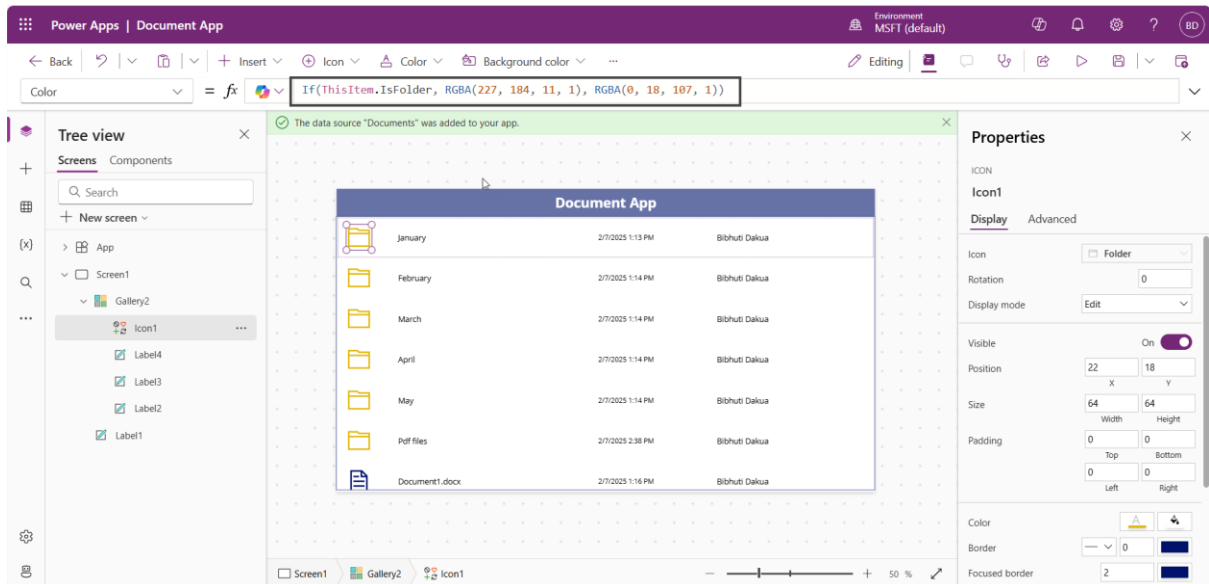
We can do this by updating the Icon property to the following code. Each object (files & folders) in the SharePoint library has a yes/no field called `IsFolder` included by default. We don't have to edit this value – it is automatically generated by the SharePoint document library.

`If(ThisItem.IsFolder, Icon.Folder, Icon.DocumentWithContent)`





To make it even easier for employees to tell the difference between files and folders we will give each icon a different colour.

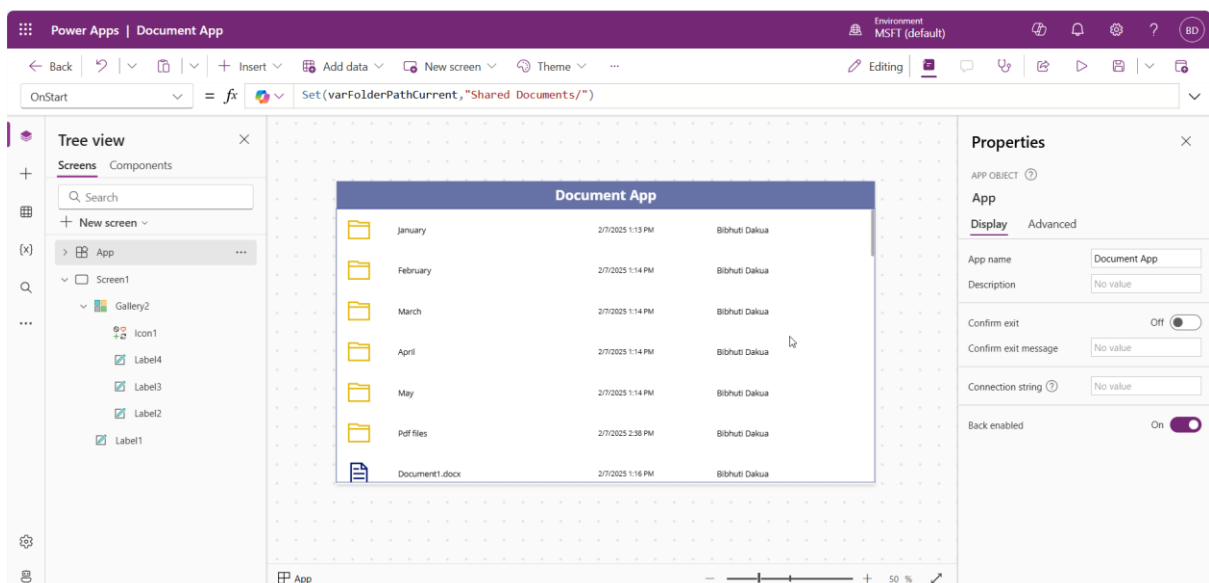


Use this color code in Colour section of icon

`If(ThisItem.IsFolder, RGBA(227, 184, 11, 1), RGBA(0, 18, 107, 1))`

## Show Only Files & Folders In The Current SharePoint Document Library Location

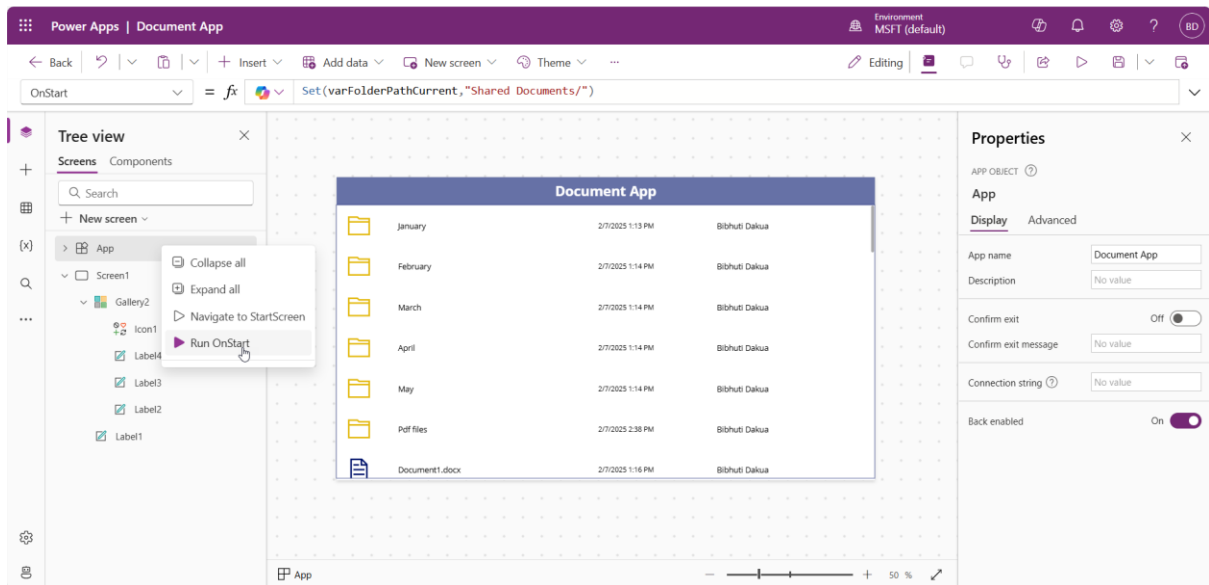
Employees use the Documents app to open files and folders stored in the SharePoint Document Library. Right now the list simply displays files and folders. To start building this feature we must create a variable to store the current location we are looking at inside the directory.



Open the OnStart property of the app and write this code.

```
Set(varFolderPathCurrent, "Shared Documents/")
```

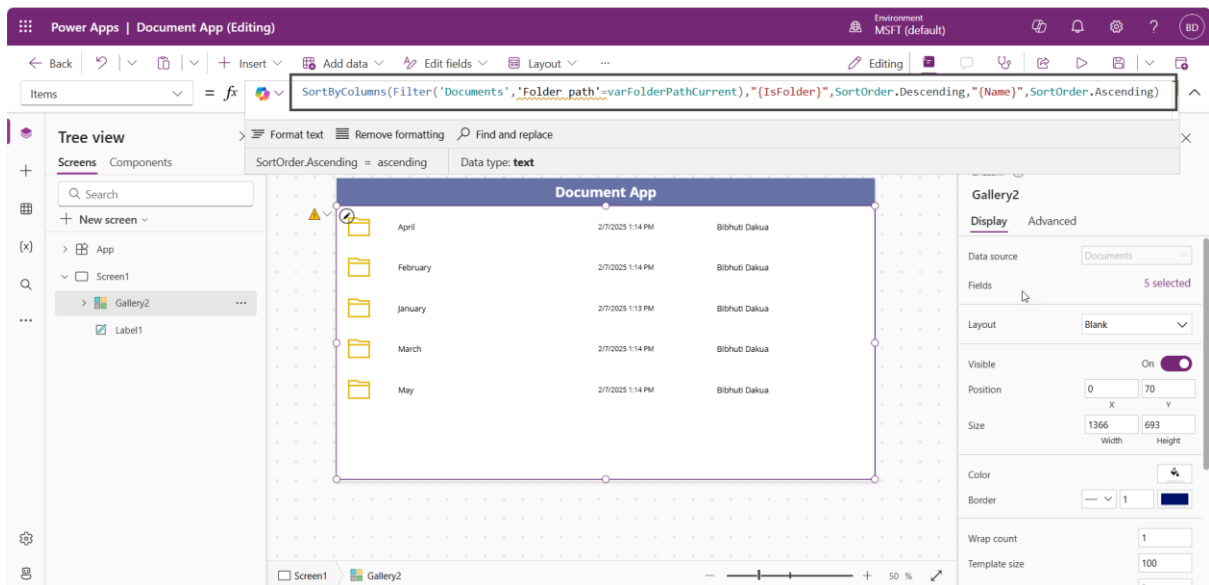
Then Run OnStart to update the variable to the main folder location – “Shared Documents/”.



Now that we know the current folder location we can use it to filter the gallery to show only files and folders in that location.

Replace any code in the Items property of the gallery with this code instead.

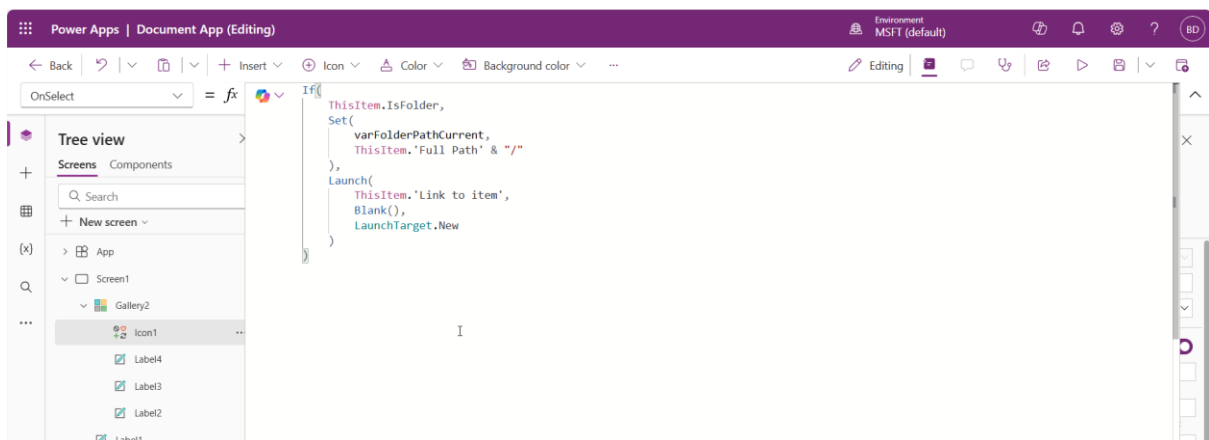
The Filter function includes only files and folders in the current location and the SortByColumns function orders folder 1st and files 2nd.



```
SortByColumns(Filter('Documents', 'Folder
path'=varFolderPathCurrent), "{IsFolder}", SortOrder.Descending, "{Name}",
SortOrder.Ascending)
```

## Open Files And Folders In The SharePoint Document Library

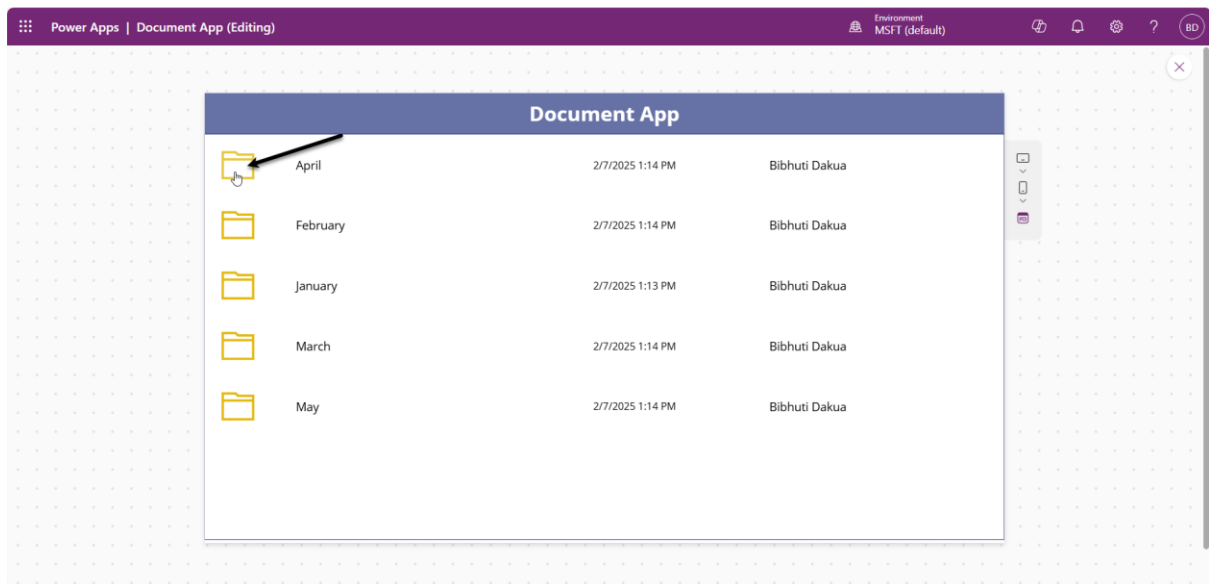
Next we need to implement a way to open files and folders in the document library. When an Employee selects a folder the gallery should display a new set of files & folders in that location. Or if a file is selected it should be opened in a new browser window.



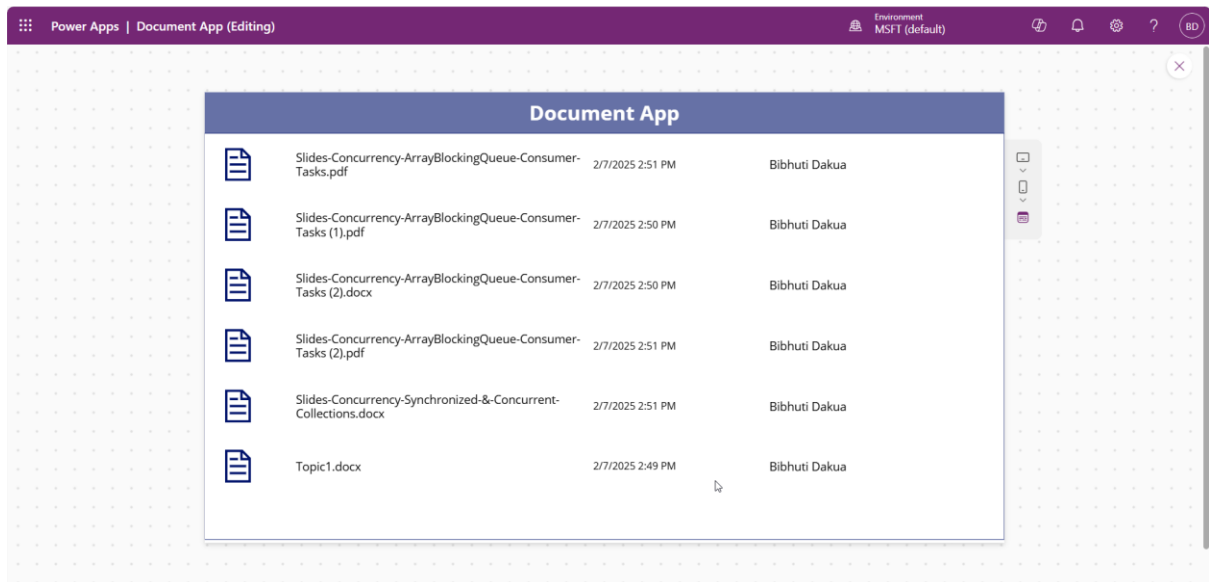
Write this code in the OnSelect property of the icon.

```
If(
  ThisItem.IsFolder,
  Set(
    varFolderPathCurrent,
    ThisItem.'Full Path' & "/"
  ),
  Launch(
    ThisItem.'Link to item',
    Blank(),
    LaunchTarget.New
  )
)
```

If we click on the folder icon like below



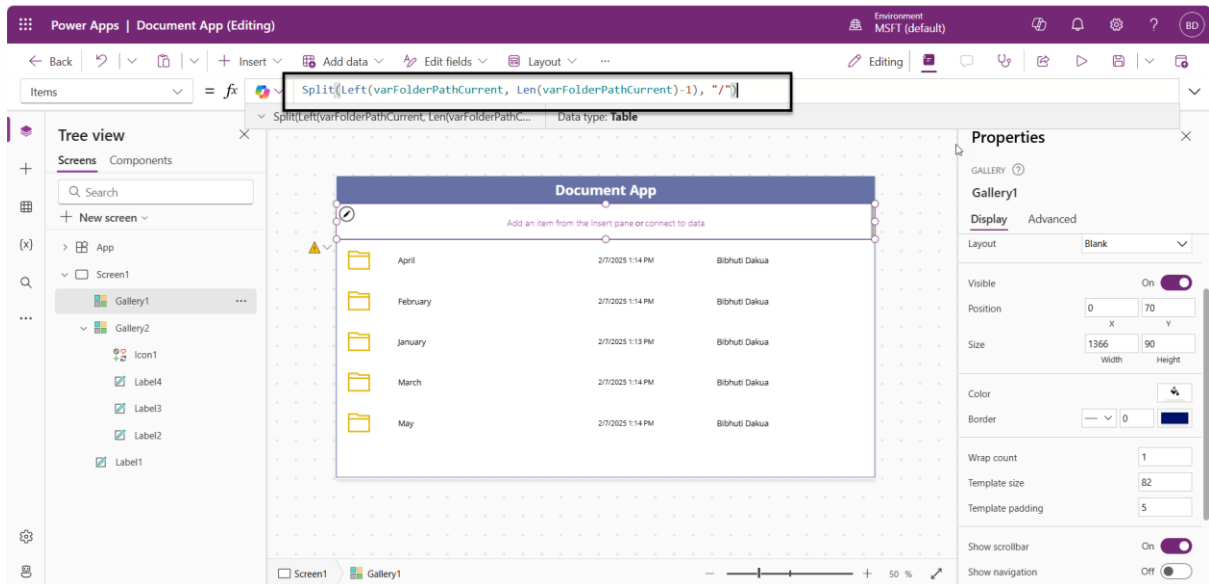
Then the folder will open and show all the files inside folder.



## Create A Breadcrumbs Navigation Menu To Show Current Folder Location

The Documents app still requires a way for users to understand the current location within the SharePoint document library hierarchy and the ability to up one or more levels to a previous folder. We can solve these issues by building a common UI element called breadcrumbs.

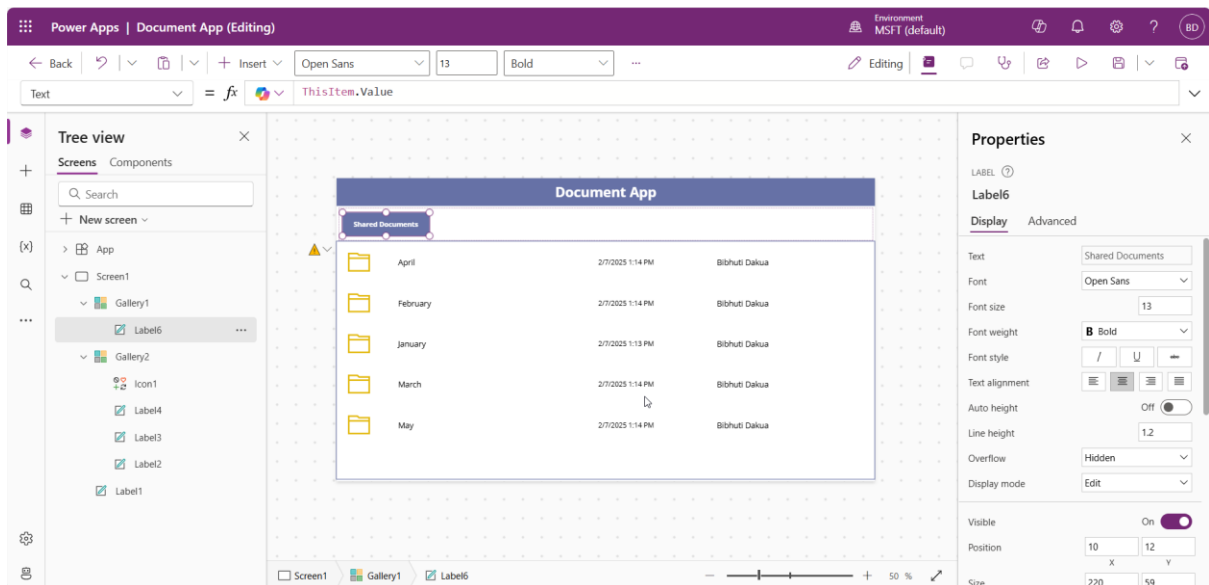
Insert a new blank horizontal gallery between the title bar and file browser gallery.



We want to load the gallery with a table of all the folders in the current folder path. Use this code to split the variable `varFolderPathCurrent` into one row for each folder

`Split(Left(varFolderPathCurrent, Len(varFolderPathCurrent)-1), "/")`

To display the folders as “breadcrumbs” create a new label inside the gallery.

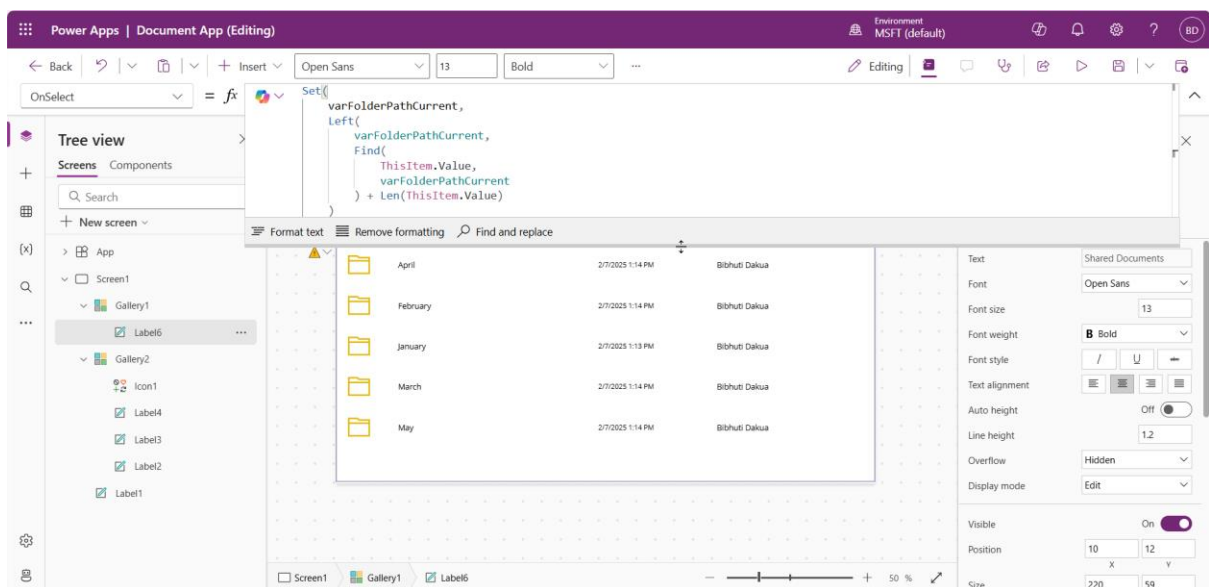


and use this code in the Text property. We reference the Value column which was created as the output of our Split function in the gallery Items property.

`ThisItem.Value`

## Go Back To A Previous Folder Using The Breadcrumbs Navigation Menu

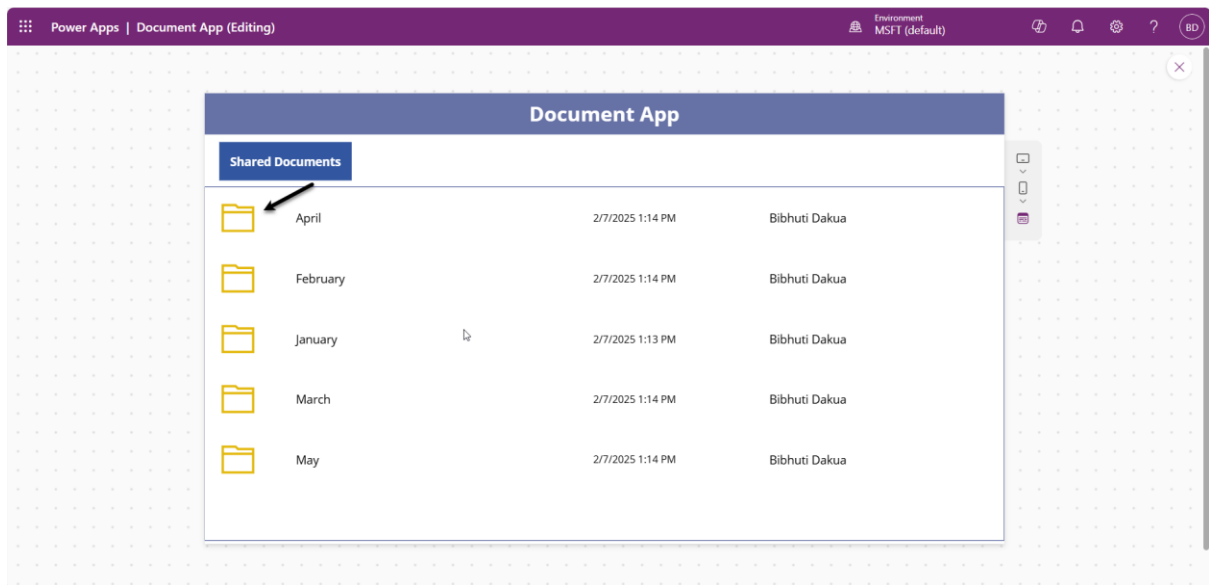
As Employees click through the folder structure their selections will be added to the breadcrumbs gallery. We should also give them the ability to go back to a previous folder when they click on the folder name.



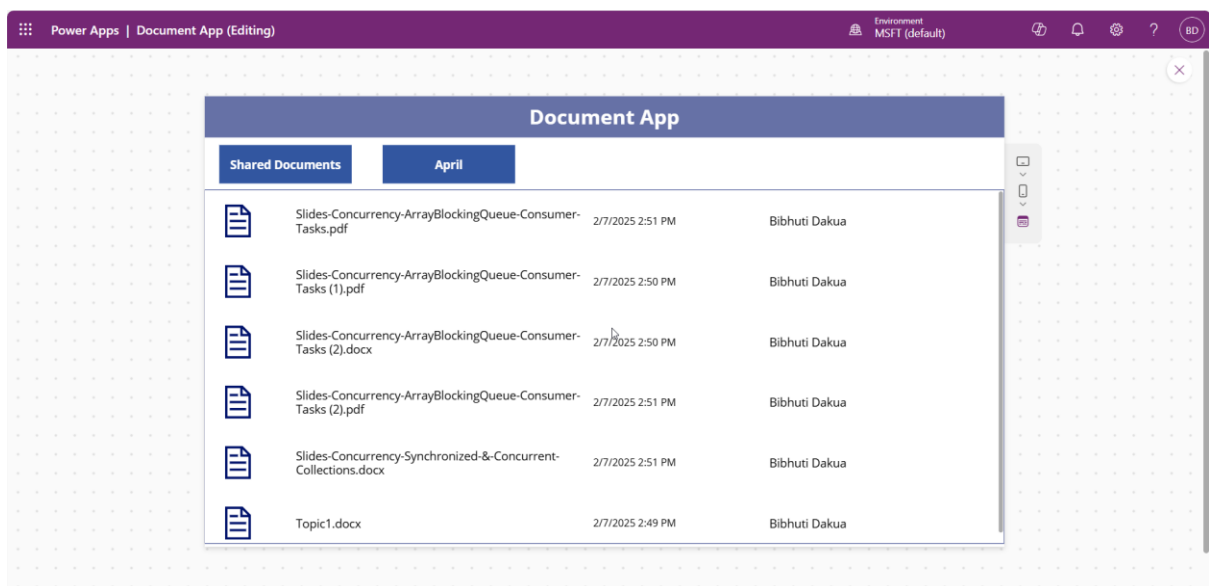
To do this, put the following code in the OnSelect property of the gallery. It returns the new folder path by taking the selected folder name and shortening the current folder path with a combination of the Left function and Find function.

```
Set(
    varFolderPathCurrent,
    Left(
        varFolderPathCurrent,
        Find(
            ThisItem.Value,
            varFolderPathCurrent
        ) + Len(ThisItem.Value)
    )
)
```

Now we can test the app.



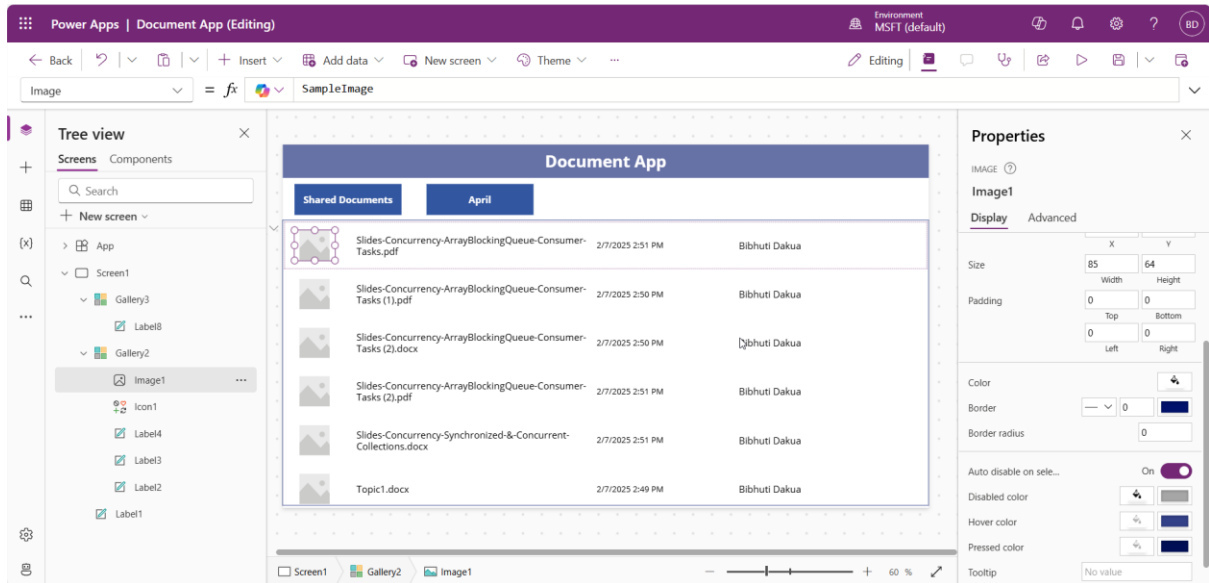
After clicking on the April folder. It will open April folder and show files inside that folder.



When I click on the Shared Document it will navigating back to root folder Shared Documents.

## Lets Show Folders and Files based on svg images

Now If you want to Show Folders and Files with different svg icons. Replace your Icon to Image.



In the Image property please add the following code

If(

`ThisItem.IsFolder,`

`"data:image/svg+xml;utf8,%3Csvg%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%20x%3D%270px%27%20y%3D%270px%27%20width%3D%27100%27%20height%3D%27100%27%20viewBox%3D%270%200%2048%2048%27%3E%3Cpath%20fill%3D%27%23FFA000%27%20d%3D%27M40%2C12H22l-4-4H8c-.2%2C0-.4%2C1.8-4%2C4v8h40v-4C44%2C13.8%2C42.2%2C12%2C40%2C12z'%3E%3C/path%3E%3Cpath%20fill%3D%27%23FFCA28%27%20d%3D%27M40%2C12H8c-.2%2C0-.4%2C1.8-4%2C4v20c0%2C2.2%2C1.8%2C4%2C4%2C4h32c2.2%2C0%2C4-1.8%2C4-4V16C44%2C13.8%2C42.2%2C12%2C40%2C12z'%3E%3C/path %3E %3C/svg %3E",`

`EndsWith(ThisItem.'File name with extension', "docx"),`

`"data:image/svg+xml;utf8,%3Csvg%20viewBox%3D%270%200%202048%202048%27%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%3E%3Cpath%20d%3D%27M2048%20475v1445q0%2027-10%2050t-27%2040-41%2028-50%2010H640q-27%200-50-10t-40-27-28-41-10-50v-256H115q-24%200-44-9t-37-25-25-36-9-45V627q0-24%209-44t25-37%2036-25%2045-9h397V128q0-27%2010-50t27-40%2041-28%2050-10h933q26%200%2049%209t42%20281347%20347q18%2018%2027%2041t10%2050zm-384-256v165h165l-165-165zM320%201424h161q2-8%209-43t18-83%2021-103%2022-101%2016-76%208-3117%2030q7%2030%2017%2077t23%20100%2023%20103%2019%2084%2010%2043h160l148-672H834l-80%20438-100-438H502l-96%20440-86-440H170l150%20672zm320%20496h1280V512h-256q-27%200-50-10t-40-27-28-41-10-50V128H640v384h397q24%200%2044%209t37%2025%2025%2036%209%2045v922q0%202`



4-9%2044t-25%2037-36%2025-45%209H640v256zm640-1024V768h512v128h-512zm0%20256v-128h512v128h-512zm0%20256v-128h512v128h-512z%27%20fill%3D%27%230078d4%27%3E%3C%2Fpath%3E%3C%2Fsvg%3E",

// Excel icon

EndsWith(ThisItem.'File name with extension', "xlsx"),

"data:image/svg+xml;utf8,

%3Csvg%20%20viewBox%3D%270%200%202048%202048%27%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%3E%3Cpath%20d%3D%27M2048%20475v1445q0%2027-10%2050t-27%2040-41%2028-50%2010H640q-27%200-50-10t-40-27-28-41-10-50v-256H115q-24%200-44-9t-37-25-25-36-9-45V627q0-24%209-44t25-37%2036-25%2045-9h397V128q0-27%2010-50t27-40%2041-28%2050-10h933q26%200%2049%209t42%20281347%20347q18%2018%2027%2041t10%2050zm-384-256v165h165l-165-165zM261%201424h189q2-4%2012-23t25-45%2029-55%2029-53%2023-41%2010-17q27%2059%2060%20118t65%20116h187l-209-339%20205-333H707q-31%2057-60%20114t-63%20112q-29-57-57-113t-57-113H279l199%20335-217%20337zm379%20496h1280V512h-256q-27%200-50-10t-40-27-28-41-10-50V128H640v384h397q24%200%2044%209t37%2025%2025%2036%209%2045v922q0%2024-9%2044t-25%2037-36%2025-45%209H640v256zm640-1024V768h512v128h-512zm0%20256v-128h512v128h-512z%27%20fill%3D%27%230b6a0b%27%3E%3C%2Fpath%3E%3C%2Fsvg%3E",

// PowerPoint icon

EndsWith(ThisItem.'File name with extension', "pptx"),

"data:image/svg+xml;utf8,

%3Csvg%20%20viewBox%3D%270%200%202048%202048%27%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%3E%3Cpath%20d%3D%27M2048%20475v1445q0%2027-10%2050t-27%2040-41%2028-50%2010H640q-27%200-50-10t-40-27-28-41-10-50v-256H115q-24%200-44-9t-37-25-25-36-9-45V627q0-24%209-44t25-37%2036-25%2045-9h397V128q0-27%2010-50t27-40%2041-28%2050-10h933q26%200%2049%209t42%20281347%20347q18%2018%2027%2041t10%2050zm-384-256v165h165l-165-165zM368%20752v672h150v-226h100q52%200%2097-15t78-46%2053-72%2020-97q0-56-17-97t-50-67-76-39-97-13H368zm1552%201168V512h-256q-27%200-50-10t-40-27-28-41-10-50V128H640v384h397q24%200%2044%209t37%2025%2025%2036%209%2045v922q0%2024-9%2044t-25%2037-36%2025-45%209H640v256h1280zM1536%20640q79%200%20149%2030t122%2082%2083%20123%2030%20149h-384V640zm-128%20128v384h384q0%2080-30%20149t-82%20122-123%2083-149%2030q-33%200-65-6t-63-18V792q31-11%2063-17t65-7zm-804%20300h-86V883h90q47%200%2074%2020t27%2070q0%2052-28%2073t-77%2022z%27%20fill%3D%27%23ca5010%27%3E%3C%2Fpath%3E%3C%2Fsvg%3E",

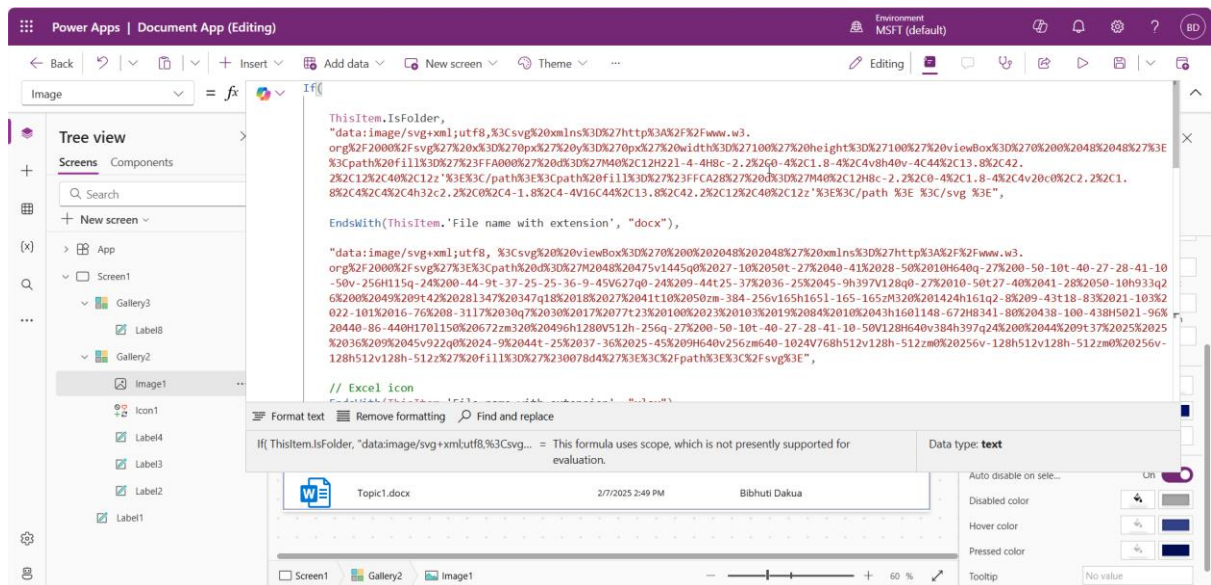
EndsWith(ThisItem.'File name with extension', "pdf"),

"data:image/svg+xml;utf8,

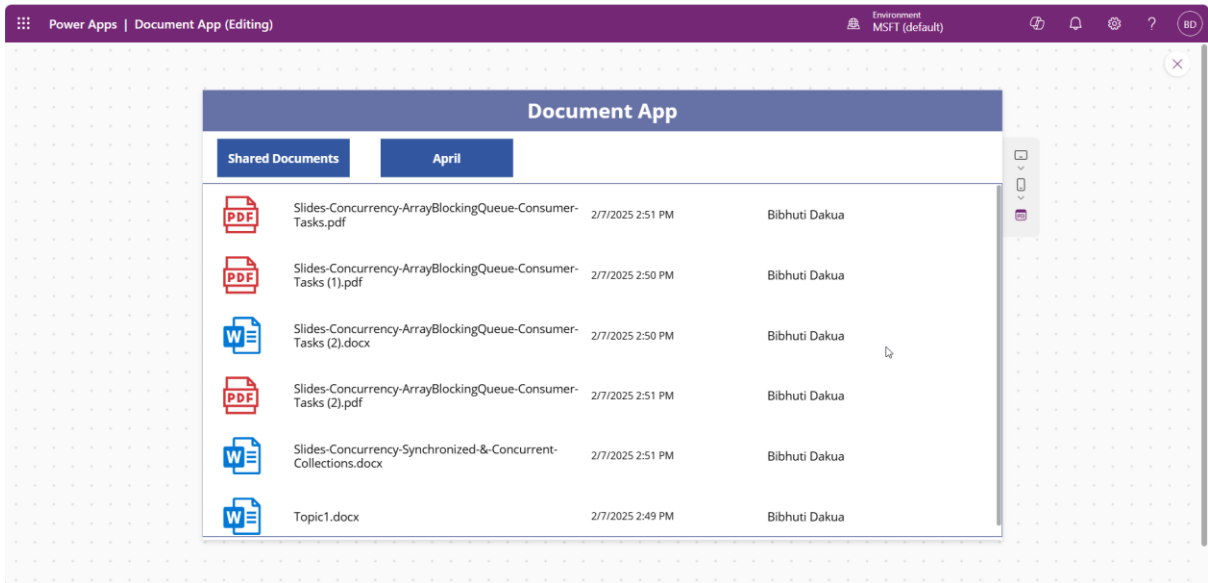
%3Csvg%20%20viewBox%3D%270%200%202048%202048%27%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%3E%3Cpath%20d%3D%27M1920%201664h-128v384H128v-

384H0V640h128V0h1243l421%20421v219h128v1024zm1408%20384h165l-165-165v165zm256%20640h1408V512h-384V128H256v512zm1408%201024H256v256h1408v-256zm128-896H128v768h1664V768zm448%20896q40%200%2075%2015t61%2041%2041%2061%2015%2075q0%2040-15%2075t-41%2061-61%2041-75%2015h-64v128H256V896h192zm0%20256q26%200%2045-19t19-45q0-26-19-45t-45-19h-64v128h64zm448-256q53%200%2099%2020t82%2055%2055%2081%2020%20100q0%2053-20%2099t-55%2082-81%2055-100%2020H768V896h128zm0%20384q27%200%2050-10t40-27%2028-41%2010-50q0-27-10-50t-27-40-41-28-50-10v256zm384-384h320v128h-192v128h192v128h-192v128h-128V896z%27%20fill%3D%27%23d13438%27%3E%3C%2Fpath%3E%3C%2Fsvg%3E",

"data:image/svg+xml;utf8,  
 %3Csvg%20%20viewBox%3D%270%200%202048%202048%27%20xmlns%3D%27http%3A%2F%2Fwww.w3.org%2F2000%2Fsvg%27%3E%3Cpath%20d%3D%27M1243%2001549%20549v1499H128V0h115zm37%20219v293h293l-293-293zm256%201920h1408V640h-512V128H256v1792zm256-896V896h896v128H512zm0%20256v-128h896v128H512zm0%20256v-128h896v128H512z%27%20fill%3D%27%237a7574%27%3E%3C%2Fpath%3E%3C%2Fsvg%3E"  
 )

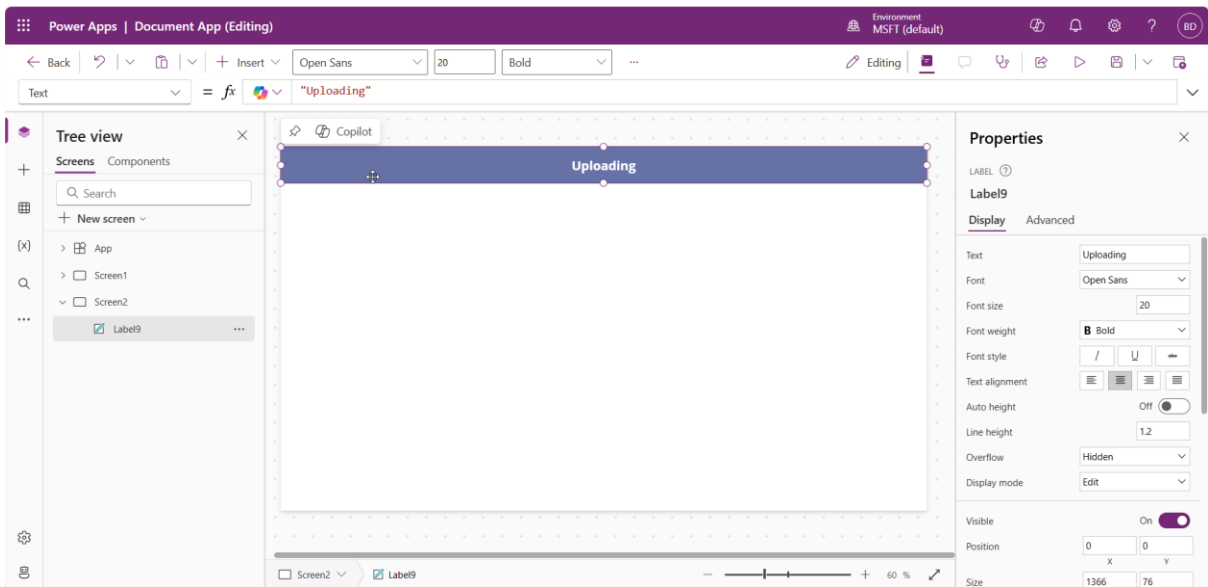


Now the file s will be visible like below.

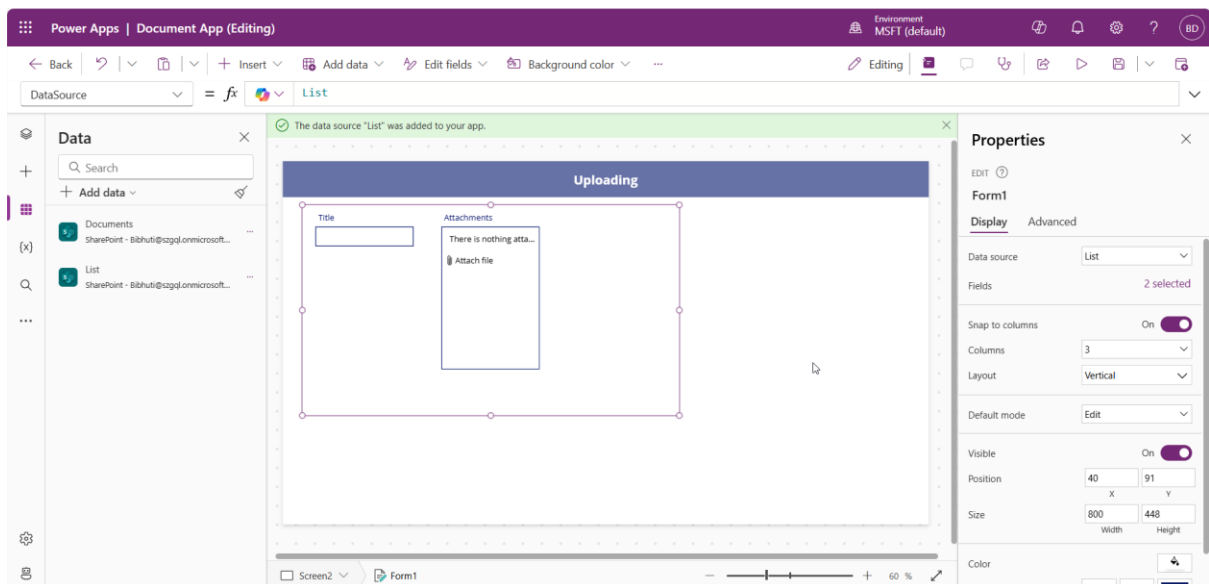
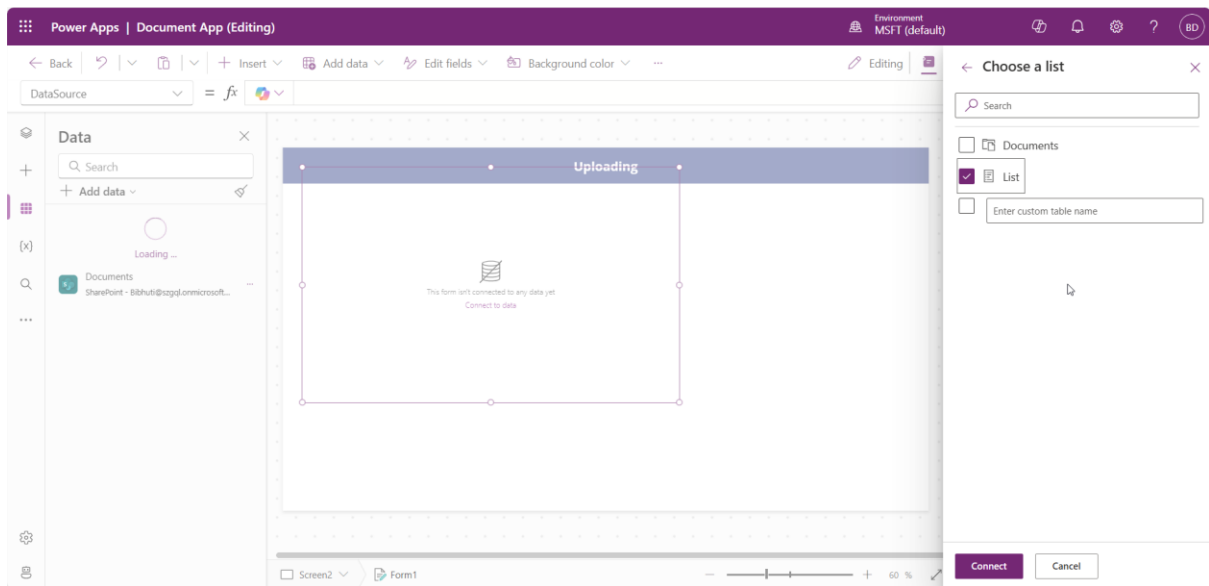


Now Lets create a screen for uploading the documents.

Create a new screen add a label for title bar.

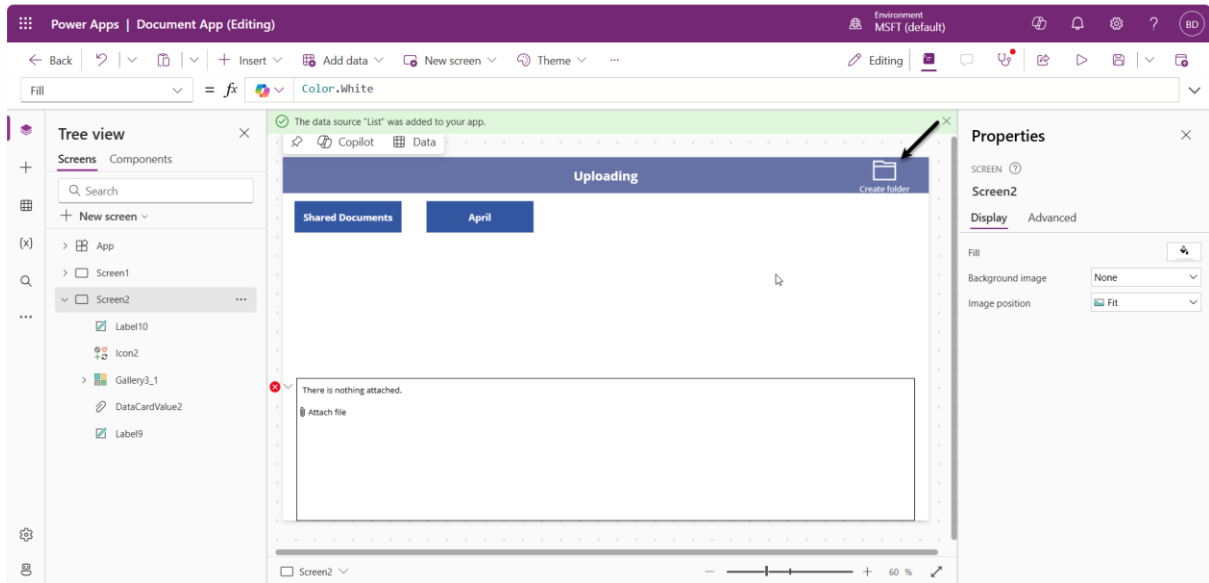


Then add form with list attachment and cut the attachment.also delete the form.



Now add the Breadcrumbs Navigation Menu like before below title bar.

Add a folder icon in the title bar.



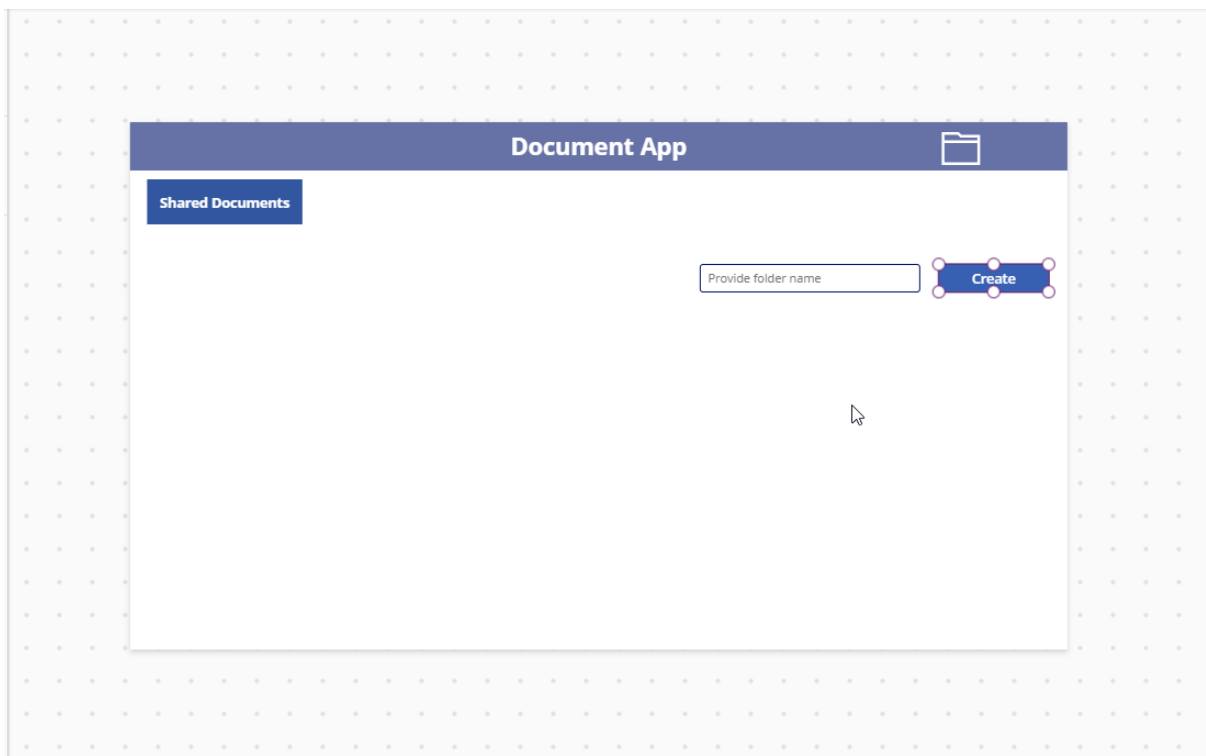
In OnSelect of the Folder icon please add below code

```
UpdateContext({createfolder:!createfolder})
```

In Icon property of folder please add

```
If(createfolder,Icon.CancelBadge, Icon.Folder)
```

Then add a Input text and a button to provide folder name before creating folder.

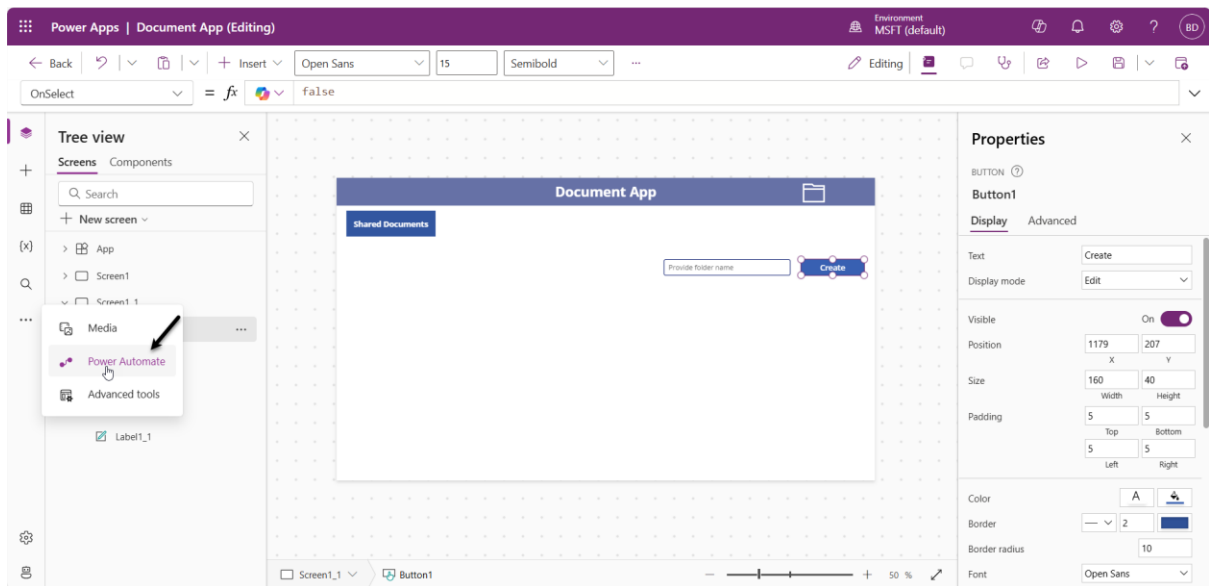


Before that make the create folder variable value as false in the Screen onVisible property

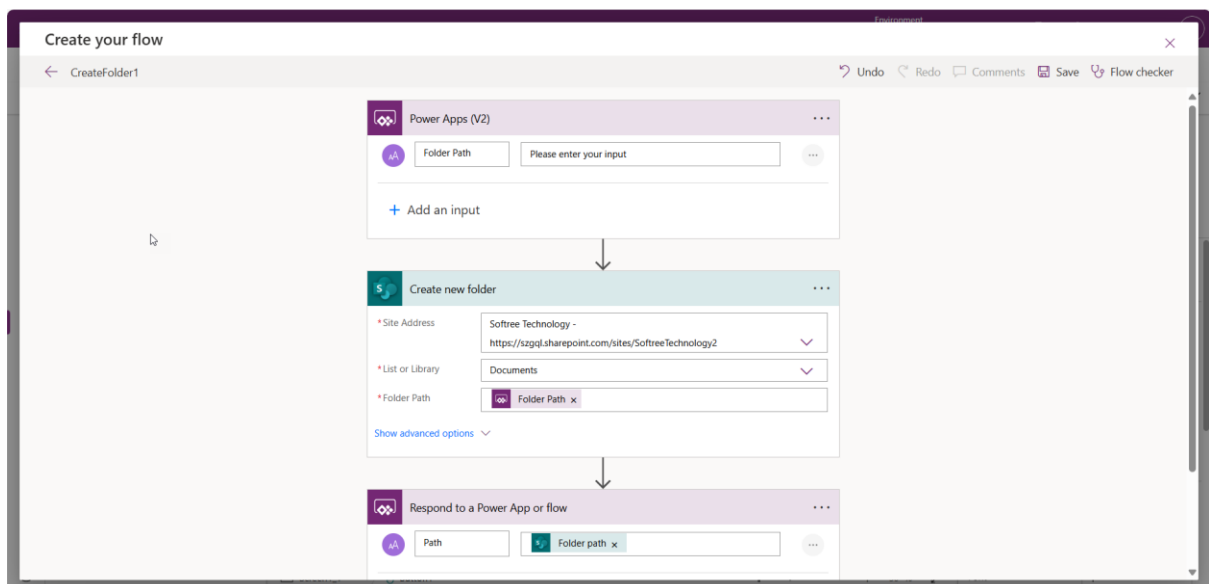
```
UpdateContext({createfolder:false});
```

Now we will create a flow for creating a folder inside document library.

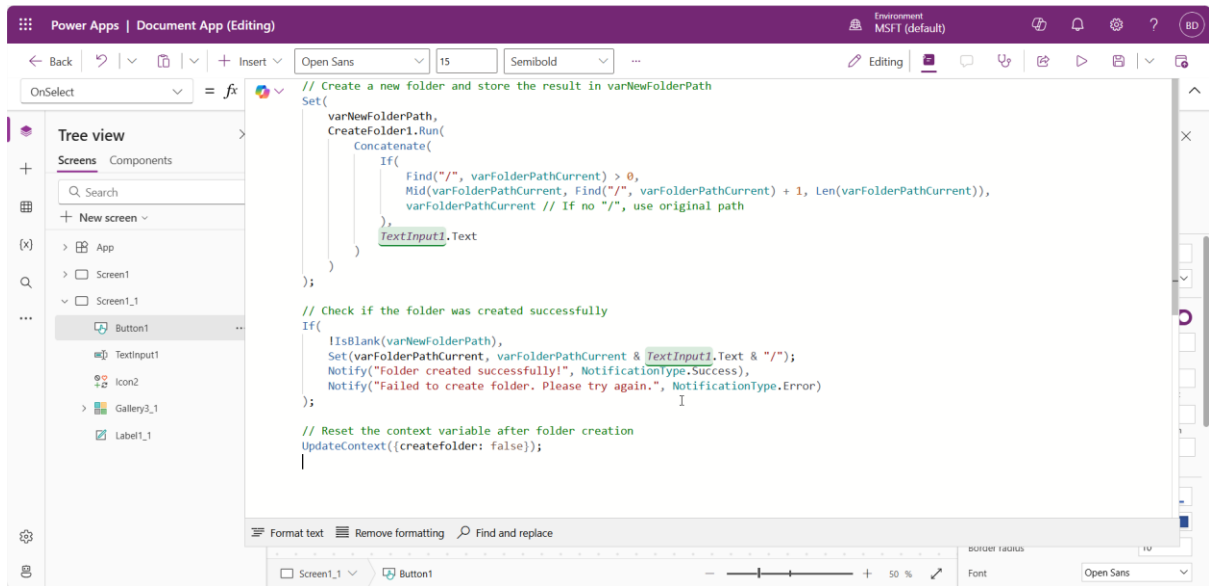
For that add a Power automate flow like below



Create a flow from blank. And create like below image



Add the below code on create button on the screen,

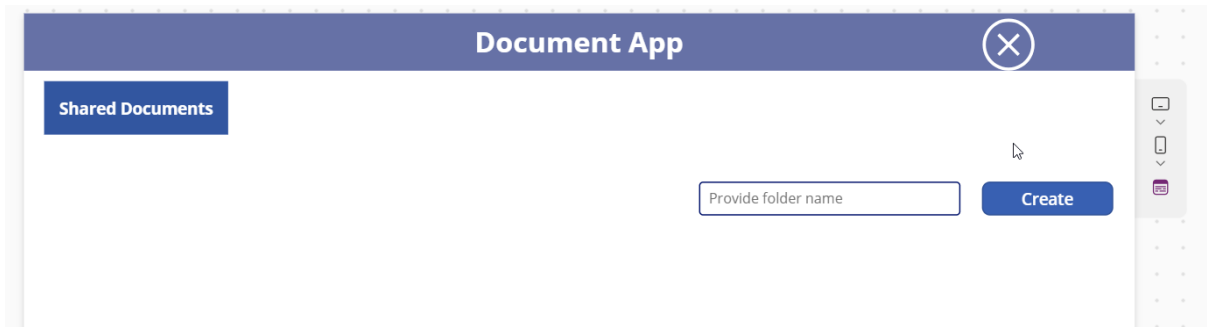


```
// Create a new folder and store the result in varNewFolderPath
Set(
  varNewFolderPath,
  CreateFolder1.Run(
    Concatenate(
      If(
        Find("/", varFolderPathCurrent) > 0,
        Mid(varFolderPathCurrent, Find("/",
varFolderPathCurrent) + 1, Len(varFolderPathCurrent)),
        varFolderPathCurrent // If no "/", use original path
      ),
      TextInput1.Text
    )
  );
// Check if the folder was created successfully
If(
  !IsBlank(varNewFolderPath),
  Set(varFolderPathCurrent, varFolderPathCurrent & TextInput1.Text &
"/");
  Notify("Folder created successfully!", NotificationType.Success),
  Notify("Failed to create folder. Please try again.",
NotificationType.Error)
);
// Reset the context variable after folder creation
UpdateContext({createfolder: false});
```

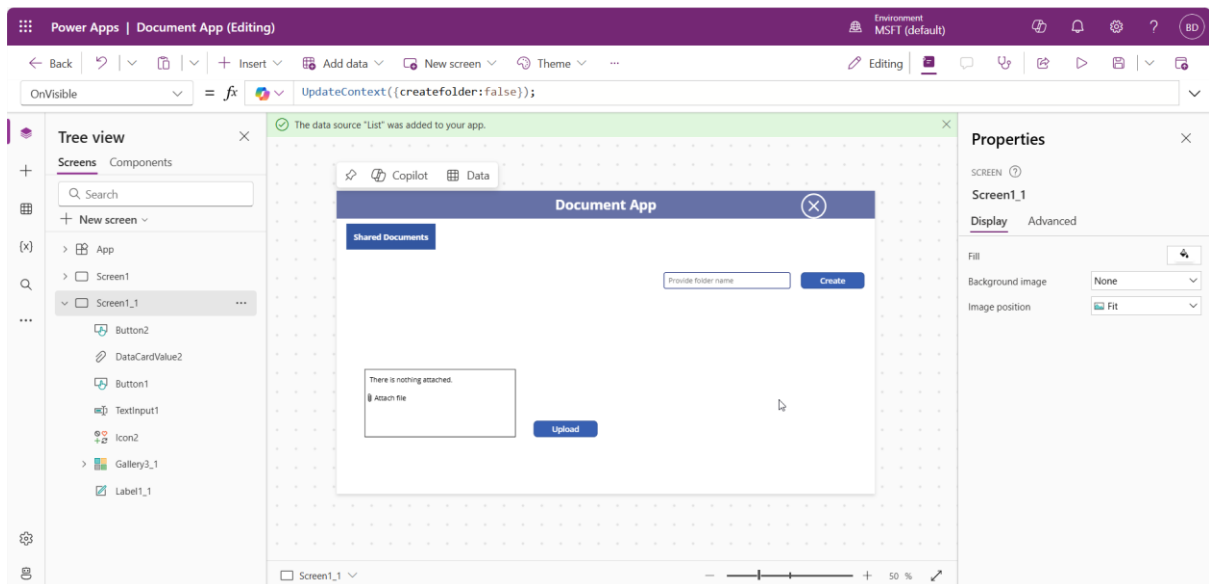
```
// Check if the folder was created successfully
If(
  !IsBlank(varNewFolderPath),
  Set(varFolderPathCurrent, varFolderPathCurrent & TextInput1.Text &
"/");
  Notify("Folder created successfully!", NotificationType.Success),
  Notify("Failed to create folder. Please try again.",
NotificationType.Error)
);
```

```
// Reset the context variable after folder creation
UpdateContext({createfolder: false});
```

If we click on folder icon then we will get the input text and button visible like below

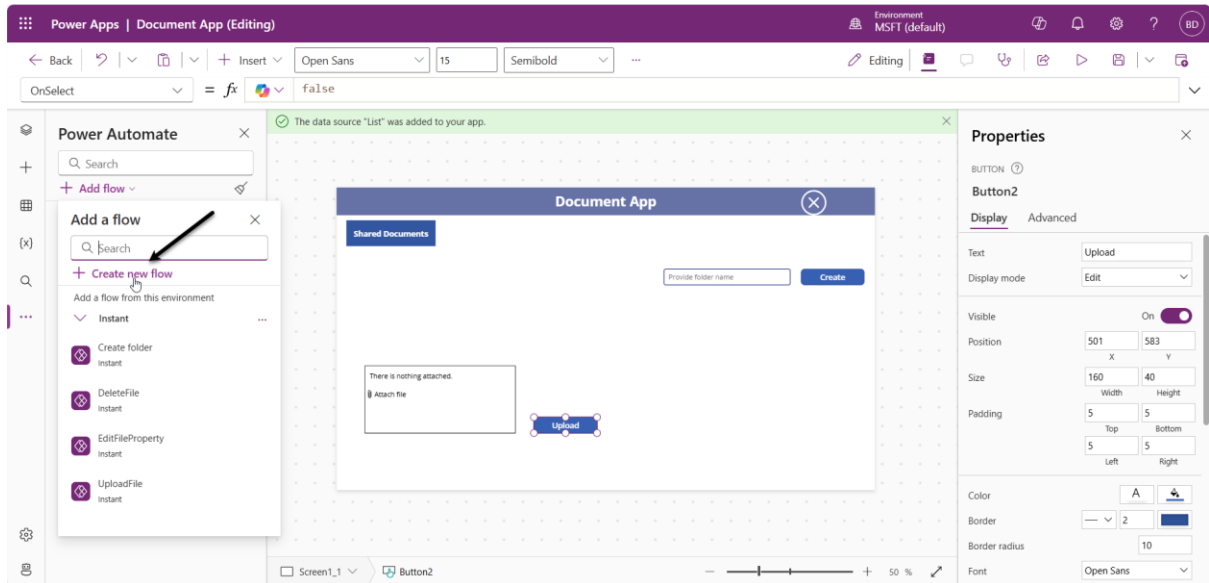


Now lets add controls for upload document like below image

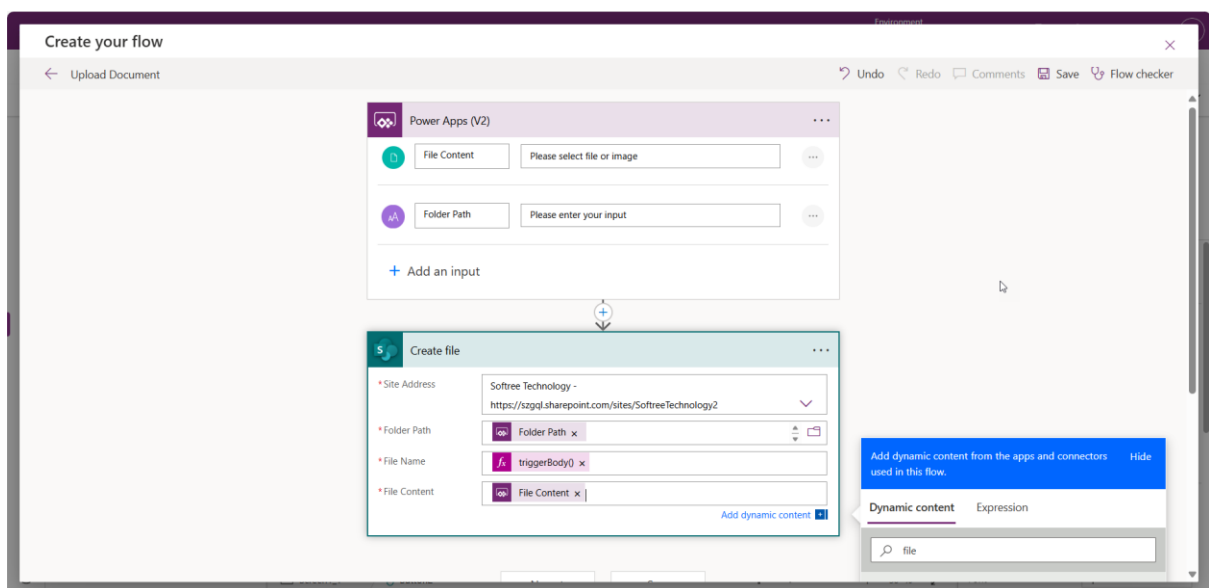


Now lets create a flow to upload files to document library.





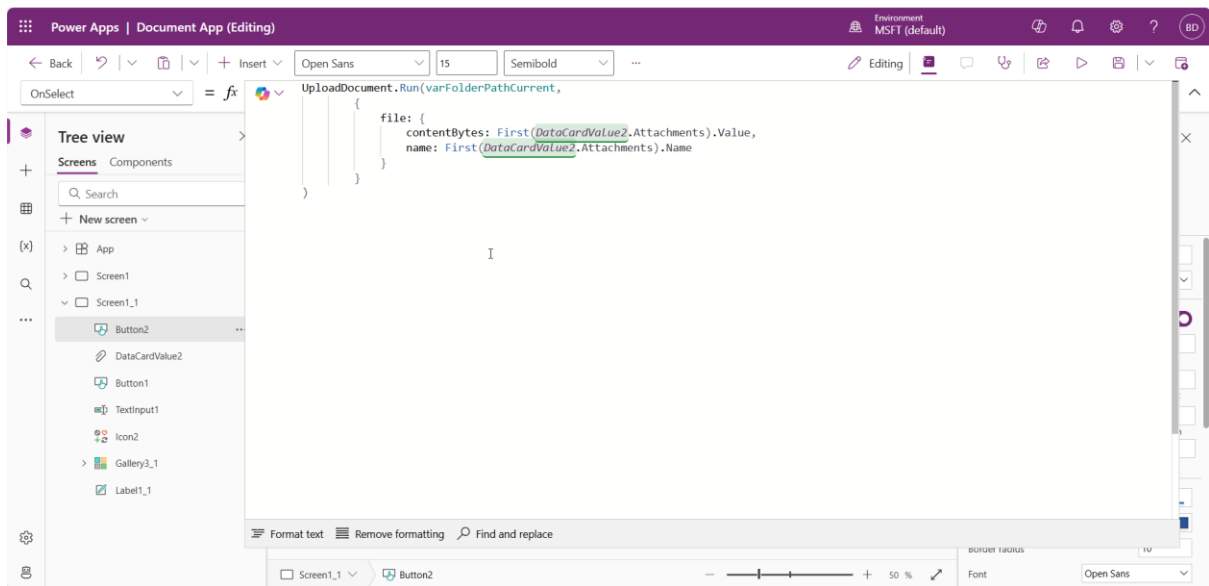
Create a flow like below



In create file connector please provide site url

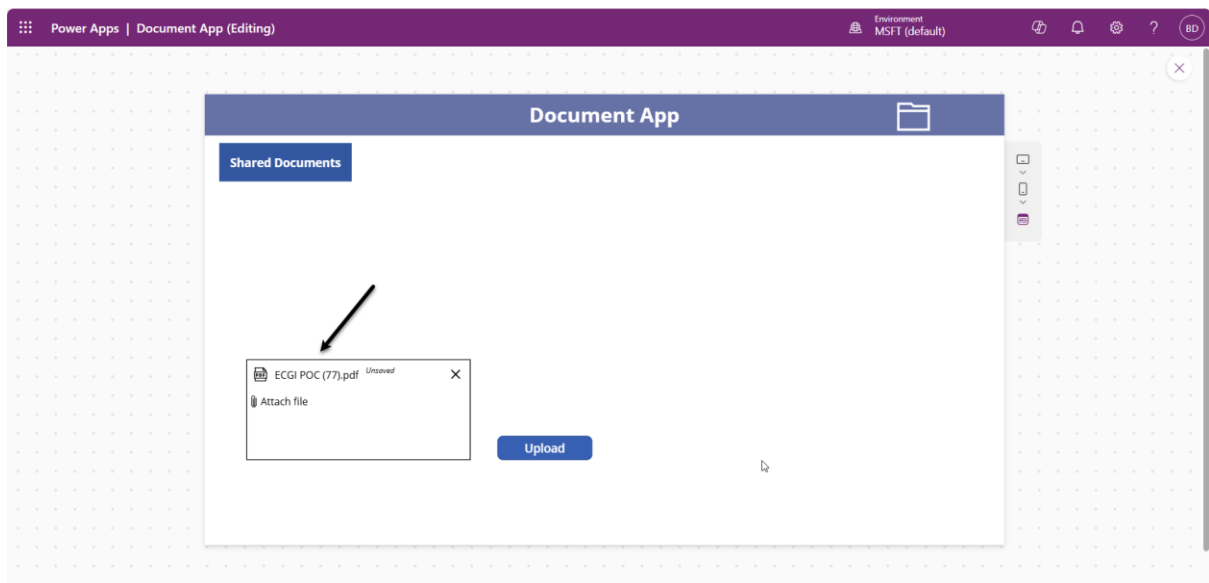
In folder path provide folder path from input. File name: `triggerbody()['file']]['name']` and in file content input file content.

In Power apps Upload button on click please provide below code

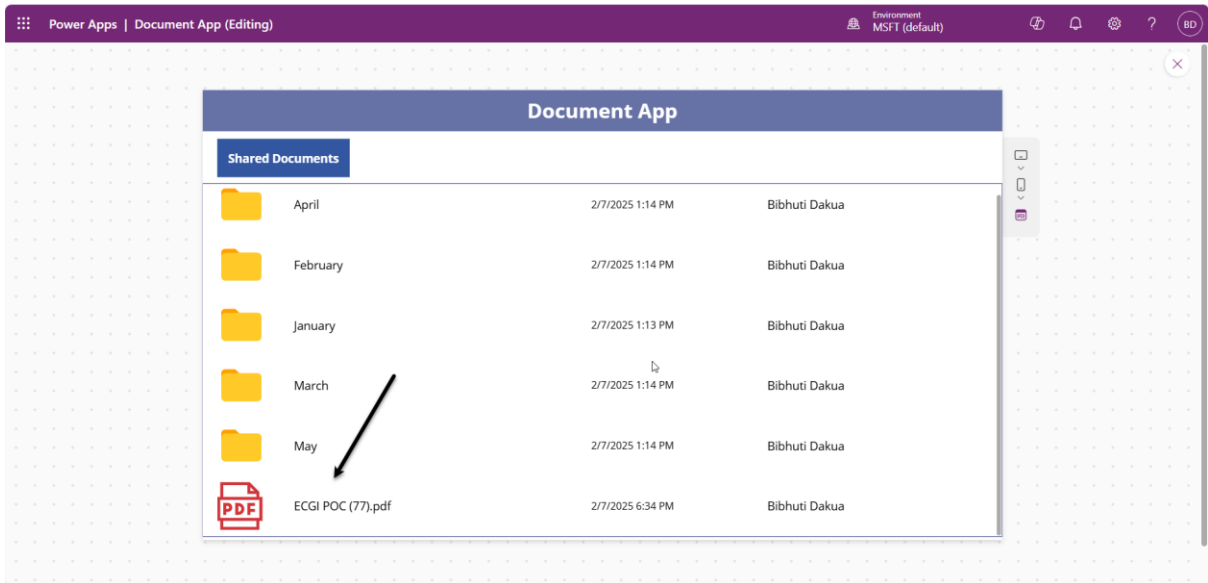


```
UploadDocument.Run(varFolderPathCurrent,  
  {  
    file: {  
      contentBytes: First(DataCardValue2.Attachments).Value,  
      name: First(DataCardValue2.Attachments).Name  
    }  
  }  
)
```

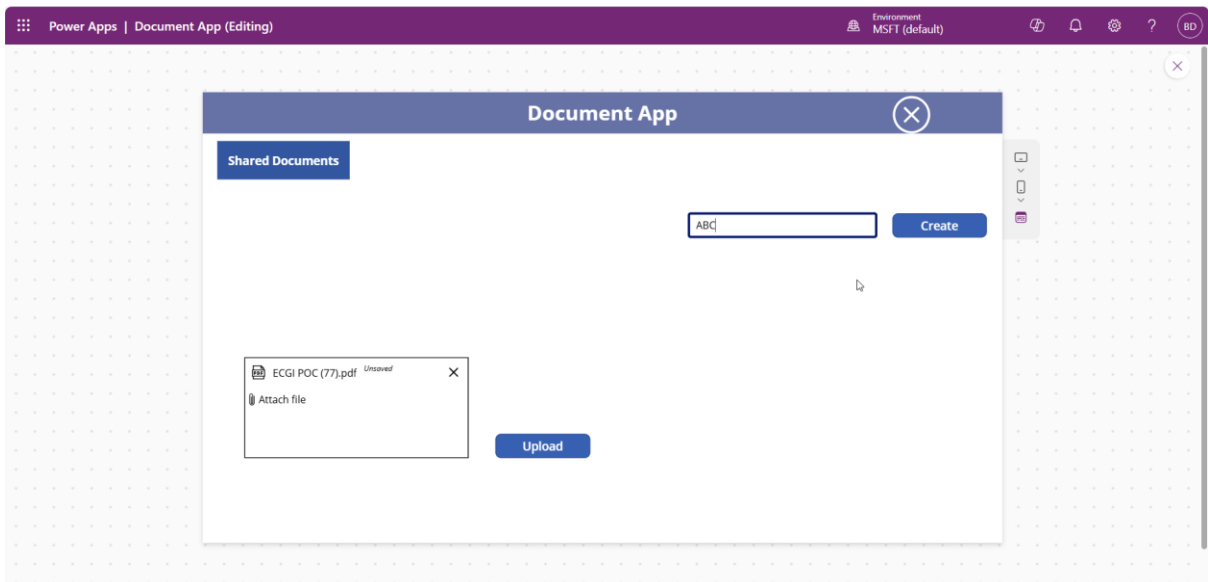
Now let add a file to library.



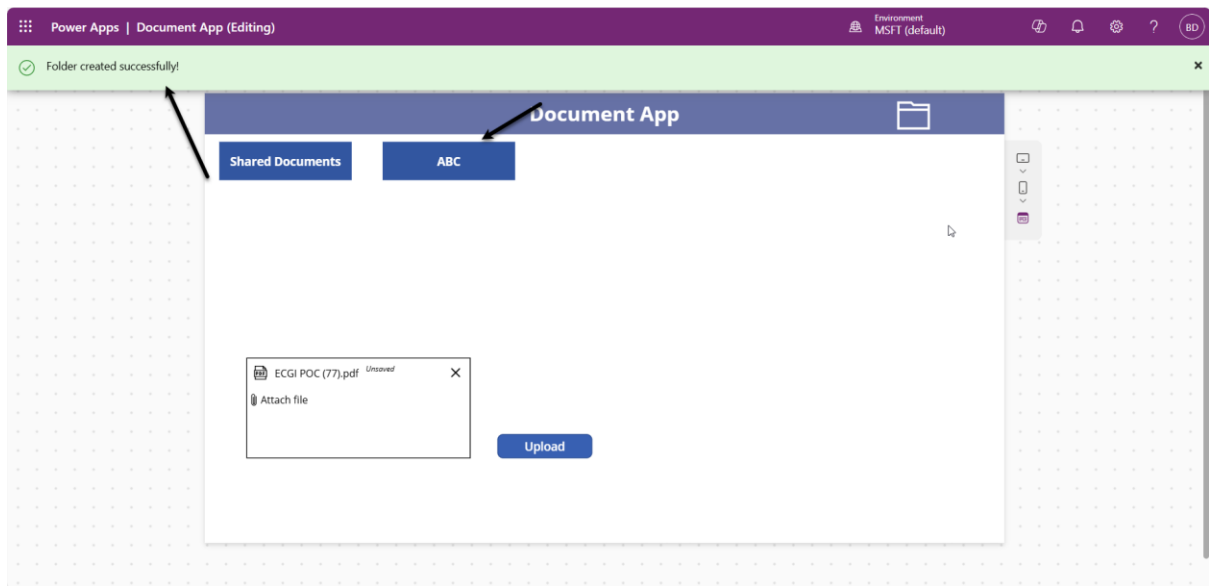
After clicking on upload button the file will upload to document library.



We can also create folders by first clicking on the folder; after providing the folder name, we need to press the create button.



After successful creation of folder we will get notification like below



Also we can see the new folder in Breadcrumbs Navigation Menu