proMX

Build your first canvas
app **with Microsoft
Power Apps**
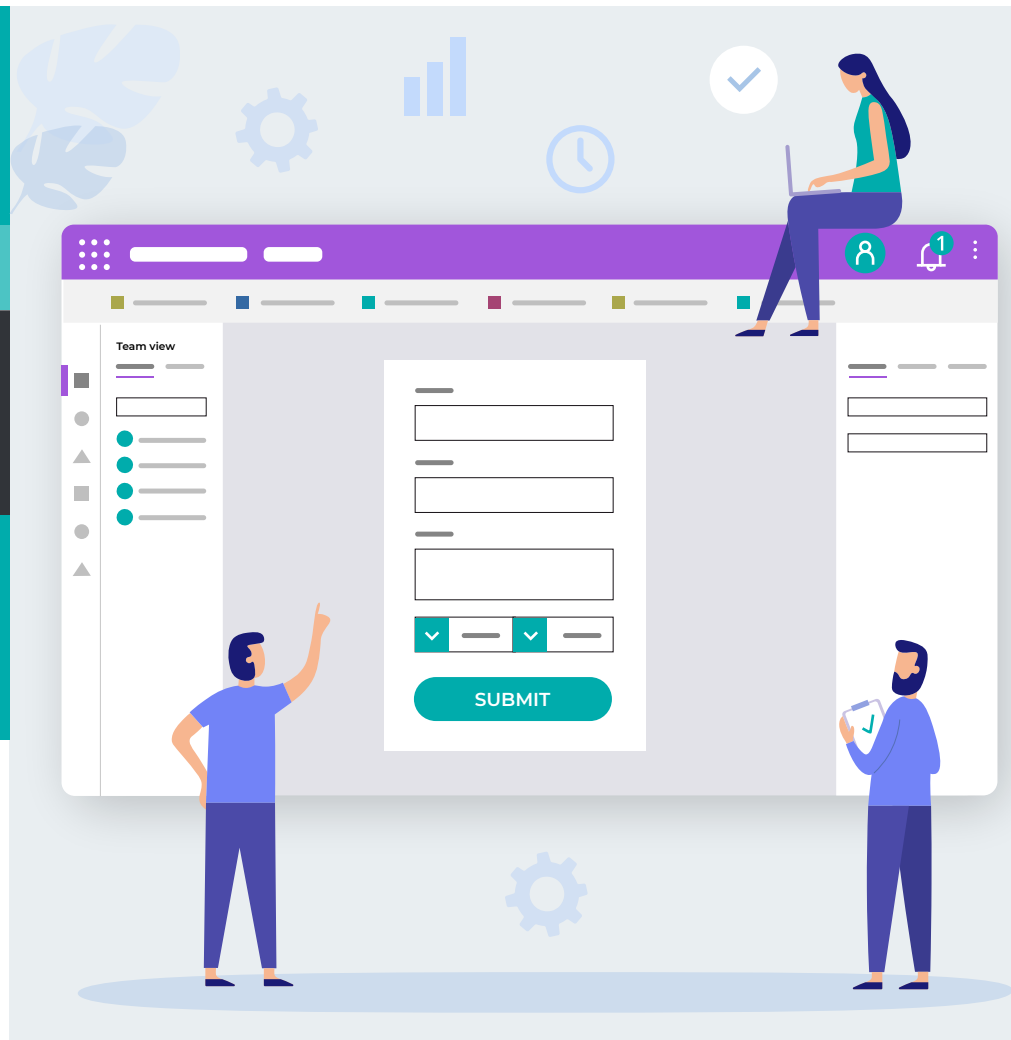
Powered by
Microsoft

Content

Introduction

Companies of all sizes struggle to find professionals for the development of software and mobile applications, all while the demand for digital transformation increases. Luckily, we're advancing, and creating solutions to everyday business challenges has become more accessible to those who would like to delve into the world of code – low code, to be precise!

Low code platforms work with drag-and-drop interfaces that allow users of all skills levels to design their own business app. It also gives them control over layout and navigation of the app. That makes creating your own app to service a wide range of business needs a breeze.

In this white paper, you will learn how to get started with building your very first canvas app from a simple Excel data set, how to navigate the Power Apps interface, and how to make basic customizations. We'll provide you with pointers on when to build a canvas app instead of a model-driven app and share a useful collection of resources that will help you continue your path of becoming a (potentially certified) Microsoft Power Platform expert!

Overview: canvas apps

When should you build a canvas app?

Whether a canvas app or a model-driven app is the best choice for you very much depends on your business requirements and process structures.

Canvas apps provide more flexibility and user control, and are more suited for simple and goal-oriented applications. Utilize them when you want to be able to customize each aspect of the app layout and design, e. g. color, hover actions, or multiple screen navigation. You can apply Excel-like formulas to them, too.

Model-driven apps are not as pleasing to the eye as canvas apps and are restricted to a pre-configured basic layout. However, they provide a distinct and defined business process that users must follow, which allows them to harvest the full potential of Microsoft Dataverse.

Canvas	Model-driven
Visual creation canvas, works via drag and drop	Data-first approach
Low coding	Certain level of technical know-how required
Full control over every aspect, including size and formatting	Less control over layout and functionality (input determines output)
No data source restrictions (~ 200 available connectors)	Based on data model in Dynamics 365 or Microsoft Dataverse
Simple, goal-oriented apps	More complex apps

Business use cases

The design and layout of canvas apps can vary greatly. Therefore, canvas apps can service a plethora of common business functions. They are generally used to create simple apps with a particular purpose, such as:

- Holiday requests/approvals
- Event registration
- IT helpdesk ticketing
- Data recording
- Photo creation
- Checklists

Examples of canvas apps

All canvas apps shown below have been developed by Microsoft partner proMX as part of successful customer projects.

Customer:

A UK-based company committed to delivering all aspects of the Energy Company Obligation (ECO), a government energy efficiency scheme in Great Britain to tackle fuel poverty and help reduce carbon emissions

Users:

Energy Obligation Managers for government funded home improvements across the UK

Purpose:

Leveraging Power Apps and a Power Pages portal, the developed app helps with the full lifecycle of project management, starting from client and account data till project data collection

Customer:

The oldest nature conservation organization in Bavaria (Germany) that aims to preserve biodiversity

Users:

Clerk for Membership Management, Clerk for Finance, Fundraiser

Purpose:

For the Bavarian nature conservation organization, proMX has leveraged Power Automate Flows, Azure (Functions, Storage Account, Blob Storage, Service Queues), and different Dynamics 365 plug ins and workflows to develop a wide range of canvas apps:

With this app, the organization can generate marketing lists full of accounts and contacts with a donation total amount in a very flexible time range

This app generates a XML file with SEPA debit transactions that you can import in your banking system to get membership/sponsorship fees via SEPA debit

Customer:

The US-based IT company is a leading provider of electronic design automation solution and services, as well as high-quality semiconductor IP solutions for SoC designs.

Users:

Service employees, service managers

Purpose:

A simple time booking app that tracks time in percentage values

03

Dynamics 365

Search

Weekly Time Entries

Export to Excel

+ New | Copy row | Edit row | ✓ Submit | Recall | Delete | Refresh | Copy week

Category	Activity	Customer ↑	Product Name	Entry Status
Pre-Sales	Marketing events		Test Consulting	Draft
Pre-Sales	Marketing events			Draft
Pre-Sales	Marketing events			Draft
SLM Test Chip	Architecture, Spec, Use c		CATS	Draft

New Time Entry

Date	Monday, June 12, 2023
Duration (%)	100
Category*	Pre-Sales
Activity*	Marketing events
Use your defaults	No ⬤ Yes — Add defaults
Customer Type	Single Customer
Customer Logo	Search for Customer
Product Name	Search for Product
Comment	

Save and Close   Cancel

Home
Recent
Pinned

Apps
MyTime Hybrid App
MyTime

If you think Power Apps can help you make your processes smoother and fill the gaps of missing functionalities, let's discuss your ideas!

CONTACT US »

09

Building an app

All great apps begin as ideas. That means if you want to build an app, you should first have a clear picture of the problem you would like to solve with it. After all, you can't start if you don't know where you're going!

Try it!

If you would like to follow along with our tutorial, we recommend preparing an Excel file with simple sample data and saving it in your cloud environment. We worked with the following:

|	A	B	C	D	E	F	G
1	First name	Last name	Title	E-Mail	Manager	City	Country
2	John	Mack	Consultant	john.mack@	Jane Doe	New York Cit	US
3	Mitchel	Cobb	Manager	mitchel.cobl	Jane Doe	Washington	US
4	Kevin	Hanks	Developer	kevin.hanks	Jane Doe	New York Cit	US
5	Lara	Gomes	QA	lara.gomes@	Jane Doe	San José	US
6	Alexandra	Moss	Architect	alexandra.m	Jane Doe	Toronto	Canada

Important: After entering your data, you must highlight all cells and select Format as Table in the top menu or by using CTRL+T on your keyboard!

How to start with Power Apps

There are several ways to begin building your canvas app. When you first navigate to the **Power Apps Maker Portal**, you can automatically generate a blank canvas app, a canvas app based on a template, or select one of four suggested data sources: Microsoft Dataverse, SharePoint, Excel, or SQL server. If you do not see your data source listed, don't worry – there are hundreds of available connectors!

Create from blank

Creating a blank canvas app provides the highest level of flexibility in app design. When you create a blank canvas app, you receive just that – a blank canvas. You can add visual components to the app, design the page navigation and configure your data source connection once you are satisfied with the layout.
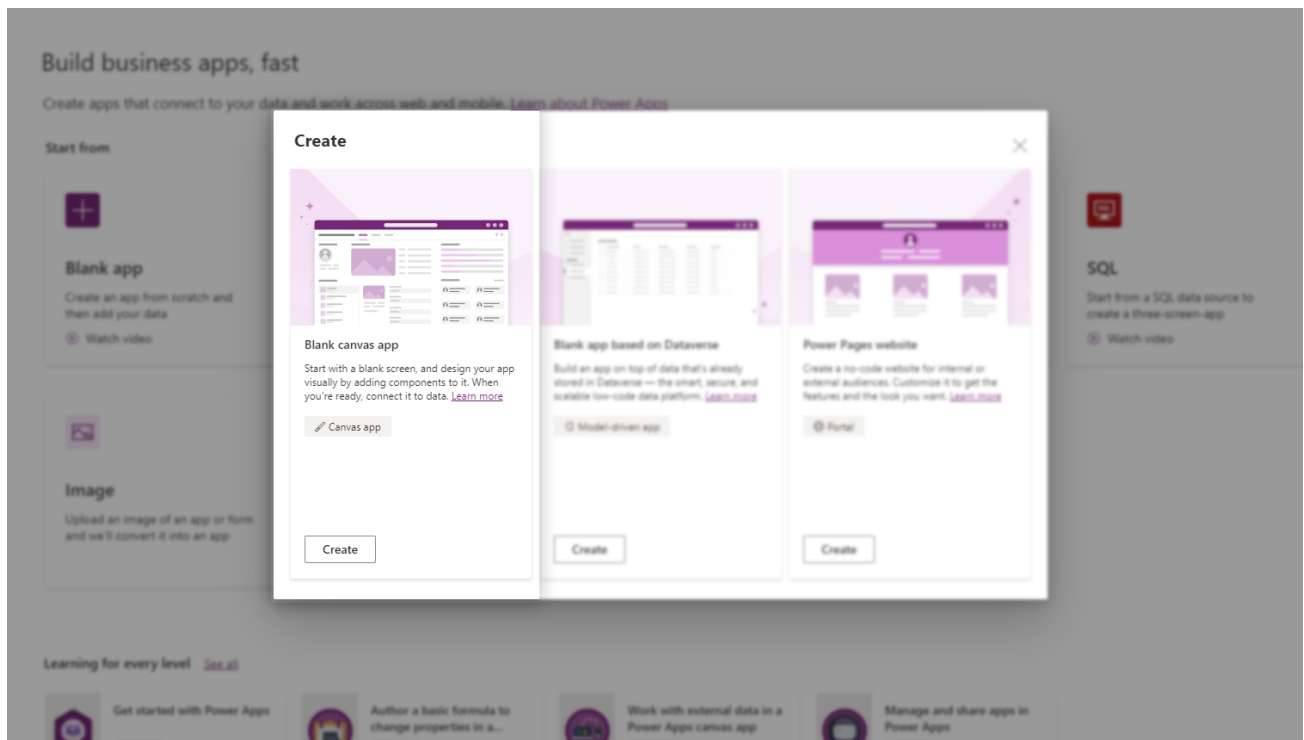
Create from template

If you want to quickly build a canvas app, there are hundreds of templates in the Create tab. Examples include Fundraisers, Service Desk requests, Expense trackers, and Employee Engagement surveys. These templates are a great way to kick-start the development process for many standard business processes. You can then customize the layout just like any other canvas app!
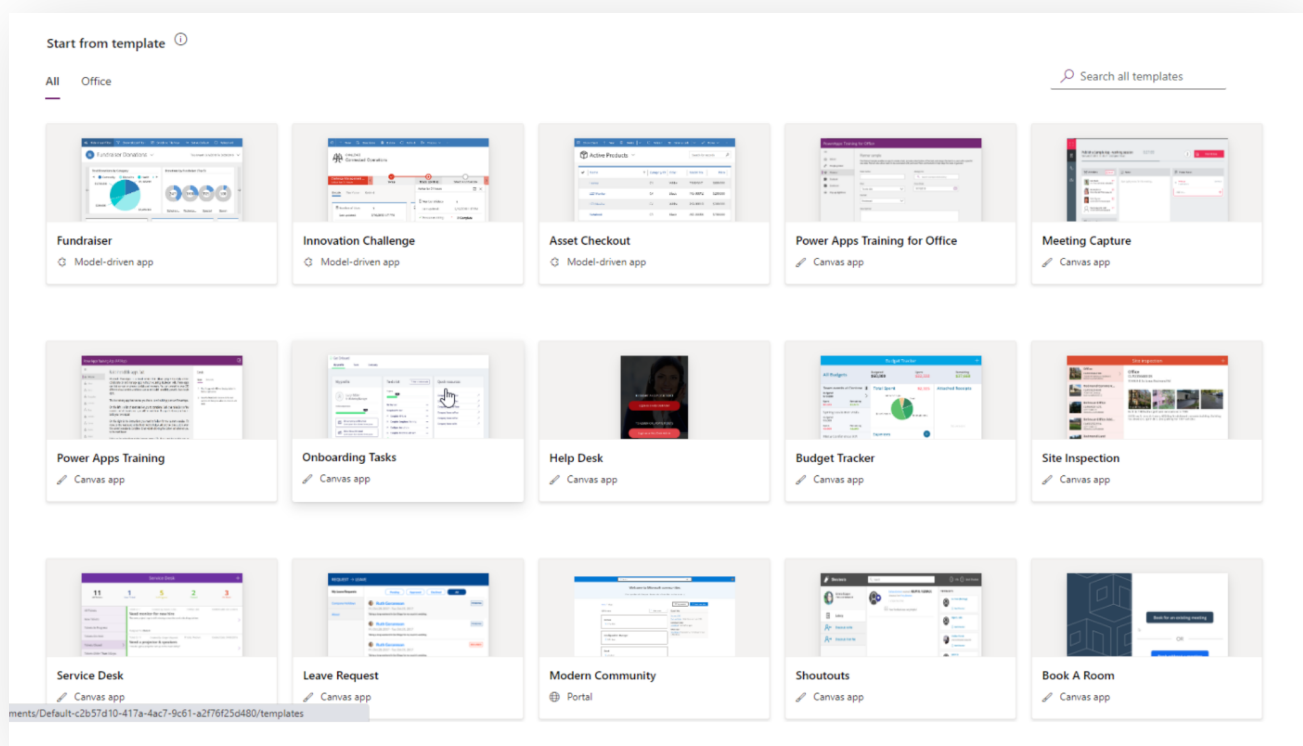
Create from data

From either the Home or Create tab, when you select the option to create from Dataverse, SharePoint, Excel, or SQL Server, PowerApps automatically generates a simple canvas app connected to that data source. Data can come in a variety of data types, such as tables, e-mails, or lists
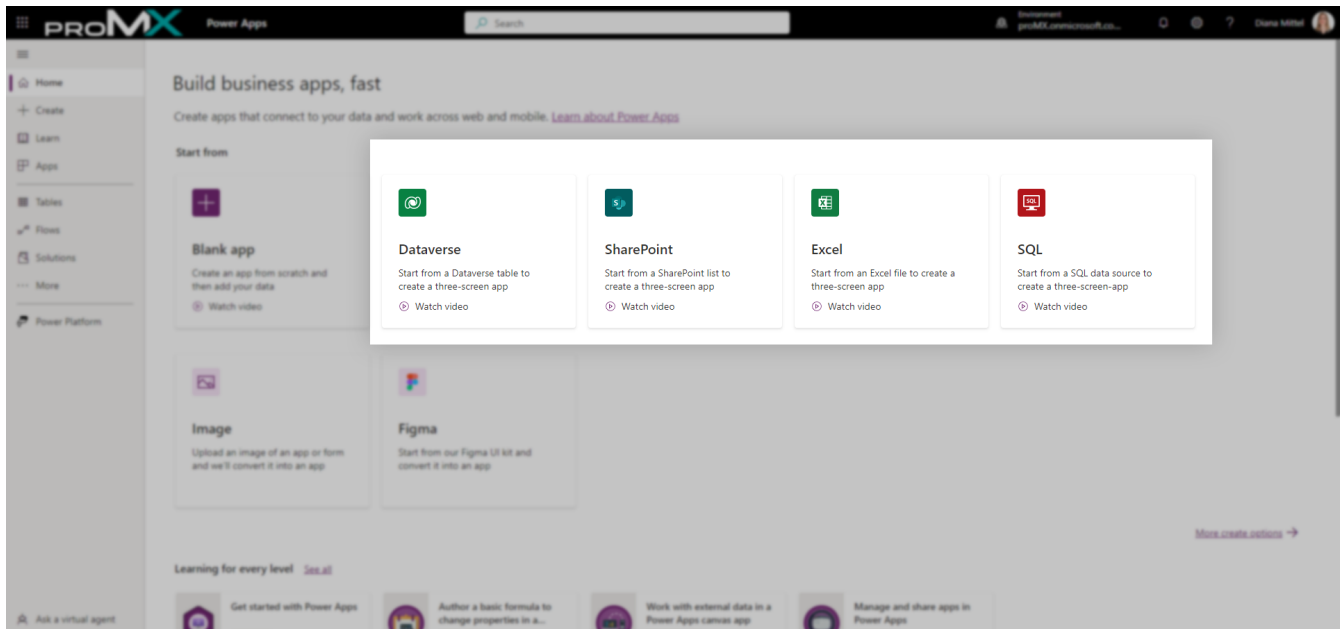
After choosing a data source, your new three-screen app opens in Power Apps Studio.

After clicking one of these four data source options, you can either initialize a new connection or use an existing one within your environment. When you click **Add a New Connection**, you can select from one of hundreds of available cloud connectors and enter the required connections.

The Canvas designer

Navigate to the **Power Apps Maker Portal** and choose "Excel" as your
starting point. Connect the file you prepared previously.

You now see a three-screen menu. Your canvas app is displayed in the center.
The Tree View section on the left side displays a list of all visual app components
and are ordered according to how they are layered on the screen. When you
highlight a visual component on the left, the pane on the right allows you to
change every aspect of the visual's design.
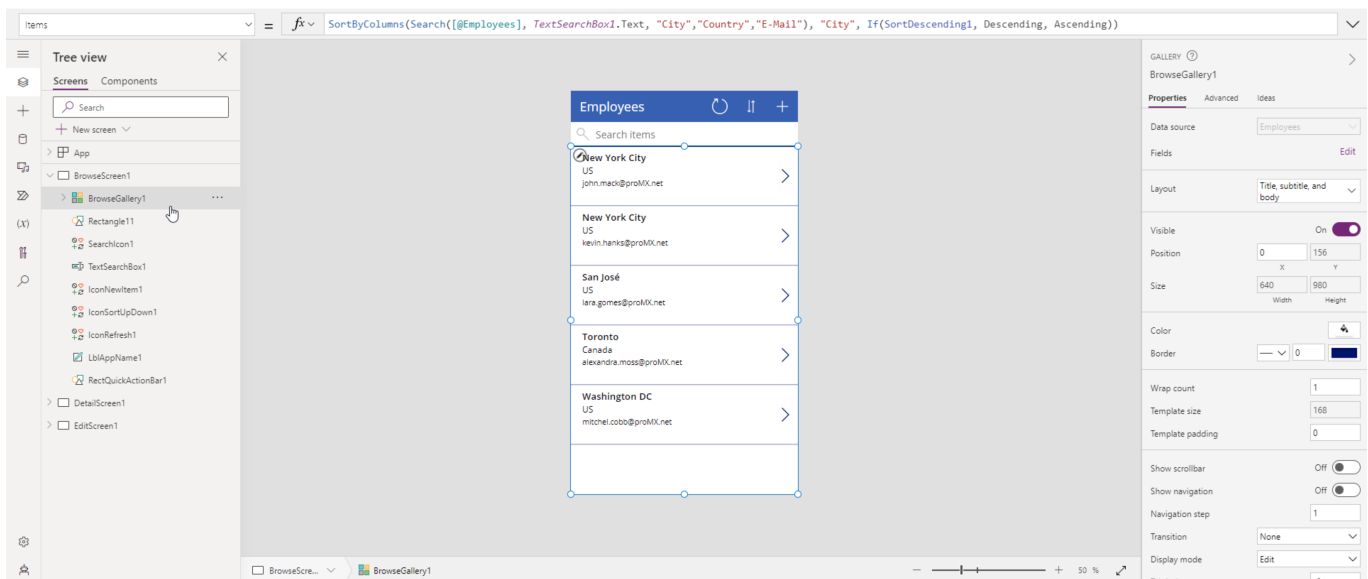
The Tree View section **on
the left** displays a list of
all visual elements on
each screen of your app.
Each screen is denoted
by a white rectangle icon.

The center portion of the
designer shows you how the
app appears to the end users.
Here you work with a simple
drag-and-drop technique to
move elements to different
places on your screen.

When you click on any
visual element on the left,
the right pane allows you
to change every aspect of
the visual's design, for
example data source, text,
font, or color.
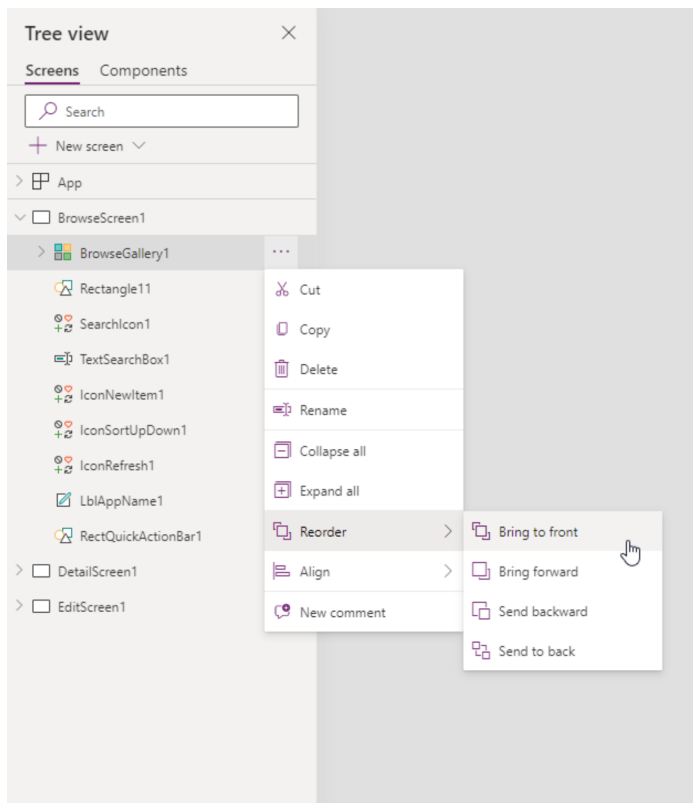
Reorder and rename your app components in the Tree View to keep track of what's what

Before editing your app, we recommend saving it to the cloud. You can do so by clicking **File** > **Save As**. The app will be accessible within your environment, but not to the end user until you hit the **"Publish"** button. By saving your app, you will be able to access the built-in version history and revert to previous versions if needed.

If you'd like to explore Power Apps with one of our experts at proMX who can introduce you to the solution and show you some example apps, we are happy to help!

SET UP A CONSULTANCY CALL »

Basic customizations

What if you could build an app as easily as you build a spreadsheet? What if you could take advantage of your existing spreadsheet knowledge? Making app building and programming accessible to everyone is what inspired the creation of Power Apps – and Microsoft's low code language Power Fx. It is a simple, concise programming language similar to spreadsheet formulas that will help you make customizations to your Power Apps

LEARN ABOUT POWER FX ≫

Try it!

Let's create a new blank screen together and move it to the top. Don't forget to rename your new screen to "Home," because that is what we will create!
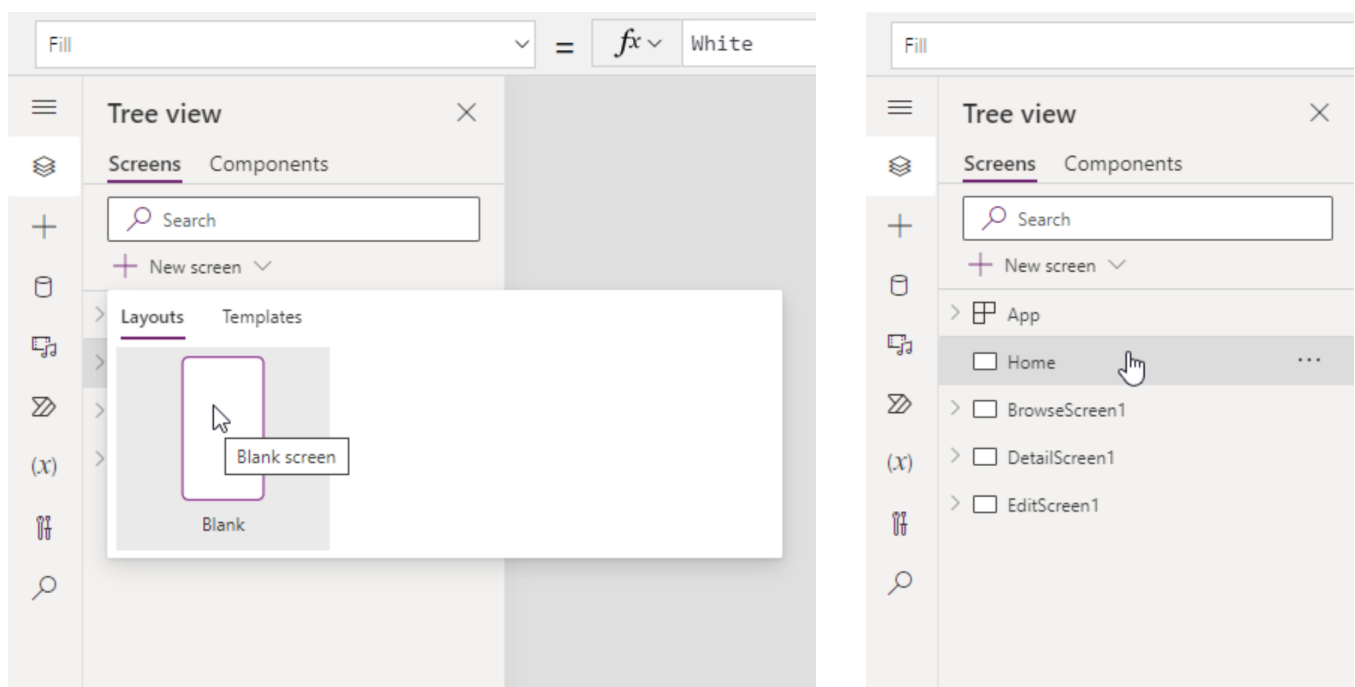
Next, navigate to I**nsert,** select **Button**, and name, color and edit it to your liking! You'll now get to use Microsoft's programming language Power Fx for the first time. In the "fx" bar, delete "false" and replace it with the following: Navigate(BrowseScreen1,ScreenTransition.Fade)

If you renamed your BrowseScreen1 to something else, replace it with your own name.
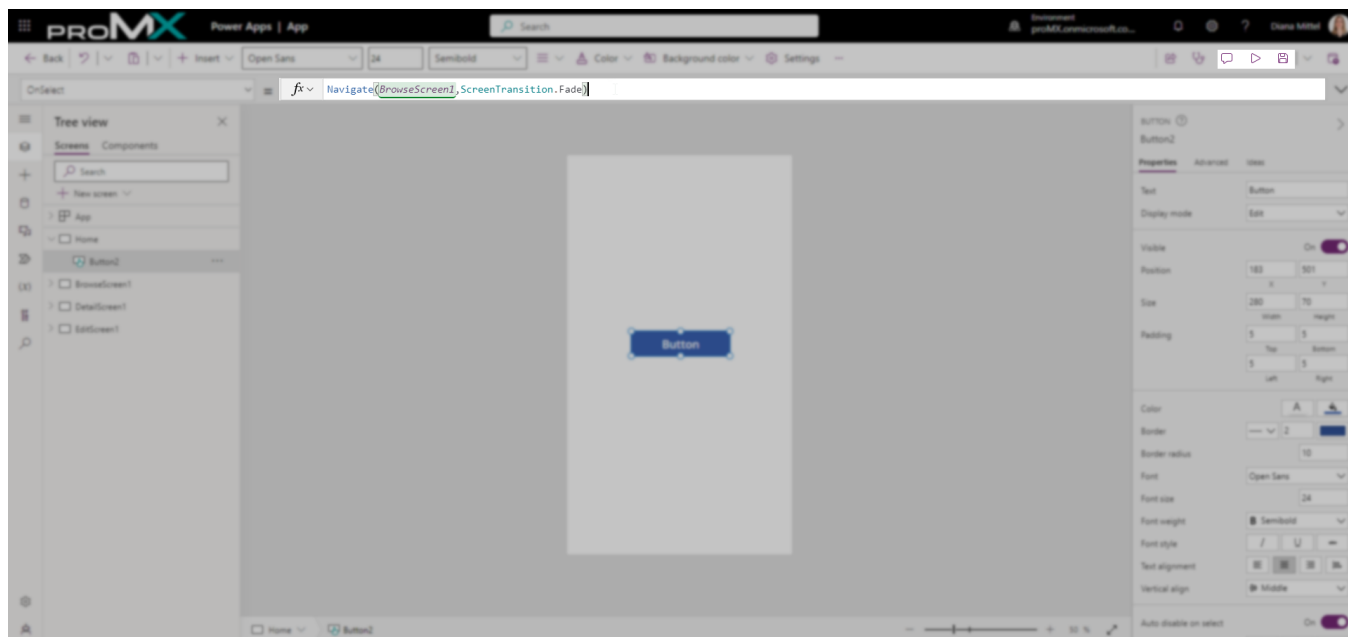
As a last step, hit the play button on the top right of your menu and see what happens!

Preview and testing

Preview, test and troubleshoot your app at any time with the help of the App Checker. You can find this ribbon at the top right of your screen. In the App Checker, you will receive warning for invalid formulas, performance bottlenecks, and other errors. By clicking on a warning, Power Apps will automatically navigate you to where the error is happening.

App Checker helps you understand performance and identify bugs
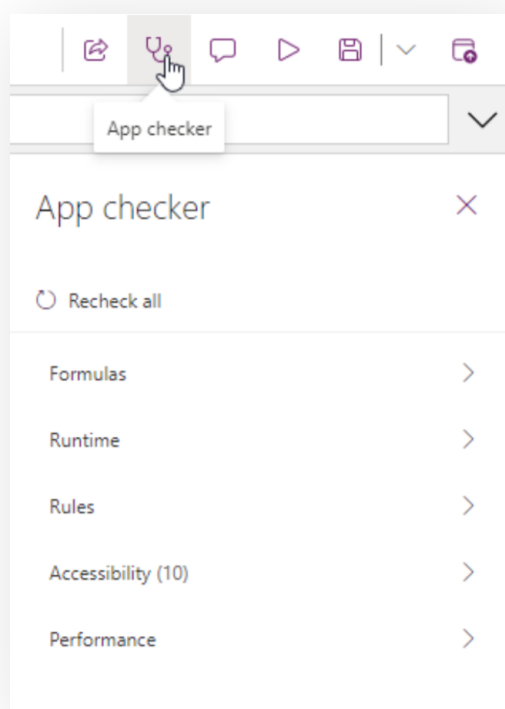
By hitting the Play icon in the same ribbon as the App Checker, you can test how end users will interact with your app.
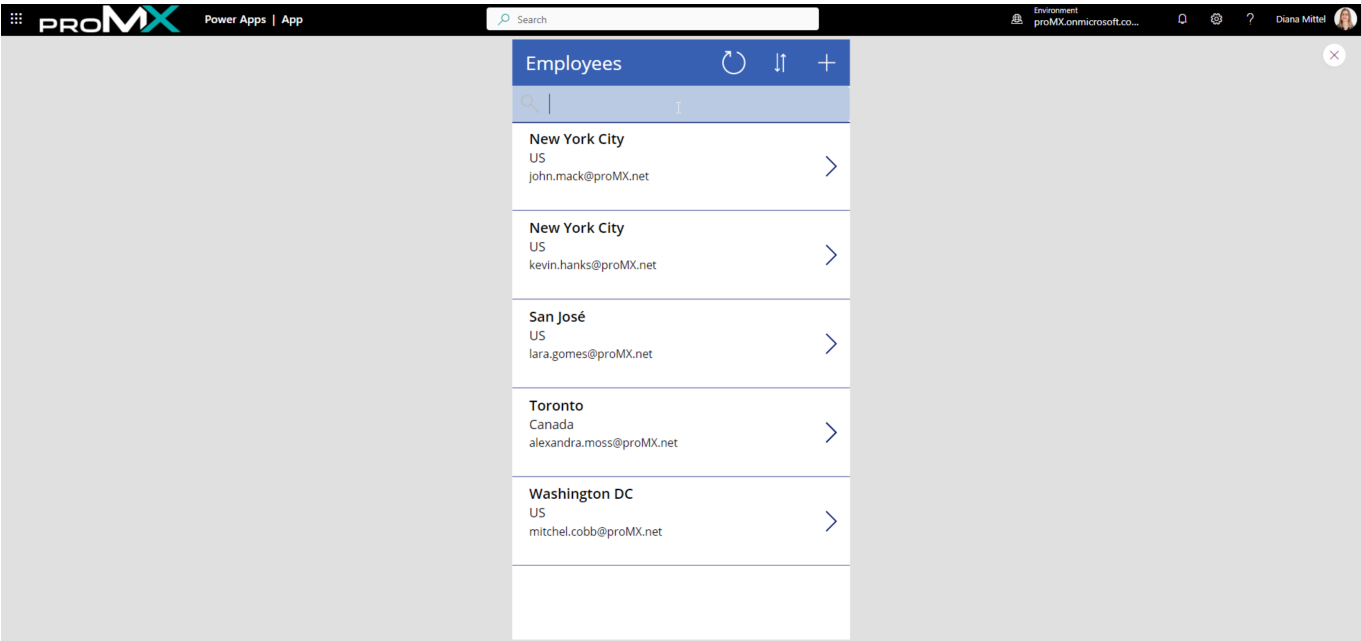
In this preview of your app, you can interact with it just like end users would

How to learn Power Apps

Guided learning

Microsoft Learn

If you navigate to make.powerapps.com, you'll find the "Learn" tab on the left menu and land at Microsoft Learn. Microsoft Learn is a free set of online resources and tools not just for Power Apps, but for all Microsoft technologies. You can create an account and choose your own learning paths there, track your progress towards certification, and earn badges along the way. If you like guided, structured learning at your own pace – whether that is learning step by step or learning everything in one go –, Microsoft Learn is the perfect free resource for you.

MICROSOFT LEARN >>

Microsoft Docs

In the "Learn" tab, you will also find all Microsoft documentation, similar to a user manual for all Microsoft technologies. Microsoft Docs are great if you prefer flicking through a manual over guided learning paths.

MICROSOFT DOCS >>

A Microsoft partner

If you work with a Microsoft partner such as proMX on a larger project, there's no better way to learn more about Microsoft technologies, including Power Platform and Power Apps, than asking your questions directly to a consultant! They understand you as a company and have unparalleled hands-on experience from many different projects.

CONTACT proMX >>

Lab-based learning

A well-known resource for learning more about Power Apps is the Microsoft-hosted **App in a Day workshop** series. You'll be guided through building your first Power App step by step, learn more about app-specific scenarios, and be able to get valuable hands-on experience. Find all App in a Day workshop here:
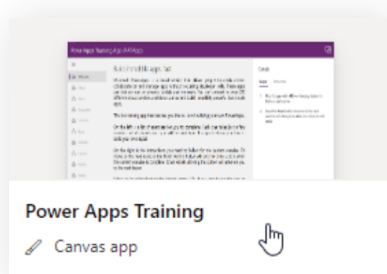
APP IN A DAY EVENT ≫

POWER PLATFORM RESOURCES ≫

Community

Even if you learn Power Apps by going through all of our recommended resources, you will likely get acquainted with the Microsoft community that is happy to help whenever you cannot help yourself!

MICROSOFT COMMUNITY ≫

Power Apps training app

Power Apps Training
✏ Canvas app

A lesser-known resource for learning to master Power Apps is the Power Apps training app. You can find the app in the Power Apps studio at make.powerapps.com in the templates selection. The template is called "Power Apps Training" by default. The app will take you through different sections of Power Apps and lets you learn at your own pace.

Templates

If you would like to learn more about Power Apps in a less guided way, the templates within Power Apps are a great way of doing that! Templates are pre-made, easy-to-use apps for common business challenges, and a perfect source of inspiration for the many ways you can structure your own apps. If you see something you like, simply copy the Fx formula!

Further reading

More Power for Dynamics 365

Users without programming skills can analyze and visualize data, build custom business applications, automate recurring processes and more. How? With the help of the Microsoft Power Platform, which is based on the low code applications Power Apps, Power BI, Power Automate and Power Virtual Agents. In this white paper, you'll learn more about the concept of low code and its potential for enhancing Dynamics 365.

We offer a helping hand in your digital transformation

The ideal digital transformation partner is not only an expert in theory and technology but also in its customer's industry. Our consultants are familiar with the processes, priorities and challenges of different sectors. Contact us!

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