

Getting Started with PowerApps Studio



Student Background

- What is your name?
- What are you doing with PowerApps and Flow?
- Which products and services have you used?
 - PowerApps and Flow
 - Microsoft Excel
 - Office 365
 - SharePoint Online
 - Power BI
 - Dynamics 365
 - Others



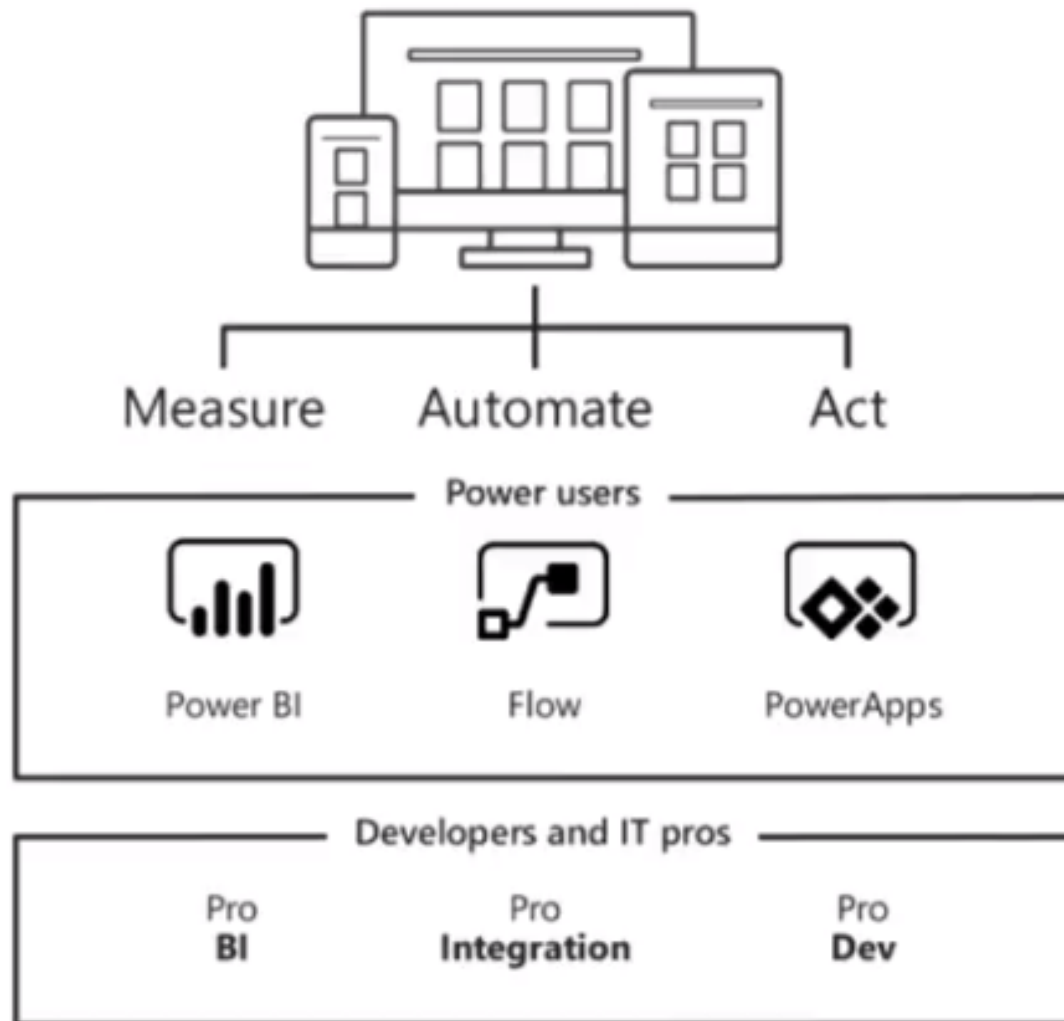
Agenda

- Getting Started with PowerApps Studio
- Understanding Screens, Controls, Forms and Fields
- Screen Interactivity and Navigation
- Understanding Data Sources and Connectors
- Binding to Data using Forms and Card Controls



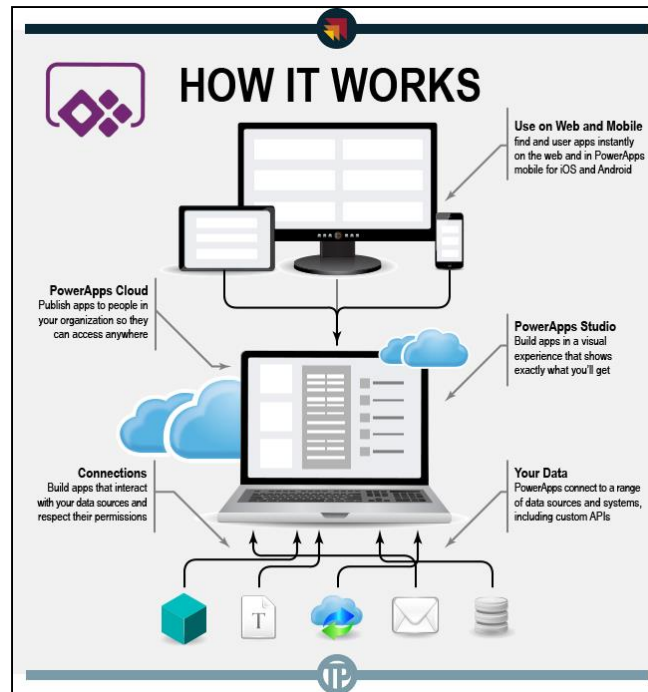
Business Application Platform

- Power BI
- PowerApps
- Flow



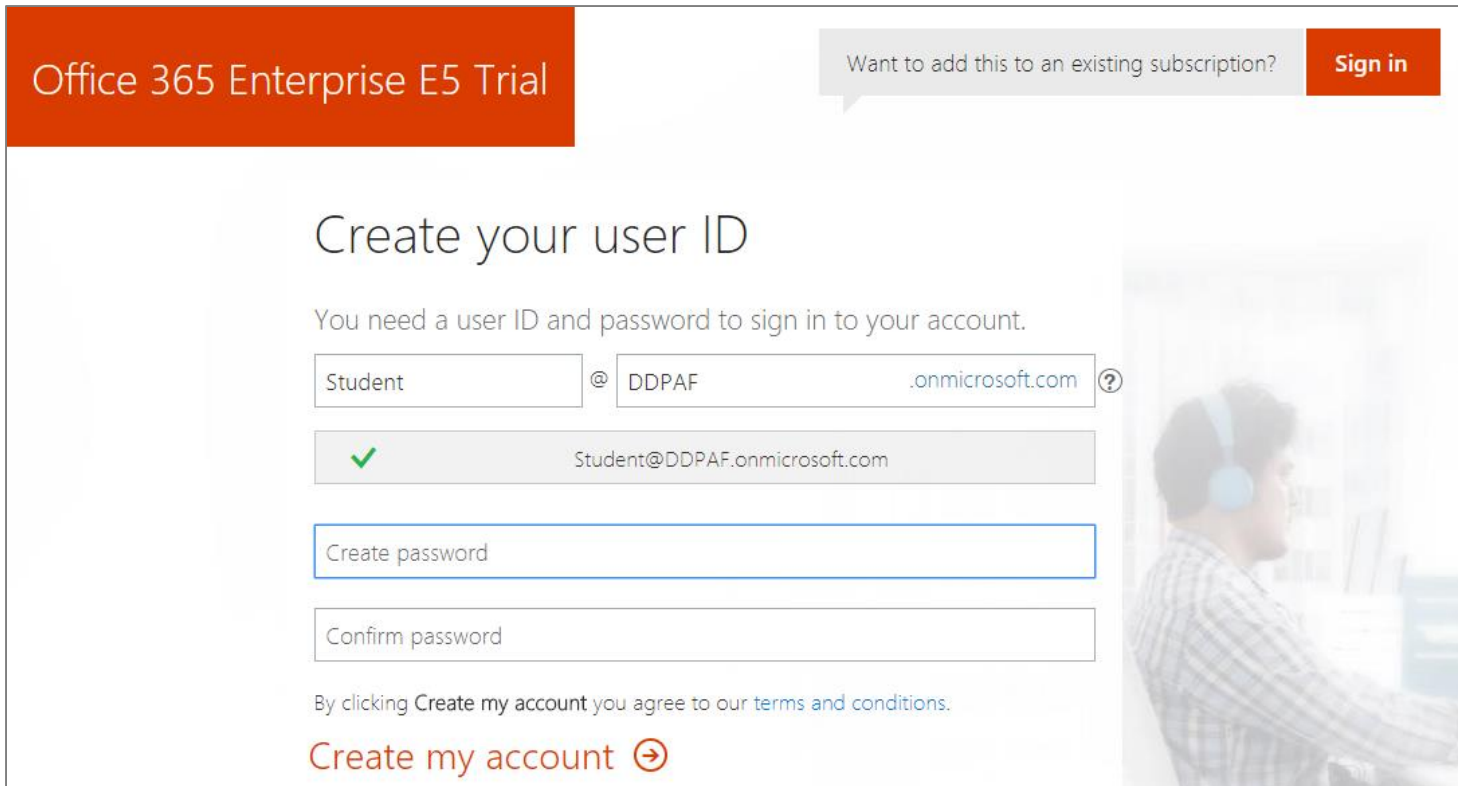
What is PowerApps?

- Service for building and using custom business apps
 - Apps run in any browser and on mobile devices and tablets
 - Apps connect to datasources and services through connectors
 - Targeted at power users more than professional developers



Creating an Office 365 E5 Trial Tenant

- All students will create an Office 365 trial tenant
 - Provides an isolated development environment for lab exercises
 - Trial accounts will last for 30 days



The screenshot shows the 'Create your user ID' page for an Office 365 Enterprise E5 Trial. At the top left, there is an orange banner with the text 'Office 365 Enterprise E5 Trial'. At the top right, there is a grey button that says 'Sign in' and a link that says 'Want to add this to an existing subscription?'. The main heading is 'Create your user ID'. Below this, it says 'You need a user ID and password to sign in to your account.' There are three input fields: the first contains 'Student', the second contains '@ DDPAF' followed by a help icon, and the third contains '.onmicrosoft.com'. Below these fields, there is a green checkmark icon and the text 'Student@DDPAF.onmicrosoft.com'. There are two more input fields: 'Create password' and 'Confirm password'. At the bottom, there is a link that says 'By clicking Create my account you agree to our terms and conditions.' and a red button that says 'Create my account' with a right arrow icon. On the right side of the page, there is a blurred image of a person wearing a headset and working at a computer.

Office 365 Enterprise E5 Trial

Want to add this to an existing subscription? [Sign in](#)

Create your user ID

You need a user ID and password to sign in to your account.

Student @ DDPAF .onmicrosoft.com ?

✓ Student@DDPAF.onmicrosoft.com

Create password

Confirm password

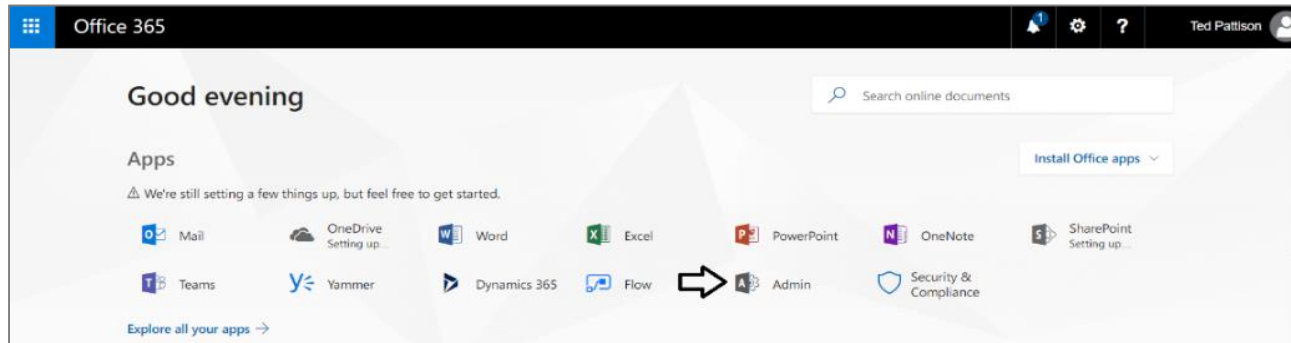
By clicking [Create my account](#) you agree to our [terms and conditions](#).

[Create my account](#) ➔

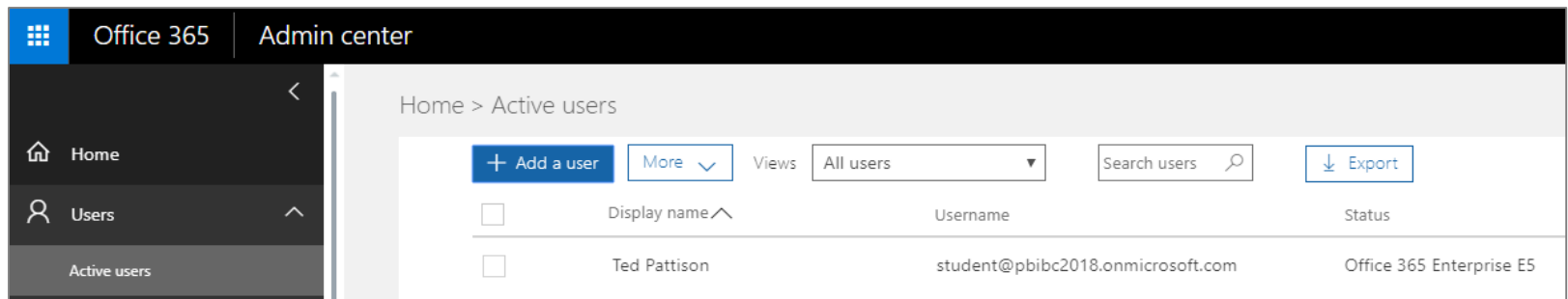


Central Admin

- Navigate to the Office 365 Admin center

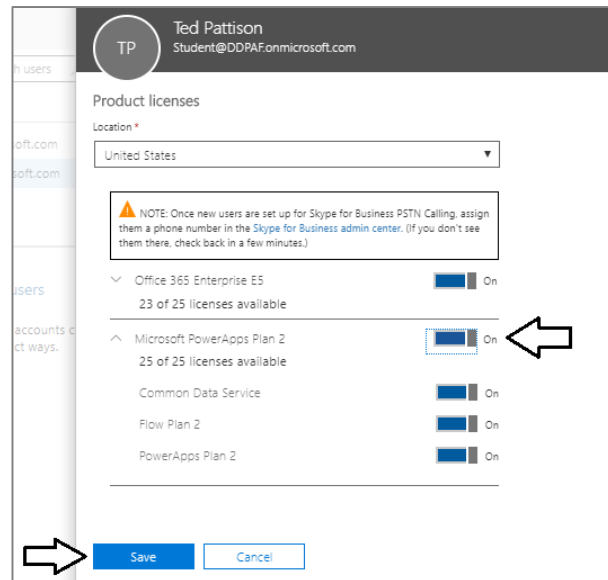
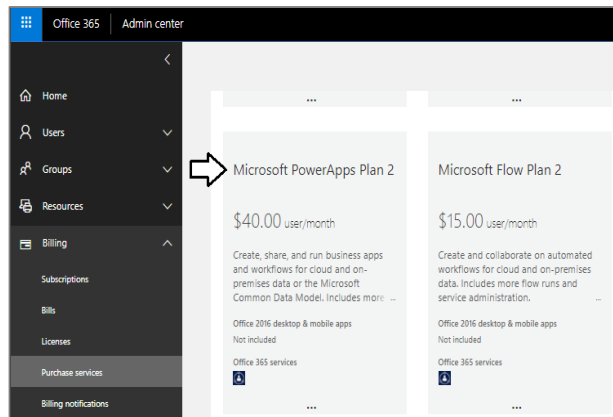


- Allows for management of users accounts and licensing



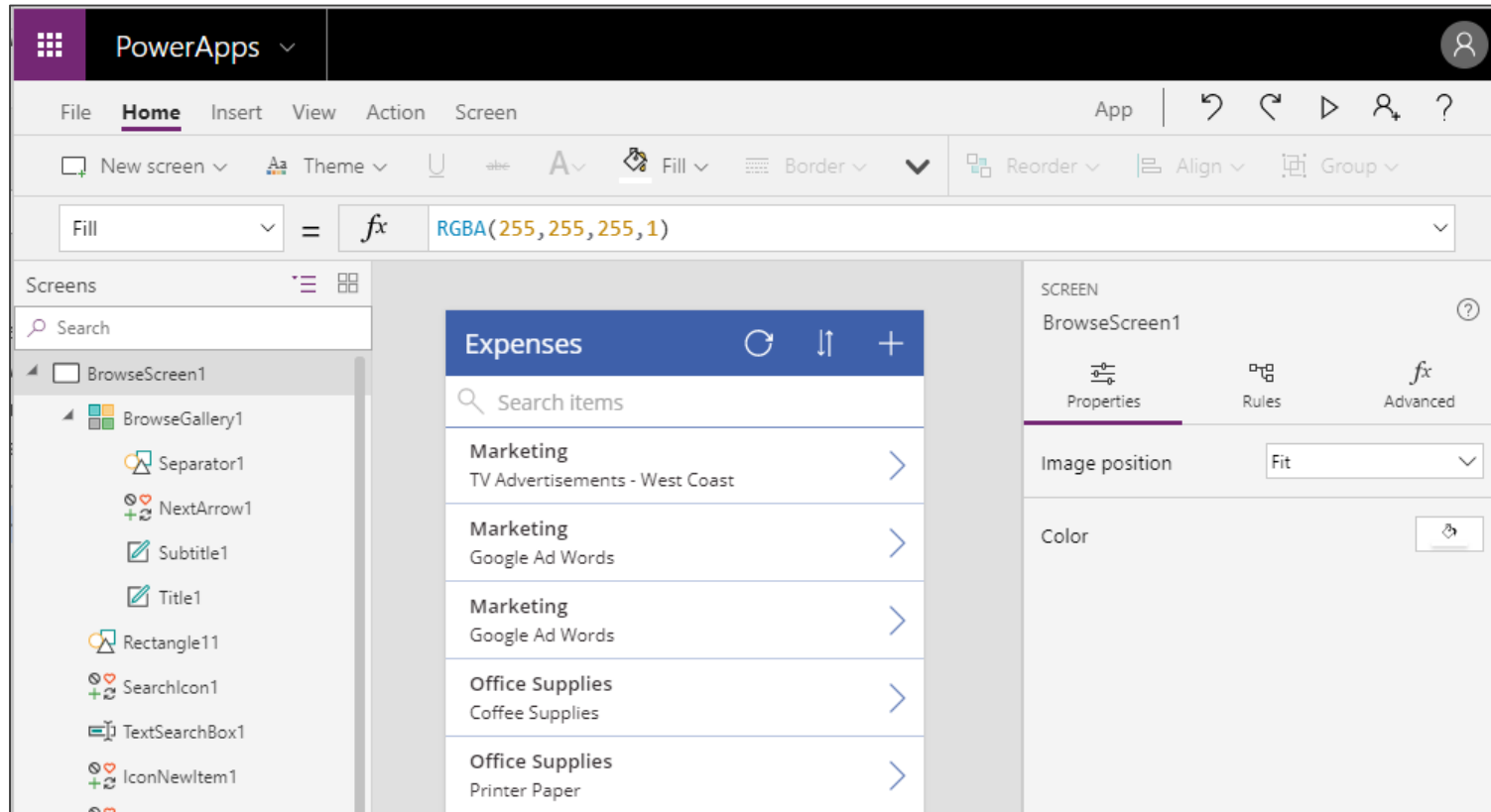
PowerApps Plan 2

- Certain design tasks require PowerApps Plan 2
 - You can start a 30-day trial for PowerApps Plan 2
 - License must be assigned to individual user accounts



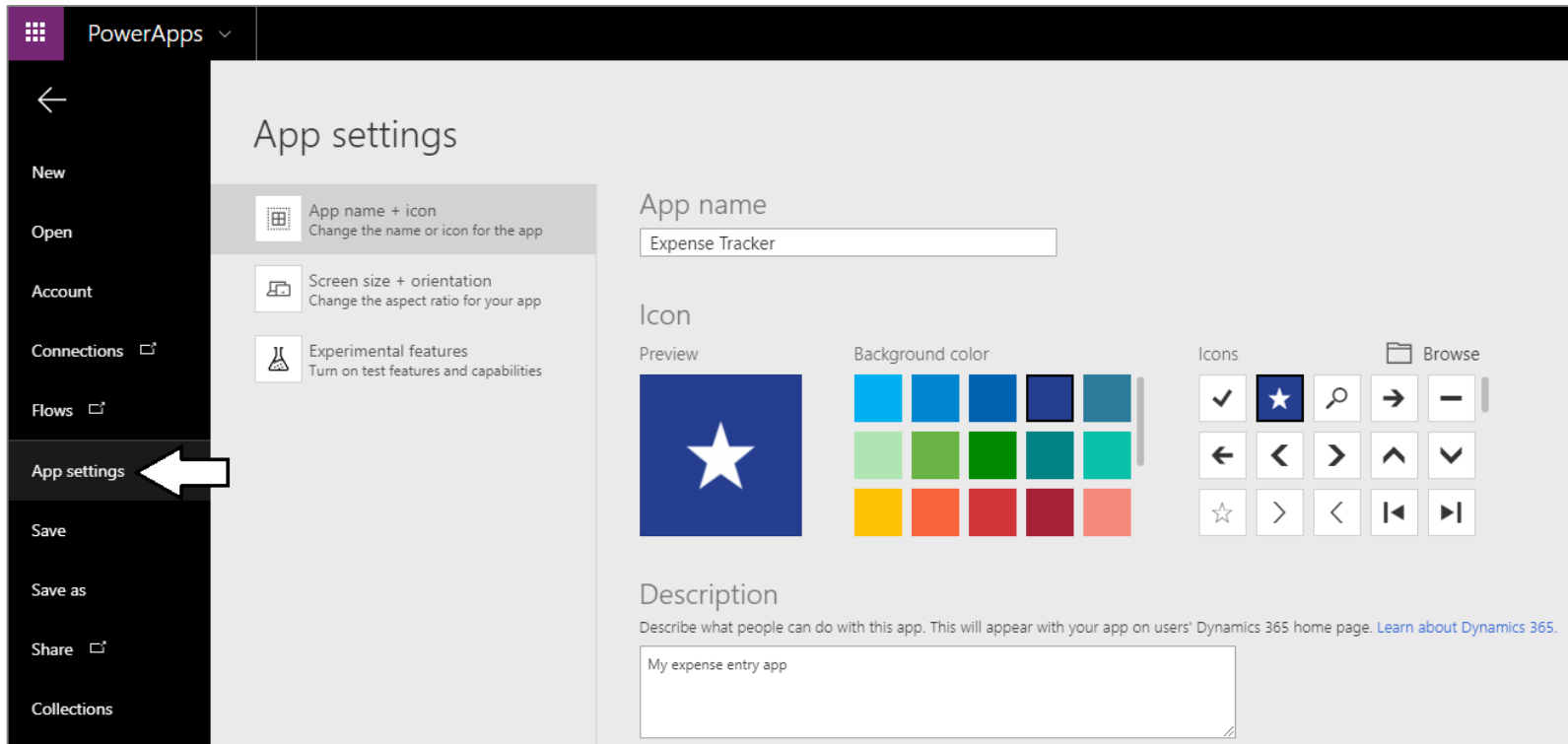
PowerApps Studio Interface

- PowerApps Studio for the Web used to build apps
 - Environment supported across platforms (Windows & Mac)
 - Supports all popular, modern browsers




App Name & Icon

- File tab > App Settings
 - Name, icon, and description settings your app




Screen size + orientation – Tablet Layout


App settings



App name + icon
Change the name or icon for the app




Screen size + orientation
Change the aspect ratio for your app



Experimental features
Turn on test features and capabilities

Screen size + orientation

Choose the screen size and orientation that your users will most likely be using.



1024 x 768

Orientation

☒ Landscape

☐ Portrait

Size

☐ 16:9 (Default)

☐ 3:2 (Surface Pro 3)

☐ 16:10 (Widescreen)

☒ 4:3 (iPad)

Advanced settings

Lock aspect ratio

Locking this automatically maintains the ratio between height and width to prevent distortion.

☒ On

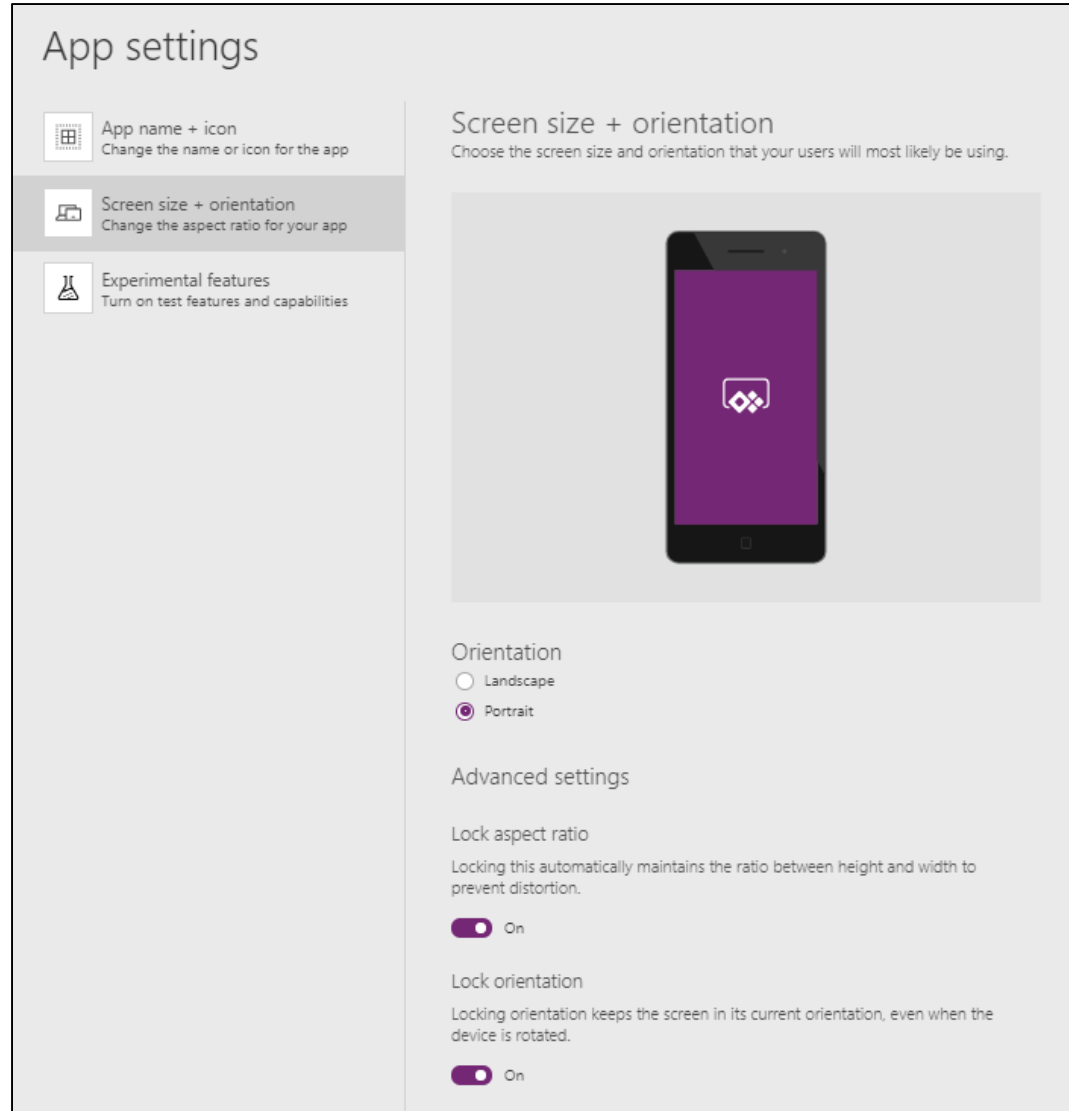
Lock orientation

Locking orientation keeps the screen in its current orientation, even when the device is rotated.

☒ On

A small logo in the bottom right corner, consisting of three overlapping squares in shades of purple and yellow.

Screen size + orientation – Phone Layout





DEMO

Creating an App with the Budget Tracker App Template

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Screens and Controls

- Screens provide the top level object in UI design
 - Your app can have one screen or many screens
 - Your app can have as many screens as you need
 - Your app supplies means to navigate across screen
- You design screens by adding controls
 - PowerApps provides wide variety of control types
 - Control properties change appearance and behavior
 - Properties configured in Properties tab or formula bar



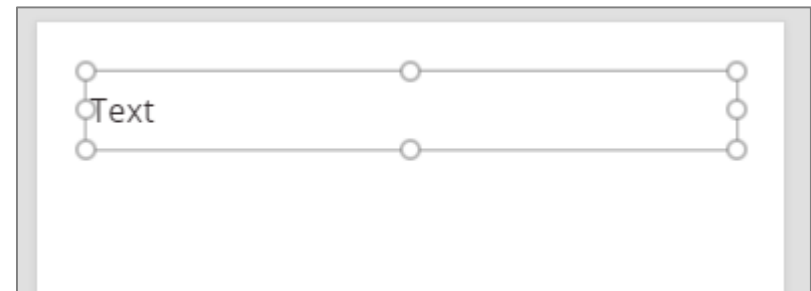
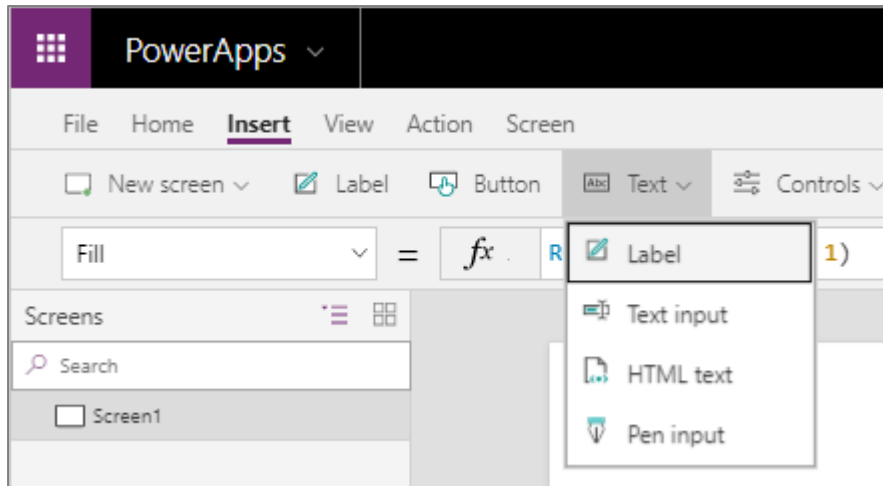
Control Types

- Text:
 - Label, Text input, HTML Text, Pen input
- Controls:
 - Button, Dropdown, Date picker, List box, Checkbox, Radio, Toggle, Slider, Timer
- Gallery:
 - Vertical, Horizontal, Flexible height, Blank vertical, Blank horizontal
- Data table
- Forms:
 - Edit, Display, Entity form
- Media:
 - Image, Camera, Barcode, Video, Audio, Microphone, Add picture
- Charts:
 - Column chart, Line chart, Pie chart
- Icons



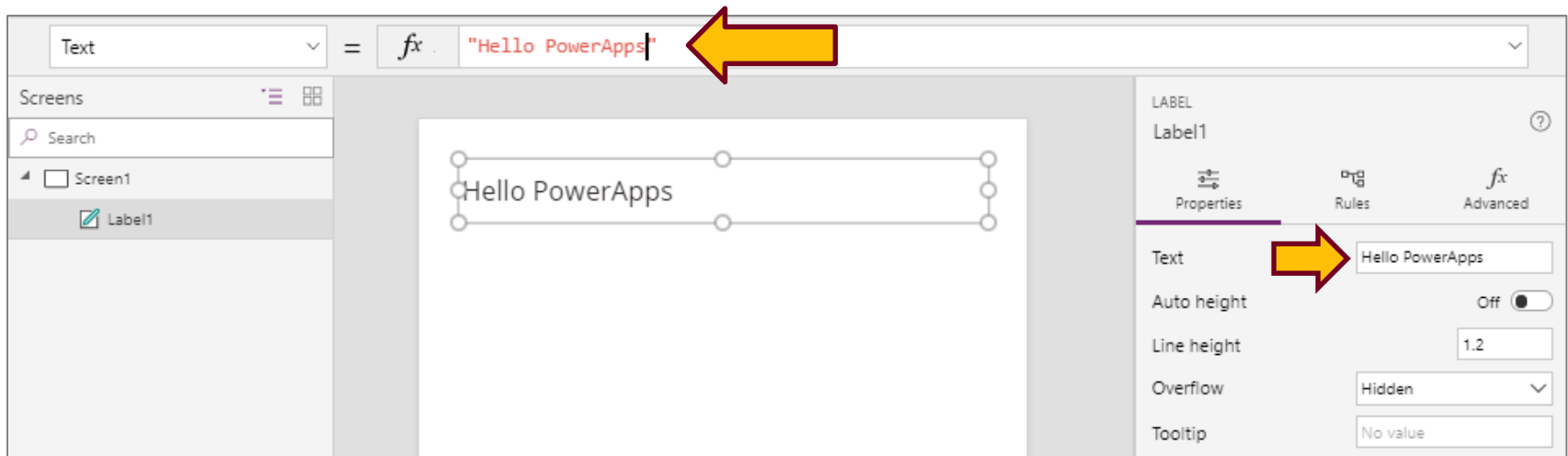
Adding a Control

- Controls added using commands on Insert tab



Configuring Control Properties

- Control properties can be set two different ways
 - Property values can be set using Properties pane
 - Property values can be set using formula bar



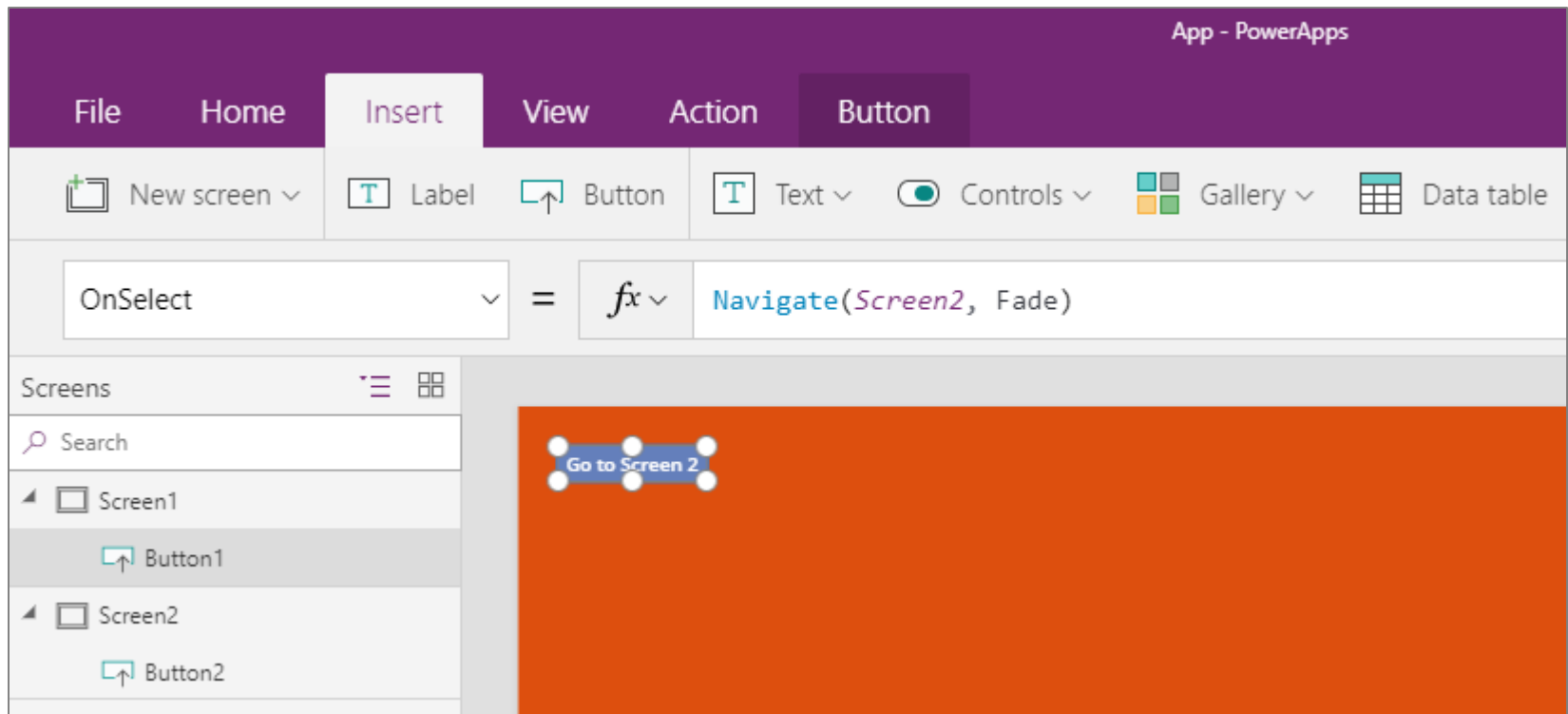
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Interactivity & Screen Navigation

- Create buttons to drive navigation



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Connectors and Connections

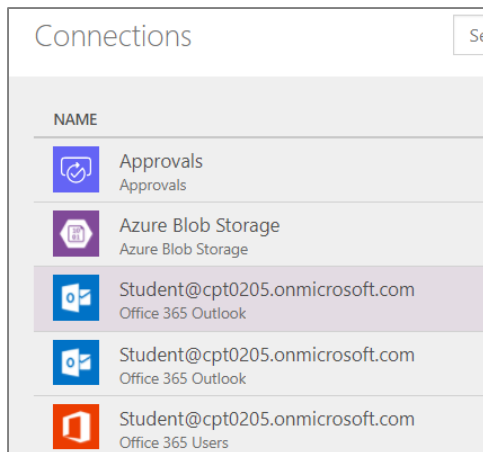
- **Connector**

- A wrapper around API which allows PowerApps to read & write from data source



- **Connection**

- Configuration created in order to use a specific connector
- Connection defined data source location, login credentials and granted permissions



Granting Permissions

Almost there ...

Device+Ordering+App.msapp needs your permission to use:



SharePoint

Student@cpt0205.onmicrosoft.com

Signed in [View permissions](#)

[Switch account](#)



Office 365 Users

Student@cpt0205.onmicrosoft.com

Signed in [View permissions](#)

[Switch account](#)

Allow

Don't Allow



Data Panel

- Allows for configuration of data source
 - Used to bind data to galleries and forms
 - Provides configurable layout and field binding

The screenshot displays a development environment with a central preview window and two side panels. The central preview window shows a list titled "Expenses" with a search bar and four items: "TV Advertisements - West Coast" (\$300.00), "Google Ad Words" (\$428.32), "Google Ad Words" (\$412.23), and "Office Chair" (\$650.00). The left panel, titled "Screens", shows a tree view of the application's UI components, including "BrowseScreen1", "BrowseGallery1", and various controls like "Separator3", "NextArrow2", "Body1", "Subtitle2", "Title2", "Rectangle11", "SearchIcon1", "TextSearchBox1", "IconNewItem1", "IconSortUpDown1", "IconRefresh1", "LblAppName1", and "RectQuickActionBar1". The right panel, titled "Data", is highlighted with a red dashed border and shows the configuration for the "Data" source. It includes a "Data source" section with a dropdown menu set to "Expenses" (Student@DDPAF.onmicrosoft.com, OneDrive for Business) and a "Refresh" button. The "Layout" section shows a dropdown menu set to "Title, subtitle, and body". The "Body1" section shows a text binding: "Text(ThisItem.Amount, '{0:en-US}\$#,##0.00')". The "Subtitle2" section shows a dropdown menu set to "Category". The "Title2" section shows a dropdown menu set to "Expense". The rightmost panel, titled "GALLERY", shows the configuration for "BrowseGallery1", including "Properties", "Rules", and "Advanced" tabs. The "Properties" tab is active, showing settings for "Data" (Exp), "Layout" (Title, subtitle, and body), "Wrap count" (1), "Template size" (168), "Template padding" (0), "Position" (0, 156), "Size" (640, 980), "Color" (white), "Border" (0), "Display mode" (Edit), "Visible" (On), and "Show scrollbar" (Off).



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Data Forms

- Gallery control
 - Used to browse through records
 - Can be configured to support filter, sort & search
- Display form control
 - Used to display a single record
- Edit form control
 - Used to update existing records
 - Used to create new records



Form Layouts

The image displays the Microsoft Forms Designer interface for a 'Vacation Request' form. The form is titled 'Vacation Request' and includes the following fields:

- * Vacation Start Date: 12/31/2001
- * Vacation End Date: 12/31/2001
- * Time Off Type: (Dropdown menu)
- Comments: (Text area)

Below the form, there is a 'Card : PTO' section with a 'PTO' toggle switch.

The right-hand panel shows the 'DataCard_PTO2' card with tabs for 'Properties', 'Data', and 'Advanced'. The 'Form customization' section includes a 'Vacation Request' card with the email 'zoe@ck2017.onmicrosoft.com' and the 'SharePoint' provider. A 'Refresh' button is also present.

The 'Layout' section shows a 'Snap to columns' checkbox checked and a '1' column selection. Below this, the 'Form layout' section displays two options: 'Vertical' and 'Horizontal'. The 'Vertical' layout is currently selected, showing a vertical stack of fields.

At the bottom, there is a zoom slider set to 40% and a 'DataCard_PTO2' checkbox.



Card Controls and Data Cards

- **Card controls**
 - Building blocks of the **Edit** and **Display** form controls
 - **Form** represents entire record
 - **Card** represents a single field of the record
- **Cards** configured in right-hand pane
 - Choose which fields to show
 - Change order of fields
 - Change how to show each field



Data Cards

The image shows a PowerApps interface with a 'Vacation Request' data card and its customization pane.

Vacation Request Card Fields:

- Title:** Time off Request
- Vacation Start Date:** 9/4/2017
- Vacation End Date:** 9/10/2017
- Time Off Type:** (Dropdown menu)
- Comments:** SharePoint conference in Stockholm
- PTO:** (Toggle switch, currently on)
- Request Status:** (Dropdown menu)

Customization Pane (DataCard_Title2):

- Form customization:** Includes a 'Refresh' button.
- Layout:** Set to 'Vertical'.
- Fields:** A list of fields to customize. The 'Title' field is selected, and the 'Edit text' option is highlighted.

Red Annotations:

- A red box highlights the 'Title' field on the data card.
- A red arrow points from the 'Title' field on the card to the 'Title' field in the customization pane.
- Another red arrow points from the 'Title' field in the customization pane to the 'Edit text' option.



Summary

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