



App in a Day

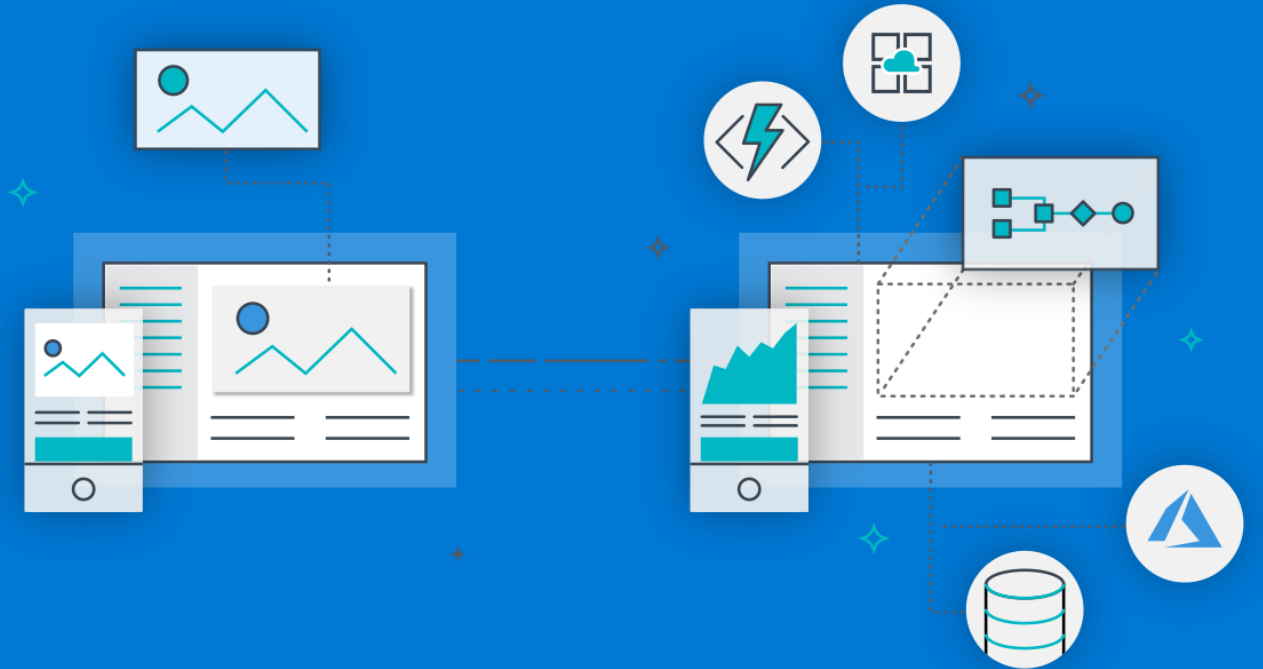
Microsoft Power platform

PowerApps

Microsoft Flow

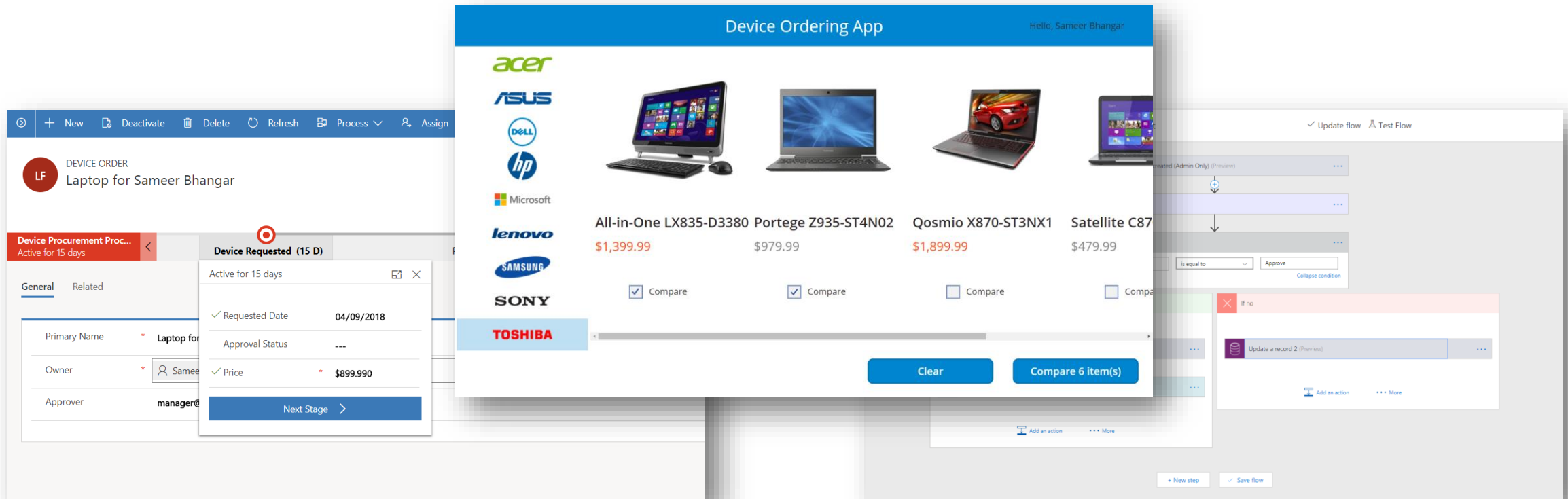
Power BI

Common Data Service for Apps



Business scenario

- Imagine an organization where every three years employees go through a hardware refresh cycle.
- They would like to streamline the device order, procurement and approval process and view aggregate reports
- The employee facing device ordering app needs to run in a web browser and on mobile devices



Lab objectives

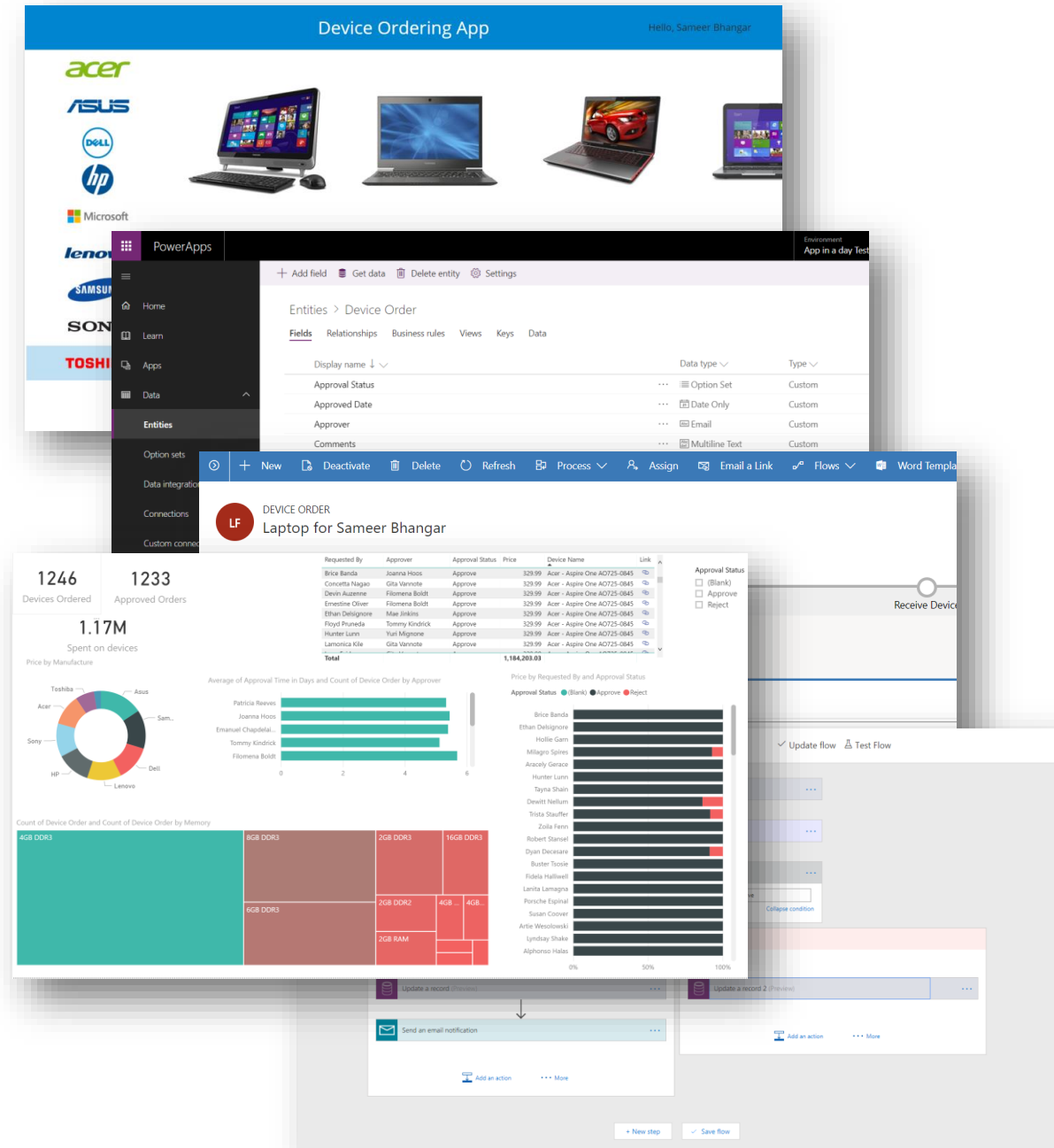
Build a **PowerApps Canvas App** for employee facing device ordering experience

Use the **Common Data Service for Apps (CDS for Apps)** to store the device orders in the cloud

Build a **PowerApps Model-driven App** to complete the procurement process

Use **Microsoft Flow** to build an approval workflow for device approval

Use **Power BI** to visualize device order data



Lab content

Package: <http://aka.ms/appinaday>

Unzip the package on your local machine

Follow instructions: **“00-AppinaDay Lab Overview.pdf”**

Contains 5 modules with a lab doc for each:

- 01-PowerApps Canvas App
- 02-Common Data Service for Apps
- 03-PowerApps Model-driven App
- 04-Microsoft Flow
- 05-Power BI

Completed Modules:

The **\Completed folder** contains solution packages that you can import

e.g. To work on Module 5 without completing previous modules -> see \Completed\Module4

Lab docs:

| <input type="checkbox"/> | Name | Status |
|--------------------------|---------------------------------------|--------|
| | Completed | ✓ |
| | 00-AppInADay Lab Overview | ✓ |
| | 01-PowerApps Canvas App Lab Manual | ✓ |
| | 02-Common Data Service for Apps La... | ✓ |
| | 03-PowerApps Model-driven App Lab ... | ✓ |
| | 04-Microsoft Flow Lab Manual | ✓ |
| | 05-PowerBI Lab Manual | ✓ |
| | Device-Order-Data | ✓ |
| | Historical Device Orders | ✓ |

Completed modules:

| <input type="checkbox"/> | Name | Status |
|--------------------------|----------|--------|
| | Module 1 | ✓ |
| | Module 2 | ✓ |
| | Module 3 | ✓ |
| | Module 4 | ✓ |

Pre-requisites

Valid PowerApps Plan 2 license:

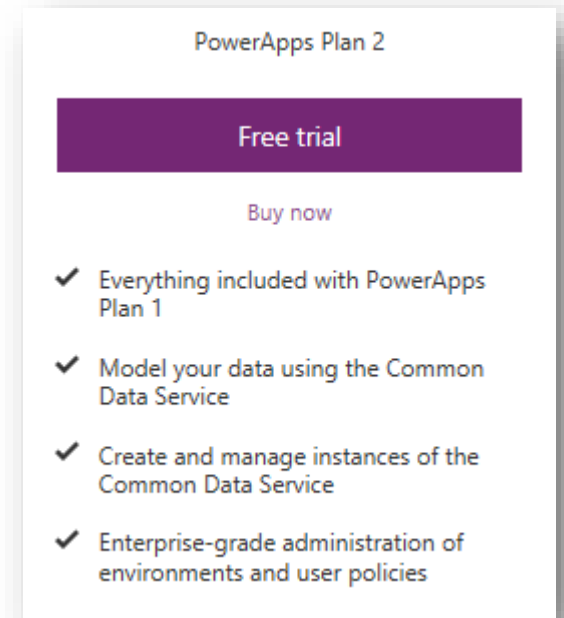
- Common Data Service usage requires a PowerApps Plan 2 license
- Visit <https://powerapps.microsoft.com/pricing/> and click Free Trial
- If you are unable to acquire a trial license:
 - Ask the instructor for a trial user account that you may use for this session OR
 - Create your own Office 365 trial tenant – <http://aka.ms/Office365E5Trial>

PowerApps authoring environment:

- Launch <https://web.powerapps.com> using any modern browser

PowerApps mobile apps (Optional):

- PowerApps – iOS : <https://aka.ms/PowerAppsiOS>
- PowerApps – Android : <https://aka.ms/PowerAppsAndroid>



Provision environment and Common Data Service

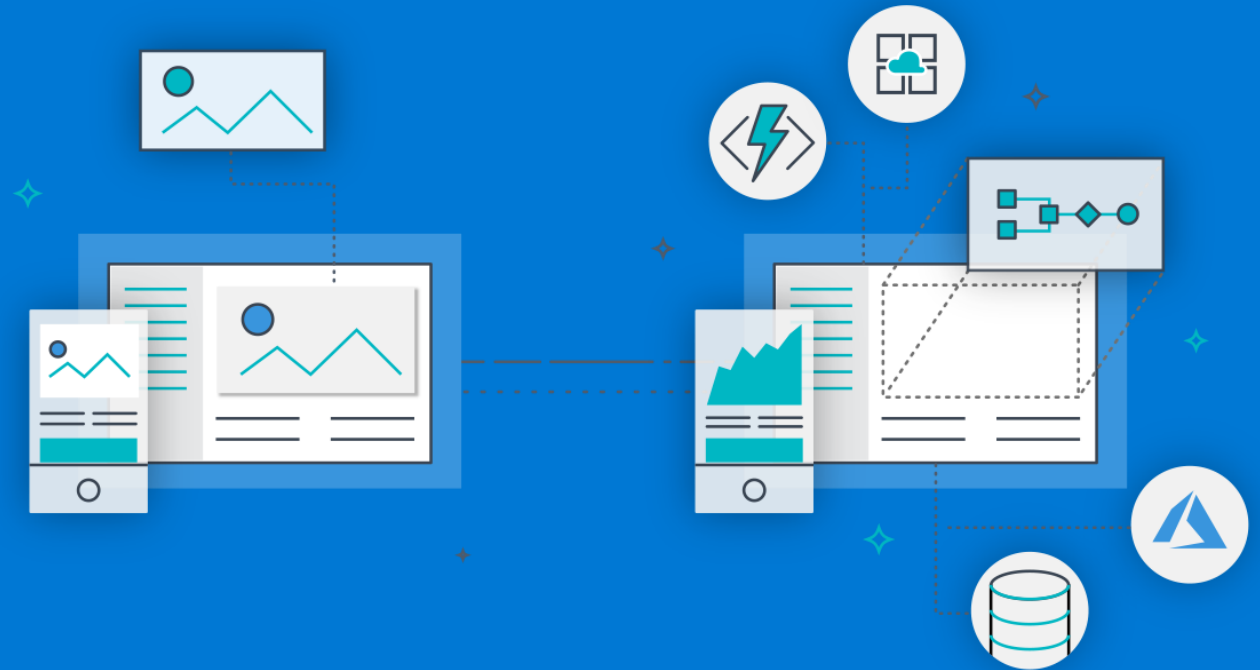
This lab requires a PowerApps environment and CDS database that was provisioned after Apr 1, 2018.

- Go to the PowerApps Admin center – <http://admin.powerapps.com>
- Select **+New environment**, fill out the form and select **Create**
- Select the **Create database** option
- Fill out the form and select **Create database**
- You will be taken to a screen that shows the newly created environment
- **IMPORTANT:** The database has not yet been provisioned
- **Select the environment** you just created
- Wait for the **"Provisioning database..."** message to go away
- You may need to refresh the screen every couple of minutes
- Once the provisioning is complete, then proceed to create apps in the environment



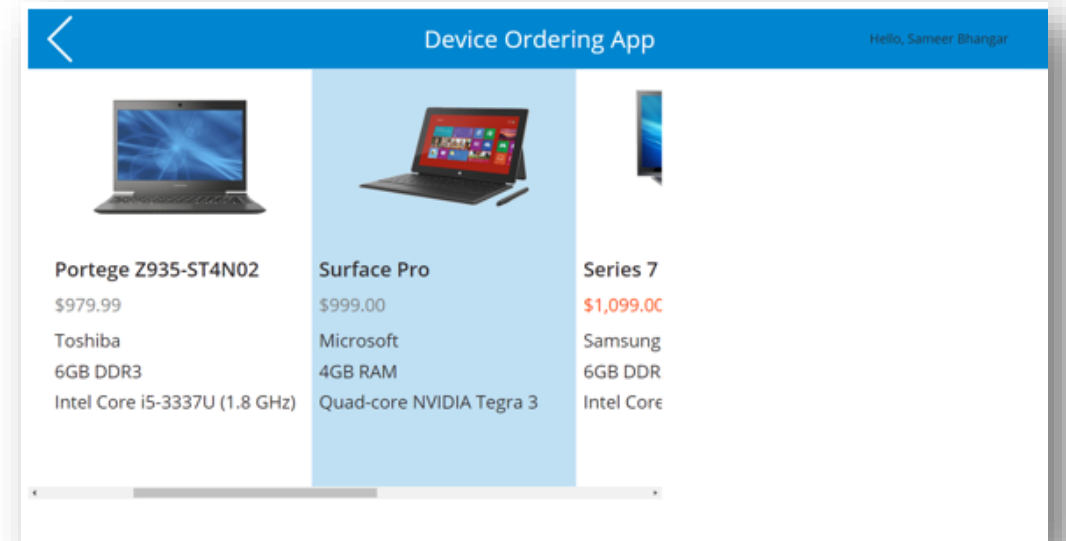
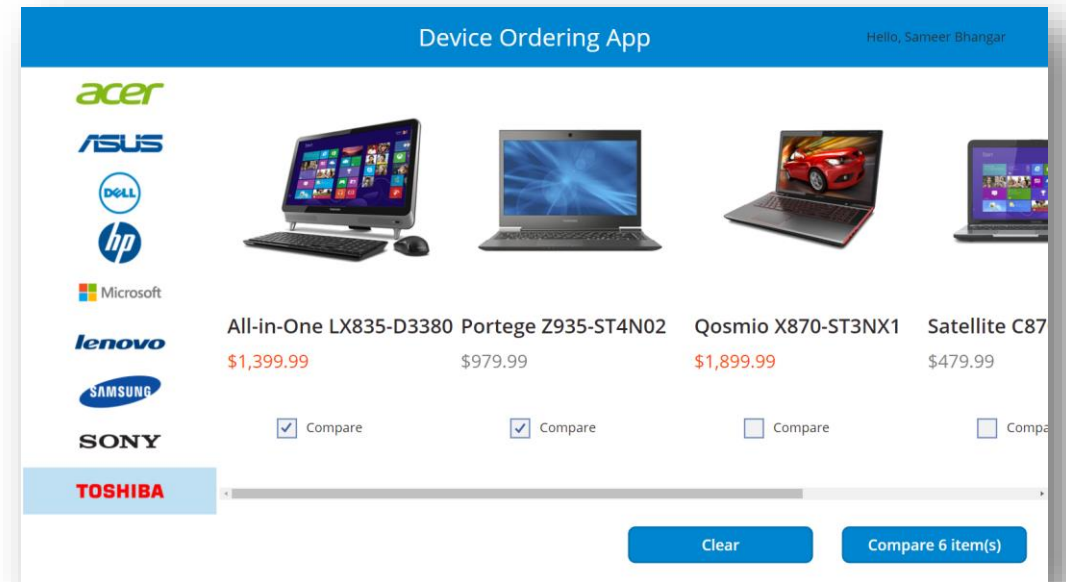
Hands-on-lab

Module 1: PowerApps Canvas App



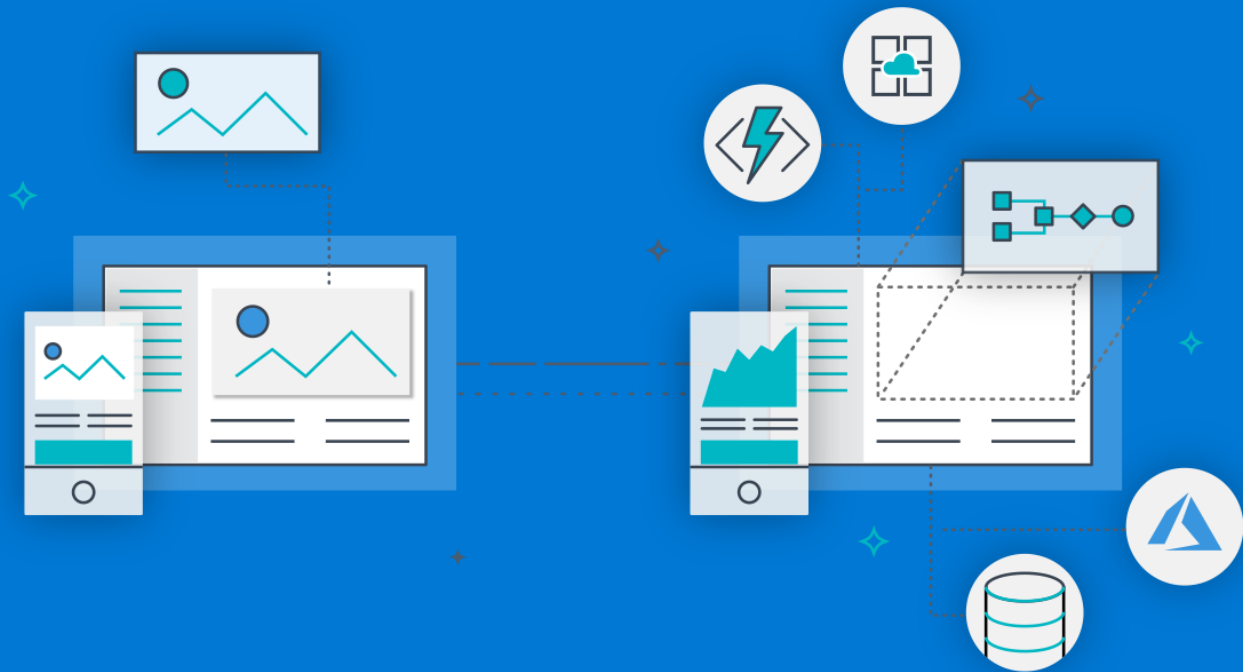
Learning objectives

- Sign-in and create a new Canvas App
- Connect to data sources
- Filter data
- Work with multiple screens and navigation
- Customize the user experience – galleries and controls



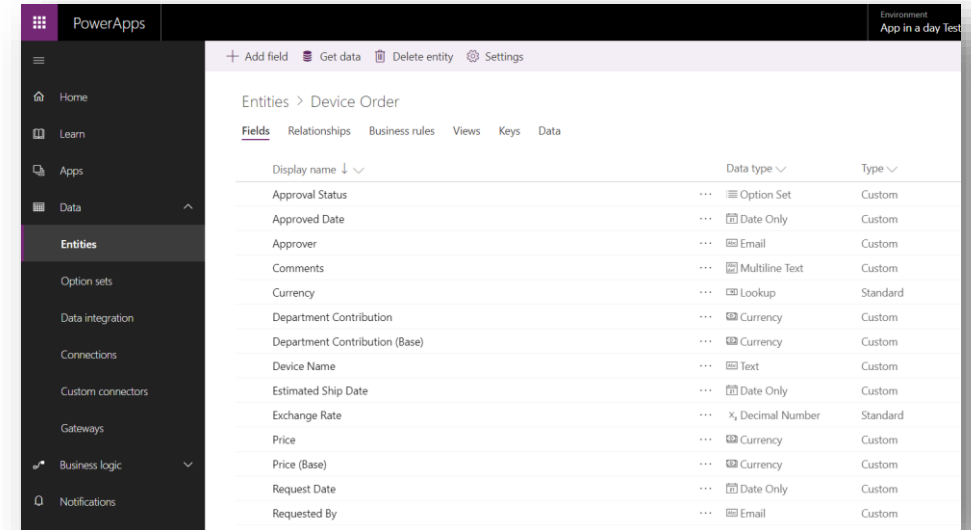
Hands-on-lab

Module 2: Common Data Service for Apps



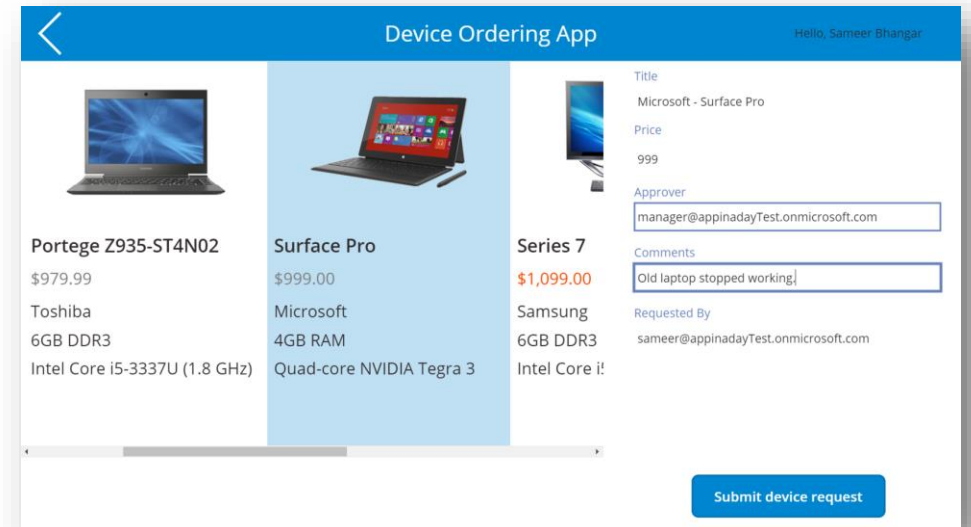
Learning objectives

- Provision a CDS database
- Get familiar with standard entities
- Create a custom entity
- Customize entity fields and option sets
- Create calculated fields
- Use the Canvas app form control to save data to CDS
- Use the Office365 connector to get user's manager info
- Configure Canvas app settings
- Save and share a Canvas app
- Run a Canvas app on a mobile device



The screenshot shows the 'Entities' view for a 'Device Order' entity in PowerApps. The left sidebar contains navigation options: Home, Learn, Apps, Data, Entities (selected), Option sets, Data integration, Connections, Custom connectors, Gateways, Business logic, and Notifications. The main area displays a table of fields for the 'Device Order' entity. The table has columns for 'Display name', 'Data type', and 'Type'. The fields listed are: Approval Status (Option Set, Custom), Approved Date (Date Only, Custom), Approver (Email, Custom), Comments (Multiline Text, Custom), Currency (Lookup, Standard), Department Contribution (Currency, Custom), Department Contribution (Base) (Currency, Custom), Device Name (Text, Custom), Estimated Ship Date (Date Only, Custom), Exchange Rate (Decimal Number, Standard), Price (Currency, Custom), Price (Base) (Currency, Custom), Request Date (Date Only, Custom), and Requested By (Email, Custom).

| Display name | Data type | Type |
|--------------------------------|----------------|----------|
| Approval Status | Option Set | Custom |
| Approved Date | Date Only | Custom |
| Approver | Email | Custom |
| Comments | Multiline Text | Custom |
| Currency | Lookup | Standard |
| Department Contribution | Currency | Custom |
| Department Contribution (Base) | Currency | Custom |
| Device Name | Text | Custom |
| Estimated Ship Date | Date Only | Custom |
| Exchange Rate | Decimal Number | Standard |
| Price | Currency | Custom |
| Price (Base) | Currency | Custom |
| Request Date | Date Only | Custom |
| Requested By | Email | Custom |



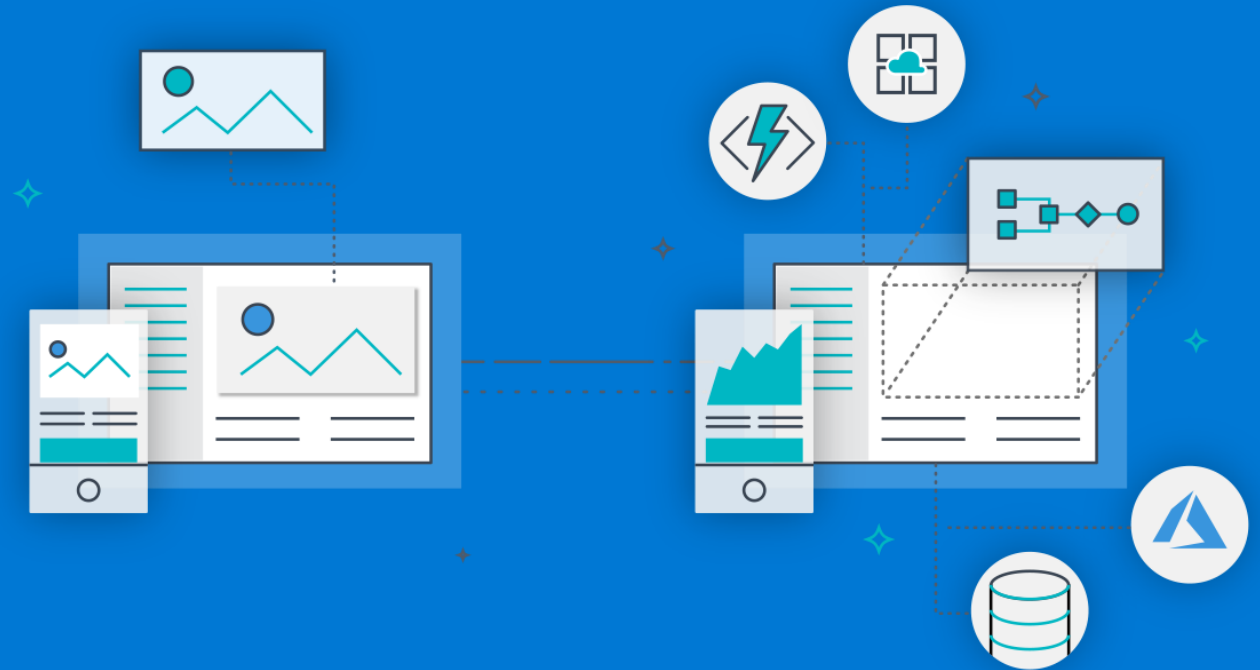
The screenshot shows the 'Device Ordering App' Canvas app interface. The app has a blue header with a back arrow, the title 'Device Ordering App', and the user's name 'Hello, Sameer Bhangar'. The main content area displays three product cards: 'Portege Z935-ST4N02' (Toshiba, 6GB DDR3, Intel Core i5-3337U, \$979.99), 'Surface Pro' (Microsoft, 4GB RAM, Quad-core NVIDIA Tegra 3, \$999.00), and 'Series 7' (Samsung, 6GB DDR3, Intel Core i7, \$1,099.00). The 'Surface Pro' card is highlighted. To the right of the product cards is a form with fields for 'Title' (Microsoft - Surface Pro), 'Price' (999), 'Approver' (manager@appinadayTest.onmicrosoft.com), 'Comments' (Old laptop stopped working), and 'Requested By' (sameer@appinadayTest.onmicrosoft.com). A 'Submit device request' button is located at the bottom right.

| Product | Price | Specs |
|---------------------|------------|--|
| Portege Z935-ST4N02 | \$979.99 | Toshiba, 6GB DDR3, Intel Core i5-3337U (1.8 GHz) |
| Surface Pro | \$999.00 | Microsoft, 4GB RAM, Quad-core NVIDIA Tegra 3 |
| Series 7 | \$1,099.00 | Samsung, 6GB DDR3, Intel Core i7 |



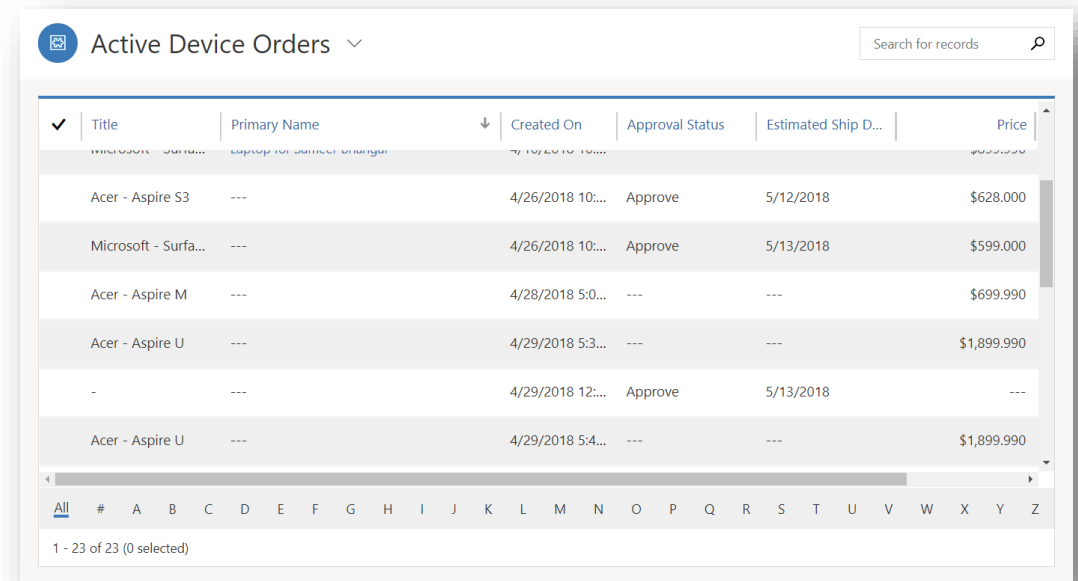
Hands-on-lab

Module 3: PowerApps Model-driven App

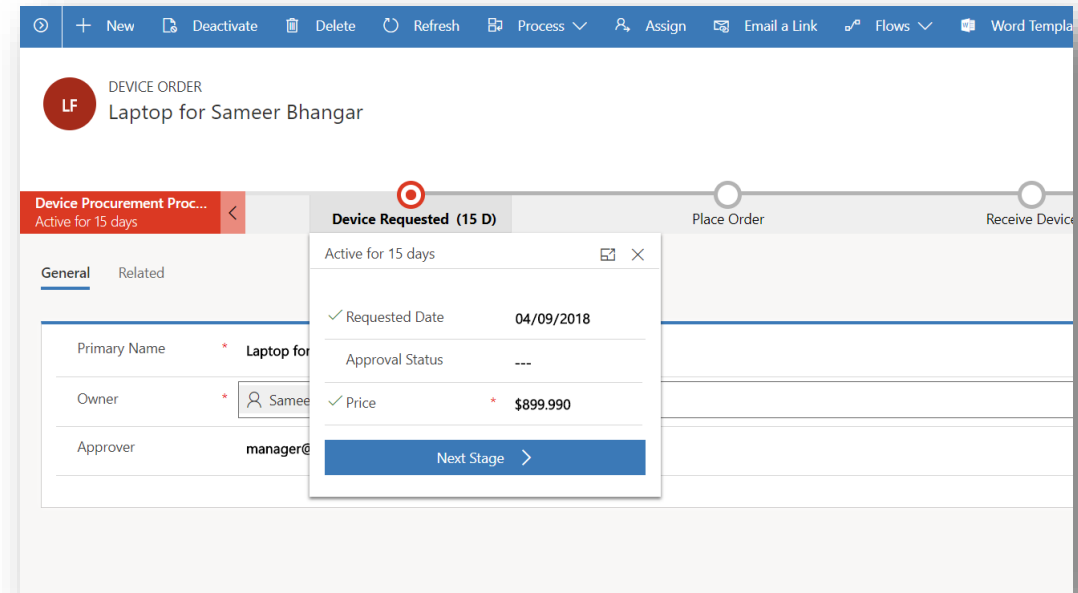


Learning objectives

- Create a standalone Model-driven app
- Customize forms for the Model-driven app
- Create a Business Process Flow



| ✓ | Title | Primary Name | Created On | Approval Status | Estimated Ship D... | Price |
|---|----------------------|--------------|------------------|-----------------|---------------------|-------------|
| | Acer - Aspire S3 | --- | 4/26/2018 10:... | Approve | 5/12/2018 | \$628.000 |
| | Microsoft - Surfa... | --- | 4/26/2018 10:... | Approve | 5/13/2018 | \$599.000 |
| | Acer - Aspire M | --- | 4/28/2018 5:0... | --- | --- | \$699.990 |
| | Acer - Aspire U | --- | 4/29/2018 5:3... | --- | --- | \$1,899.990 |
| | - | --- | 4/29/2018 12:... | Approve | 5/13/2018 | --- |
| | Acer - Aspire U | --- | 4/29/2018 5:4... | --- | --- | \$1,899.990 |



DEVICE ORDER

Laptop for Sameer Bhargar

Device Procurement Proc... Active for 15 days

Device Requested (15 D)

Place Order

Receive Device

General Related

Primary Name * Laptop for

Owner * Sameer

Approver manager@

Active for 15 days

✓ Requested Date 04/09/2018

Approval Status ---

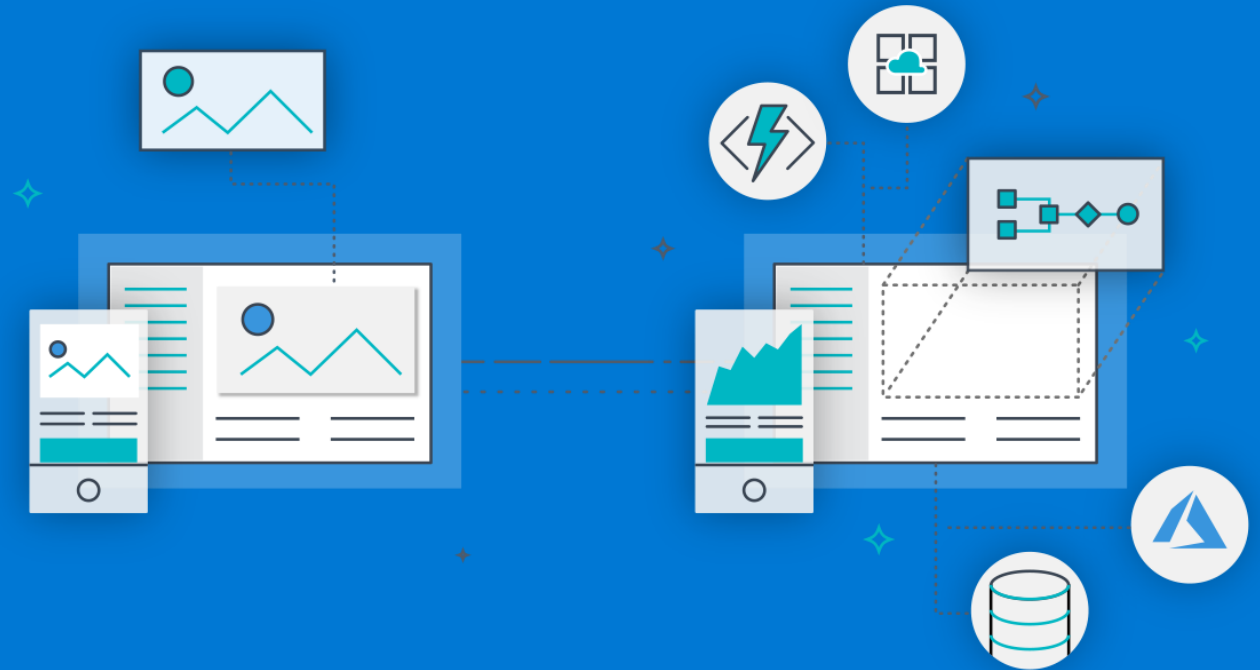
✓ Price * \$899.990

Next Stage >



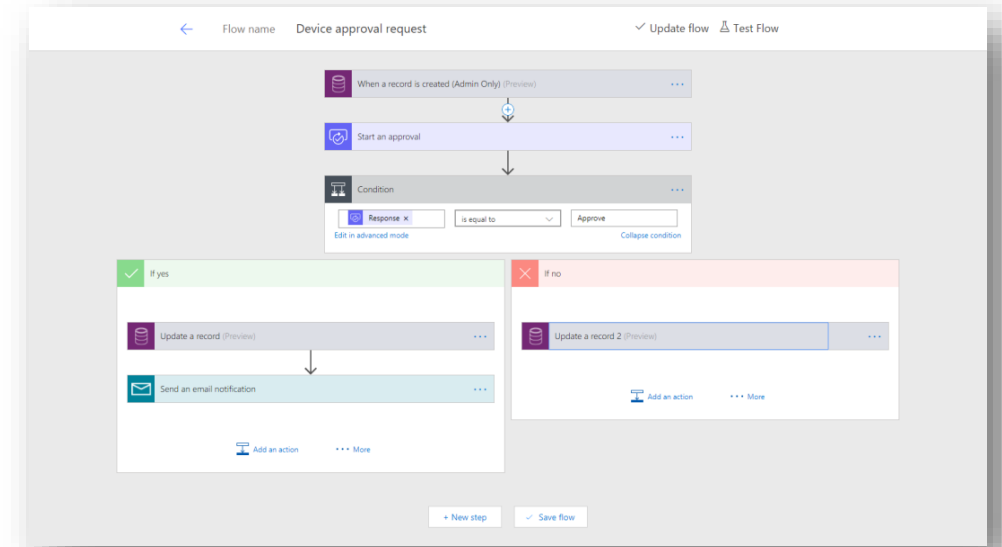
Hands-on-lab

Module 4: Microsoft Flow



Learning objectives

- Trigger a Flow when a new record is created in CDS
- Send an approval request
- Conditional branching based on the approval response
- Send email notifications
- Update the CDS record with the approval status and the approver's comments
- Use the approval center on web and mobile
- Check the status of Flow runs

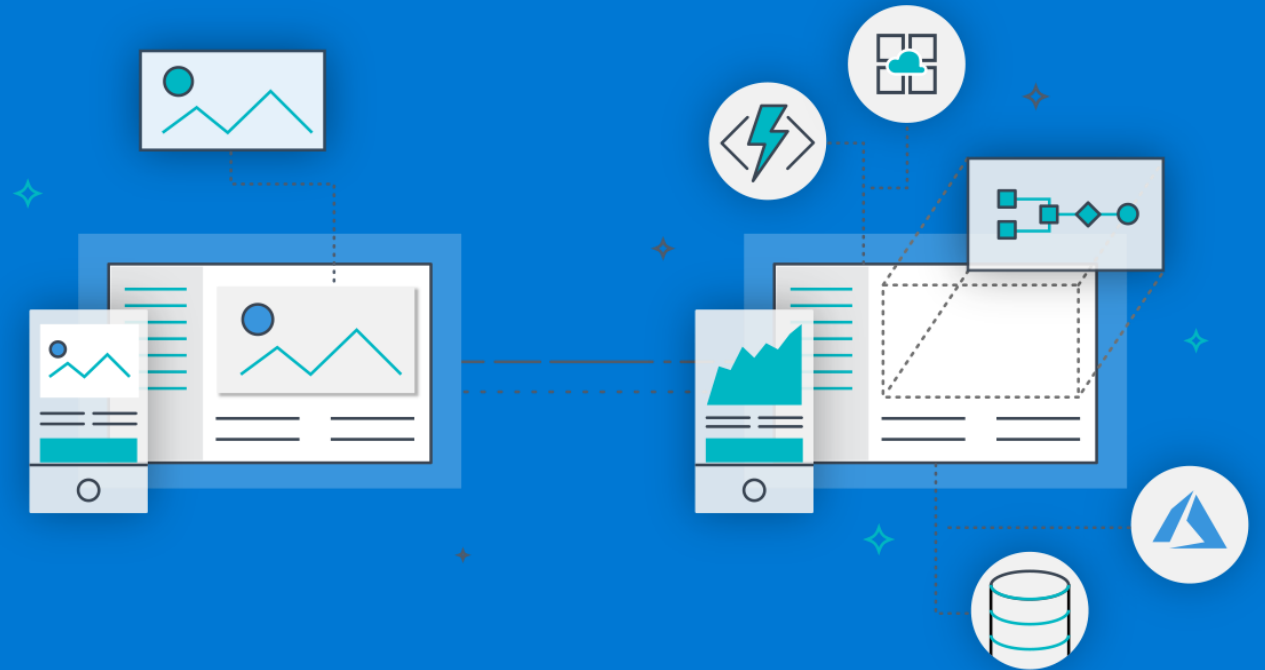


The screenshot shows the 'Device approval request' flow overview page. The flow is currently 'On'. The left sidebar shows the flow's components: 'Device approval request', 'Add a description', and 'See analytics'. The main area displays the 'CONNECTIONS' and 'OWNERS' sections. The 'CONNECTIONS' section lists 'Approvals', 'Common Data Service (Preview)', and 'Mail'. The 'OWNERS' section lists 'Sameer Bhangar' and 'Add another owner'. The 'RUN HISTORY' section shows a list of runs, all with a status of 'Running' and a time of '13 hours ago' or '14 hours ago'.

| Run ID | Status | Created On | Completed On | Duration |
|--------|---------|--------------|--------------|----------|
| 1 | Running | 13 hours ago | 13 hours ago | |
| 2 | Running | 14 hours ago | 14 hours ago | |
| 3 | Running | 14 hours ago | 14 hours ago | |
| 4 | Running | 14 hours ago | 14 hours ago | |
| 5 | Running | 14 hours ago | 14 hours ago | |
| 6 | Running | 14 hours ago | 14 hours ago | |
| 7 | Running | 14 hours ago | 14 hours ago | |
| 8 | Running | 14 hours ago | 14 hours ago | |

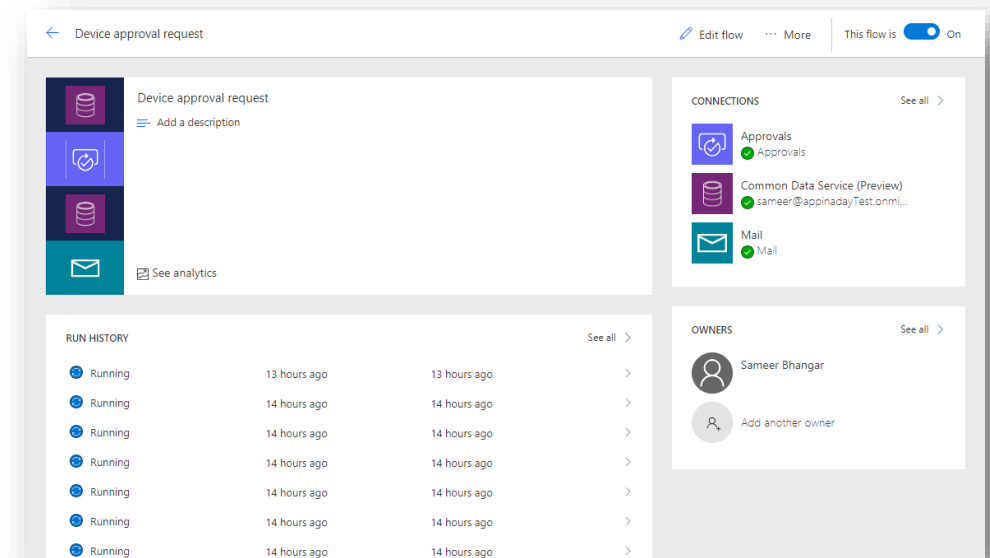
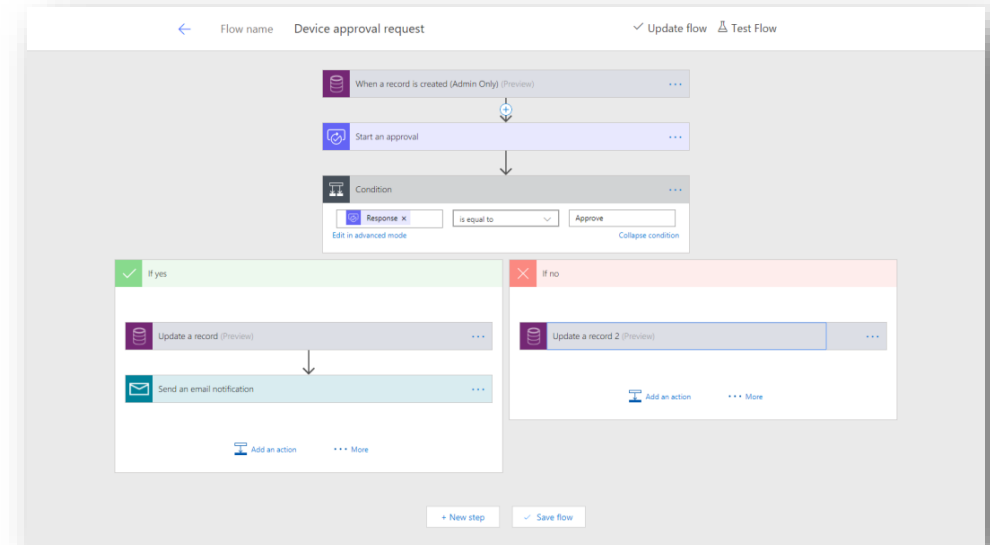
Hands-on-lab

Module 5: Power BI



Learning objectives

- Connect Power BI to the Common Data Service
- Transform CDS data for use in visualizations
- Create visualizations on the CDS data
- Combine CDS data with other data sources



Lab survey

<http://aka.ms/appinadayLabSurvey>



Microsoft

Thank you for taking the time to provide feedback about your experience based on the App in a Day course. This survey is divided into multiple parts to understand your experience with the product(s) and the lab(s).

The survey should take approximately 5-7 minutes to complete. Your feedback will help us improve the product(s) and the lab(s).

Which lab(s) have you recently taken that you would like to rate? (Select all that apply.)

PowerApps Canvas lab

CDS for Apps lab

PowerApps Model-driven lab

Microsoft Flow lab



Learning resources

<http://aka.ms/powerapps-resources>

<http://aka.ms/flow-resources>

Customer stories

<http://aka.ms/PowerAppsStories>

<http://aka.ms/GJPepsiVideo>

<http://aka.ms/ArrivaVideo>

<http://aka.ms/HeathrowVideo>

PowerApps Canvas Apps - Learning Resources



Saurabh Pant, Principal Program Manager, Tuesday, January 30, 2018

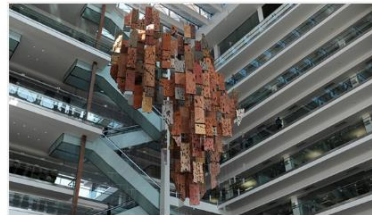


As members of the PowerApps Customer & Partner Success team, we often get asked for resources to aid our customers on their PowerApps journey. Below is a set of links we've curated to help novice, intermediate and advanced users as they take this journey with us. We hope you find it useful.

Are there any key topics missing? Please leave us comments below.

I am NEW, help me get started

- Business
- Introduction



Standard Bank

LEARN MORE >



American Red Cross

LEARN MORE >



TransAlta

LEARN MORE >



