TheTechPlatform
Where Tech Meets.

Introduction to Power Apps – Session 1

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AGENDA SLIDE

What we will cover today

Intro to Power Apps

Why we need Power Apps

Power Apps

What is Power Apps?

Power Apps License

Basic information on Power Apps license

Types of Power apps

Which Power Apps to use in which scenario

Demo

A walkthrough on Power Apps UI

House Keeping

6 pm IST - Start of Session

Class Slides

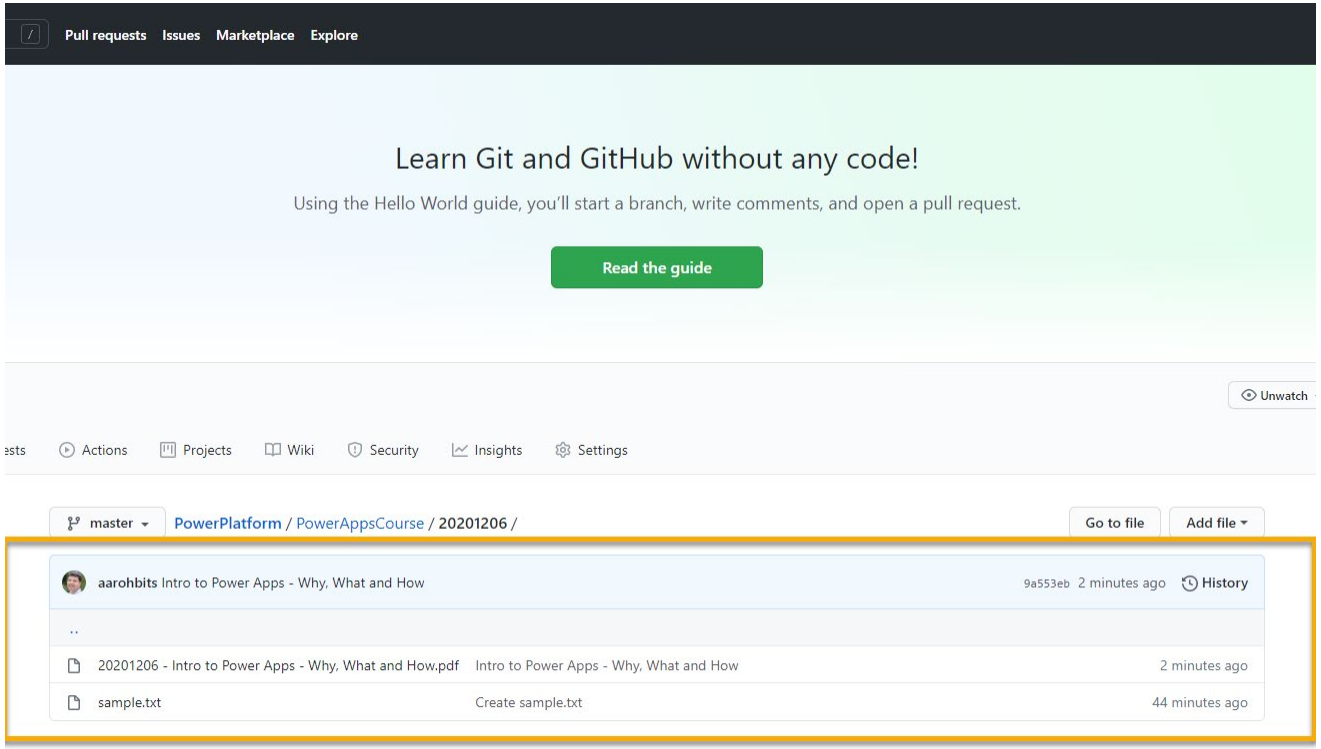
Labs

Additional Resources

Video Resources

Q & A

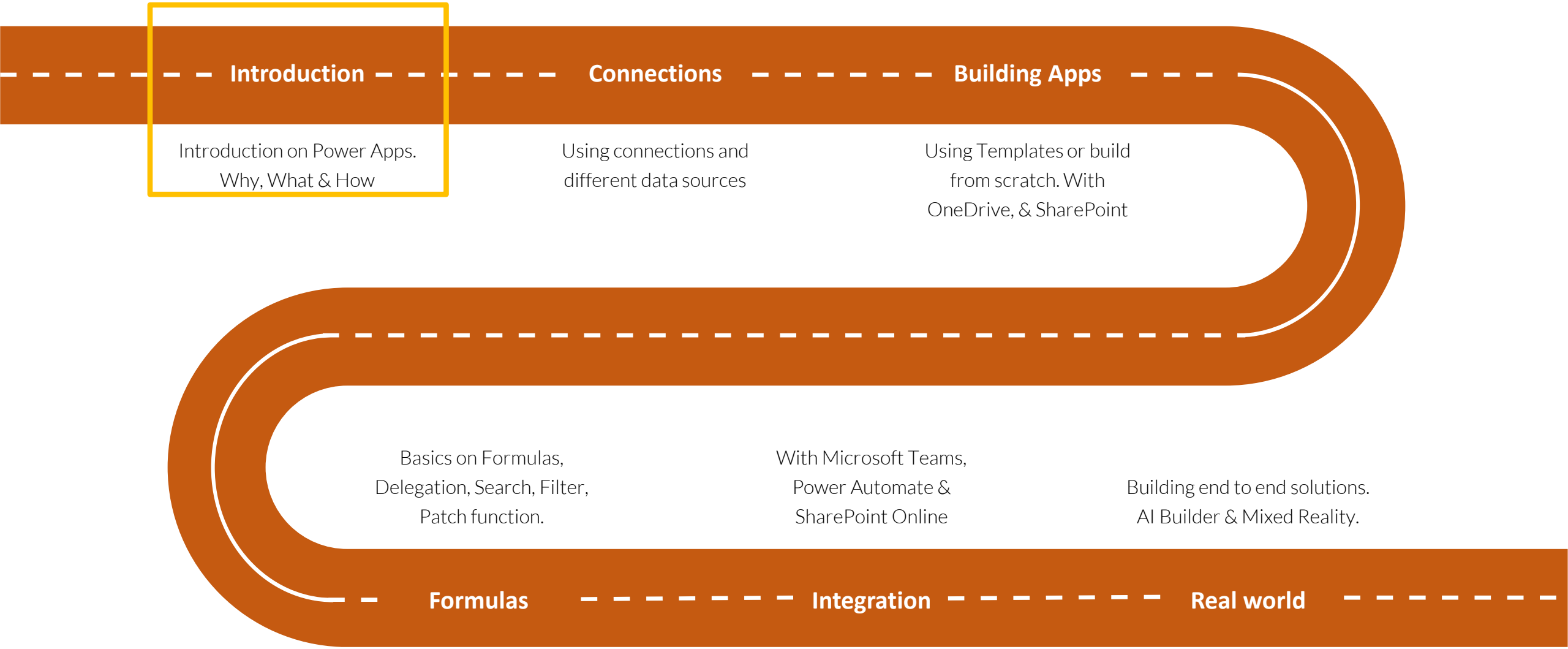
Location of Slides



- https://github.com/aarohbits/PowerPlatform/tree/master/PowerAppsCourse/20201206

Course Roadmap

Introduction to Power Apps



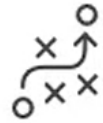
Transforming your business is challenging

Budget constraints

Time & Resource constraints

Business expectations

Paper processes



Complex processes

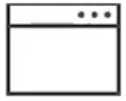
IT/Business partnership

No BI integration

"Shadow IT" governance

Tools to create the right culture

Security & Compliance



Legacy system maintenance

Difficult to find insights

Track & measure performance

Leverage existing technology

Integrate data from the right sources

What is Line of Business Application?

Built specifically to serve an organization's business needs

Built specifically for an industry.

Expensive to maintain

Does not keep up with organization's need for change

Challenges

Line of business Apps are **complicated**

Users struggle with vast number of systems in an organization

Lack of **visibility**

Users are looking for **mobile first**

Easy to use

Demand **for mobile apps** is growing 5x faster than IT departments can deliver

The Dilemma

Buy off-the-shelf

Will this **app solve all your problems?**

What do you do when the software **does not solve all your problems?**

Building a custom application

How much **time do you have**?

Who is going to *maintain in long term*?

Microsoft Power Platform

The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications

Innovation anywhere. Unlocks value everywhere.

Power BI
Business analytics

Power Apps
Application development

Power Automate
Process automation

Power Virtual Agents
Intelligent virtual agents

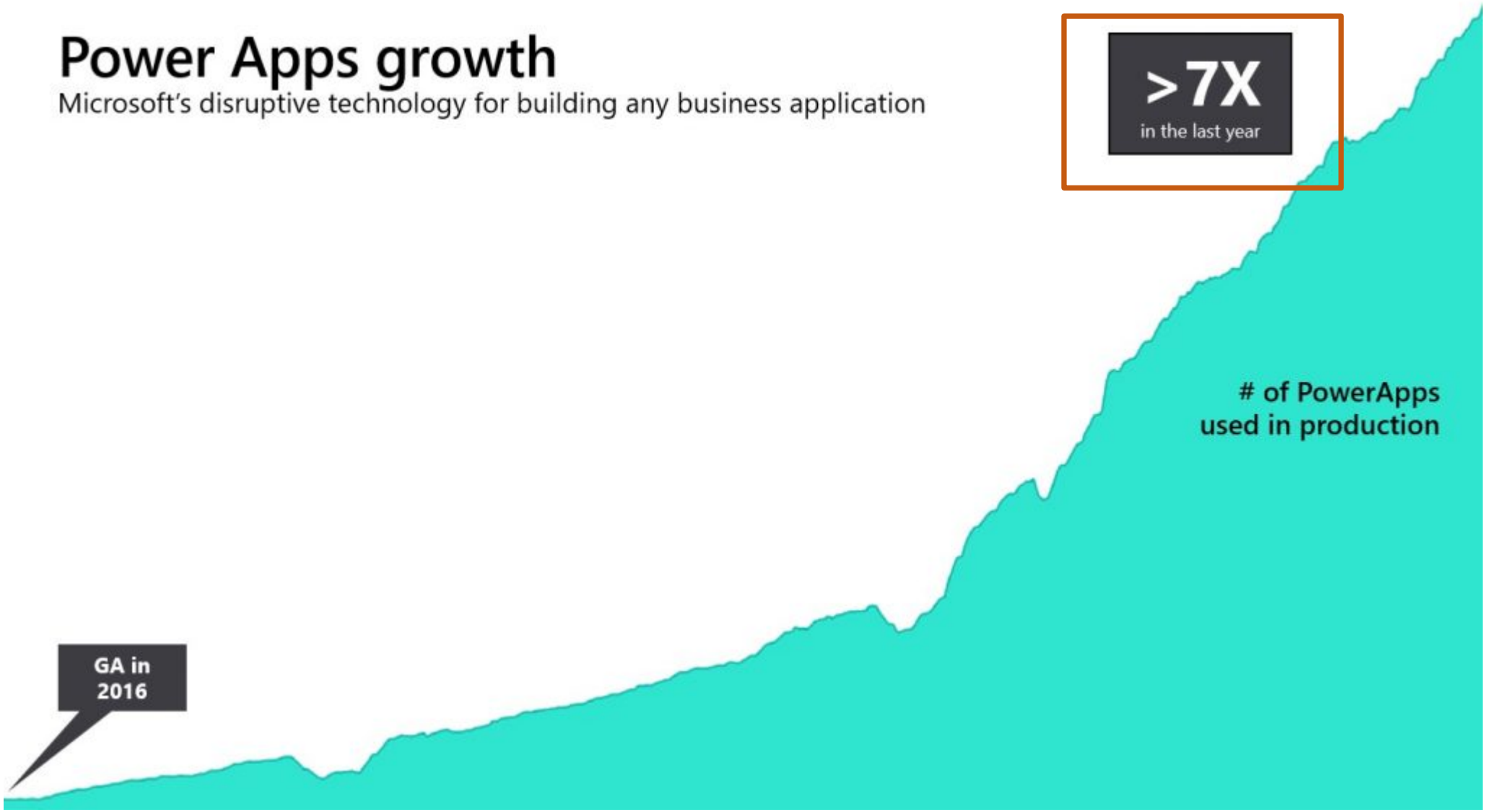
Data connectors

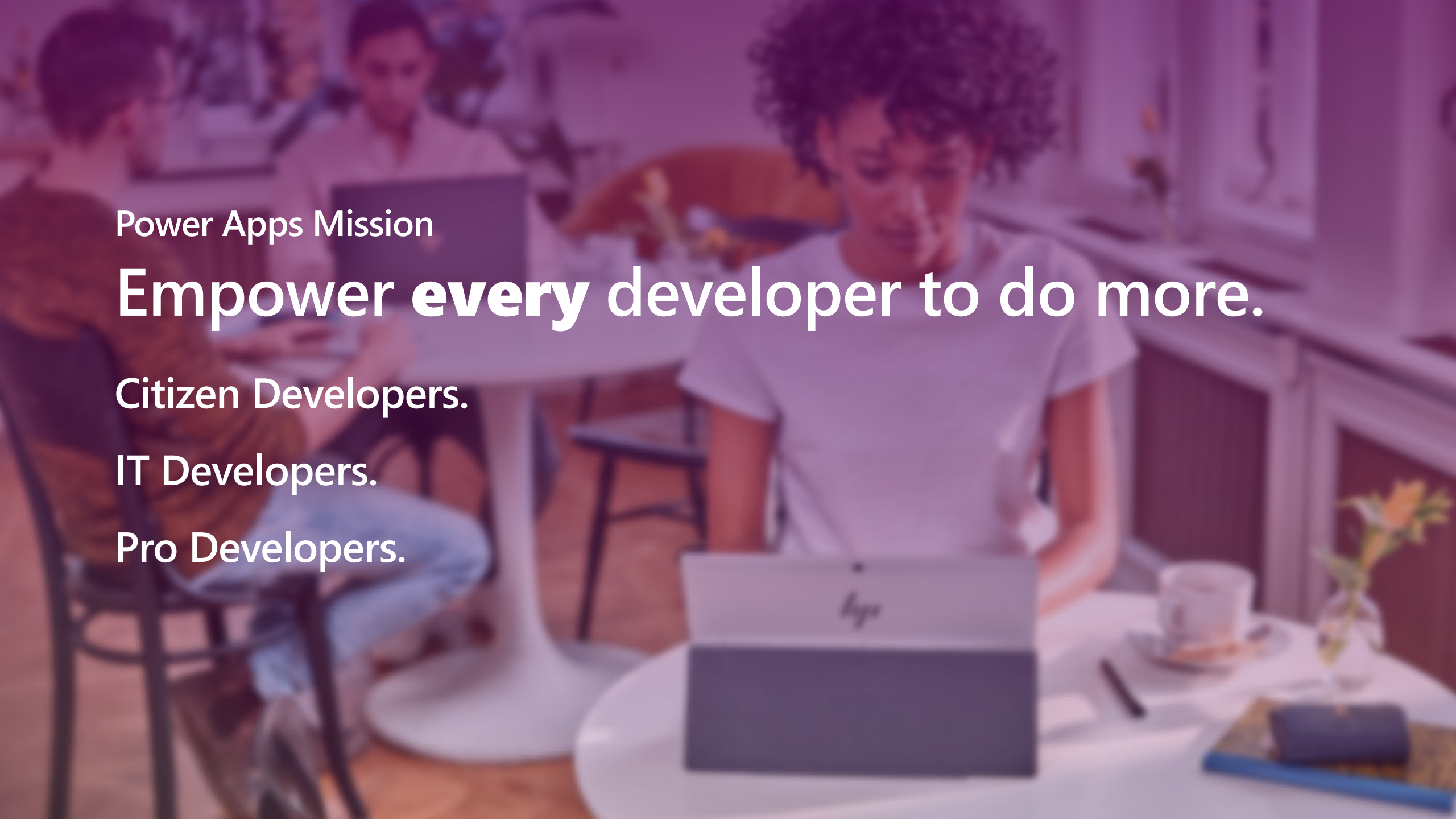
AI Builder

Common Data Service

Power Apps growth

Microsoft's disruptive technology for building any business application





Power Apps Mission

Empower **every** developer to do more.

Citizen Developers.

IT Developers.

Pro Developers.

Develop faster than ever before with the Microsoft Platform

Pro Developers + Power Platform = No Limits

Azure DevOps

Power Platform

Power BI

Power Apps

Power Automate

Power Virtual Agents

Every Developer (Low Code)

Azure services

Analysis Services

API Management

Azure Functions

AKS

Logic Apps

Cognitive Services

Bot Services

Azure / Office Data Services

Microsoft Graph

SQL Azure

SQL Data Warehouse

Cosmos DB

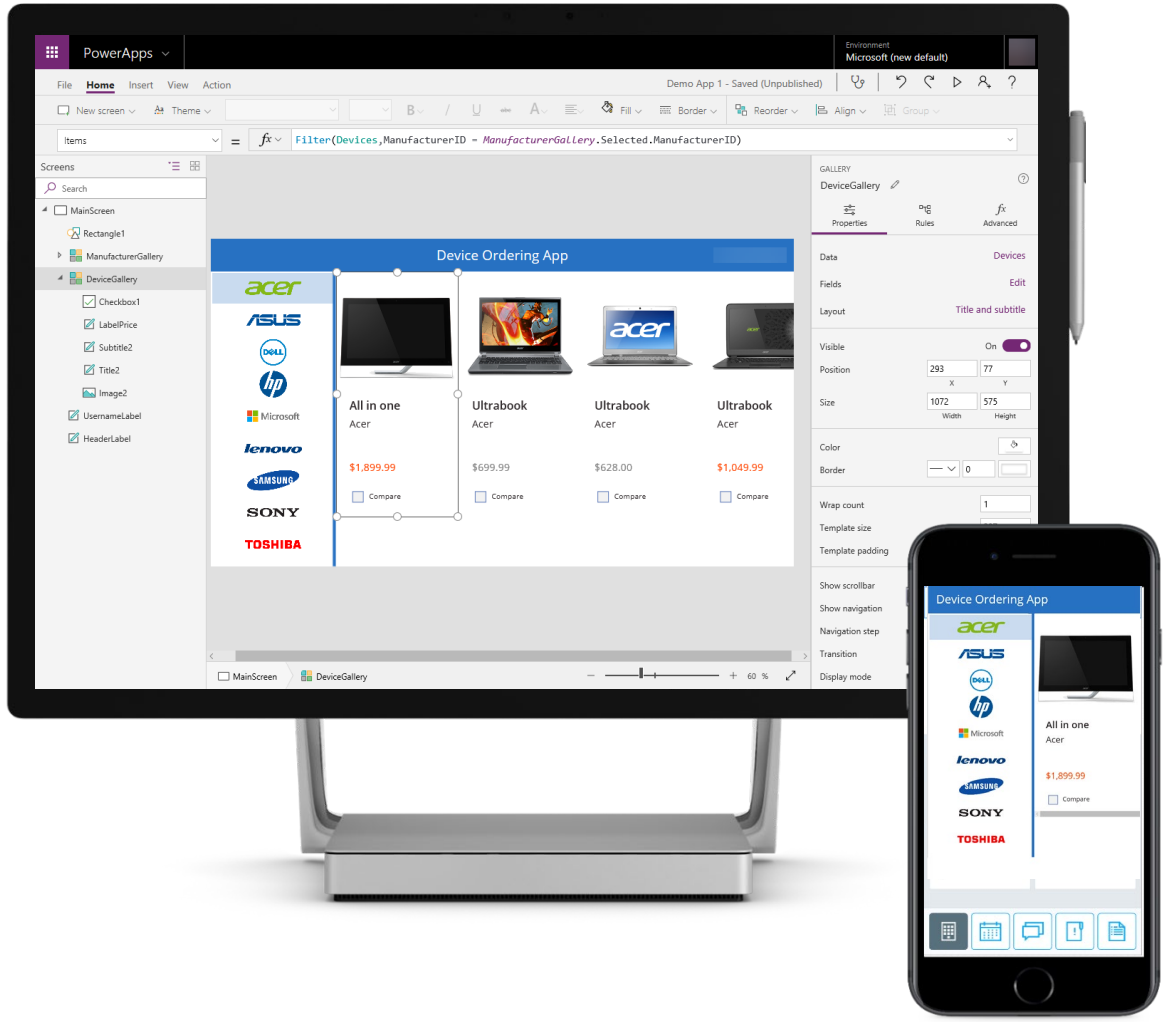
Pro Developer (Code First)

Visual Studio

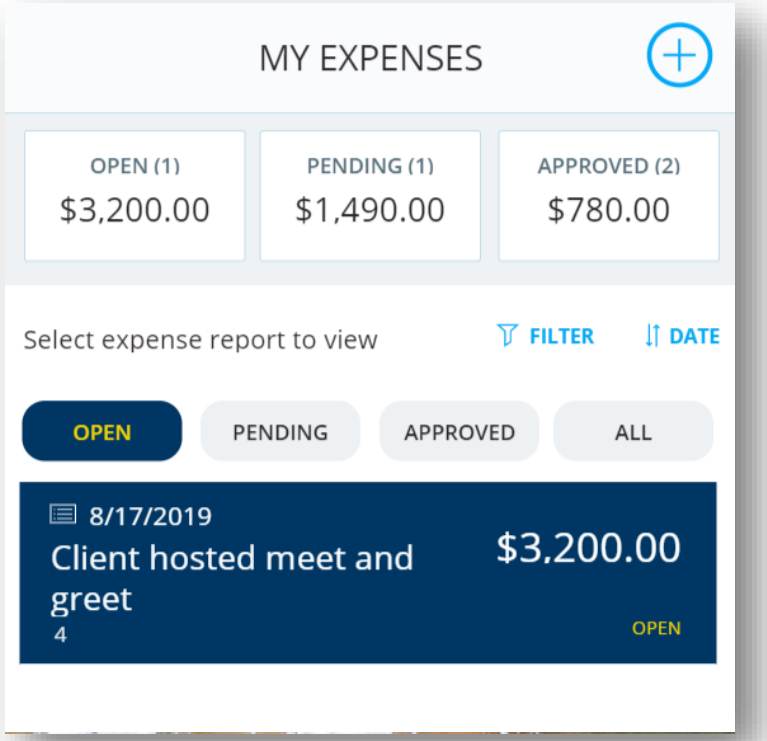
Visual Studio Code

Power Apps: a low-code approach to building apps

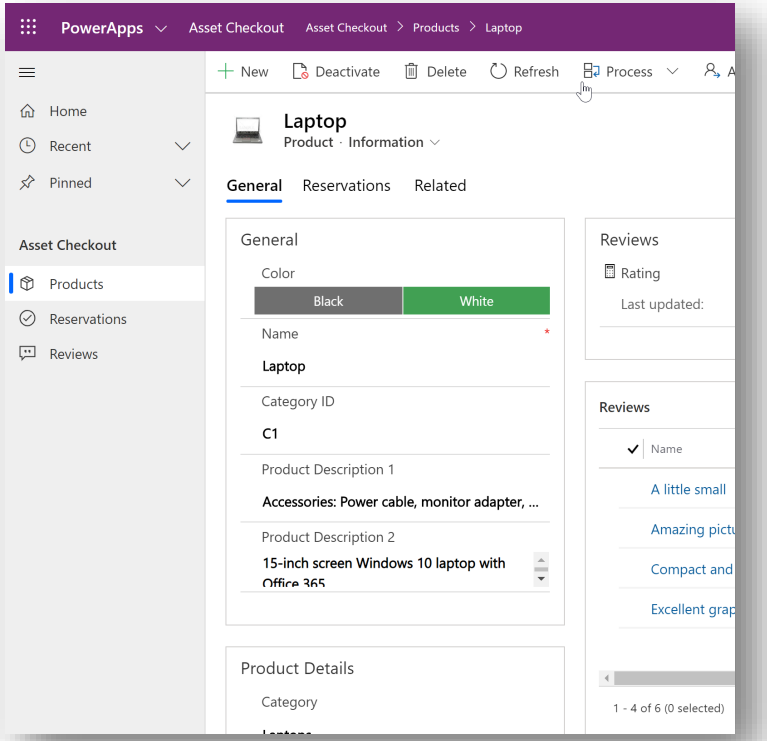
- Easily build apps with a full featured low-code / no-code platform
- Connect to your existing data with 300+ pre-built connectors and custom connectors
- Store your data in the Dataverse (formerly Common Data Service)
- Integrated with Office 365, Azure, Dynamics 365, and Power BI
- Strong enterprise governance & security
- Pro-dev extensibility



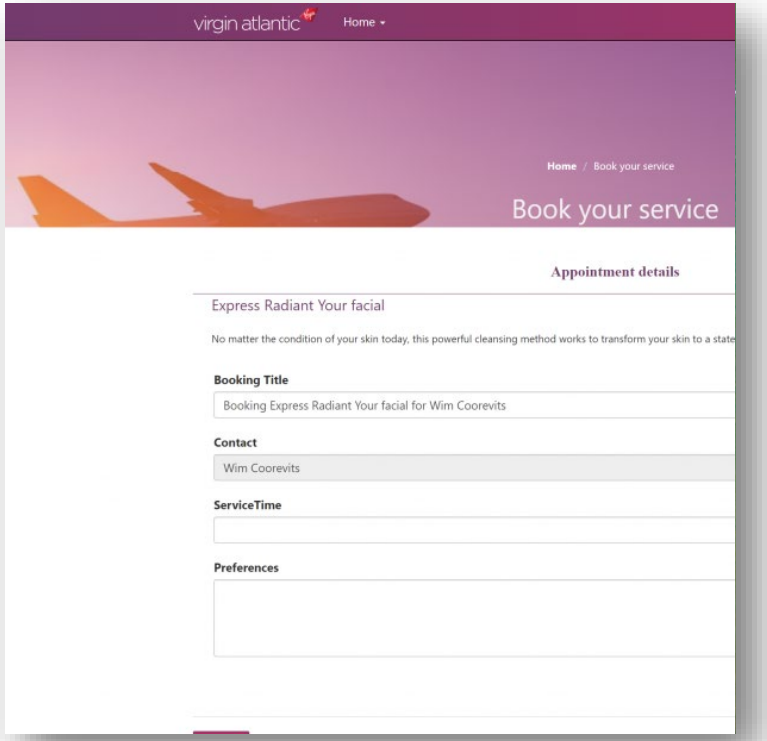
Type of Power Apps



Canvas Apps



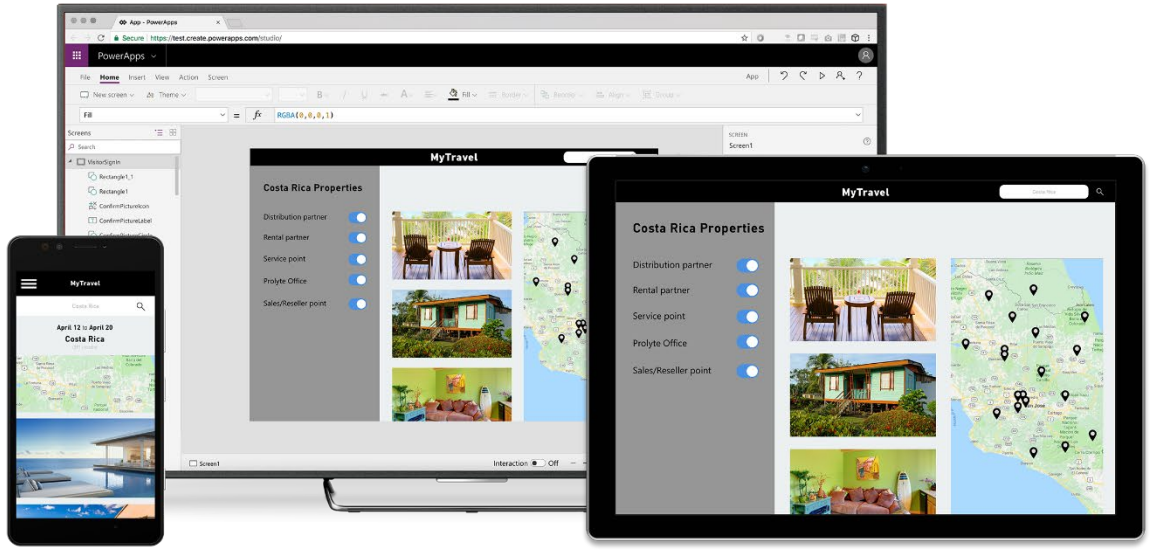
Model Driven Apps



Portals

Put your data to work with the **Dataverse**

- "Out-of-the-box" data store for your apps
- Advanced security, business logic and rules
- Jumpstart apps with the Common Data Model
- Dynamics 365, Office 365, and Azure data is available, augmented by industry partners
- Extend to your own needs and integrate across your apps and services



AI Builder: intelligent apps and processes

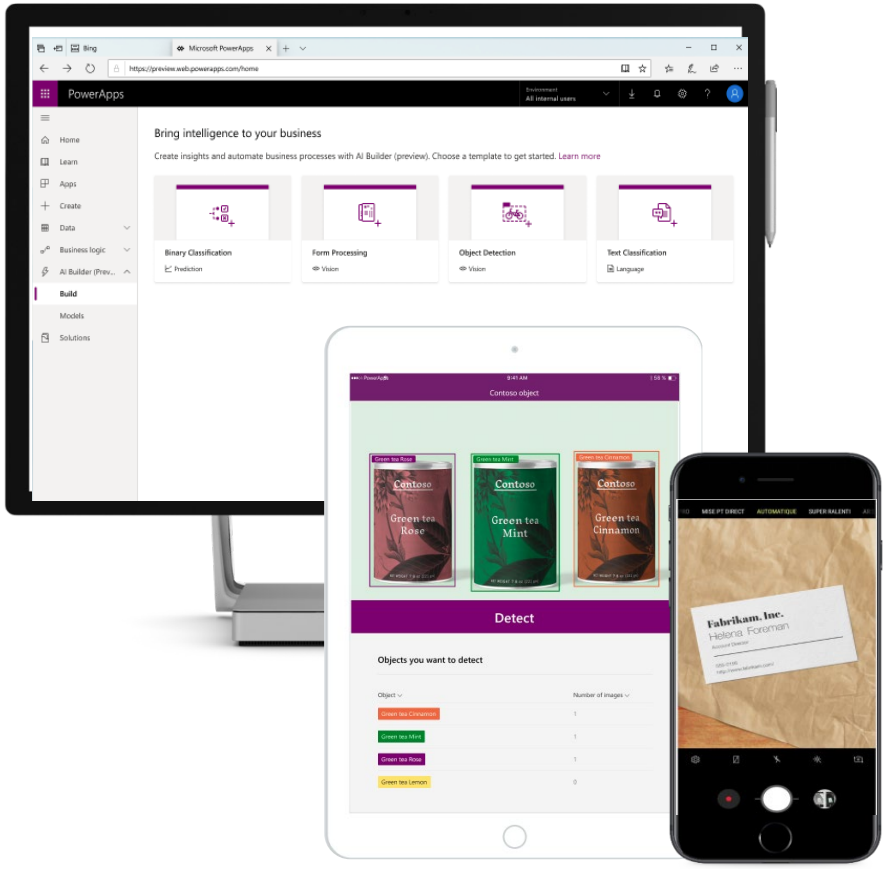
Low code AI solutions for **Power Platform** leveraging the power of **Microsoft AI**

Bring your data from **Dataverse**, **ADLSv2** or 300+ pre-built connectors and custom connectors

Customize Dynamics 365 **AI offerings to specific schema and processes** with AI Builder

Predictions available in **Dataverse** for Power Platform and Dynamics

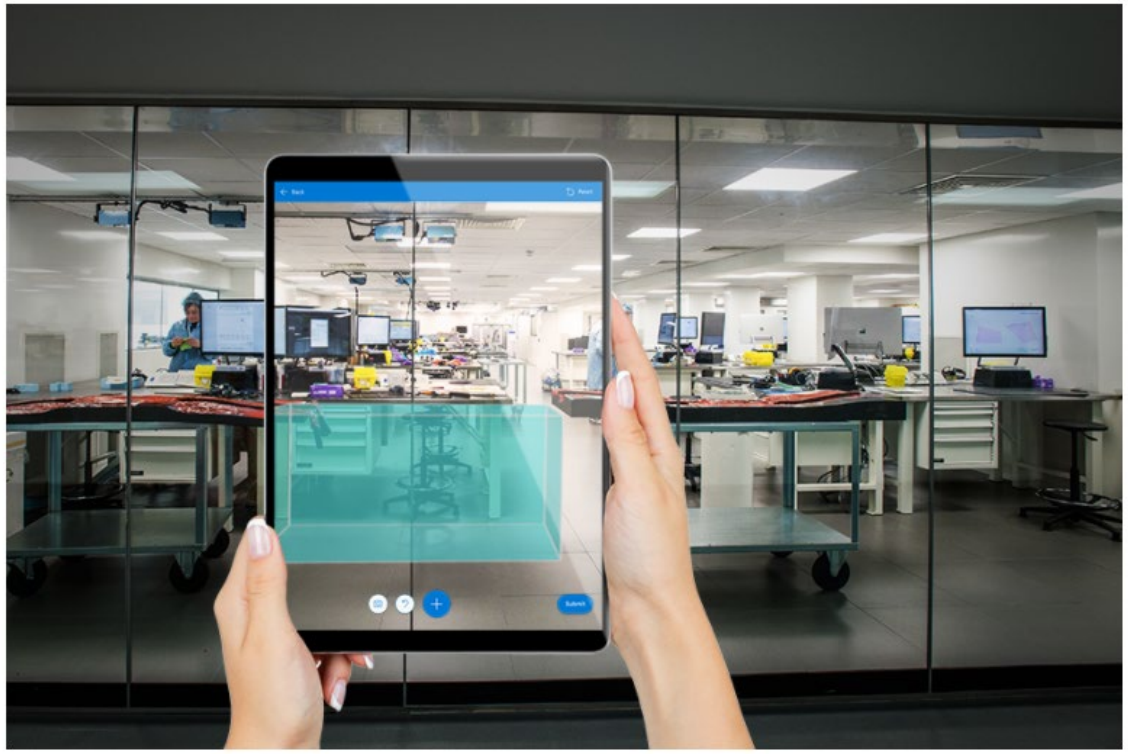
Pro-Dev extensibility and governance



Mixed Reality

Take measurements

Validate fit before work begins

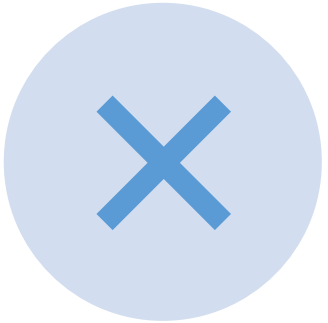


Power Platform License is COMPLEX

Frequent changes

Newer products with existing Power Platform

Office 365 and Dynamics 365 and Azure



Standard Connector & Premium Connector

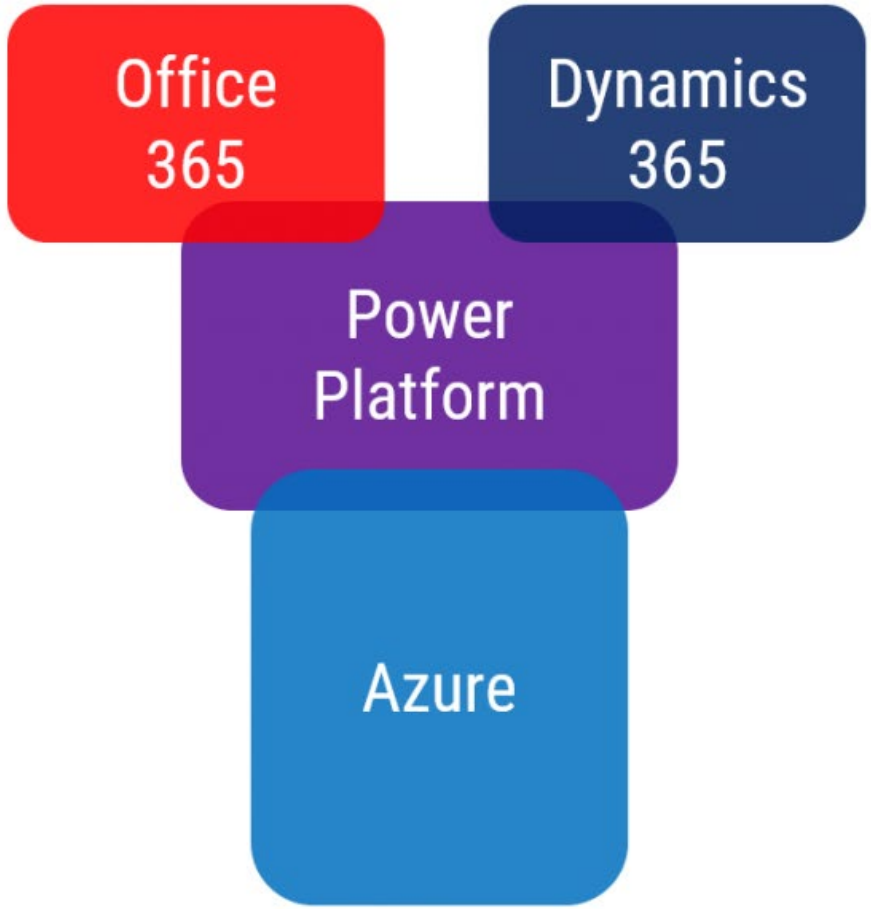
Power Platform License is COMPLEX

SaaS
(Software as a Service)

aPaaS
(Application Platform as a Service)

PaaS
(Platform as a Service)

IaaS
(Infrastructure as a Service)



Power Apps / Power Platform – Free For Office 365 Plans

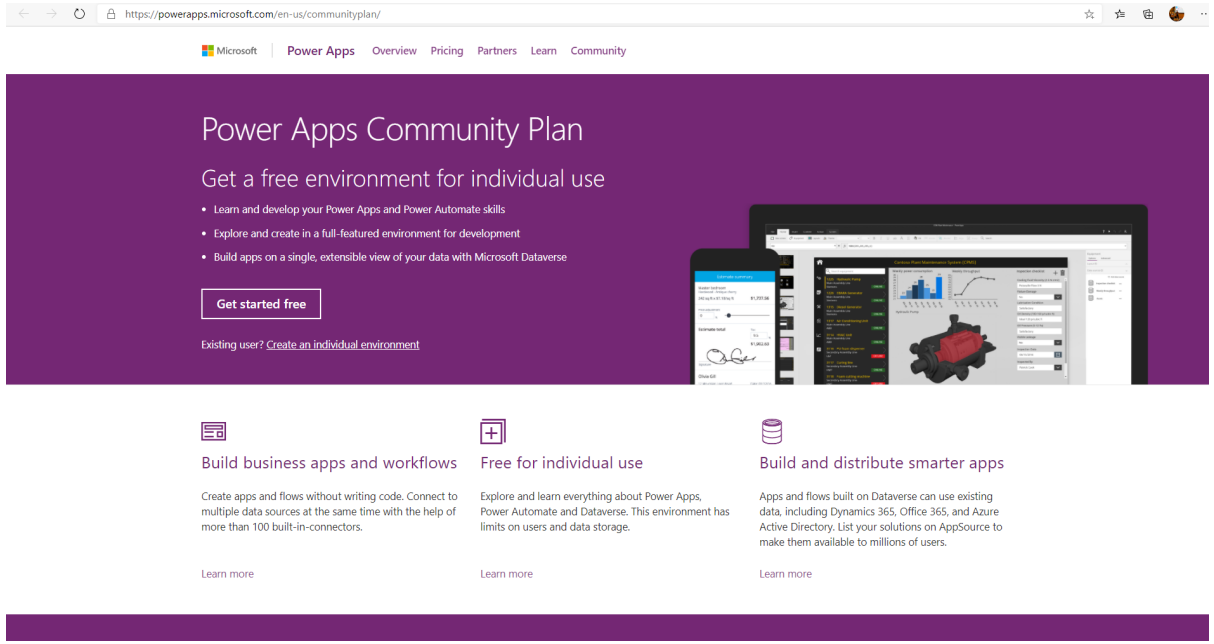
- Power Apps per **app plan**: **US$ 10** per user/app/month
  - Allows you to access **two** custom Power Apps (**Canvas app** or **Model-driven app**) and **one Portal app**
  - All apps must be in the same Dataverse environment.

- Power Apps per **user plan**: **US$ 40** per user/month
  - Allows you to access an **unlimited number of Power Apps** (Canvas/Model-driven/Portal) in your tenant.
  - Can also be used for accessing Canvas apps shared to guests in another tenant

- Power Apps portal
  - Power Apps portals login capacity add-on, 100 logins per month: **US$200**
  - Power Apps portals page view capacity add-on, 100,000 page views per month: **US$100**
  - Internal users must be licensed separately, either via **Power Apps** or **Dynamics 365** licenses.
- References
  - Official Microsoft Power Apps pricing
  - Official Power Portals FAQ
  - Blog: Price points of Power Platform

Power Apps / Power Automate – Community Plan

- Get a free environment for individual use
  - Learn and develop your **Power Apps** and **Power Automate** skills
  - Explore and create in a **full-featured** environment for development
  - Build apps on a **single**, extensible view of your data with **Microsoft Dataverse**



[Power Apps Community Plan | Microsoft Power Apps]

“Low Code” Development With Power Apps and Power Automate

Low Code Concepts

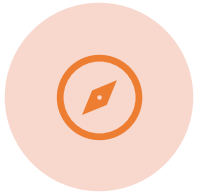
Declarative & Imperative Logic

Formulas

Variables and Collections

Data Sources

Controls & Bindings



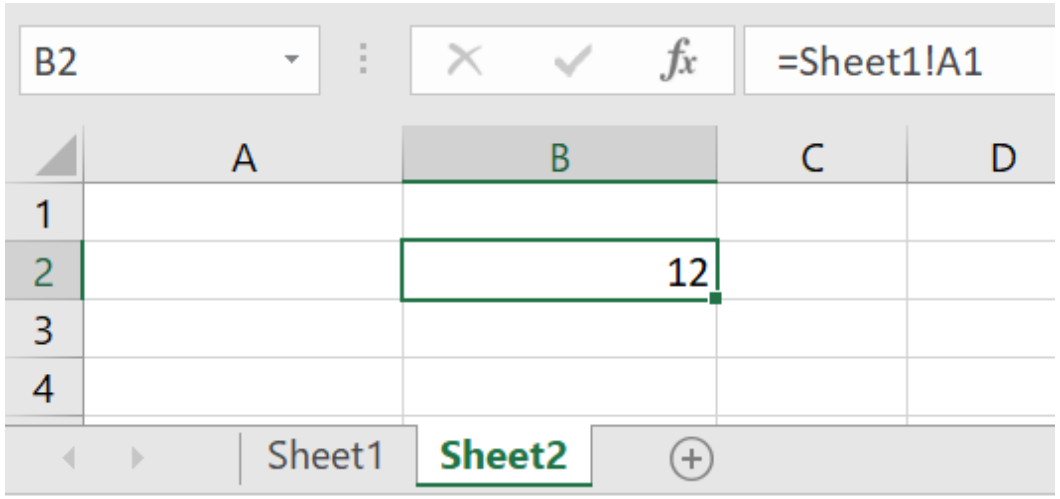
Navigation

1. Declarative and Imperative Logic

- **Declarative logic (Excel, Power Apps)**
  - Define data flow dependencies between values.
  - Pull Changes
  - Logic automatically performed as value changes called as **recalculations**
  - For e.g., *Screen.Background = if (IsBlank(Name), Red, Green)*
- **Imperative logic (Visual Basic , C#, JavaScript**)
  - Defined Steps
  - Push Changes
  - Logic is event driven, executed once for each event
  - For e.g.,

```
private static void button_Click(object sender, EventArgs eventArgs)
{
  Screen.Background = if (IsBlank(Name), Red, Green)
}
```

2. Reference Access Sheets / Screen

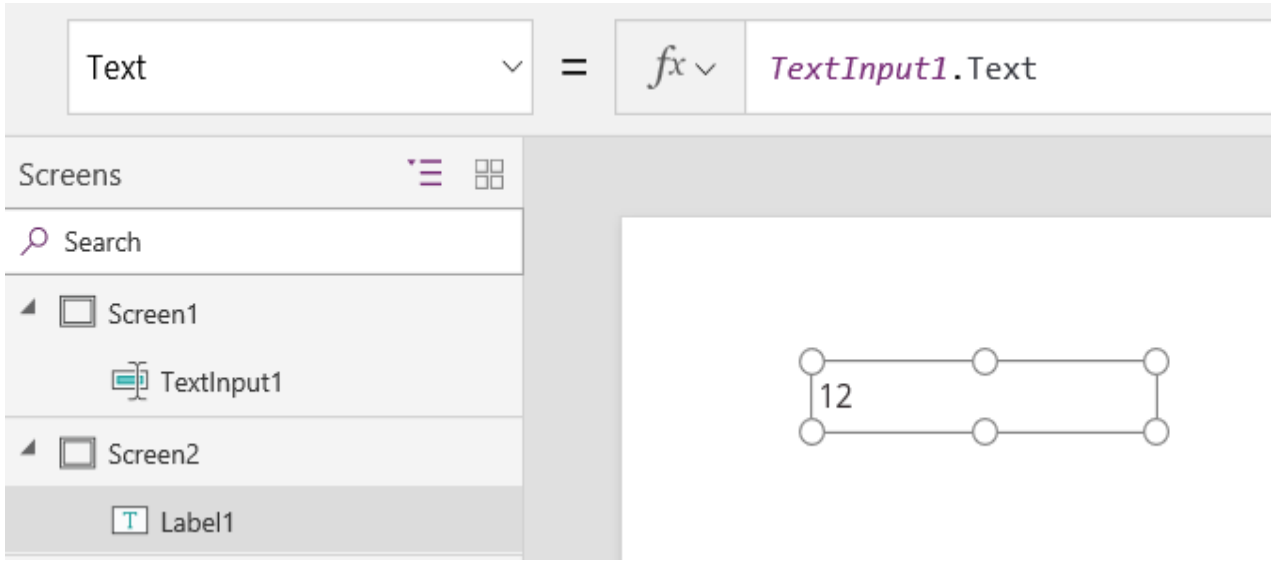


Excel

- Formulas can reference **any cell** in the workbook.
- Entire workbook is **recalculating** all the time, even if we can't see in screenshot

Power Apps

- Formulas can reference **any control** property.
- The entire app is **recalculating** all the time**,** even if we can't see in screenshot



Excel Function in Power Apps

Abs	Collect	DateValue	ForAll	LookUp	Proper	Set	TimeValue
Acceleration	Color	Day	GroupBy	Lower	Radians	ShowColumns	TimeZoneOffset
Acos	ColorFade	Defaults	HashTags	Max	Rand	Shuffle	Today
Acot	ColorValue	Degrees	Hour	Mid	Refresh	Sin	Trim
AddColumns	Compass	Disable	If	Min	Remove	Sort	TrimEnds
And	Concat	Distinct	IsBlank	Minute	RemoveIf	SortByColumns	Ungroup
App	Concatenate	Download	IsEmpty	Mod	RenameColumns	Split	Update
Asin	Connection	DropColumns	IsMatch	Month	Replace	Sqrt	UpdateContext
Atan	Count	EditForm	IsNumeric	Navigate	Reset	StartsWith	UpdateIf
Atan2	Cos	Enable	IsToday	NewForm	ResetForm	StdevP	Upper
Average	Cot	EndsWith	Language	Not	Revert	Substitute	User
Back	CountA	Errors	Last	Now	RGBA	SubmitForm	Validate
Blank	CountIf	EncodeUrl	LastN	Or	Right	Sum	Value
Calendar	CountRows	Exit	Launch	Param	Round	Switch	VarP
Char	DataSourceInfo	Exp	Left	Parent	RoundDown	Table	ViewForm
Clear	Date	Filter	Len	Patch	RoundUp	Tan	Weekday
ClearCollect	DateAdd	Find	Ln	Pi	SaveData	Text	
Clock	DateDiff	First	LoadData	PlainText	Search	ThisItem	
Coalesce	DateTimeValue	FirstN	Location	Power	Second	Time	

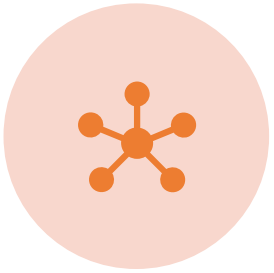
Imperative Functions

(Declarative and Imperative function)

Abs	Collect	DateValue	ForAll	LookUp	Proper	Set	TimeValue
Acceleration	Color	Day	GroupBy	Lower	Radians	ShowColumns	TimeZoneOffset
Acos	ColorFade	Defaults	HashTags	Max	Rand	Shuffle	Today
Acot	ColorValue	Degrees	Hour	Mid	Refresh	Sin	Trim
AddColumns	Compass	Disable	If	Min	Remove	Sort	TrimEnds
And	Concat	Distinct	IsBlank	Minute	RemoveIf	SortByColumns	Ungroup
App	Concatenate	Download	IsEmpty	Mod	RenameColumns	Split	Update
Asin	Connection	DropColumns	IsMatch	Month	Replace	Sqrt	UpdateContext
Atan	Count	EditForm	IsNumeric	Navigate	Reset	StartsWith	UpdateIf
Atan2	Cos	Enable	IsToday	NewForm	ResetForm	StdevP	Upper
Average	Cot	EndsWith	Language	Not	Revert	Substitute	User
Back	CountA	Errors	Last	Now	RGBA	SubmitForm	Validate
Blank	CountIf	EncodeUrl	LastN	Or	Right	Sum	Value
Calendar	CountRows	Exit	Launch	Param	Round	Switch	VarP
Char	DataSourceInfo	Exp	Left	Parent	RoundDown	Table	ViewForm
Clear	Date	Filter	Len	Patch	RoundUp	Tan	Weekday
ClearCollect	DateAdd	Find	Ln	Pi	SaveData	Text	
Clock	DateDiff	First	LoadData	PlainText	Search	ThisItem	
Coalesce	DateTimeValue	FirstN	Location	Power	Second	Time	

Benefits of Power Apps

SPEED



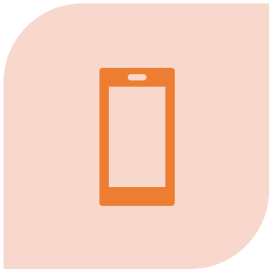
STREAMLINE DEVELOPMENT

EASIER APP CREATION

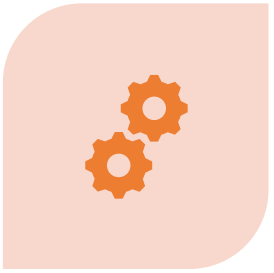
EASY TO USE CONNECTORS

Benefits of Power Apps

DEEP OFFICE 365 INTEGRATION



MOBILE READY



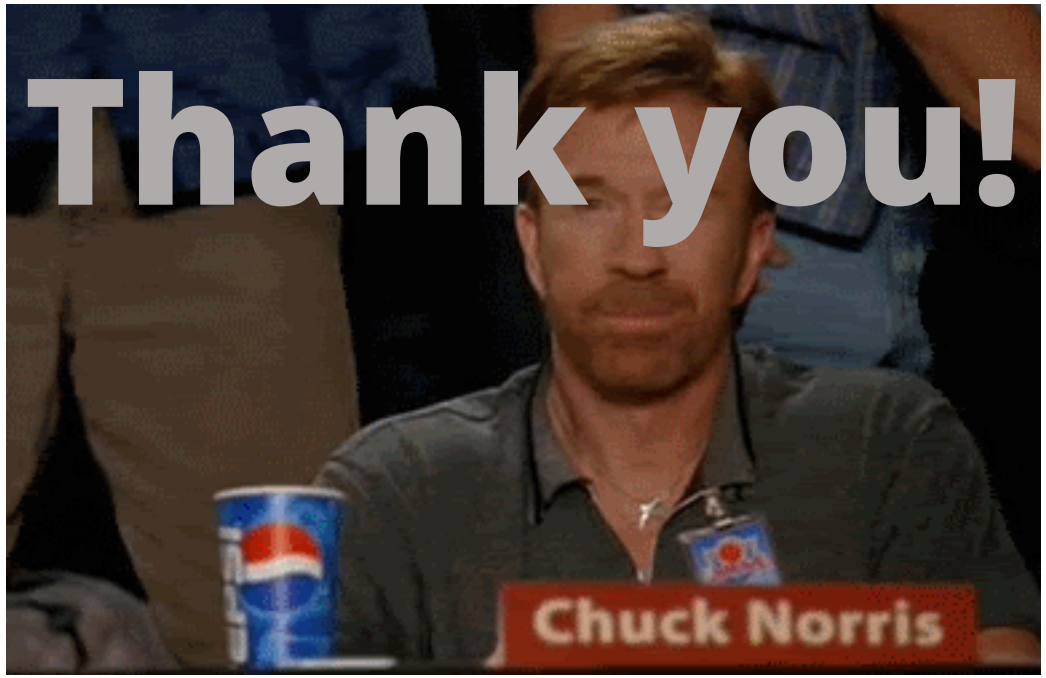
INTEGRATION WITH POWER AUTOMATE

LOW COST

Demo

Maker Portal Power Apps

YOU HELD THROUGH !



Prepared by:
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