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Canvas Apps vs. Model Driven Apps

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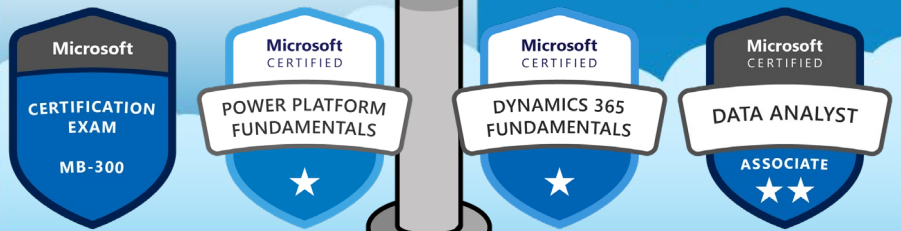
Managing Director @Crowe LLP
Adjunct Professor @ Vanguard University

- 35+ years specializing in technology solutions
- Focused on financial and operational solutions
- Experienced with many ERP, Reporting and BI solutions
- Active with many D365/Power Platform user groups



Kent Nielsen

Senior Manager @Crowe LLP

- Over 12 years providing implementation and technology strategy & support
- Specializes in manufacturing, supply chain management, and digital transformation
- Experienced with ERP, WMS, Power Platform, and D365 CE applications
- Loves wakeboarding and snowboarding

Crowe

Microsoft CERTIFIED FUNDAMENTALS

Microsoft CERTIFIED ASSOCIATE

Microsoft CERTIFIED EXPERT

Agenda

- Overview of Power Platform
- Canvas app
- Model-driven app
- Canvas vs. Model-Driven App
- Comparison of Power Apps Dev Experience
- Guidance on selecting your Power Apps approach
- Demo
- Q&A

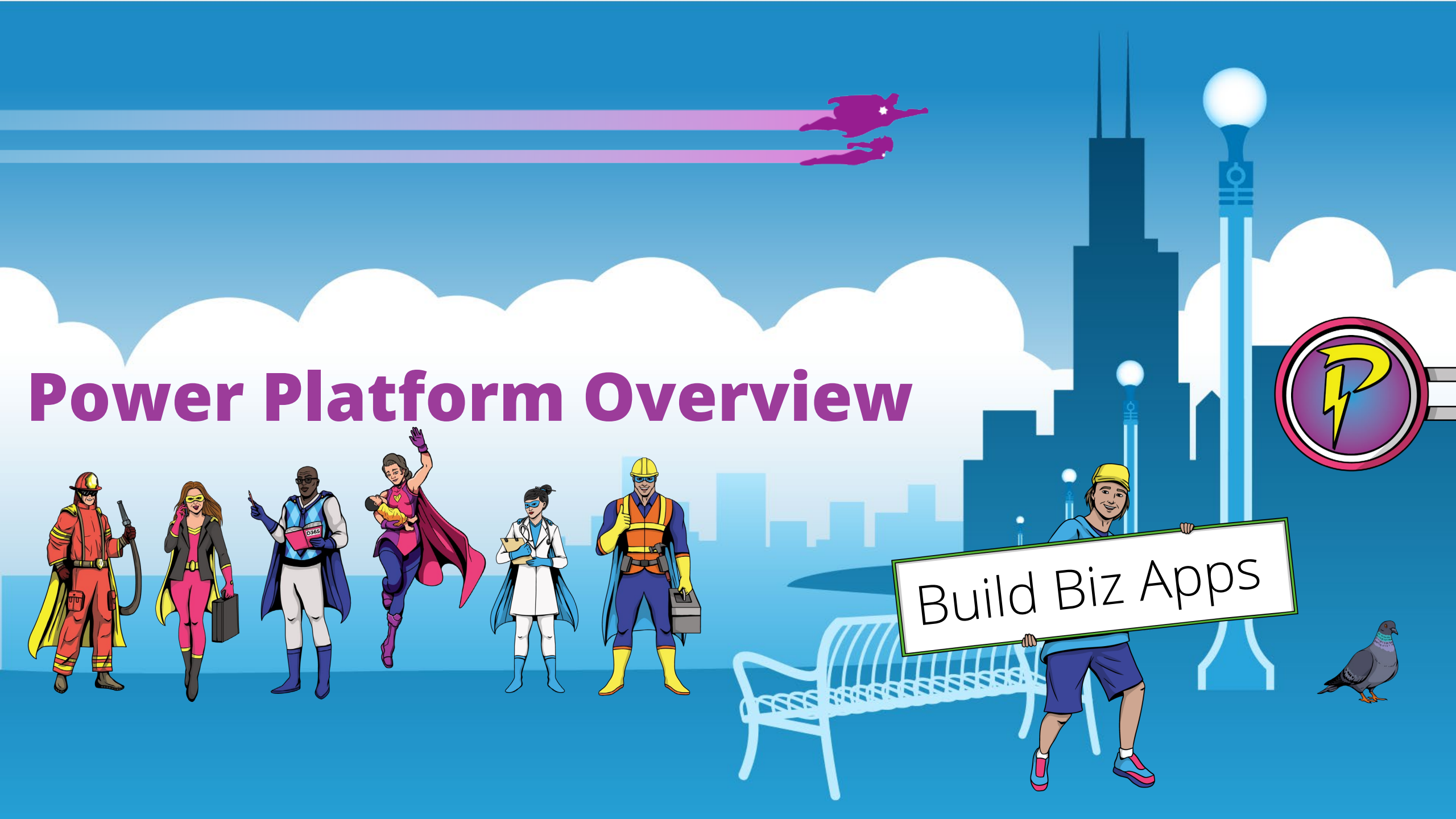
Session Objectives

Describe the conceptual differences between Canvas Apps and Model-Driven Apps

Identify key business requirements that differentiate between Canvas Apps and Model-Driven Apps in PowerApps

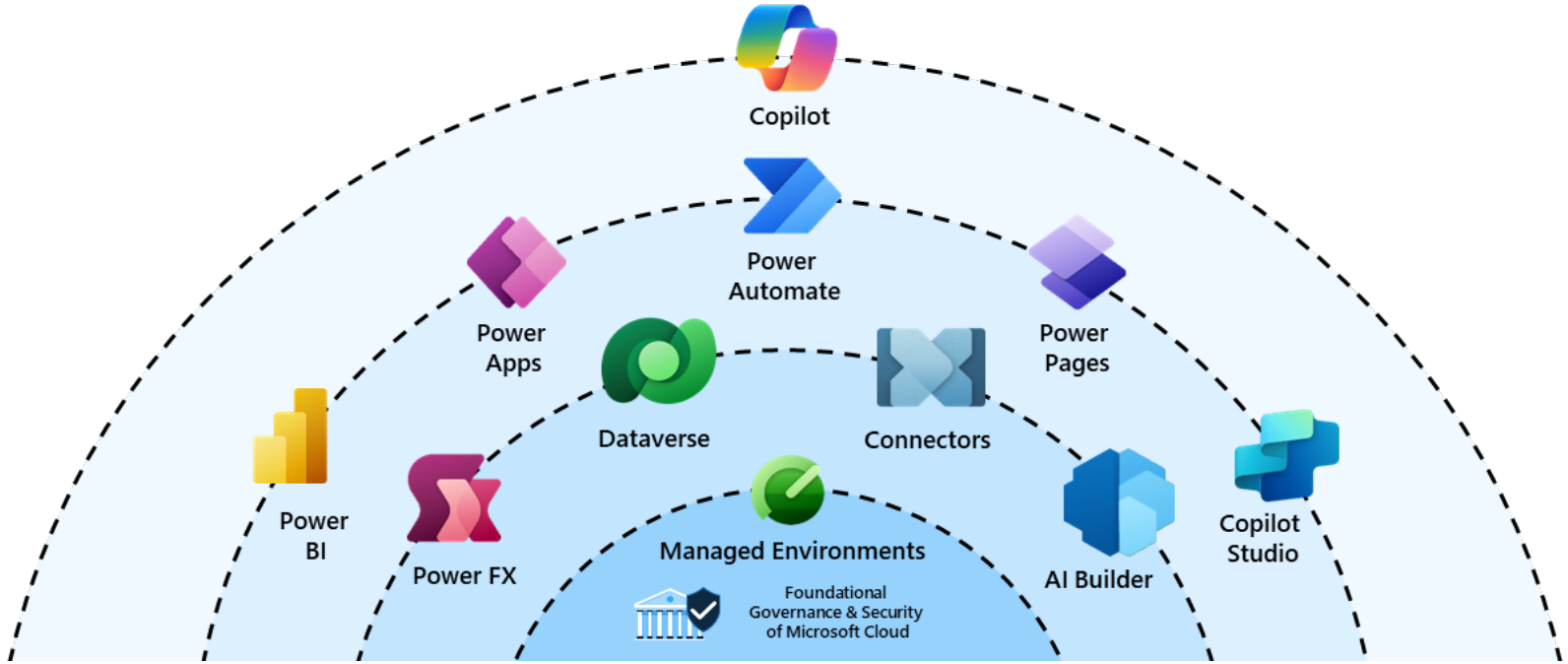
Highlight the advantages and disadvantage of both Canvas Apps or Model-Driven Apps

Power Platform Overview



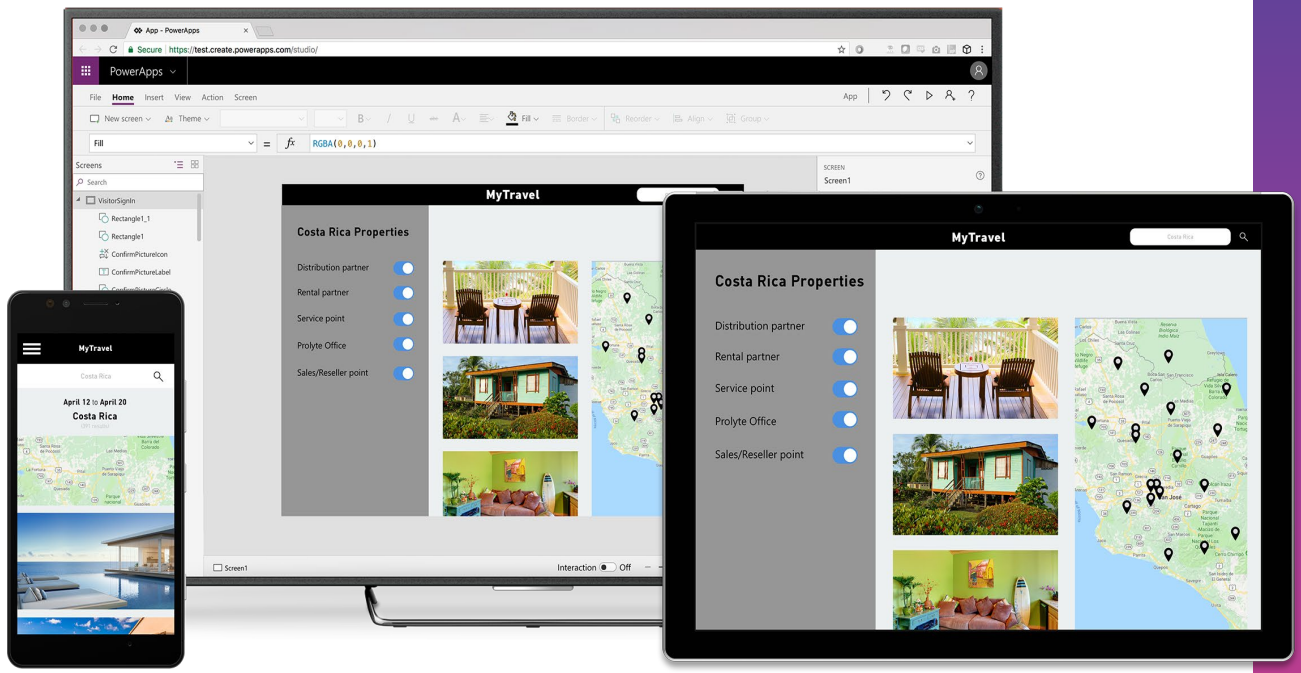
Microsoft Power Platform

The world's most complete platform for developer productivity, spanning no-code to pro code



Power Apps

- Easily build web & mobile apps with a full featured low-code/no-code development experience
- Empower business users to solve their own problems and easily share apps while maintaining security & governance at scale
- Pro developer extensibility enables a "*no limits*" platform that spans business users to professional developers



Responsive Design = One app multiple devices

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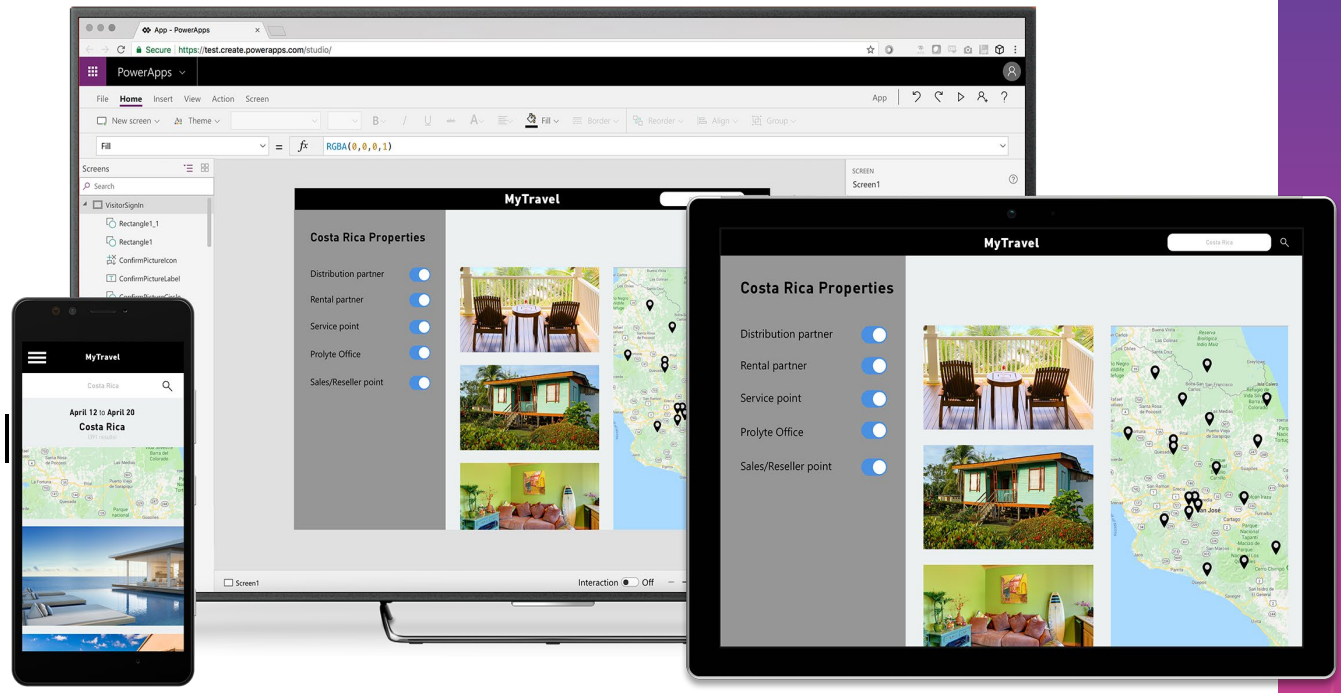
Power Apps

- **Reduce time & cost** building business applications
- **Extend your system of record** to simplify processes and remove silos
- **Reduce errors** by automating manual processes
- **Consolidate** siloed LoB application and improve business processes



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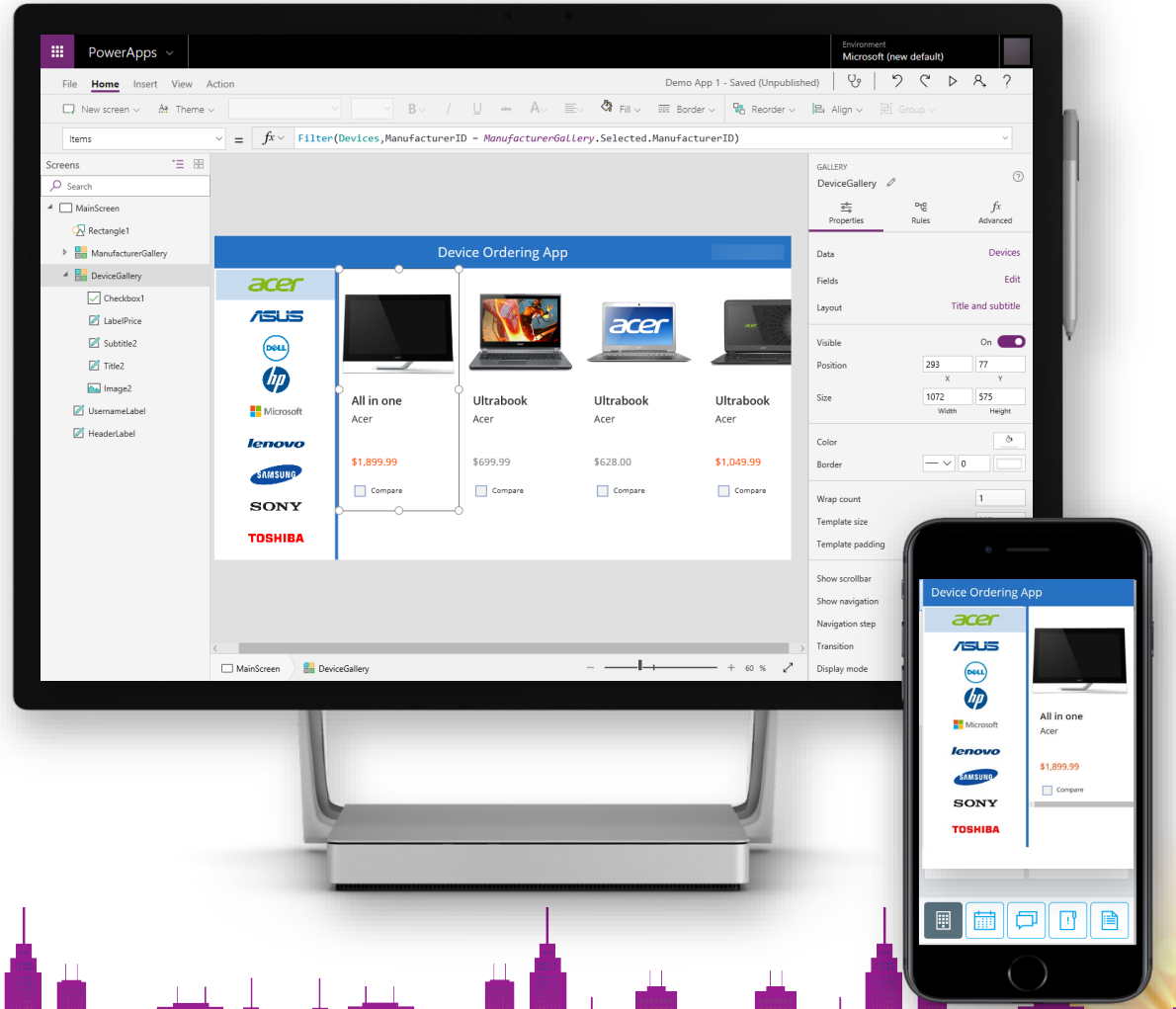
Low code approach to building biz apps

- Easily build apps with a full featured low-code / no-code platform
- Connect to all your data with pre-built and custom connectors
- Enrich and extend your data with Dataverse, AI Builder, and Portals
- Dynamics 365, Azure, Power BI, Power Automate, and Office 365 integration
- Strong enterprise governance and security
- Pro developer extensibility and ALM



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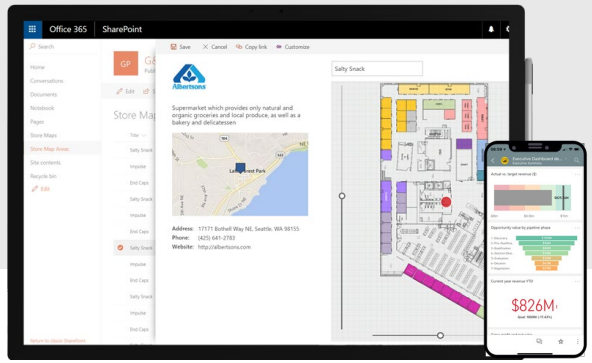
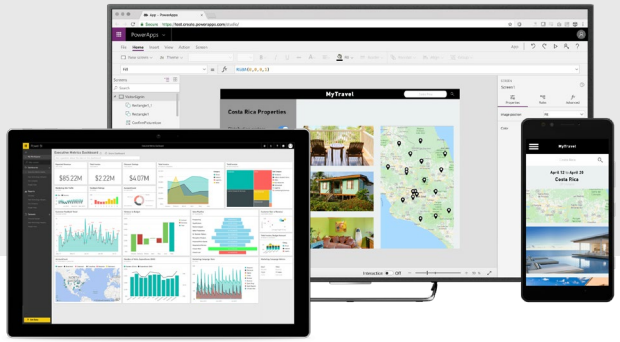
Customize, Extend, and Build

Seamless Dynamics 365, Office 365, and Azure integration plus connectors to 2000+ data sources

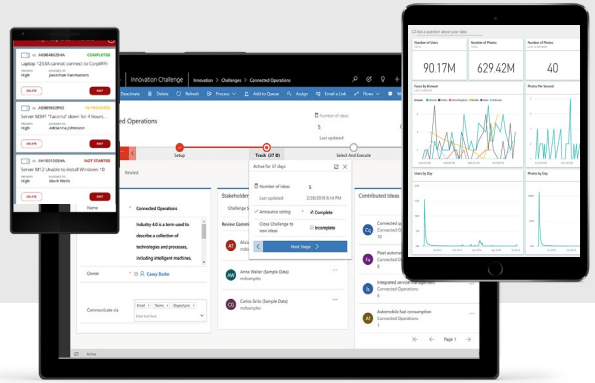
Tailor out-of-the-box solutions, embedded forms and dashboards



Highly customized task- and role-based apps



Immersive, end-to-end solutions



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The Power App Dilemma
Build with Guidance or Go Wild?

Canvas Apps

Pros

- High flexibility and custom design:
- User-friendly, drag-and-drop development:
- Wide integration capability:
- Fast prototyping and development:
- Templates available – Mobile-friendly:
- Quick innovation and iteration:

Cons

- Limited scalability:
- Maintenance can become challenging:
- Performance concerns:
- No out-of-the-box standardization:
- Limited reusable components:

Model Driven Apps

Pros

- Highly scalable and enterprise-friendly:
- Automatic UI generation:
- Built-in data validation and security:
- Integration with Dynamics 365:
- Powerful out-of-the-box capabilities:
- Easier to maintain:

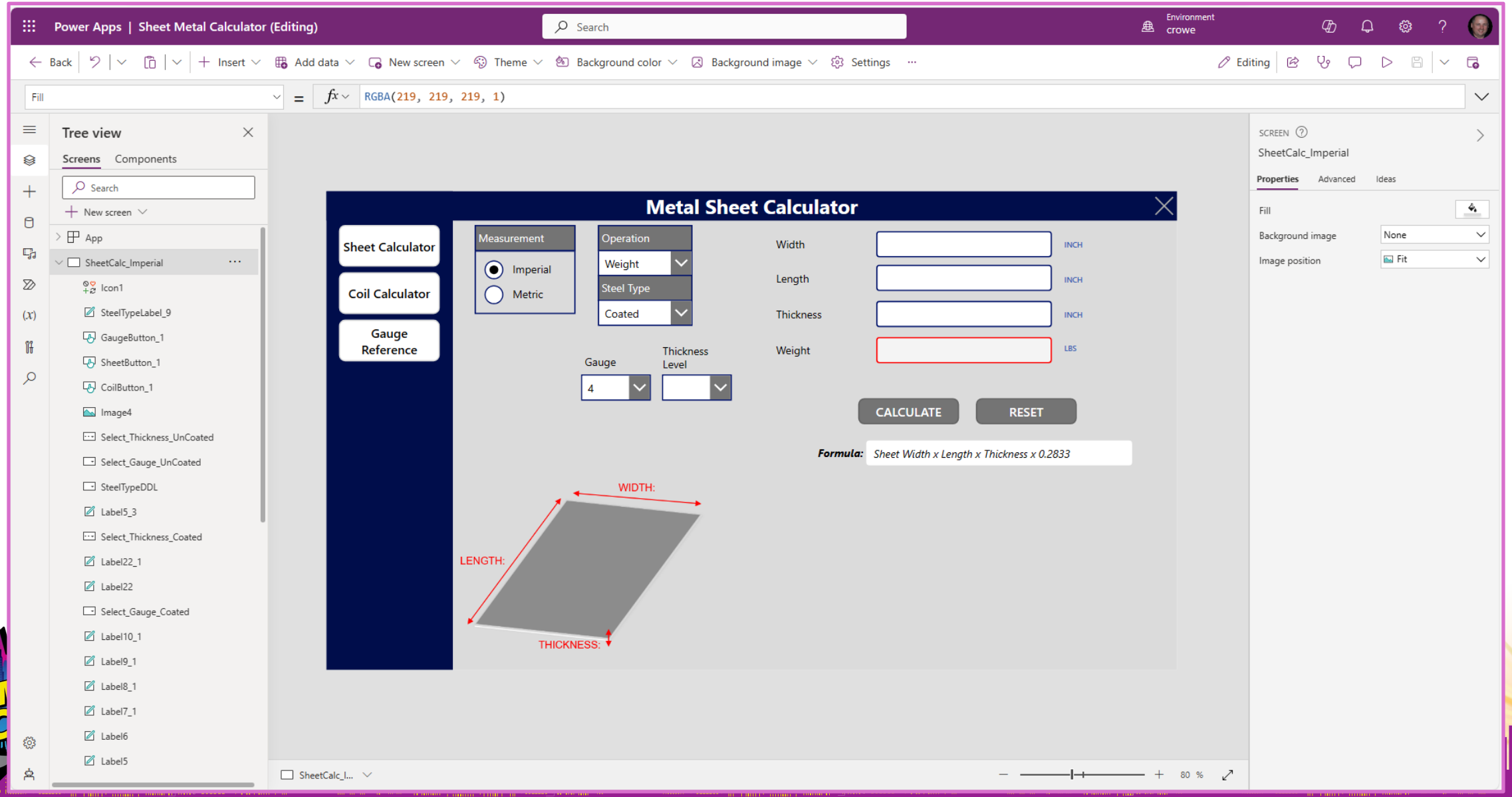
Cons

- Limited UI customization:
- Heavily data-driven:
- Steeper initial learning curve:
- Less ideal for rapid prototyping:
- Limited external integration (without Dataverse):

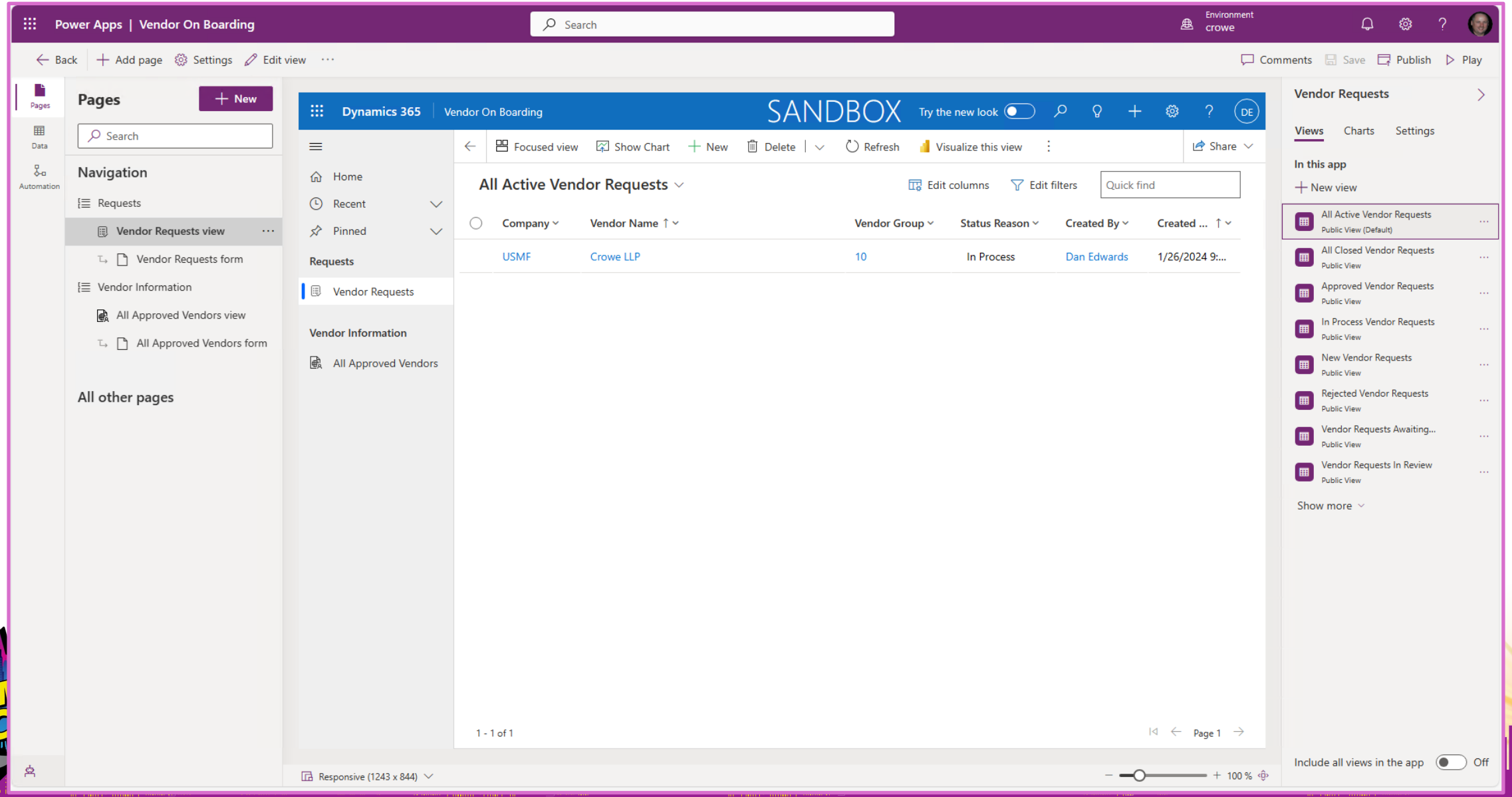
Model-Driven vs. Canvas App

Category	Model-driven apps	Canvas apps
Data platform	Dataverse only + virtual tables (limitations)	Dataverse + many others using connections
Design experience	No-code component focused design	Manipulation of control properties using Power Fx expressions
UI control	Limited, predominantly customization	Full control
App consistency	High-differs predominantly based on the tables & views chosen	Often low, given the significant control the designers have of the user experience
Migration between environments	Simple	Potentially complex given that the data sources may need to be updated
Speed of creation	Rapid	Relative to the complexity of the design
Responsive	Automatically responsive	Only responsive if designed in this way
Navigation through relationships	Automatic, provided relationships exist	Only where designed and applied using Power Fx formulas
Accessibility features	Built in	Designed into the app

Canvas App Developer Experience



Power App Maker Portal Dev Experience



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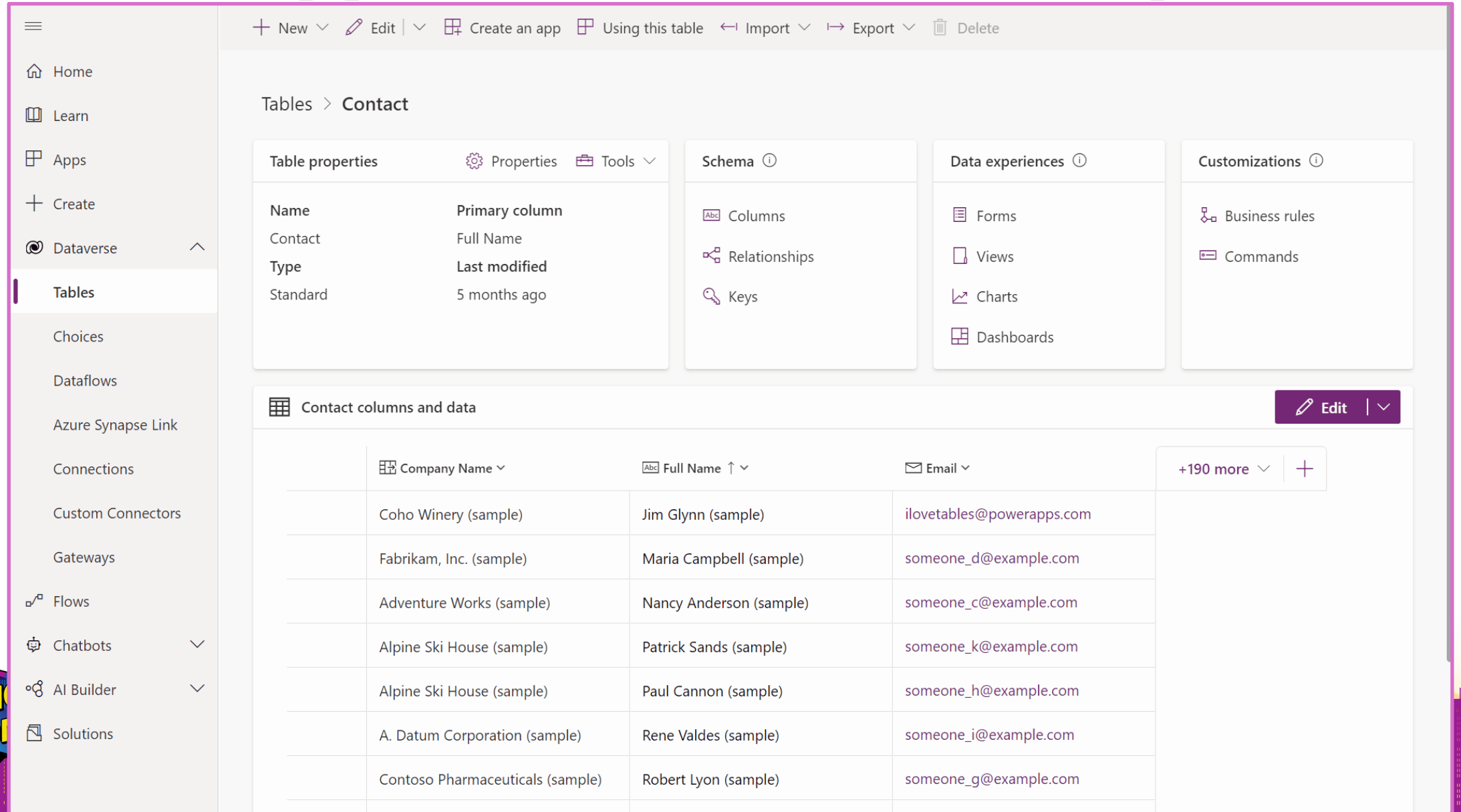
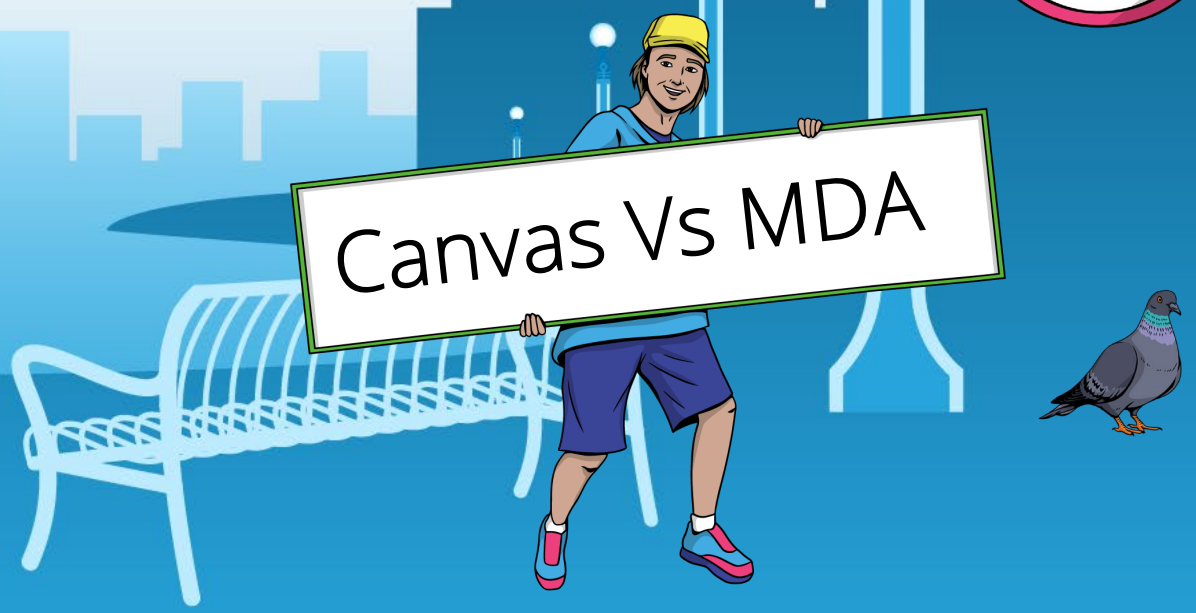
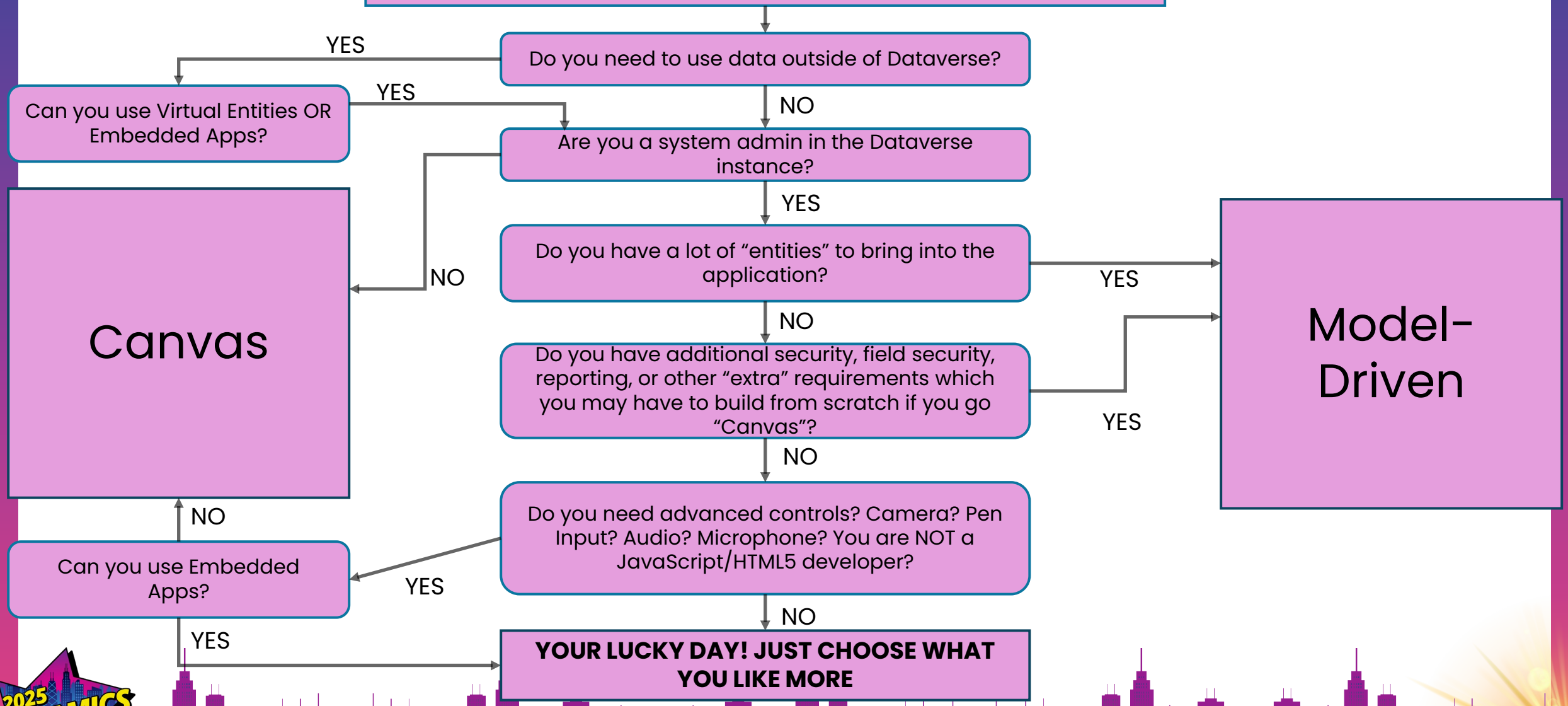


Which Power App is right for you?



Canvas or Model-Driven?



Q&A

THANK YOU

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