K2's Now Is The Time To Automate!

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Learning Objectives

Identify at least three benefits of successful automation efforts

List two automation tools you can use to extract and transform data

Specify examples of Microsoft 365 plans that include access to Power Automate

Differentiate between Power Automate and Zapier

Identify at least three tasks that most businesses should automate

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Let’s get started…

WHY THE RUSH TO AUTOMATION?

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Automation Isn't New…

- One could argue that **automation dates to the early days of manufacturing lines**…Ford's Model T, for instance
  - Ford standardized how workers built the vehicle and, because of that, they were able to **mass produce the Model T at a lower per-unit cost**
  - Further, **standardization helped to increase the quality and reliability of the vehicle**
- Today's automation efforts seek to do the same: *work efficiently, with higher quality and reduced errors*

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The Labor Shortage: A New Driver

- Today's **labor shortage has created an additional driver for automation efforts**
  - *There simply are not enough qualified workers to do all the work that needs to be done*
  - *This condition was going to happen with or without COVID*
- Consider the chart on the next slide…

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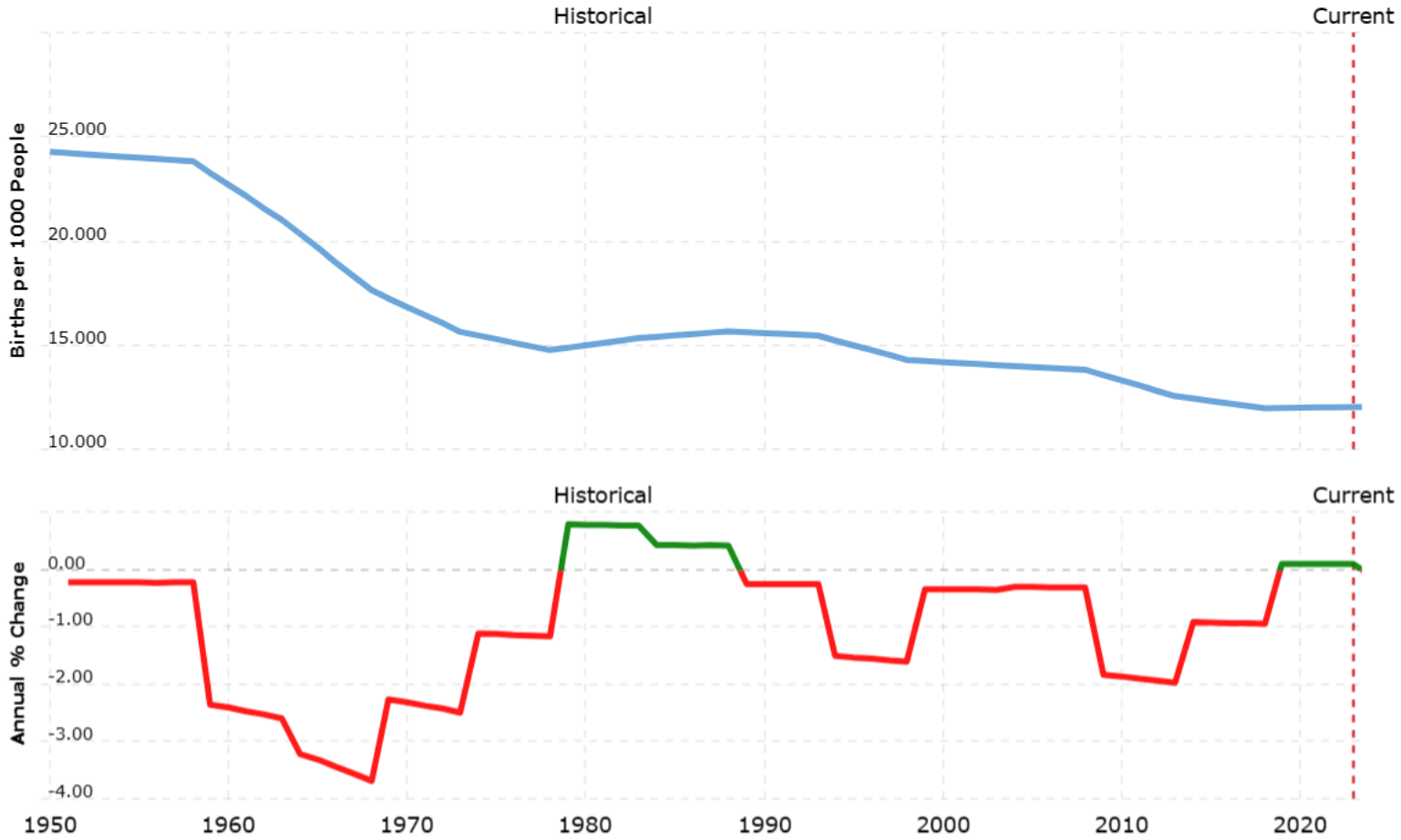
US Birth Rate From 1950



- The **birth rate in the US (and most other countries) has declined precipitously** since 1950
- Today, 12.023 people are born each year per 1,000 people in the population

Source:Macrotrends.net

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Automation Is Critical For Success

- What can/should you automate?
  - Look for transactions with **one or more of the following characteristics**

Repetitive transactions	Transactions requiring entry into a database	Standardized transactions with little variability
• Monthly journal entries	• Entering W-2 forms into a personal tax return	• Accounts payable bills from the same vendor

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Automation Benefits

Time savings

Improved internal control

Better accuracy

Faster turnaround times

Improved customer/client service

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Three Primary Types Of Automation

Digital Process Automation

- DPA seeks to digitize end-to-end processes
- Purpose is to optimize and streamline workflows
- Often automates content flows from completed forms

Robotic Process Automation

- Uses technology to automate tasks human workers might perform
- Examples include extracting data, form-filling, moving files from one storage location to another

Business Process Automation

- Generally, BPA is more complex than either DPA or RPA
- BPA for example might be used to automate credit approval decisions

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Examples

- DPA
  - A customer or client fills in an on-line form. DPA could be used to extract and store that data elsewhere. This should be a relatively simple process because the fillable form structures the data.
- RPA
  - A public accounting firm might use RPA to extract data from clients' tax documents such as W-2s, 1099's, and K-1s and automatically populate a tax return with the data.
- BPA
  - Automating A/P workflows through automatically approving payments.

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ODBC – An Automation Facilitator

- Automation efforts sometimes require **linking data from one database or application to another**
- This task is sometimes completed by **Open Database Connectivity (ODBC)**, somewhat of a “legacy” technology
- ODBC is a **vendor-neutral way of linking data** from one location to another
- A common use of ODBC is **automating reporting processes, such as linking accounting data to Excel for reporting purposes**

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LET’S SEE AN EXAMPLE…

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Using ODBC To Link Data

- Perhaps you want to create a report in Power BI or even Excel that **uses data from your QuickBooks Desktop database**
  - Of course, **you want to link the data**, not export it/import
  - By linking **you can refresh your report on demand**
- To do this using ODBC, you'll need a connector such as one available from cData

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Using ODBC To Link Data

- In Excel and with QuickBooks open, click **Get Data** from the **Data** tab of the Ribbon
- Choose **From Other Sources**, **From ODBC**
- Specify the **CData QuickBooks Source**
- **Expand the folders**
- **Click the table** to link to Excel
- Create your report
- Once created, you only need to **refresh the report, not rebuild**

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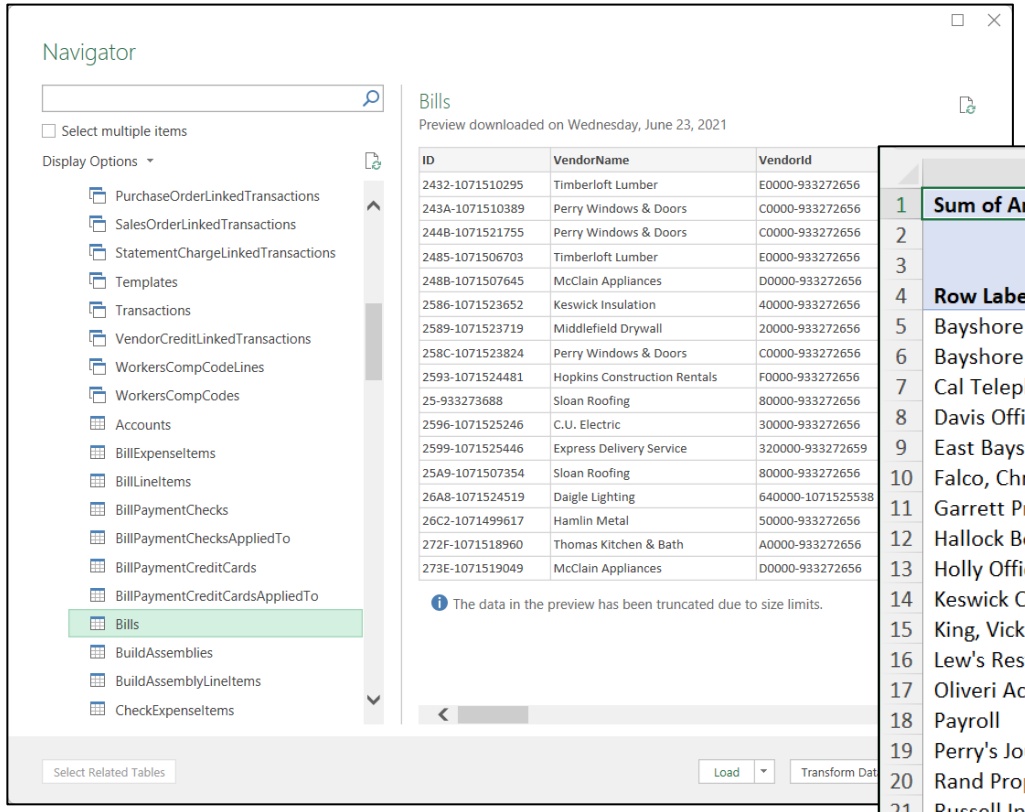
Using ODBC To Link Data



	A	B	C	D
1	Sum of Amount	Column Labels		
2		2024	2025	Grand Total
3				
4	Row Labels			
5	Bayshore Bank_v		$ 10,000,001.99	$ 10,000,001.99
6	Bayshore Times	$ 700.00	$ 1,400.00	$ 2,100.00
7	Cal Telephone		$ 822.00	$ 822.00
8	Davis Office Equipment	$ 15,000.00	$ 92,641.81	$ 107,641.81
9	East Bayshore HMO		$ 13,750.00	$ 13,750.00
10	Falco, Christina		$ 5,000.00	$ 5,000.00
11	Garrett Printing	$ 306.00	$ 12,600.00	$ 12,906.00
12	Hallock Book Store_v		$ 35,000.00	$ 35,000.00
13	Holly Office Supplies & Rentals_v	$ 500.00	$ 42,500.00	$ 43,000.00
14	Keswick Consulting_v		$ 27,500.00	$ 27,500.00
15	King, Vicki - Petty Cash Custodian		$ 173.22	$ 173.22
16	Lew's Restaurant_v		$ 3,200.00	$ 3,200.00
17	Oliveri Accountants	$ 1,000.00	$ 5,000.00	$ 6,000.00
18	Payroll	$ 10,640.00	$ 234,080.00	$ 244,720.00
19	Perry's Journal		$ 1,500.00	$ 1,500.00
20	Rand Properties		$ 37,400.00	$ 37,400.00
21	Russell Insurance		$ 4,800.00	$ 4,800.00
22	Rutherford Pension Fund		$ 6,600.00	$ 6,600.00
23	Thomas Conferences		$ 1,500.00	$ 1,500.00
24	US Postmaster		$ 340.00	$ 340.00
25	**Grand Total**	**$ 28,146.00**	**$ 10,525,809.02**	**$ 10,553,955.02**

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Automation In Accounting Apps

Data entry, such as scanning vendor bills into accounts payable

Automatically **routing documents for approvals**

Matching documents, such as A/P bills to purchase orders to receiving reports

Using smartphones to take pictures of T&E employee expense reporting

And, of course, **bank feeds**

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Built-In Automation

- An increasing number of **accounting platforms offer built-in automation options**
  - You only need to activate them and customize them to your needs
- Further, **many of these tools allow you to create custom automation routines**

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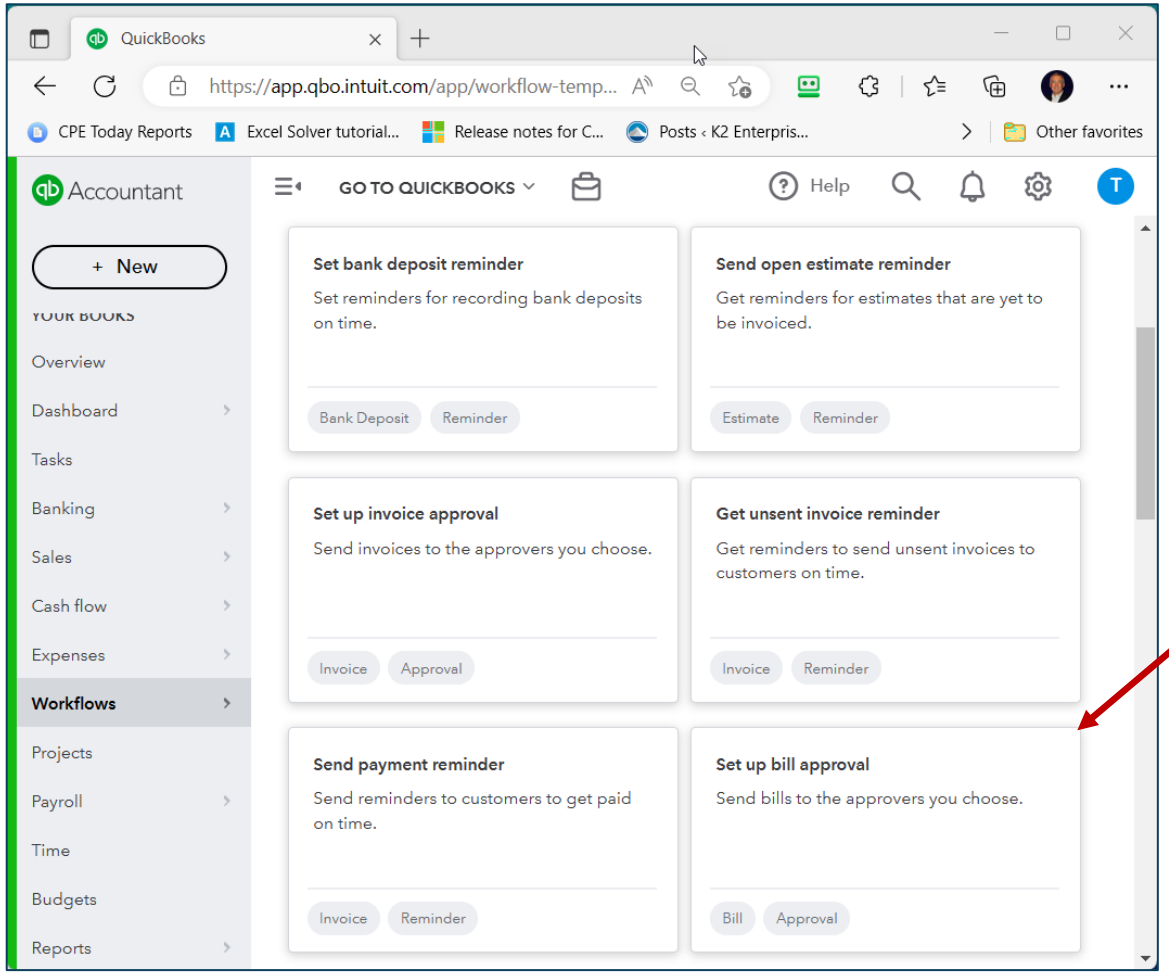
Built-In Automation



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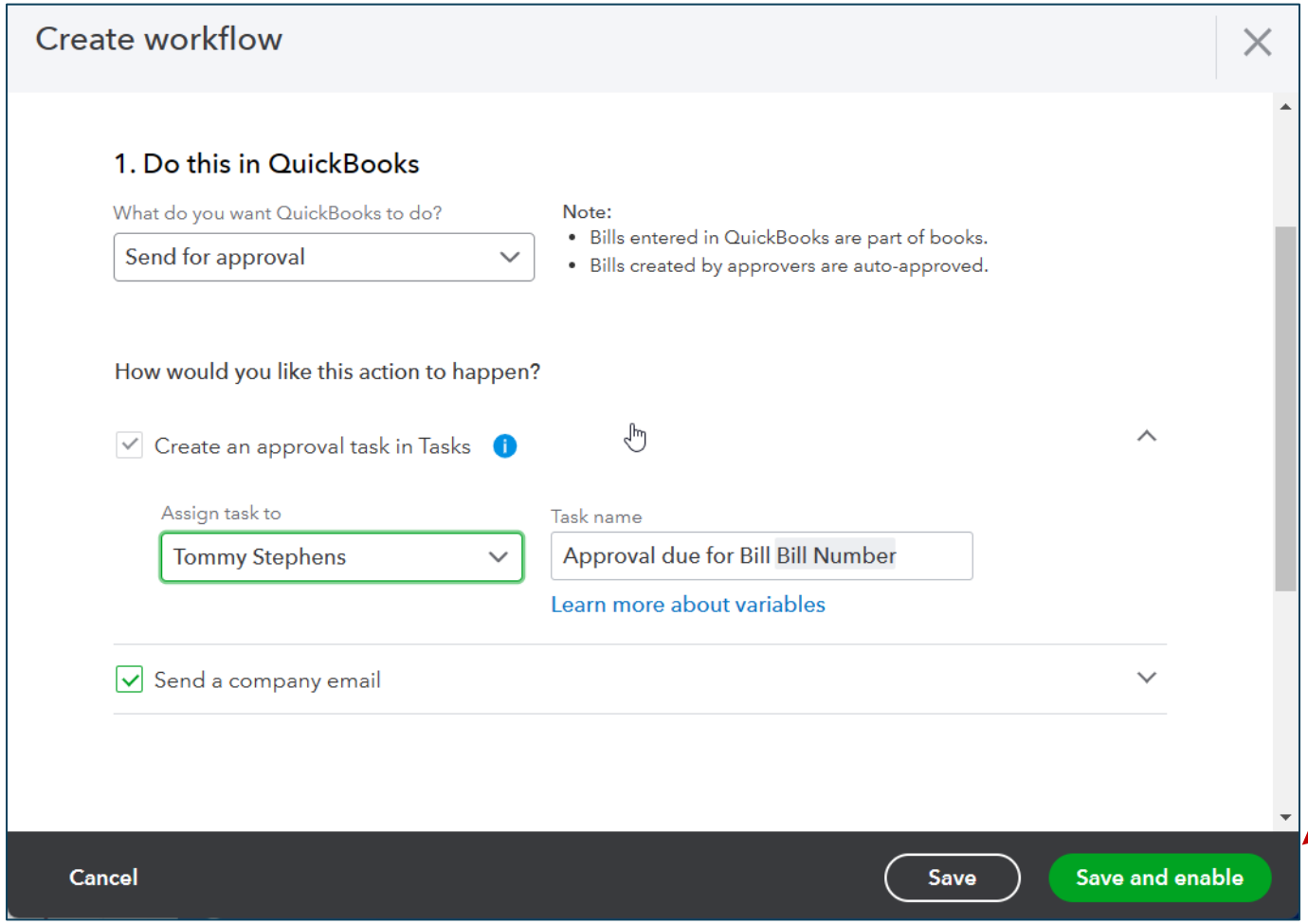
Built-In Automation



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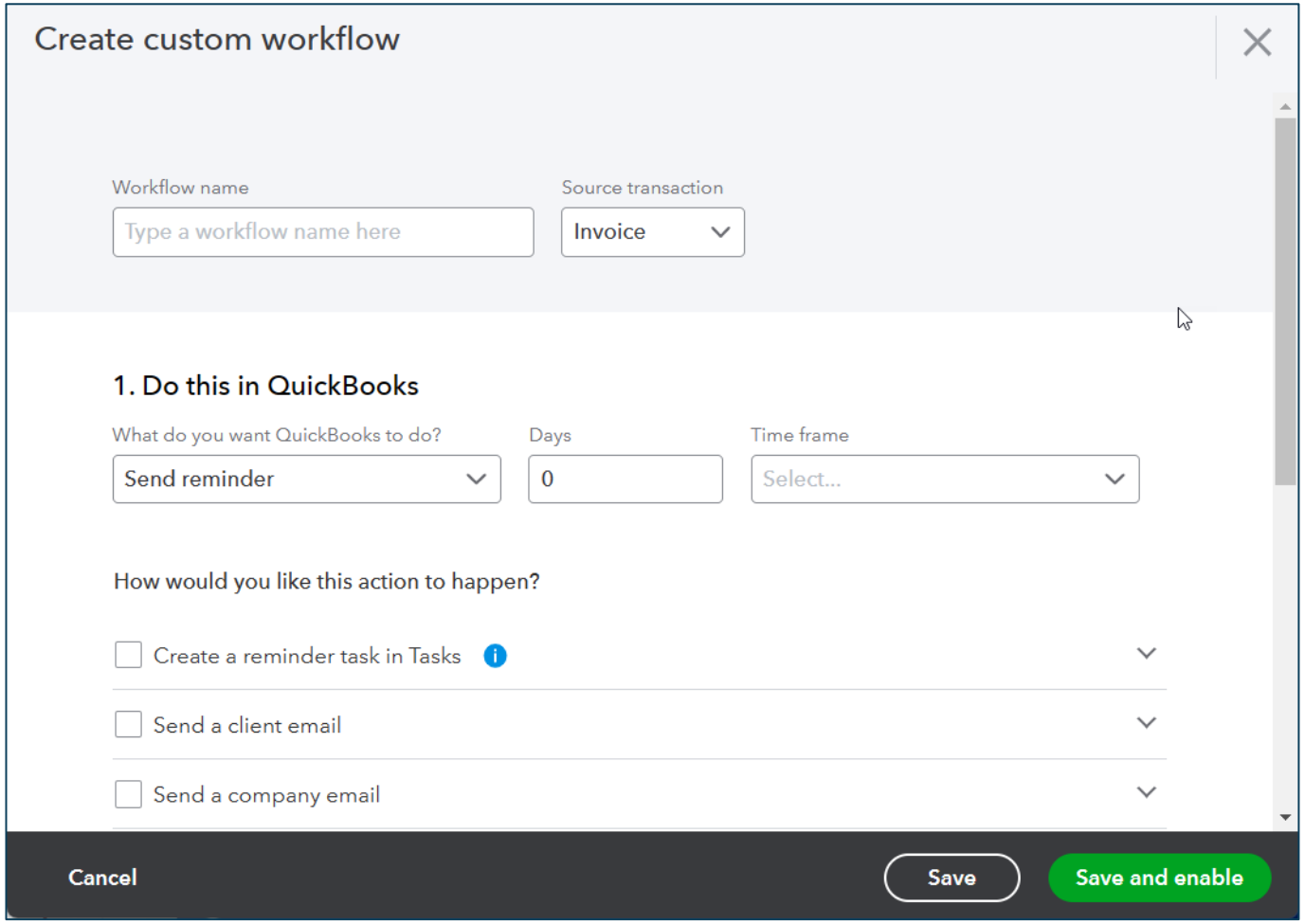
You Can Create Custom Automations



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CONSIDER THE IMPROVEMENT TO INTERNAL CONTROL AND EFFICIENCY!

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Power Query And Automation

- Microsoft's **Power Query tool offers automation opportunities** that are readily adaptable to many situations
- Think of Power Query as a "generic" tool you can use to automate many of your **data extraction and manipulation needs**
- Fortunately, **Power Query became "fully-baked" into Excel beginning with the 2016 release** of the application

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Power Query And Automation

- What can we do with Power Query?
  - **Link** data from external data sources
  - **Manipulate** that data with “transformations”
  - **Combine** data
  - **Create** “refreshable” reports
  - **Construct** data models
- From an automation perspective, all the above mean **if we can get a “project” – often a report – right one time, *we never have to rebuild it…we merely refresh it***

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An Example…

- Use Power Query to link data from multiple tables in a database, **delete unnecessary columns**, **join the tables** in a data model, and **summarize the data** using a PivotTable
- Steps
  - **Data, Get Data, From Database, From Microsoft Access Database, AdventureWorks Data.accdb, Import**
  - Choose **Select Multiple Items**
  - Select the **Sales_Customer**, **SalesOrderHeader**, and **SalesOrderDetails** tables
  - Click **Transform Data**

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An Example…Continued

- **Apply transformations** such as sorting, filtering, deleting columns, adding user-defined calculations, etc.
- Click **Close and Load**
- **Utilize PowerPivot to join the tables into a data model**
- **Generate your report**

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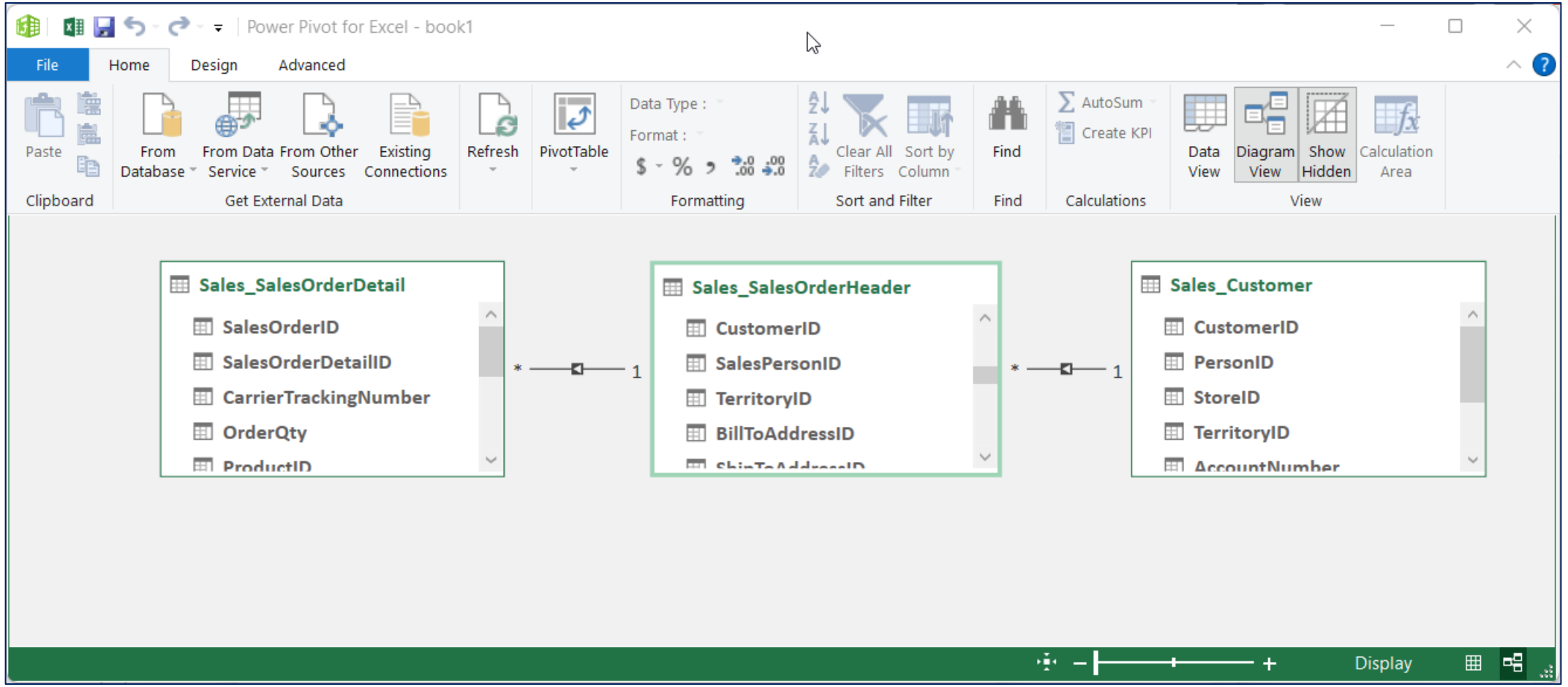
A Simple Data Model



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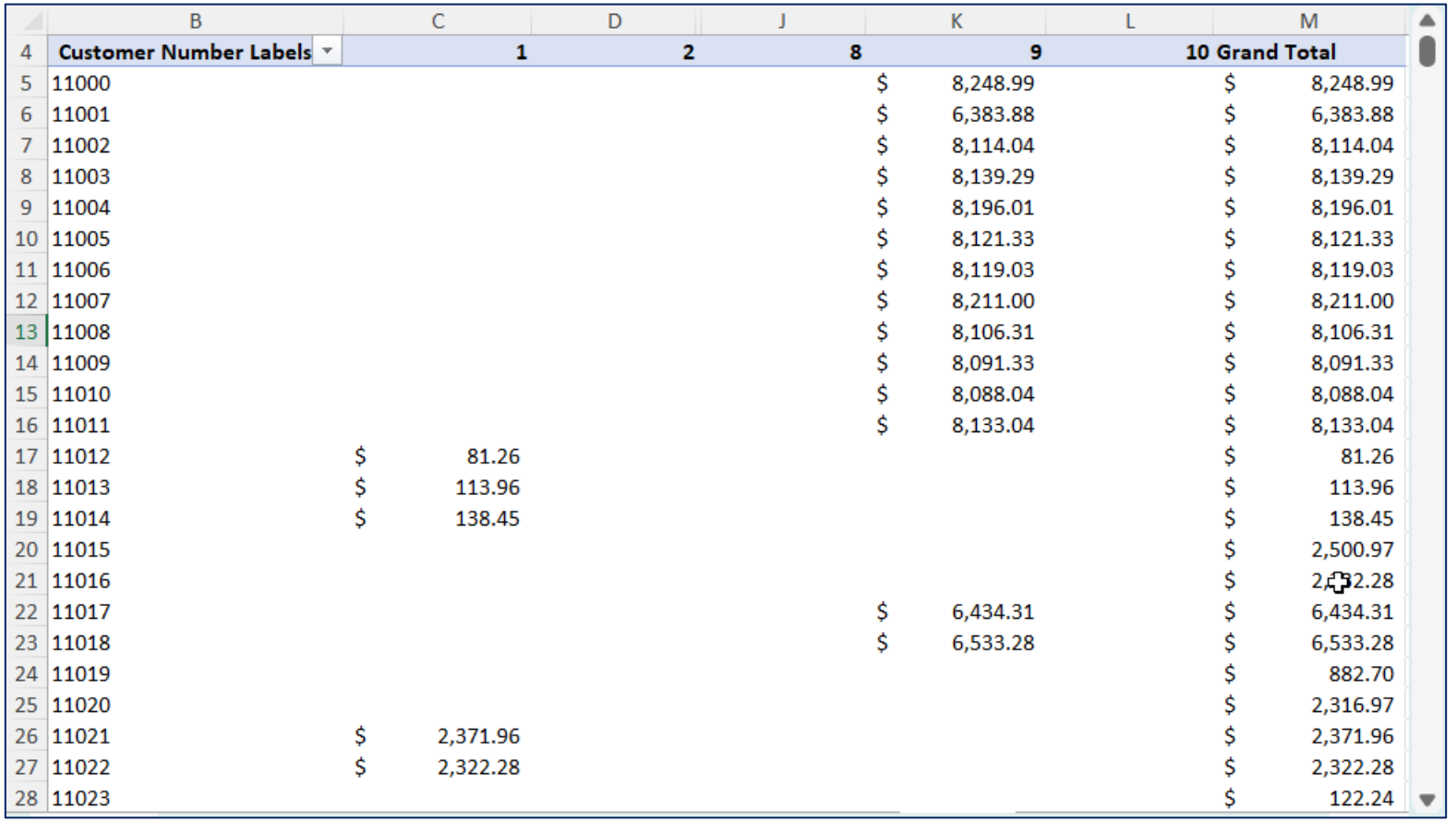
The Resulting PivotTable Report



	B	C	D	J	K	L	M
4	Customer Number Labels	1	2	8	9	10	Grand Total
5	11000				$ 8,248.99		$ 8,248.99
6	11001				$ 6,383.88		$ 6,383.88
7	11002				$ 8,114.04		$ 8,114.04
8	11003				$ 8,139.29		$ 8,139.29
9	11004				$ 8,196.01		$ 8,196.01
10	11005				$ 8,121.33		$ 8,121.33
11	11006				$ 8,119.03		$ 8,119.03
12	11007				$ 8,211.00		$ 8,211.00
13	11008				$ 8,106.31		$ 8,106.31
14	11009				$ 8,091.33		$ 8,091.33
15	11010				$ 8,088.04		$ 8,088.04
16	11011				$ 8,133.04		$ 8,133.04
17	11012	$ 81.26					$ 81.26
18	11013	$ 113.96					$ 113.96
19	11014	$ 138.45					$ 138.45
20	11015						$ 2,500.97
21	11016						$ 2,[illegible]2.28
22	11017				$ 6,434.31		$ 6,434.31
23	11018				$ 6,533.28		$ 6,533.28
24	11019						$ 882.70
25	11020						$ 2,316.97
26	11021	$ 2,371.96					$ 2,371.96
27	11022	$ 2,322.28					$ 2,322.28
28	11023						$ 122.24

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Why Do We Go Through These Steps?

- Because once you do, **you never have to create your reports again**!
- Remember, **the data links to the report**…therefore, you can simply **refresh on demand**
  - Alternatively, you can put your queries on **timed updates or auto-update whenever you open the workbook**

- ***Reports are repeatable tasks…automate them!***

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POWER AUTOMATE FOR EVEN MORE POWER AND CONTROL

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Introducing Power Automate

- As its name implies, **Power Automate is an automation platform** available from Microsoft
- Microsoft **includes Power Automate with most business-oriented Microsoft 365 subscription plans**
- However, if you don’t have a 365 plan, **you can acquire Power BI capabilities without a 365 subscription**
  - https://powerautomate.microsoft.com/en-us/pricing/

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Power Automate Is Part Of Microsoft's Power Platform

- The Power Platform includes **Power BI**, **Power Apps**, **Power Pages**, **Power Automate**, and **Power Virtual Agents**
- You can **use these tools in a stand-alone environment or in tandem** to analyze data, automate processes, and create apps and virtual agents
- With just a little bit of study and guidance, **most users can become moderately proficient** in a relative short time frame

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Source: Gartner (August 2022)

Where Does The Power Platform Stand?

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Power Automate And “Flows”

- In Power Automate, “**flow” to describes the automated workflows run in the service**
- The three primary types of flows are:
  1. **Automated flows**, which occur when a specific event – “trigger” – happens or occurs
  2. **Instant cloud flows**, which run when a manual trigger occurs
  3. **Scheduled cloud flows**, which run on a designated schedule

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Power Automate Templates

- Like similar tools, **Power Automate provides templates you can use “as-is” or customize for specific needs**
  - For most beginners, this is the right place to start
- Of course, **you can also build your own flows from “scratch”** if there is a suitable template from which to get started
- **Power Automate also provides numerous connectors** enabling you to connect to Microsoft and non-Microsoft data sources

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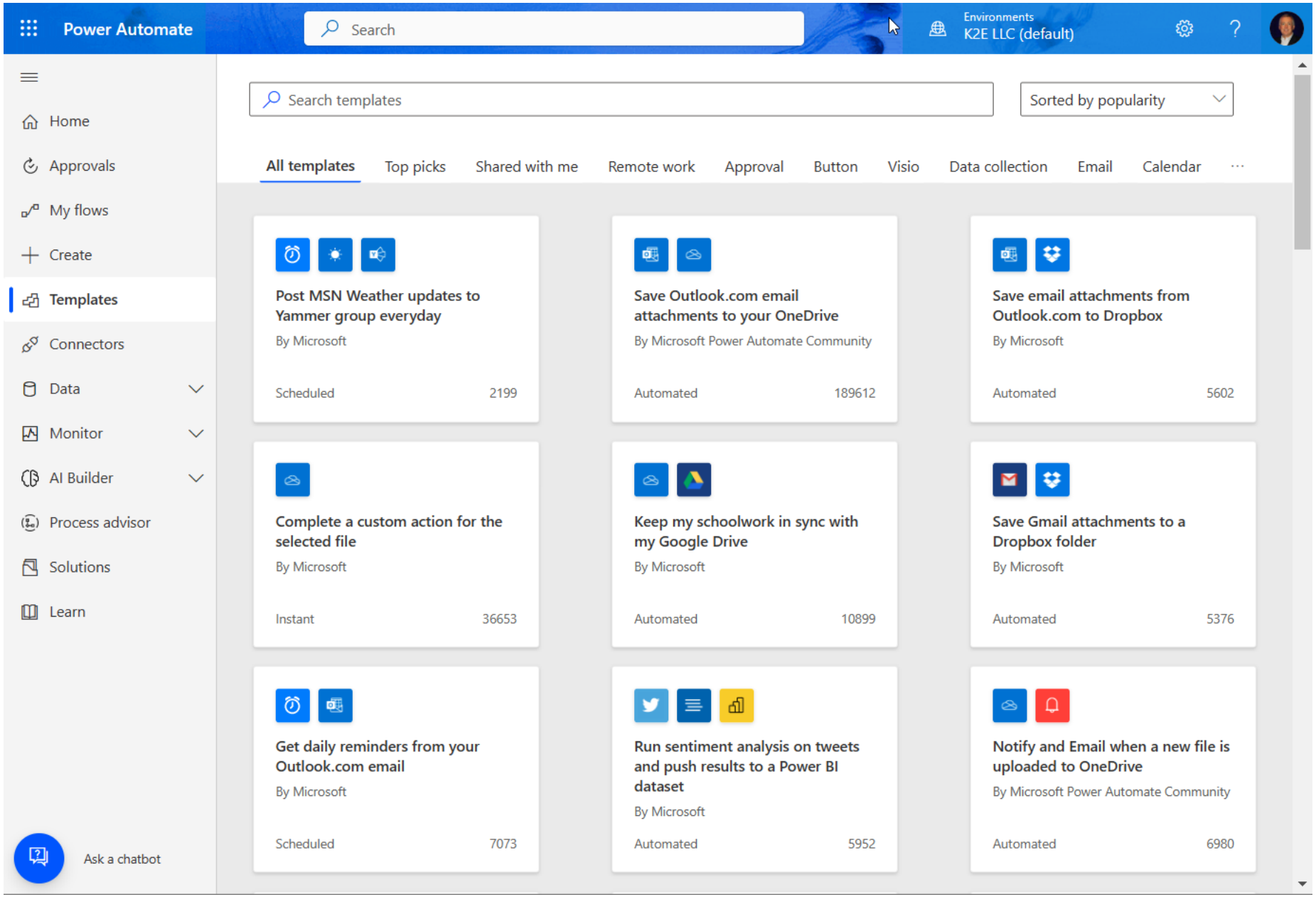

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Power Automate Connectors

- **Power Automate has hundreds of connectors available** to allow you to connect to your data
- **Many of these connectors are available at no charge**
  - However, there are fees for others
- You will **use connectors to access the data you want to incorporate** into your Power Automate flows

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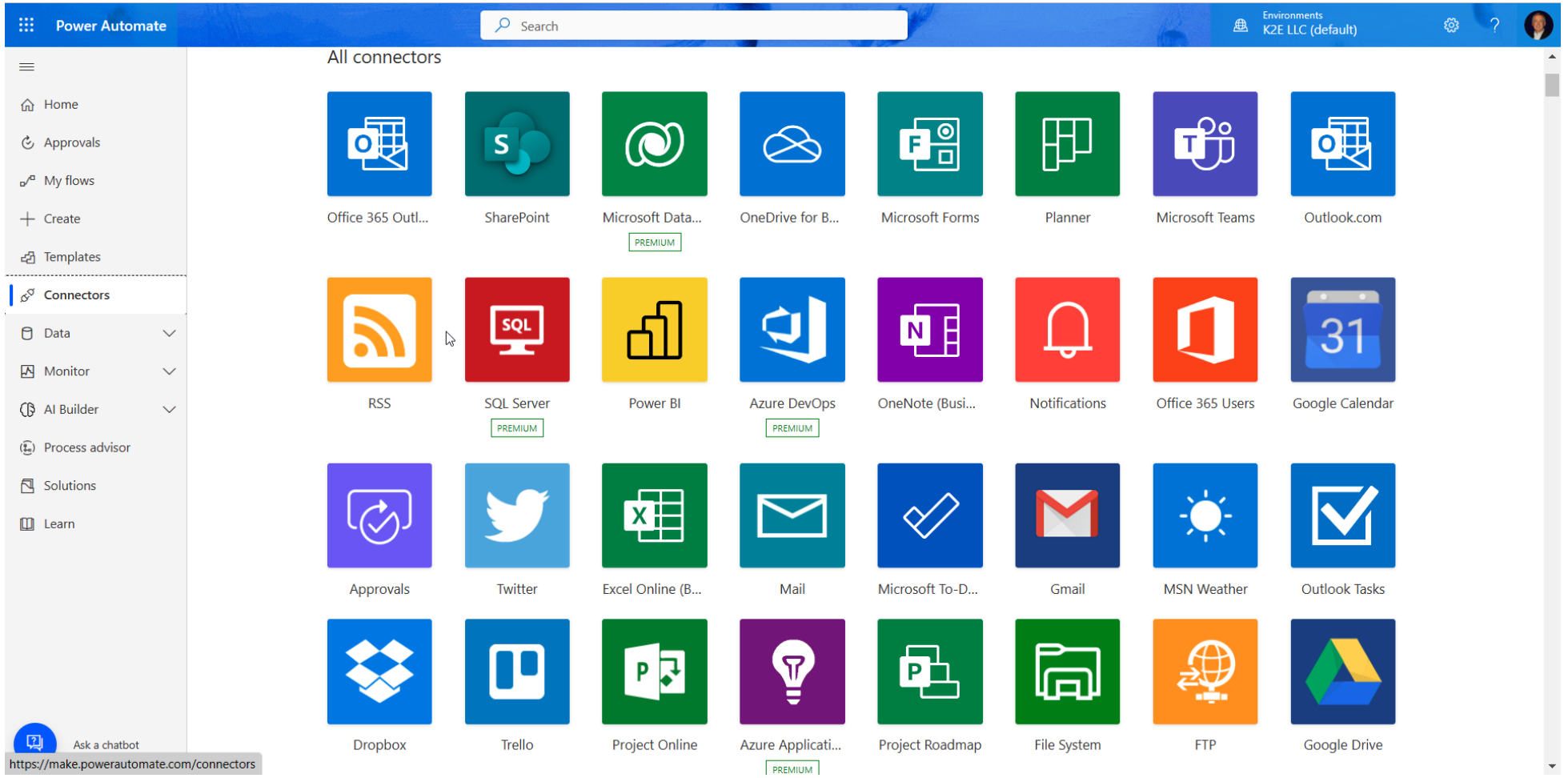
Power Automate Connectors



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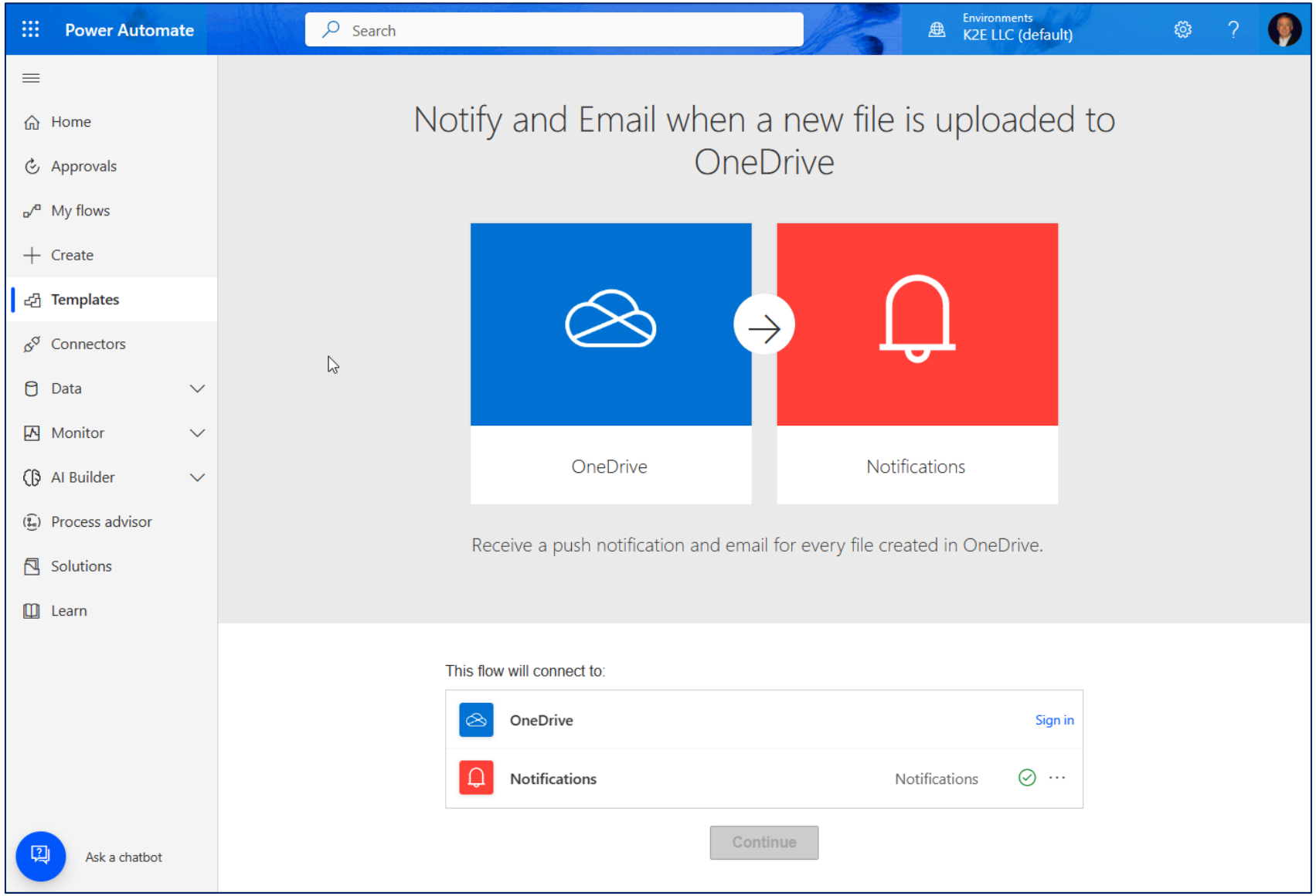

Select A Template To Use

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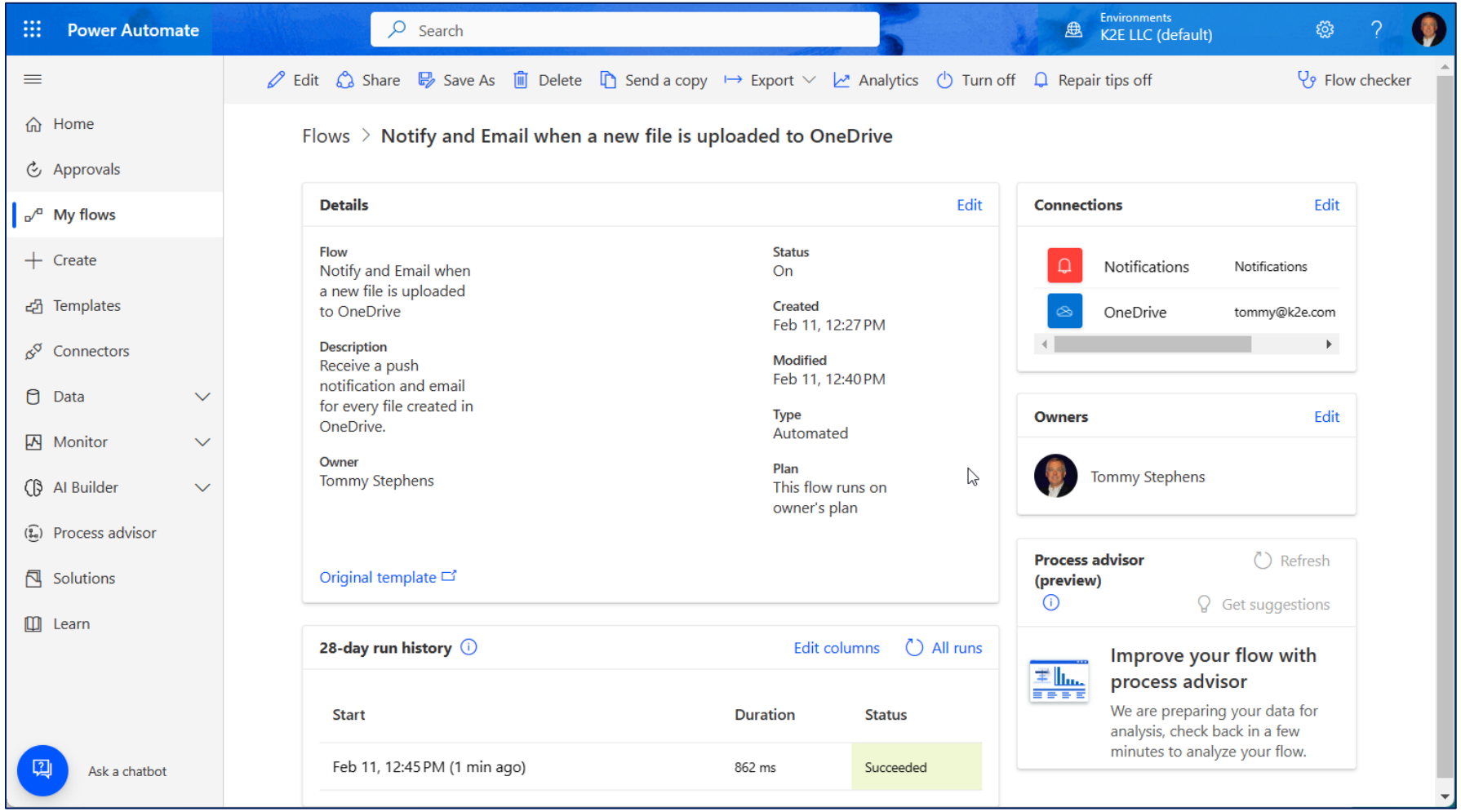

Configure The Template And Use It

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Useful Power Automate Scenarios

- Automating data entry via Forms
- Alerts when particular events occur
- Receive a notification when a file stored in OneDrive for Business is updated
- Automatically route documents for approval
- Start an approval process when a file is added to OneDrive
- Get signatures via Adobe Acrobat Sign whenever a file is created in SharePoint

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Other Simple Automation Options

- Microsoft isn’t the only game in town regarding automation
- For example, you can use tools like **Automation Anywhere**, **Blue Prism**, and others for more sophisticated projects
- You can also use tools like **Zapier** and **IFTTT** for simpler automation projects

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Zapier, For Example

- Zapier is another in the list of **“low-code, no-code” solutions**
- With this platform, you can take advantage of thousands of pre-built templates – known as ***Zaps*** – **to automate many business and personal tasks**
- You can **also use Zapier to create custom automations** for a variety of purposes

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Zapier Integrations

- Zapier **integrates with many applications**, including
  - Google Sheets, Microsoft Outlook, Salesforce, Shopify, YouTube, Stripe, Microsoft Excel, QuickBooks Online, Xero, Constant Contact, Zoho CRM, LinkedIn, DocuSign, Square, OneDrive, Survey Monkey, ShipStation, eBay, PayPal, Zoho Books…
  - **Over 5,000 integrations are available**, many with pre-built Zaps that are ready-to-run

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US Zapier Plans

Free

For individuals who need the basics of automation.

$0 USD
free forever

100 tasks /mo

Change plan

Free plan features:

- Single-step Zaps
- No-code editor

Starter

For individuals with simple, multi-step automation needs.

$19.99 USD
/month, billed annually

750 tasks /mo

Change plan

Everything in Free, plus:

- Multi-step Zaps
- Filters and Formatter
- Versions

Professional

For individuals that need the full power of Zapier's automation platform.

$49 USD
/month, billed annually

2K tasks /mo

Change plan

Everything in Starter, plus:

- Unlimited Premium Apps
- Autoreplay
- Custom Logic with Paths

Team

For teams building and collaborating on automation across the organization.

$299 USD
/month, billed annually

50K tasks /mo

Change plan

Contact Sales

Everything in Professional, plus:

- Unlimited users
- Premier support
- Shared app connections

Company

For organizations who want automation with robust security features and oversight capabilities.

$599 USD
/month, billed annually

100K tasks /mo

Change plan

Contact Sales

Everything in Team, plus:

- Advanced admin permissions
- SAML single sign on (SSO)
- Custom data retention

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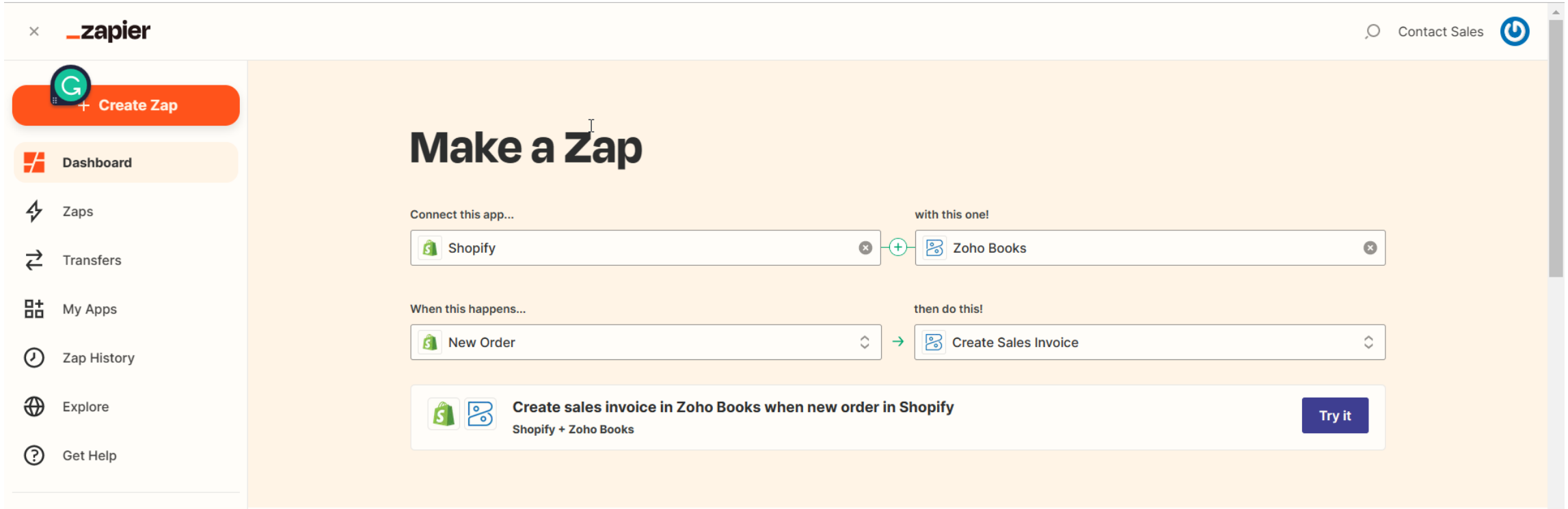
How To Build A Zap



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Zoho And Automation

- The Zoho platform offers many options for automating tasks
- For example, consider the following options
  - Scanning and importing A/P transactions into **Books**
  - Creating custom workflows using **Flow**
  - Enabling automation in **Campaigns** for **autoresponders** and **custom workflows**
  - Use **Survey** to collect information and link that information into **Sheets** for analysis and reporting
  - Forwarding receipts to **Expense** for auto-entry into expense reports

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Summary

- Almost **every business of every size can benefit today from automating various business processes and practices**
- An increasing number of applications – such as accounting applications – offer built-in automation offering **improved internal control and efficiency**
- But you can use other tools, such as **Power Automate**, **Zapier**, and **Automation Anywhere** to create your own automations
- No matter the tool(s) you use, ***now is the time to automate!***

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