



K2's Now Is The Time To Automate!

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



Let's get started...

WHY THE RUSH TO AUTOMATION?

Automation Isn't New...



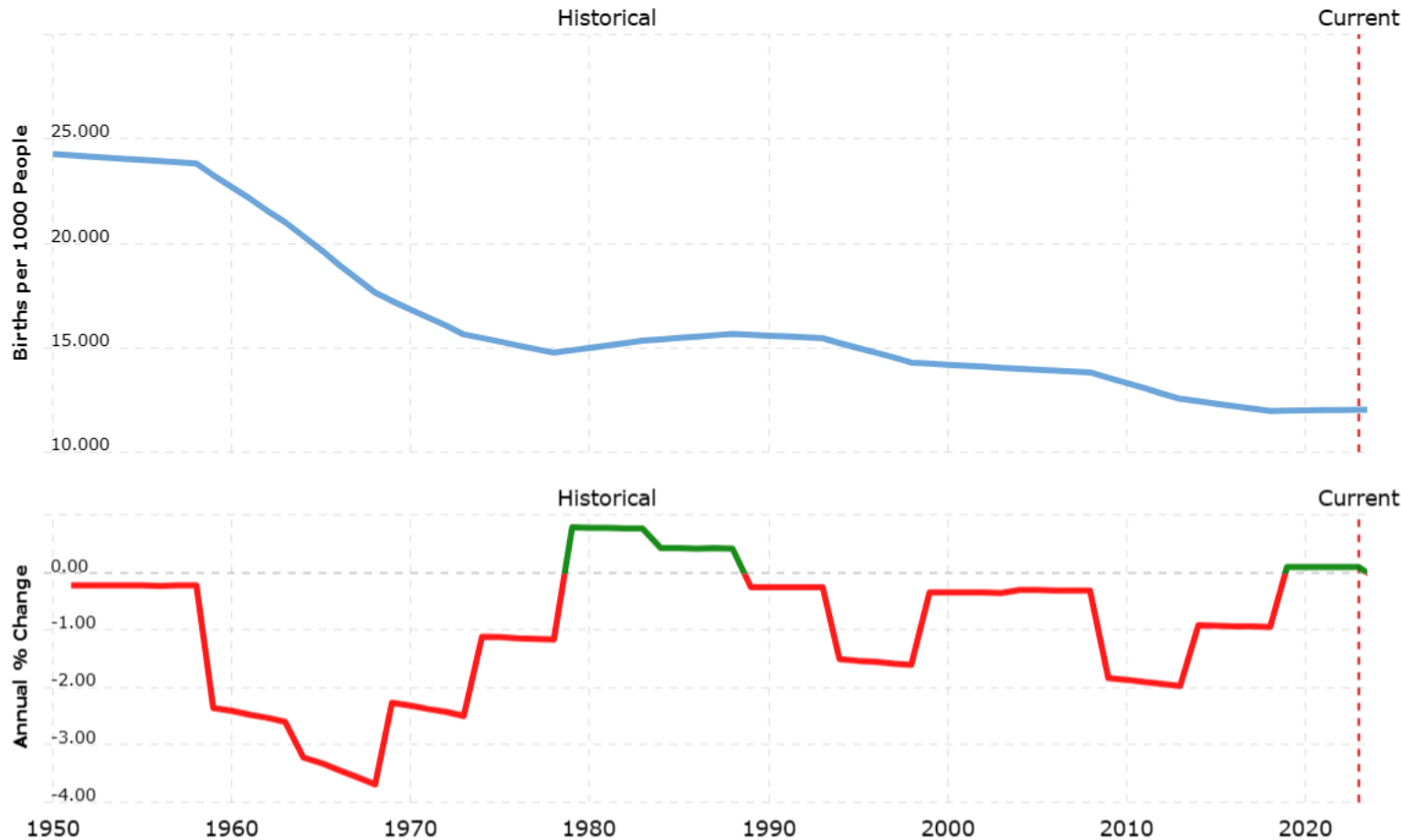
- One could argue that **automation dates to the early days of manufacturing lines**...Ford's Model T, for instance
 - Ford standardized how workers built the vehicle and, because of that, they were able to **mass produce the Model T at a lower per-unit cost**
 - Further, **standardization helped to 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*

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...

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

Automation Is Critical For Success



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

Repetitive transactions

- Monthly journal entries

Transactions requiring entry into a database

- Entering W-2 forms into a personal tax return

Standardized transactions with little variability

- Accounts payable bills from the same vendor

Automation Benefits



Time savings

Improved internal control

Better accuracy

Faster turnaround times

Improved customer/client service

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

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.

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**



LET'S SEE AN EXAMPLE...

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](#)

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**

Using ODBC To Link Data



Navigator

☐ Select multiple items

Display Options ▾

PurchaseOrderLinkedTransactions

SalesOrderLinkedTransactions

StatementChargeLinkedTransactions

Templates

Transactions

VendorCreditLinkedTransactions

WorkersCompCodeLines

WorkersCompCodes

Accounts

BillExpenseItems

BillLineItems

BillPaymentChecks

BillPaymentChecksAppliedTo

BillPaymentCreditCards

BillPaymentCreditCardsAppliedTo

Bills

BuildAssemblies

BuildAssemblyLineItems

CheckExpenseItems

Bills

Preview downloaded on Wednesday, June 23, 2021

ID	VendorName	VendorId
2432-1071510295	Timberloft Lumber	E0000-933272656
243A-1071510389	Perry Windows & Doors	C0000-933272656
244B-1071521755	Perry Windows & Doors	C0000-933272656
2485-1071506703	Timberloft Lumber	E0000-933272656
248B-1071507645	McClain Appliances	D0000-933272656
2586-1071523652	Keswick Insulation	40000-933272656
2589-1071523719	Middlefield Drywall	20000-933272656
258C-1071523824	Perry Windows & Doors	C0000-933272656
2593-1071524481	Hopkins Construction Rentals	F0000-933272656
25-933273688	Sloan Roofing	80000-933272656
2596-1071525246	C.U. Electric	30000-933272656
2599-1071525446	Express Delivery Service	320000-933272659
25A9-1071507354	Sloan Roofing	80000-933272656
26A8-1071524519	Daigle Lighting	640000-1071525538
26C2-1071499617	Hamlin Metal	50000-933272656
272F-1071518960	Thomas Kitchen & Bath	A0000-933272656
273E-1071519049	McClain Appliances	D0000-933272656

The data in the preview has been truncated due to size limits.

Select Related Tables

Load ▾

Transform 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

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

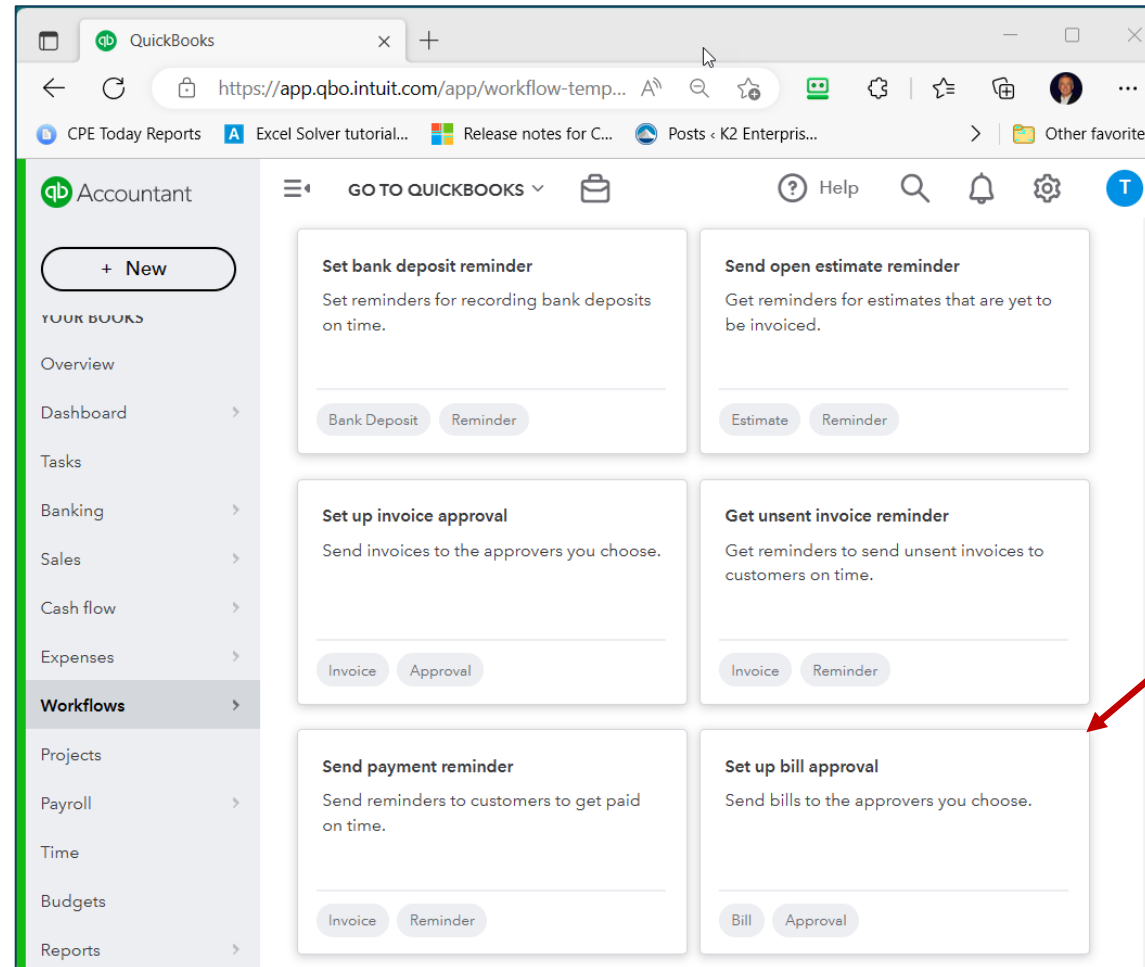
And, of course, **bank feeds**

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**

Built-In Automation



Built-In Automation



Create workflow

1. Do this in QuickBooks

What do you want QuickBooks to do?

Send for approval

Note:

- Bills entered in QuickBooks are part of books.
- Bills created by approvers are auto-approved.

How would you like this action to happen?

☒ Create an approval task in Tasks

Assign task to

Tommy Stephens

Task name

Approval due for Bill Bill Number

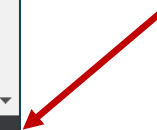
[Learn more about variables](#)

☒ Send a company email

Cancel

Save

Save and enable



You Can Create Custom Automations



Create custom workflow

Workflow name

Type a workflow name here

Source transaction

Invoice

1. Do this in QuickBooks

What do you want QuickBooks to do?

Send reminder

Days

0

Time frame

Select...

How would you like this action to happen?

☐ Create a reminder task in Tasks

☐ Send a client email

☐ Send a company email

Cancel

Save

Save and enable



**CONSIDER THE IMPROVEMENT TO
INTERNAL CONTROL AND EFFICIENCY!**

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

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**

An Example...



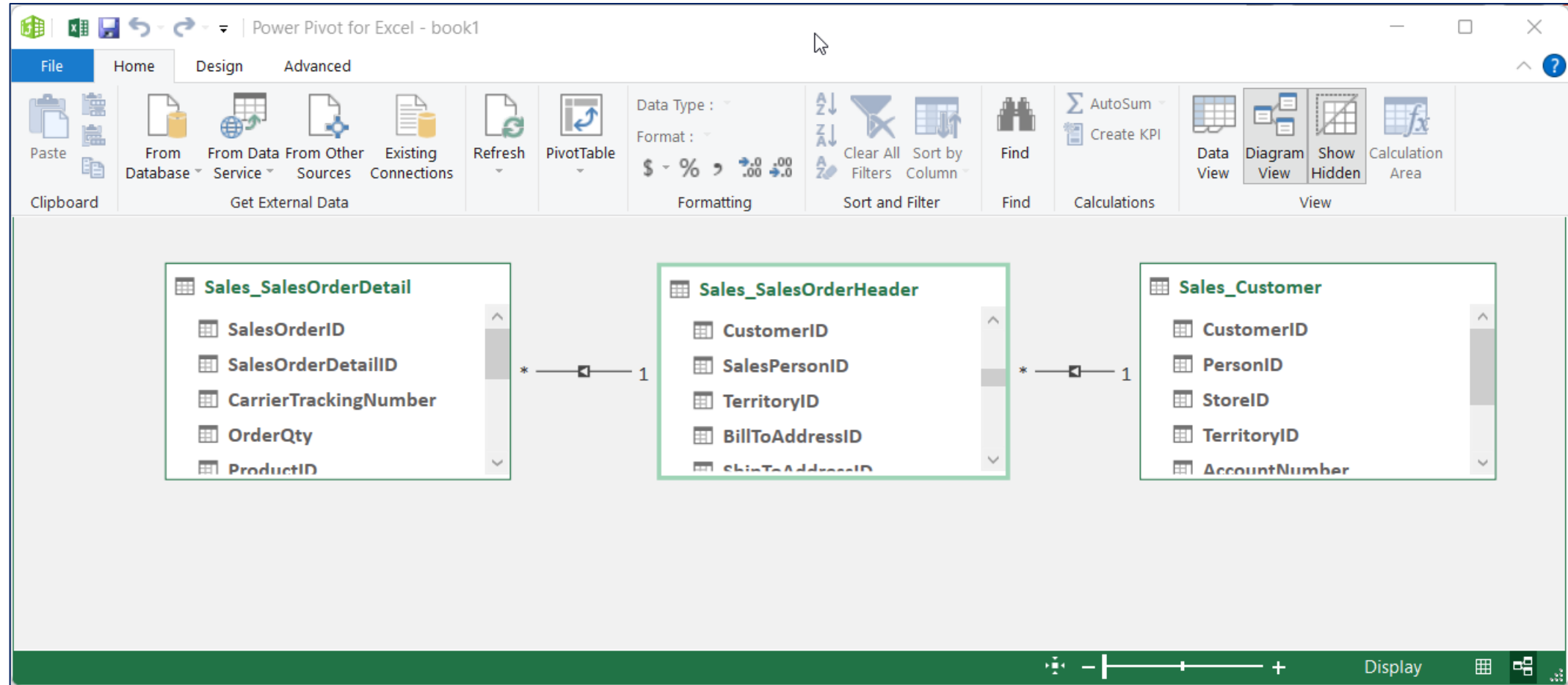
- Use Power Query to link data from multiple tables in a database, **delete unnecessary columns, join the tables** in a data model, and **summarize the data** using a PivotTable
- Steps
 - **Data, Get Data, From Database, From Microsoft Access Database, AdventureWorks Data.accdb, Import**
 - **Choose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

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**

A Simple Data Model



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						\$ 2,432.28
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

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!***



POWER AUTOMATE FOR EVEN MORE POWER AND CONTROL

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/>

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



Where Does The Power Platform Stand?



Source: Gartner (August 2022)

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

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

Power Automate

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K2E LLC (default)

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Shared with me

Remote work

Approval

Button

Visio

Data collection

Email

Calendar

Post MSN Weather updates to Yammer group everyday

By Microsoft

Scheduled2199

Save Outlook.com email attachments to your OneDrive

By Microsoft Power Automate Community

Automated189612

Save email attachments from Outlook.com to Dropbox

By Microsoft

Automated5602

Complete a custom action for the selected file

By Microsoft

Instant36653

Keep my schoolwork in sync with my Google Drive

By Microsoft

Automated10899

Save Gmail attachments to a Dropbox folder

By Microsoft

Automated5376

Get daily reminders from your Outlook.com email

By Microsoft

Scheduled7073

Run sentiment analysis on tweets and push results to a Power BI dataset


By Microsoft

Automated5952

Notify and Email when a new file is uploaded to OneDrive

By Microsoft Power Automate Community

Automated6980

 K2 Enterprises

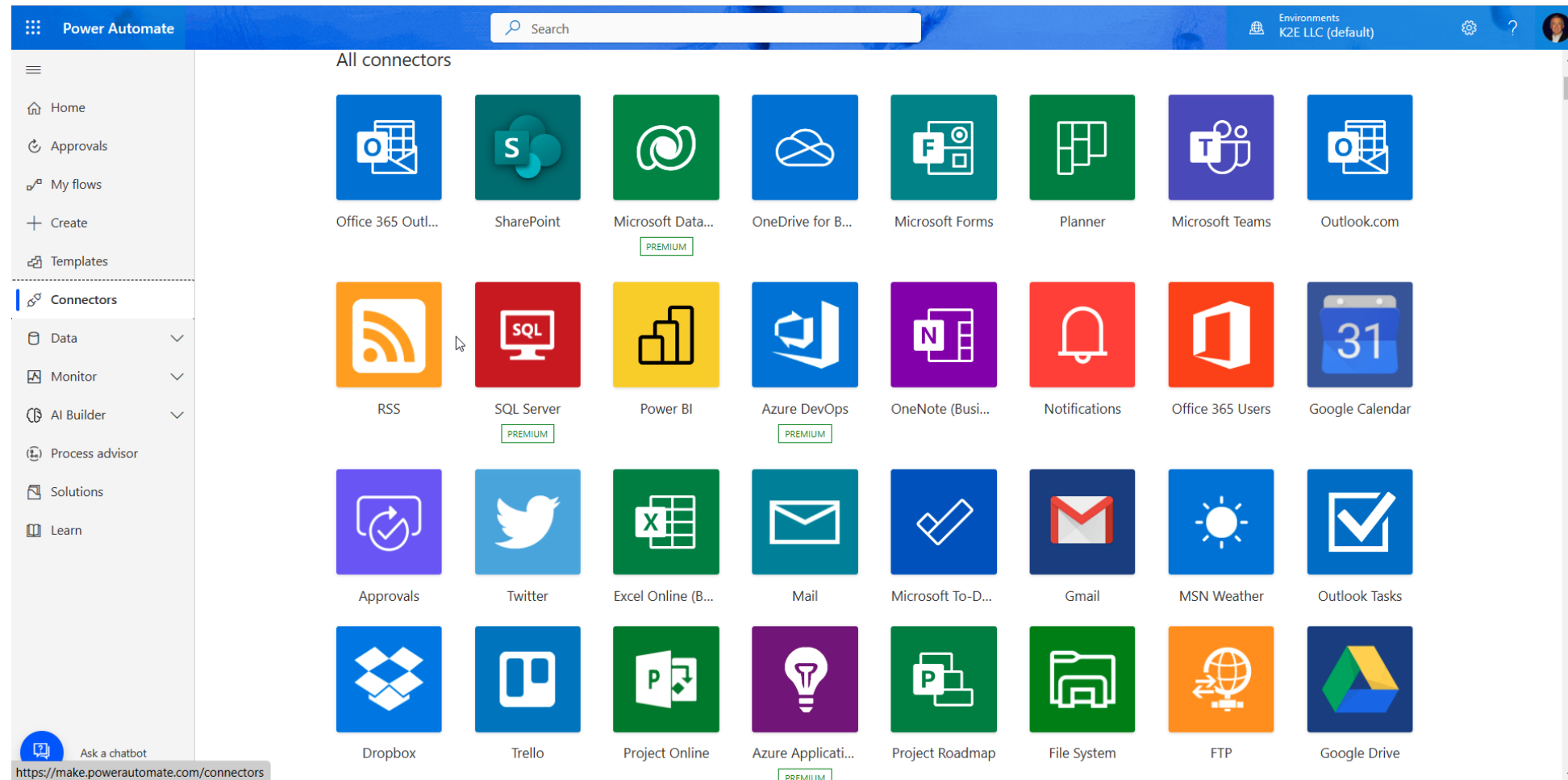
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Power Automate Connectors



- **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

Power Automate Connectors



Power Automate

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Environments
K2E LLC (default)

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AI Builder

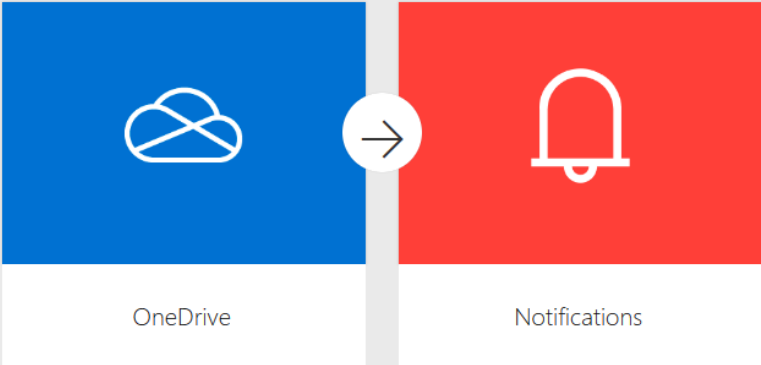
Process advisor

Solutions

Learn

Ask a chatbot

Notify and Email when a new file is uploaded to OneDrive






OneDrive

Notifications

Receive a push notification and email for every file created in OneDrive.

This flow will connect to:

	OneDrive	Sign in
	Notifications	Notifications  ...

Continue



Select A Template To Use



Power Automate Search

Environments
K2E LLC (default)

Edit Share Save As Delete Send a copy Export Analytics Turn off Repair tips off Flow checker

Flows > **Notify and Email when a new file is uploaded to OneDrive**

Details Edit

Flow: Notify and Email when a new file is uploaded to OneDrive

Status: On

Created: Feb 11, 12:27 PM

Modified: Feb 11, 12:40 PM

Type: Automated

Plan: This flow runs on owner's plan

Description: Receive a push notification and email for every file created in OneDrive.

Owner: Tommy Stephens

[Original template](#)

Connections Edit

Notifications Notifications

OneDrive tommy@k2e.com

Owners Edit

Tommy Stephens

Process advisor (preview) Refresh

Get suggestions

Improve your flow with process advisor

We are preparing your data for analysis, check back in a few minutes to analyze your flow.

28-day run history Edit columns All runs

Start	Duration	Status
Feb 11, 12:45 PM (1 min ago)	862 ms	Succeeded

Ask a chatbot

Configure The Template And Use It

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

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

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

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





US Zapier Plans


<div>2</div> <div><h2>Free</h2><p>For individuals who need the basics of automation.</p><p>\$0 USD free forever</p><div>100 tasks /mo</div><div>Change plan</div><p>Free plan features:</p><ul style="list-style-type: none">✓ Single-step Zaps ⓘ✓ No-code editor ⓘ</div>	<div><h2>Starter</h2><p>For individuals with simple, multi-step automation needs.</p><p>\$19.99 USD /month, billed annually</p><div>750 tasks /mo ⌵</div><div>Change plan</div><p>Everything in Free, plus:</p><ul style="list-style-type: none">✓ Multi-step Zaps ⓘ✓ Filters and Formatter ⓘ✓ Versions ⓘ</div>	<div><h2>Professional</h2><p>For individuals that need the full power of Zapier's automation platform.</p><p>\$49 USD /month, billed annually</p><div>2K tasks /mo ⌵</div><div>Change plan</div><p>Everything in Starter, plus:</p><ul style="list-style-type: none">✓ Unlimited Premium Apps ⓘ✓ Autoreplay ⓘ✓ Custom Logic with Paths ⓘ</div>	<div><h2>Team</h2><p>For teams building and collaborating on automation across the organization.</p><p>\$299 USD /month, billed annually</p><div>50K tasks /mo ⌵</div><div>Change plan</div><p>Contact Sales</p><p>Everything in Professional, plus:</p><ul style="list-style-type: none">✓ Unlimited users ⓘ✓ Premier support ⓘ✓ Shared app connections ⓘ</div>	<div><h2>Company</h2><p>For organizations who want automation with robust security features and oversight capabilities.</p><p>\$599 USD /month, billed annually</p><div>100K tasks /mo ⌵</div><div>Change plan</div><p>Contact Sales</p><p>Everything in Team, plus:</p><ul style="list-style-type: none">✓ Advanced admin permissions ⓘ✓ SAML single sign on (SSO) ⓘ✓ Custom data retention ⓘ</div>
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How To Build A Zap





× **zapier** Contact Sales 


 **Create Zap**


 **Dashboard**


 Zaps

 Transfers

 My Apps

 Zap History



 Explore

 Get Help

Make a Zap

Connect this app... **Shopify** with this one! **Zoho Books**

When this happens... **New Order** then do this! **Create Sales Invoice**

  **Create sales invoice in Zoho Books when new order in Shopify** Shopify + Zoho Books [Try it](#)

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

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!***