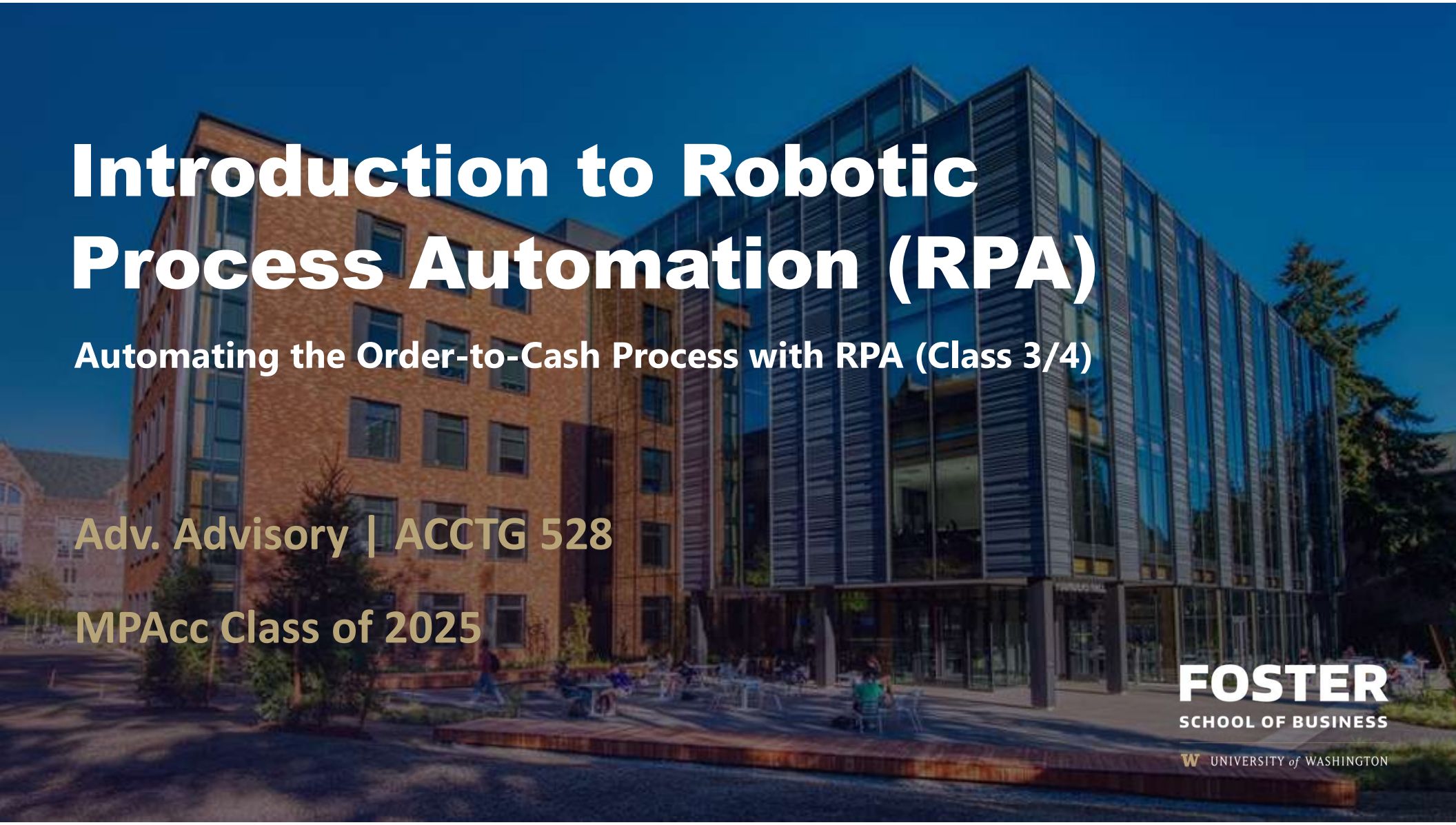

Introduction to Robotic Process Automation (RPA)

Automating the Order-to-Cash Process with RPA (Class 3/4)

Adv. Advisory | ACCTG 528

MPAcc Class of 2025

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Agenda

- **Review**
- Pure Reformed Oils Case: Continued
- Lab 1: Make a back up of ERP system choices
- Lab 2: Outputting data to specific excel cells

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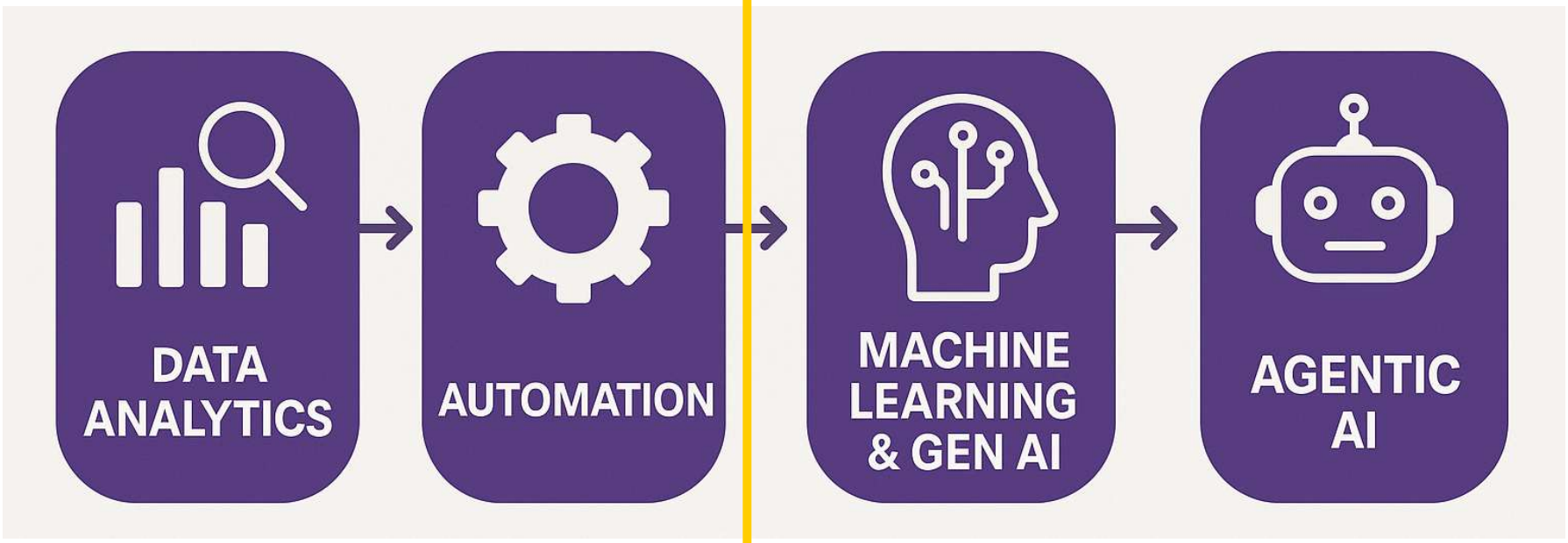
Course Overview



- Order-to-Cash Process Automation
- *UIPath Activities*
- ***Generalizing to any spreadsheet automation***

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Part II

Create a bot that automates the order-to-cash workflow described by the clients:

Done	Process/Task	UIPath Activities
☑	Read: new orders, shipping & deliveries	Read CSV
☑	Read: Existing data in ERP	Excel Application Scope, Read Range
☑	Loop through data in UIPath	For Each Row
☑	Output to excel	Excel Application Scope, Write Range
☑	Write log messages to console	Write Line

Part II

Create a bot that automates the order-to-cash workflow described by the clients:

Done	Process/Task
❌	Create copies of data for backups or temporary updating
❌	Update the ERP system with new orders
❌	Check for existing/update new Customers
❌	Get ProductIDs, update inventory levels
❌	Log and save metadata for governance/process mining

Points to consider

Data can move in parallel:

- All data is initially triggered by the order
- The process is retriggered by a new order, and older orders need not be completed before staring a new one.
- Data is updated by the arrival of new information (mostly shipping related)

You can suggest changes to order /combine parts of the process to make it more efficient:

- This is a positive for automation.
- Excel is not always the best solution, you can propose other alternatives. Excel excels at tasks that need formatting for human consumption (otherwise it is inefficient relative to storing the data as data).
- Add as many steps and as much detail as you want (this is for you to prepare to build the bot, not for the client or to sell the product).

Task Name	**Software and System(s) utilized**	***Prototype / Simulation for RPA Solution***
Monitor for New Order	Etsy Seller Portal (online/browser)	A single CSV/JSON (*input to simulated a download or API call*)
Extract Order Details for shipping	Etsy Seller Portal: Order Page (online/browser)	Uses data from above
Generate Shipping Label and Send Confirmation Email	excel: **Orders**.xlsx and email system: e.g., Gmail	*No new data, allow email to be autogenerated on ETSY;* Consider skipping orders.xlsx
Update Inventory File	Excel (or Google Sheets)	Still need something here (xlsx?). *Consider cheap traditional scalable storage (e.g., SQL); simulation as a CSV or Excel is fine.*
Prints and ships physical product	Etsy / USPS API	*Skylar manual process; Consider new data as CSV/JSON input with outbound shipping confirmation*
Mark Order as Shipped in systems	Etsy Dashboard and excel: shipping.xlxs	As above
Initial Post to Accounting System	QuickBooks (we will use Excel)	Excel (Automate JE's from step#1)
Receive Shipping Confirmation	Gmail	csv./json
Final Post to Accounting System	QuickBooks (we will use Excel)	Excel (Automate JE's from data – delivery confirmations)
Reconciliations	QuickBooks (we will use Excel), all local Excel Files, Etsy Dashboards	Individual discretion and creativity (*see canvas assignments for details on the grading scale, professionalism up to +15*)

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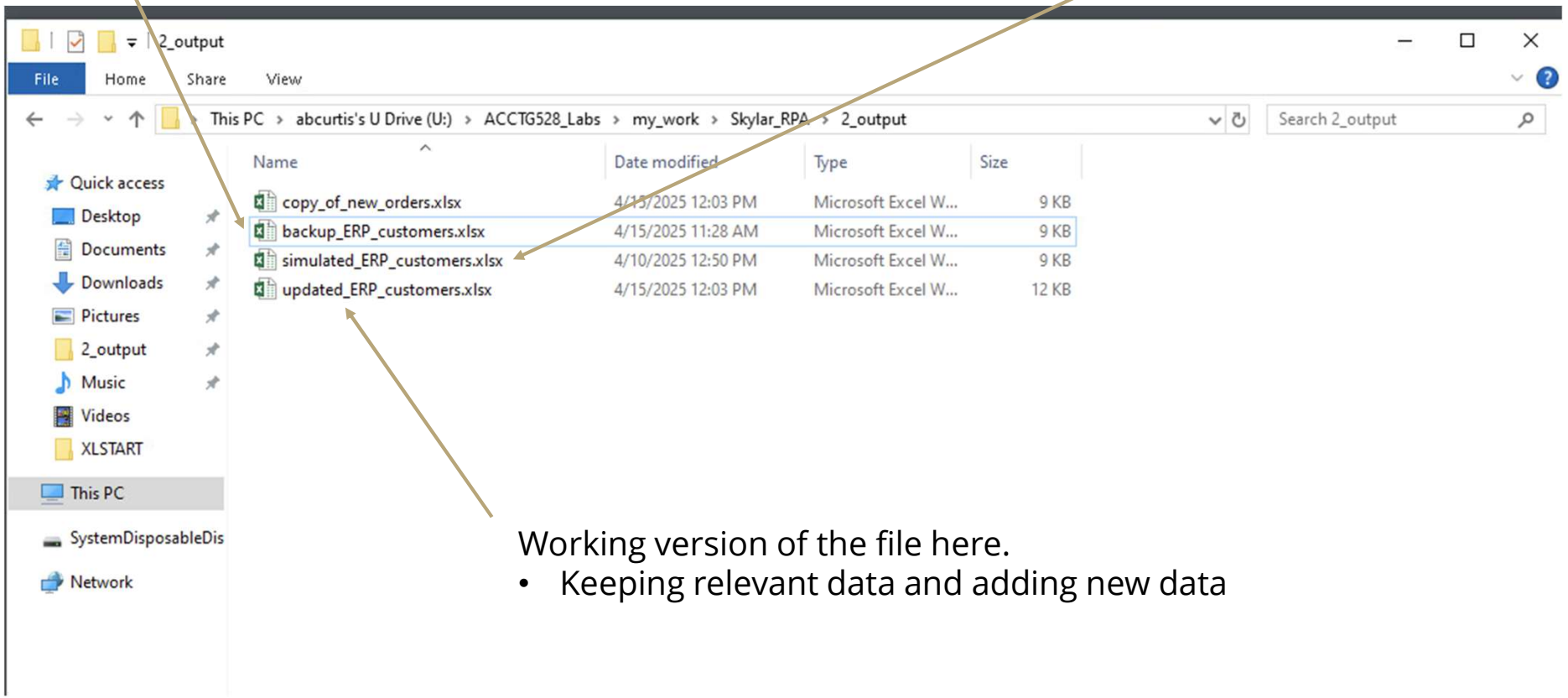
Backup as one option in case of problems/errors

Biggest Risk is overwriting/deleting data here

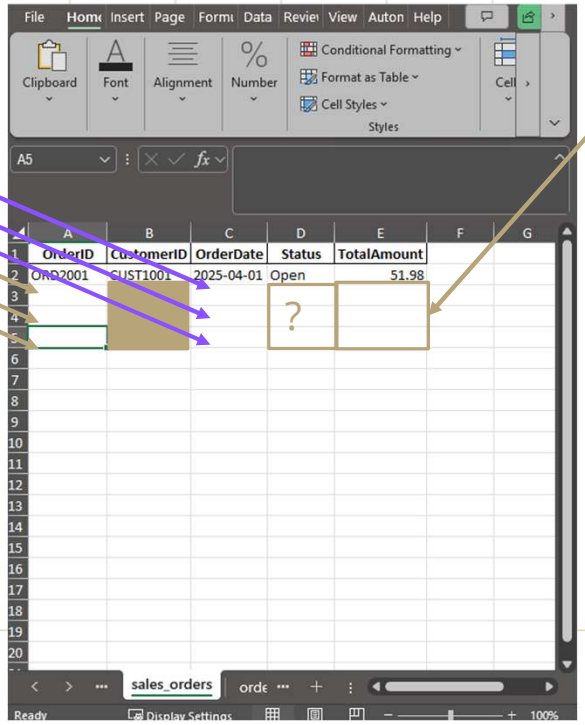


Working version of the file here.

- Keeping relevant data and adding new data

Example: Update an excel file task

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	OrderID	OrderDate	CustomerName	Customer	ShippingA	ProductNa	SKU	Quantity	PriceEach	ShippingM	TrackingR	Status	EtsyFee	ShippingF	TotalPaid	NetPayout
2	ETSY-1000	4/10/2025	Kimberly Yoder	mharris@	1257 Andr	Lavender (	PO1001	1	16.39	Standard	Yes	Paid	0.9834	3	19.39	18.41
3	ETSY-1001	4/10/2025	Lynn Walters	amartinez	528 Kyle B	Tea Tree C	PO1004	3	10.29	Expedited	No	Paid	1.8522	5	35.87	34.02
4	ETSY-1002	4/10/2025	David Powell	xbutler@h	6578 Lyon	Lavender (	PO1001	3	22.31	Expedited	Yes	Paid	4.0158	5	71.93	67.9142



Thank you

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