



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

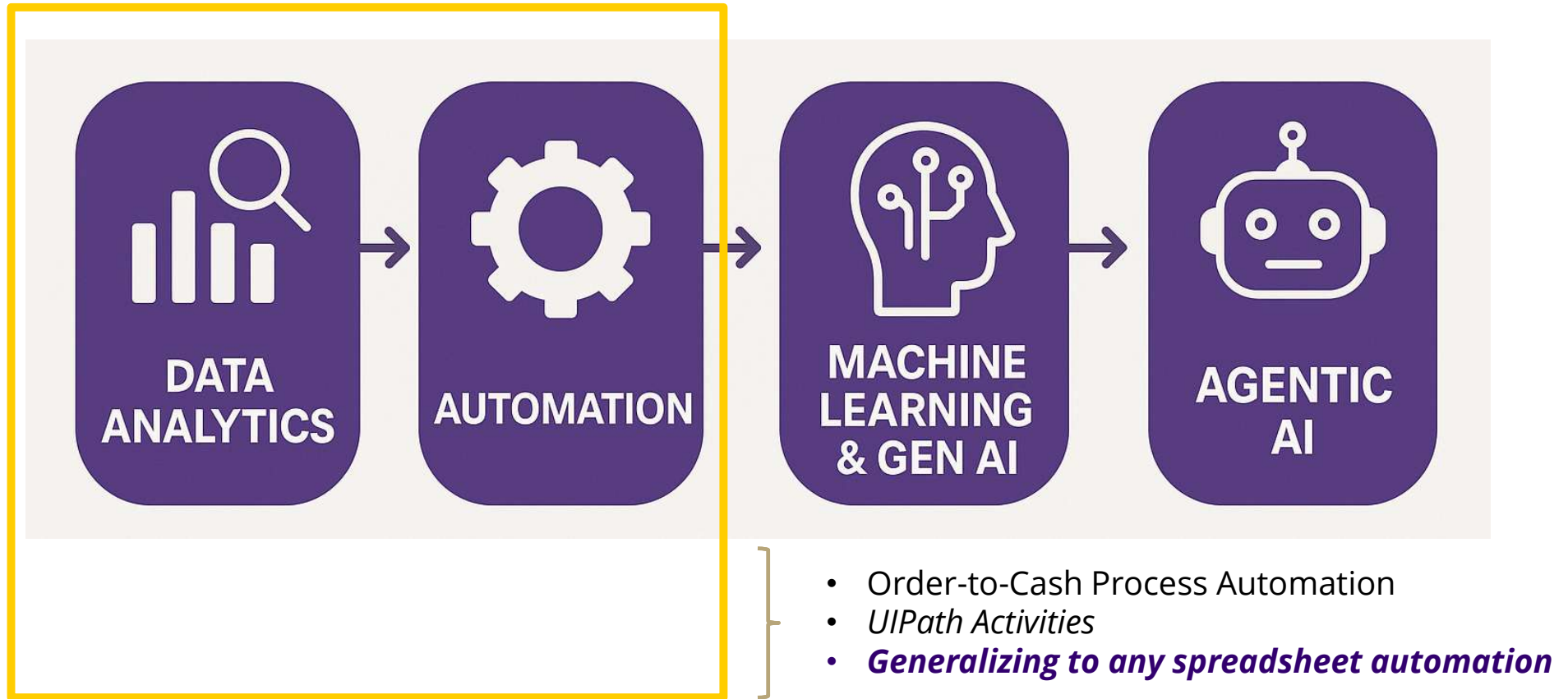
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Agenda

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

Course Overview



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

Part II

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

Done	Process/Task	UIPath Activities
<input checked="" type="checkbox"/>	Read: new orders, shipping & deliveries	Read CSV
<input checked="" type="checkbox"/>	Read: Existing data in ERP	Excel Application Scope, Read Range
<input checked="" type="checkbox"/>	Loop through data in UIPath	For Each Row
<input checked="" type="checkbox"/>	Output to excel	Excel Application Scope, Write Range
<input checked="" type="checkbox"/>	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 starting 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 (<i>input to simulated a download or API call</i>)
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	<i>No new data, allow email to be autogenerated on ETSY; Consider skipping orders.xlsx</i>
Update Inventory File	Excel (or Google Sheets)	<i>Still need something here (xlsx?). Consider cheap traditional scalable storage (e.g., SQL); simulation as a CSV or Excel is fine.</i>
Prints and ships physical product	Etsy / USPS API	<i>Skylar manual process; Consider new data as CSV/JSON input with outbound shipping confirmation</i>
Mark Order as Shipped in systems	Etsy Dashboard and excel: shipping.xlsxs	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 (<i>see canvas assignments for details on the grading scale, professionalism up to +15</i>)

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Backup as one option in case of problems/errors

Biggest Risk is overwriting/deleting data here

The screenshot shows a Windows File Explorer window with the address bar path: This PC > abcurtis's U Drive (U:) > ACCTG528_Labs > my_work > Skylar_RPA > 2_output. The left sidebar shows 'Quick access' with links to Desktop, Documents, Downloads, Pictures, 2_output, Music, Videos, and XLSTART, and 'This PC' with links to SystemDisposableDis and Network. The main pane displays a table of files:

Name	Date modified	Type	Size
copy_of_new_orders.xlsx	4/15/2025 12:03 PM	Microsoft Excel W...	9 KB
backup_ERP_customers.xlsx	4/15/2025 11:28 AM	Microsoft Excel W...	9 KB
simulated_ERP_customers.xlsx	4/10/2025 12:50 PM	Microsoft Excel W...	9 KB
updated_ERP_customers.xlsx	4/15/2025 12:03 PM	Microsoft Excel W...	12 KB

Annotations with arrows:

- An arrow points from the text 'Backup as one option in case of problems/errors' to the file 'copy_of_new_orders.xlsx'.
- An arrow points from the text 'Biggest Risk is overwriting/deleting data here' to the file 'backup_ERP_customers.xlsx'.
- An arrow points from the text 'Working version of the file here.' to the file 'updated_ERP_customers.xlsx'.

- Working version of the file here.
 - Keeping relevant data and adding new data

Example: Update an excel file task

The main spreadsheet contains the following data:

OrderID	OrderDate	CustomerName	CustomerID	ShippingA	ProductN	SKU	Quantity	PriceEach	ShippingM	TrackingR	Status	EtsyFee	ShippingF	TotalPaid	NetPayout
ETSY-1000	4/10/2025	Kimberly Yoder	mharris@1257	Andr	Lavender C	PO1001	1	16.39	Standard	Yes	Paid	0.9834	3	19.39	18.41
ETSY-1001	4/10/2025	Lynn Walters	amartinez528	Kyle B	Tea Tree C	PO1004	3	10.29	Expedited	No	Paid	1.8522	5	35.87	34.02
ETSY-1002	4/10/2025	David Powell	xbutler@h6578	Lyon:	Lavender C	PO1001	3	22.31	Expedited	Yes	Paid	4.0158	5	71.93	67.9142

The inset window shows a smaller spreadsheet with the following data:

OrderID	CustomerID	OrderDate	Status	TotalAmount
ORD2001	CUST1001	2025-04-01	Open	51.98
			?	

Arrows indicate the following data flow:

- From the main table's **OrderID** column to the inset's **OrderID** column.
- From the main table's **CustomerID** column to the inset's **CustomerID** column.
- From the main table's **OrderDate** column to the inset's **OrderDate** column.
- From the main table's **Status** column to the inset's **Status** column.
- From the main table's **TotalPaid** column to the inset's **TotalAmount** column.

The inset window also shows a formula bar with fx and a status bar at the bottom indicating the file is **sales_orders**.

Thank you

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