

Artificial Intelligence Use Cases

City of Charlotte Internal Audit

Audit Planning

Audit Planning

Are you familiar with the VisionZero initiative with the City of Charlotte?

Absolutely—I'm familiar with Charlotte's Vision Zero initiative. Here's an overview of what it's all about, how it's being implemented, and what the current challenges are:

What Is Vision Zero in Charlotte?

Vision Zero is a traffic safety initiative launched by the City of Charlotte in 2019, with the ambitious goal of eliminating all traffic-related deaths and serious injuries by 2030 City of Charlotte.

Guiding Principles

The initiative operates on these core beliefs:

- Traffic fatalities and serious injuries are preventable and unacceptable.
- Protecting human life must take priority over all other road system objectives.
- Road systems should be designed so that human errors won't lead to fatal outcomes.
- Solutions must be **collaborative**, **equitable**, and **data-driven**.
- Safety is everyone's responsibility, and the community is accountable for implementation, measurement, and adaptation City of Charlotte.

Audit Planning

You are an internal auditor working for a local government. We are doing an audit of a program like Vision Zero. I need you to find me audit reports of any similar audits released from Jan 2018 through July 2025. Do not include the City of Charlotte's audit report.

Your results should be a table with the audit office's name in the leftmost column, the name of the report in the second column, the date it was issued in the third column, and a link to the report in the last column.

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Looking into Austin traffic audit

Searching audits related to NYC Vision Zero

Searching for Vision Zero audits in other cities


Opening NYC Comptroller audit link

Organizing key audits

Audit Planning

Thought for 3m 50s

Here are comparable Vision Zero / traffic-safety program audits released between Jan 2018 and July 2025 (excluding Charlotte):



Audit office	Report title	Date issued	Link
Portland City Auditor (Audit Services Division)	Vision Zero: Portland Bureau of Transportation needs to measure which projects reduce traffic deaths and serious injuries	Nov 13, 2024	Portland.gov
Office of the DC Auditor (ODCA)	Vision Zero Part I: DDOT Made Progress on Engineering & Equity	Mar 16, 2023	Office of the DC Auditor
Office of the DC Auditor (ODCA)	Vision Zero Part II: Improvements Underway on Enforcement and Equity	Jun 5, 2024	
City of San Diego – Office of the City Auditor	High-Risk Re-Review Performance Audit: Pedestrian Safety Programs (follow-up to 2016 audit)	Oct 2, 2023	City of San Diego
City of Austin – Office of the City Auditor	Traffic Enforcement (contextualized within the City's Vision Zero Action Plan)	Aug 1, 2018	Austin Texas
Office of the New York City Comptroller	Audit Report on the NYC Department of Transportation's Speed Camera Program (supports Vision Zero goals)	Jan 22, 2024	NYC Comptroller's Office

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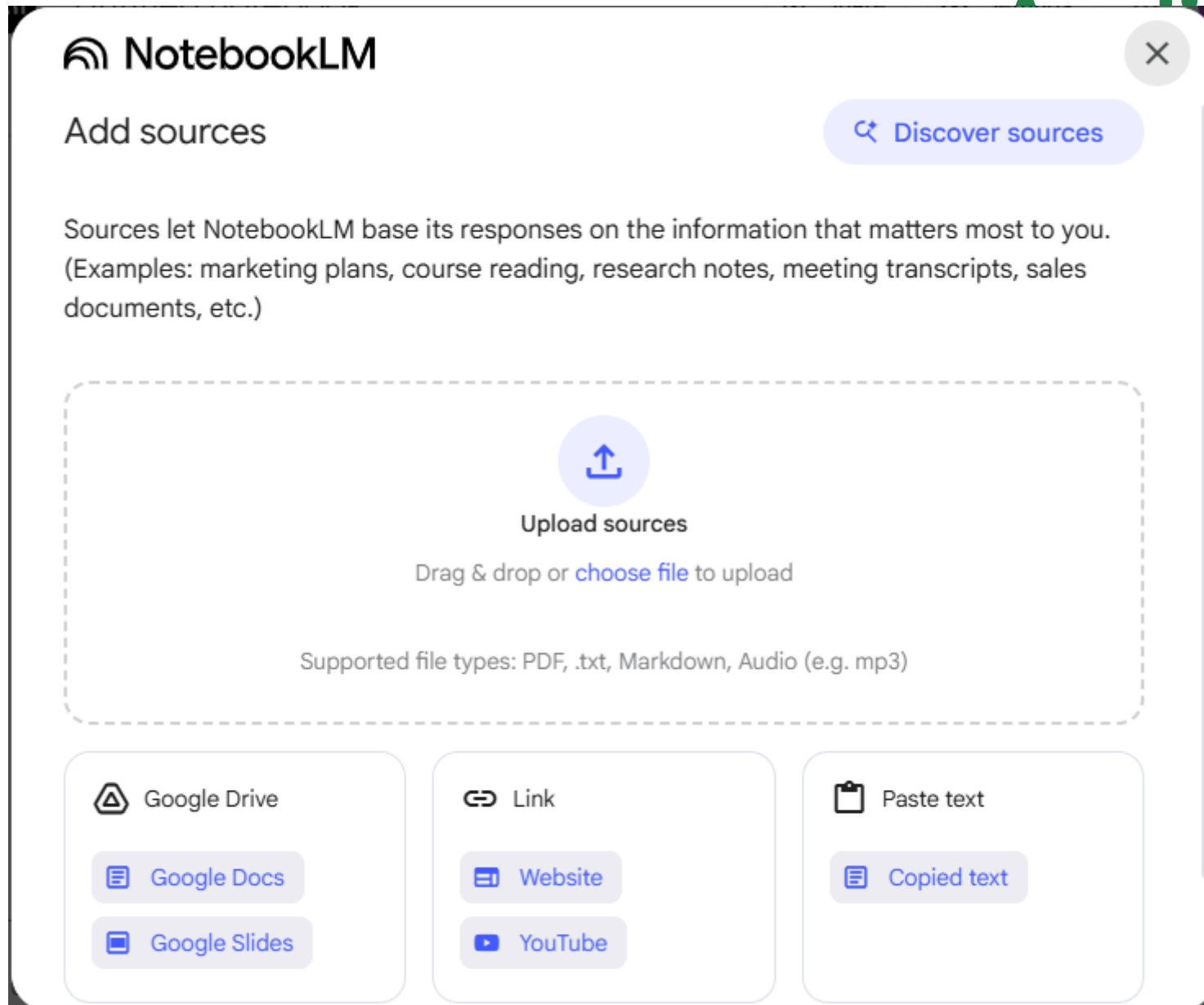
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Planning



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 Audit Planning: Vison Zero

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Audit Planning: Vison Zero

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 CITY of CHARLOTTE

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What are you interested in?

You are an internal auditor working for a local government. We are doing an audit of a program like the City of Charlotte's Vison Zero initiative. I need you to find me audit reports of any similar audits released from Jan 2018 through July 2025. Do not include the City of Charlotte's audit report. Do not include Austin, New York City, ODCA, Portland, of San Diego


I'm feeling curious


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 CITY of CHARLOTTE

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 Audit Planning: Vision Zero


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Access comprehensive audit reports and related documents from various municipalities, offering insights into their Vision Zero and traffic safety initiatives.



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 Audit of Pedestrian Safety | City of Dallas 



Reveals Dallas's pedestrian safety audit, a direct example of a similar program.



 Denver Vision Zero Road Safety Audit: Federal Boulevard 

Examines Denver's Vision Zero road safety audit, including specific recommendations.

 Denver Vision Zero Road Safety Audit: Quebec Street 

Details another Denver Vision Zero road safety audit, complementing the first.

 Traffic Enforcement Study + Outreach - City of Los Angeles 


 

10 sources selected


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
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
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 Traffic Enforcement Study + Outreach - City of Los Angeles

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Provides Los Angeles's Vision Zero audit and enforcement best practices.


 

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Audit Planning: Vision Zero

7 sources

These municipal audit reports from **Dallas**, **New York City**, **Portland**, **San Diego**, and the **District of Columbia** generally assess the effectiveness of each city's Vision Zero initiatives, which aim to eliminate traffic fatalities and serious injuries. While acknowledging progress in areas like **engineering improvements** and **data analysis** for high-crash locations, the audits consistently highlight challenges. Common issues include a lack of **comprehensive data frameworks**, **insufficient funding** or resource allocation for maintenance and projects, and the need for **improved communication** and **equitable distribution** of safety interventions, especially in underserved communities. Several reports also point out difficulties in

We are internal auditors at a local city government. You are helping me with one of the steps in the planning phase for my audit. We are auditing our Vision Zero program, which is a traffic safety initiative launched by the City of Charlotte in 2019, with the goal of eliminating all traffic-related deaths and serious injuries by 2030.

Below are the instructions for the Research Audits of Other Entities step of our audit program. Complete the Source, Scope, and Conclusion. The conclusion should break down the findings by audit. At the top of the conclusion, it should also identify any similar findings that showed up on more than 1 report.

PURPOSE: To identify and review audit reports, management studies and professional literature on subjects pertinent to the audit; identify any specific objectives, controls and risks that will apply to the current audit.


SOURCE: Auditor lists sources of information


7 sources


How do different cities measure and report progress towards their Vision Zero goals?


What common challenges hinder V


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SCOPE: Auditor lists steps performed to identify relevant audits and management studies.

CONCLUSION: Auditor summarizes exceptions noted at other entities to gain an understanding of risks and needed controls.

7 sources



Audit Planning

Here is the research audit summary for your Vision Zero program audit:

PURPOSE: To identify and review audit reports, management studies, and professional literature on subjects pertinent to the audit; identify any specific objectives, controls, and risks that will apply to the current audit.

SOURCE: The following audit reports were reviewed:

- "Audit of Pedestrian Safety | City of Dallas," Final Report, May 23, 2022 ¹.
- "Traffic Enforcement, Audit Report, August 2018" (Austin, TX) ².
- "Audit Report on the New York City Department of Transportation's Speed Camera Program, FN22-095A, January 22, 2024" ³.
- "Vision Zero Part I: DDOT Made Progress on Engineering & Equity but Gaps Remain, March 16, 2023" (District of Columbia) ⁴.
- "Vision Zero: Portland Bureau of Transportation needs to systematically evaluate whether its safety projects reduce traffic deaths and serious injury crashes, November 2024" ⁵.
- "2023 High Risk Re-Review: Performance Audit of the City's Programs Responsible for Improving Pedestrian Safety, October 2023" (San Diego, CA) ⁶.
- "Traffic Enforcement Study + Outreach - City of Los Angeles, Thursday, April 20, 2023" ⁷.

SCOPE: To identify relevant audits and management studies, a comprehensive review was conducted on the provided documents. The methodology included:

- Identifying the stated objectives and scope of each audit or study ² ...
- Extracting key findings, observations, and conclusions related to the effectiveness, efficiency, and equity of Vision Zero initiatives or traffic safety programs ¹³ ...
- Noting any recommendations made by the auditors and the management responses, especially instances of agreed-upon actions or accepted risks ⁸ ...
- Analyzing common themes and recurring challenges or successes across multiple jurisdictions to identify systemic risks and controls pertinent to a Vision Zero program audit.

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CONCLUSION: Several similar findings emerged across multiple reports, indicating common challenges and areas for improvement in Vision Zero initiatives:

- **Lack of Robust Data Frameworks and Strategic Data Utilization:** Many cities struggled to fully leverage crash data and safety study recommendations into a comprehensive database or a published High Injury Network (HIN) to proactively prioritize safety projects based on risk and equity 10
- **Insufficient Systematic Project Evaluation and Monitoring:** There was a consistent finding that cities lacked routine and systematic evaluations of completed safety projects to determine their actual effectiveness and impact on reducing fatalities and serious injuries 16
- **Issues with Public Reporting, Transparency, and Communication:** Several audits highlighted deficiencies in communicating Vision Zero progress, updating action plans, or maintaining accessible, detailed information on public-facing platforms like websites 16
- **Challenges with Equity and Disproportionate Impacts:** Reports frequently identified that safety improvements were not always equitably distributed, or that the methodologies for incorporating equity into project selection needed improvement to address historically underserved communities or those with higher crash rates 16
- **Staffing, Resource Limitations, and Funding Inconsistencies:** A common underlying issue was that Vision Zero programs were hindered by limited staff, inconsistent or insufficient budgeting, and an inability to fully fund necessary initiatives or maintenance, leading to backlogs 18
- **Need for Central Coordination and Clear Roles/Responsibilities:** Audits often pointed to a lack of a central driving force, dedicated coordinator, or clear interdepartmental policies and procedures to ensure coherent and timely implementation of Vision Zero efforts across various city departments 49

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Breakdown of Findings by Audit:

• Audit of Pedestrian Safety | City of Dallas 1:

- The Dallas Department of Transportation (DDOT) **lacks formal, written, specific, measurable, and time-focused goals and performance measures, along with associated written procedures** for strengthening pedestrian safety 13 While DDOT uses monthly crash reports, they **do not include severe injuries or explicit targets/timelines** for reducing fatalities/injuries 97 .
- DDOT has a draft Pedestrian High Injury Network but **no formal written plan or operating procedures on how to apply this data** to improve safety or operations 31 .
- There is **no explicit pedestrian priority written into DDOT's procedures** or criteria for investigating incidents, conducting studies, or evaluating countermeasures 32
- The City is **not consistently budgeting for crosswalk maintenance**, leading to a **backlog of 1,500 crosswalks** needing thermoplastic refreshment, estimated at \$1.2 million 65 66 . The maintenance cycle is 10 years, but federal and state guidelines recommend a maximum of 7 years 66 100 .
- DDOT's maintenance schedules for pedestrian countermeasures, such as accessible pedestrian signals, traffic signs, and crosswalk markings, **do not align with Federal and State recommendations**, exposing pedestrians to unnecessary risk 65
- **Management acknowledged these findings and agreed to implement most recommendations**, but notably **accepted the risk** for aligning maintenance schedules with federal/state guidelines and prioritizing pedestrian traffic, citing resource challenges 102 103 .

Audit Planning

- **Traffic Enforcement | Austin.pdf** 2 :

- Austin Police Department (APD) officers have **limited time for traffic enforcement during regular shifts** due to competing demands and resource limitations, including staffing shortages and vehicle availability issues 14

- APD relies on **grant funding (Selective Traffic Enforcement Program - STEP)** for overtime enforcement and utilizes red light cameras to supplement traffic safety efforts 14


- **Red light cameras were successful in reducing crashes** at intersections where they were installed, with a significant decrease in average crashes per year 106 .

- The City emphasizes that the **purpose of traffic enforcement is to promote safety, not to generate revenue** 107 . This focus leads to actions that reduce collected revenue, such as issuing warnings for minor infractions if a driver fixes the issue, or offering alternatives like driver safety courses or compliance dismissals 107 108 .

- Revenue from citations is an **inconsistent source of funding** for the Municipal Court 14 71 .

- Recommendations include evaluating current intersection crash data to determine if existing red light cameras should be moved or new ones added 20 109 .

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 Audit Planning: Vision Zero

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- Legal research revealed that while state law permits red light cameras, it **prohibits automated systems for enforcing speeding violations** 170. The Vehicle Code does not explicitly state that only peace officers can enforce all traffic violations, leaving open the question of using other employees 171.
- Recommendations include:
 - Increasing and prioritizing **self-enforcing infrastructure investments** (e.g., road features that naturally slow traffic) in high-injury network corridors, low-income communities, and communities of color, without increasing surveillance 172 173.
 - Considering **unarmed enforcement teams** (either police officers focused solely on road safety or unarmed civilians) for safety-related traffic violations 172 ...
 - Exploring **alternative fine models** (e.g., means-based) to advance traffic safety objectives without perpetuating enforcement disparities 176 ...
 - **Expanding on existing policies to eliminate police enforcement of non-moving and equipment-related traffic violations** that do not demonstrably increase safety 176 ...
 - Providing **more opportunities for broad and authentic community engagement** to ensure buy-in for recommendations 176 180.
 - Creating **care-based teams** to respond to traffic-related calls for service involving behavioral health issues 173 181.
 - Identifying and overcoming obstacles that limit **officer accountability** for misconduct 173 182.

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7 sources

How do different cities measure and report progress towards their Vision Zero goals?

What common challenges hinder V

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Reports

Vision Zero Audit Findings and Recommendations

1m ago

Add note

CITY of CHARLOTTE

Risk of Hallucination


Risk of Hallucination

FORM OF CONDITIONAL LIEN WAIVER

CONTRACTOR'S INTERIM LIEN AND CLAIM WAIVER AND RELEASE UPON PROGRESS PAYMENT

(To be provided by Contractor with each Application for Payment)

STATE OF NORTH CAROLINA
COUNTY OF Mecklenburg



The undersigned, [REDACTED] ("Contractor"), has been engaged under a construction contract with Charlotte Mecklenburg Government Center (CMGC) ("Owner"), to furnish certain materials, equipment, services, and/or labor for the project known as HVAC Replacement (the "Project"), which is located in Mecklenburg County, State of North Carolina described in more detail as follows: CMGC, 600 E 4th Street., Charlotte, NC 28202 (the "Property").

Risk of Hallucination

Here are the updated key flags and observations, ordered by priority, based on this comprehensive review:

- **1. Critical Discrepancies in Contractor's Lien Waiver**
 - **Observation:** The "Contractor's Interim Lien and Claim Waiver and Release Upon Progress Payment" submitted by [REDACTED] contains multiple severe inconsistencies.
 - **Auditor's Flag:**
 - **Incorrect Project Name:** The waiver states the project name as "**Monarch Food Hall**". However, the current project is explicitly "CMGC HVAC Replacement" as stated on Pay Application #27 and the contract amendment documents. This is a fundamental error that invalidates the waiver's applicability to this project.



Risk of Hallucination

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Hotline Investigation

Hotline Investigation

UKG Workforce Central

workforce80.lc.charlotte.nc.us/wfcstatic/applications/navigator/html5/dist/container/index.html

To Do List CNet Office Calendar Internal Audit Recommendation St... PeopleSoft ALGA Benefits Portal

UKG

Admin Payroll Manager Audits

Audits

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Nuccio, Daniel

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Sheet1

Hotline Investigation

I am copying something over from a system into Excel, but I can only go line by line. This means from Excel I need to press ALT Tab to switch to the website, then press the down arrow, then CTRL C, then ALT Tab to switch back to Excel, then press the down arrow, then CTRL V each time. How can I automate this?

Hotline Investigation

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Steps to Automate with VBA


1. Open the VBA Editor:

- Press **Alt + F11** in Excel to open the VBA editor.
- In the editor, go to **Insert** → **Module** to create a new module.

2. Write the VBA Code:

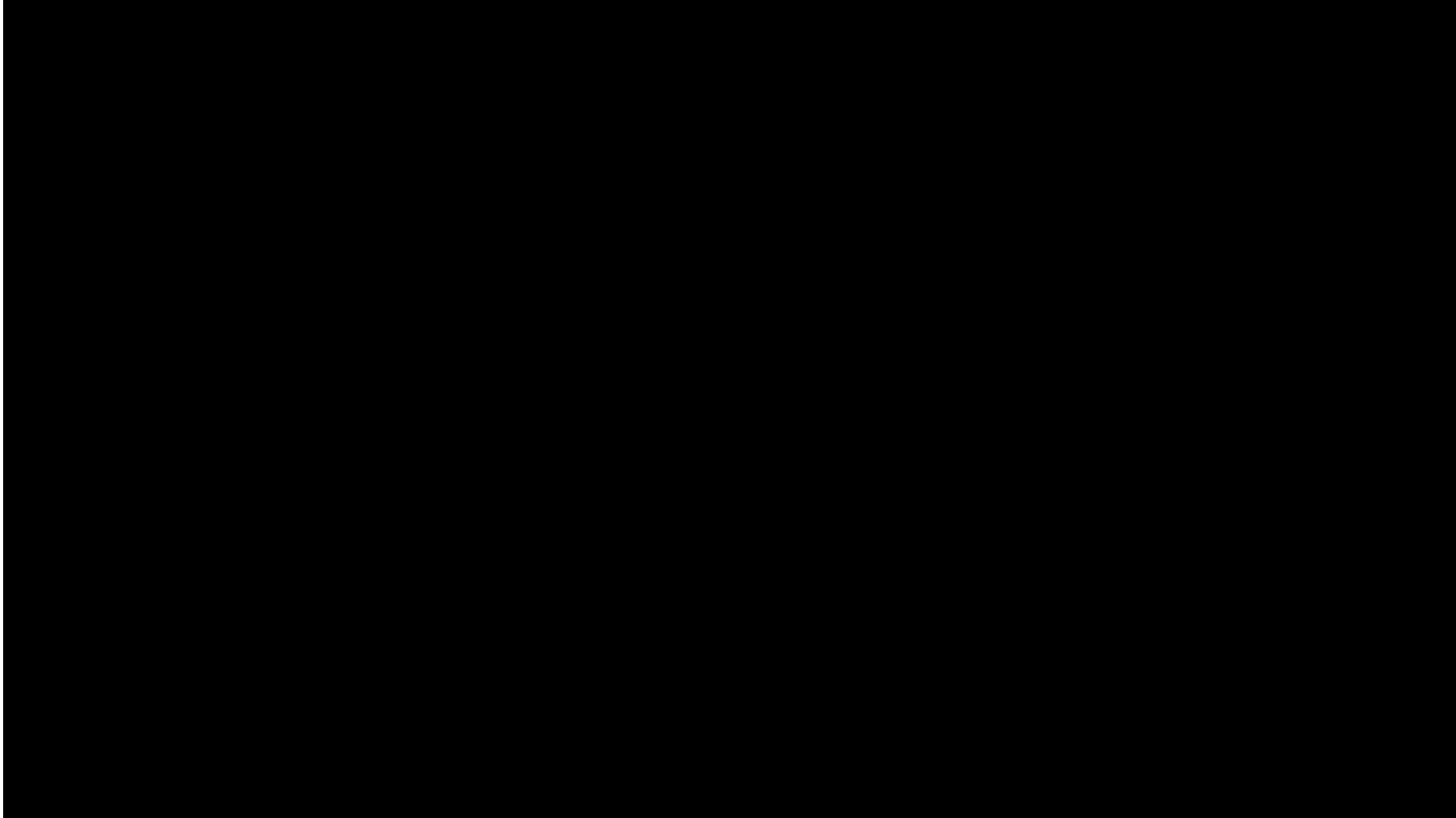
- Paste the following code into the module:

vba

 Copy code

```
Sub AutomateCopyPaste()  
    Dim i As Integer  
    Dim TotalLoops As Integer  
  
    ' Prompt user for the number of rows to process  
    TotalLoops = InputBox("Enter the number of rows to process:", "Automation")  
  
    For i = 1 To TotalLoops  
        ' Switch to the other application (ALT+TAB)  
        Application.SendKeys "%{TAB}", True  
        Application.Wait Now + TimeValue("00:00:01") ' Wait 1 second  
  
        ' Send the Down Arrow key
```

Hotline Investigation



Hotline Investigation

If I wanted to change the time to be .25 seconds, what would I change TimeValue("00:00:01") to?



To change the wait time to **0.25 seconds**, you would use:

vba

Copy code

```
Application.Wait Now + TimeValue("00:00:00.25")
```

However, the `TimeValue` function in VBA doesn't support fractions of a second. Instead, use a combination of `Application.Wait` or a precise delay using a `DoEvents` loop for shorter intervals.

Here's the updated VBA macro with precise 0.25-second delays using the `Timer` and `DoEvents` approach:

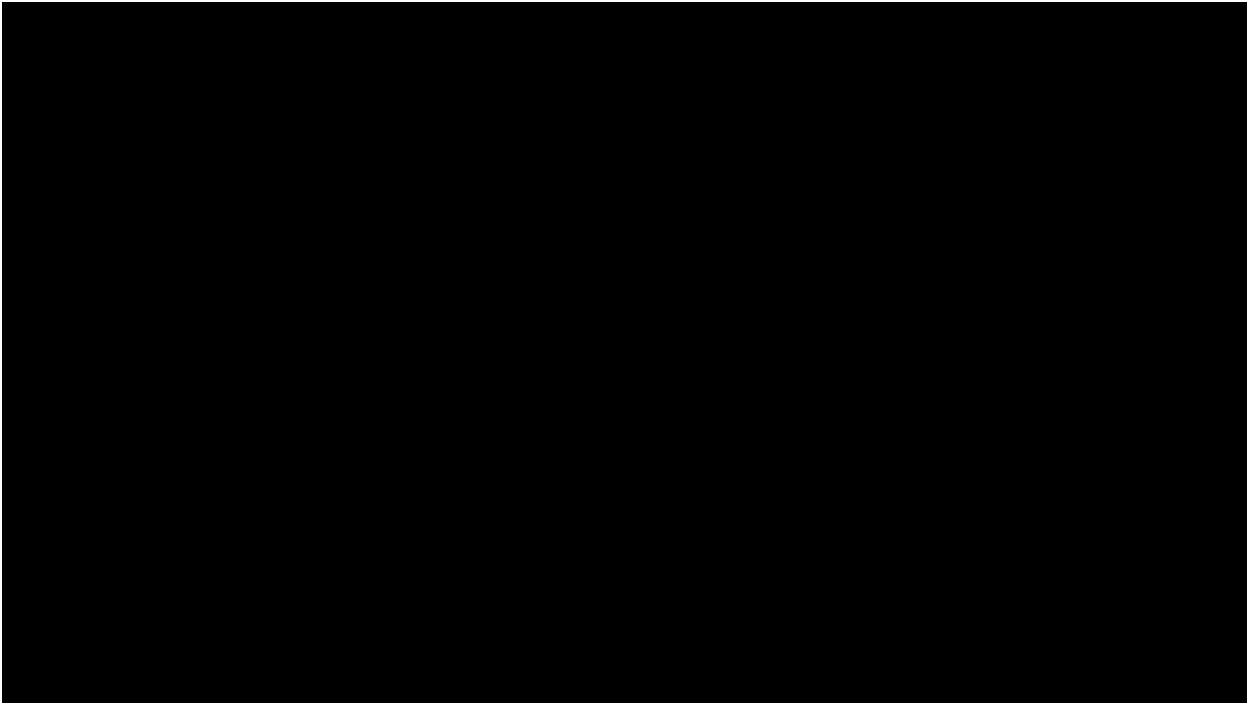
vba

Copy code

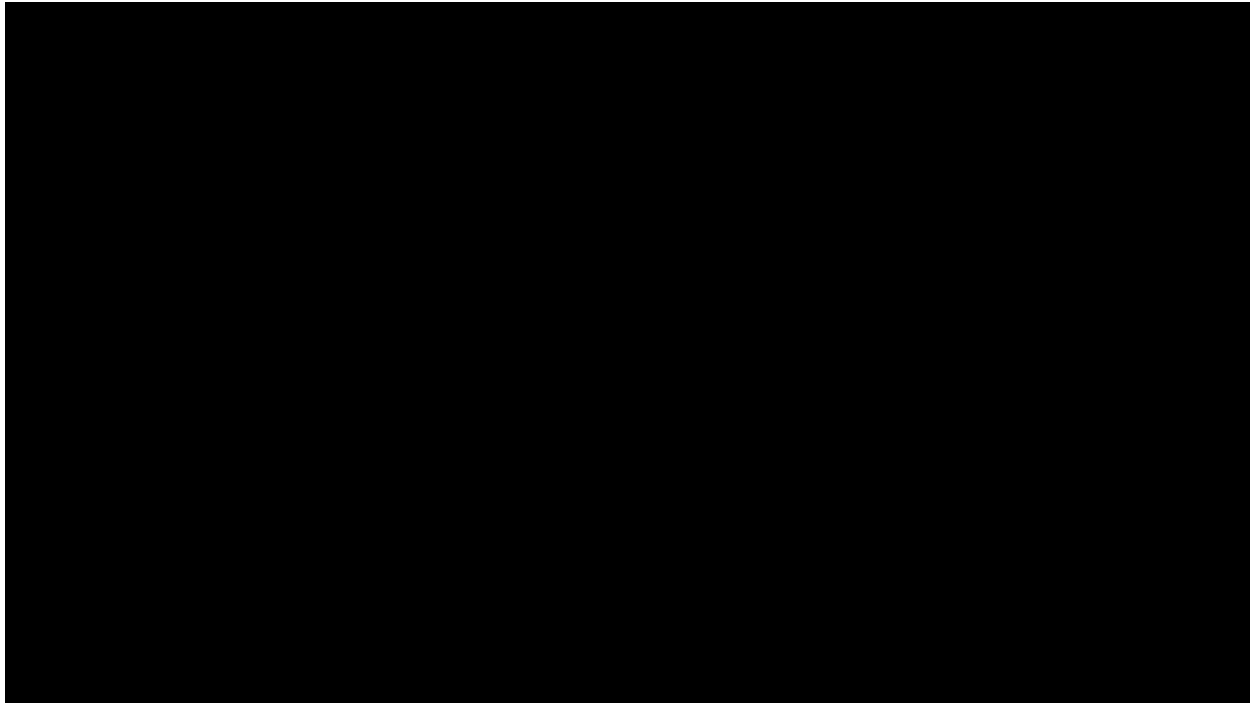
```
Sub AutomateCopyPaste()  
    Dim i As Integer  
    Dim TotalLoops As Integer
```

Hotline Investigation

Old



New



Helping with Data Analytics

Helping with Data Analytics

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1	Date	Employee Number	Employee Name	Last 4 of Card	Vendor Name	Transaction Amount			
2	7/1/2022	333330	Tom Seaver	1992	PublicWorks Machinery	\$ 1,077.00			
3	7/1/2022	333332	Steve Carlton	1994	StapleSafari Supplies	\$ 998.00			
4	7/4/2022	333334	Mike Schmidt	1995	AeroChuckle Airways	\$ 3,989.00			
5	7/5/2022	333333	Jim Palmer	1990	AquaFlow Environmental Services	\$ 660.00			
6	7/6/2022	333330	Tom Seaver	1992	PublicWorks Machinery	\$ 719.00			

Table Name:	Summarize with PivotTable	Insert Slicer	Export	Refresh
Transaction_Limi	Remove Duplicates			
Resize Table	Convert to Range			
Properties	Tools	Extern		
<div> <div>A1</div> <div>✕ ✓ <i>fx</i></div> <div>Employee Number</div> </div>				
	A	B	C	D
1	Employee Number	Employee Name	Last 4 of Card	Individual Transaction Limit
2	333330	Tom Seaver	1992	\$ 2,500.00
3	333331	George Brett	1999	\$ 3,000.00
4	333332	Steve Carlton	1994	\$ 1,000.00
5	333333	Jim Palmer	1990	\$ 1,000.00
6	333334	Mike Schmidt	1995	\$ 5,000.00
7	333335	Rod Carew	1991	\$ 5,000.00

Helping with Data Analytics

I am performing a risk assessment, flagging high risk transactions. The three biggest risks that I have identified are: 1) Purchases made just below the individual's transaction limit; 2) An individual making multiple transactions with the same vendor on the same day that exceed the individual transaction limit when aggregated; 3) Purchases made on weekends.

I want to add a formula into column G of the Transactions table, titled "Threshold Manipulation" that will check the transaction amount against the individual's transaction limit. If the transaction within \$10 of the individual's transaction limit, give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

Next, I want to add a formula into column H of the Transactions table, titled "Split Transactions" that will aggregate all transactions made on the same day by the same individual with the same vendor and check that amount against the individual's transaction limit. If the aggregation exceeds the individual's transaction limit, give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

Finally, I want to add a formula into column I of the Transactions table, titled "Weekend Transactions" that will look at the date of the transaction. If the transaction occurred on a weekend (Saturday or Sunday), give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

Read

Helping with Data Analytics

I want to add a formula into column G of the Transactions table, titled "Threshold Manipulation" that will check the transaction amount against the individual's transaction limit. If the transaction within \$10 of the individual's transaction limit, give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

For Column G ("Threshold Manipulation"):

excel

Copy code

```
=IF(ABS([@Transaction Amount] - VLOOKUP([@Employee Number], Transaction_Limit, 4, FALSE)) <= 10, "FLAG", "")
```

Next, I want to add a formula into column H of the Transactions table, titled "Split Transactions" that will aggregate all transactions made on the same day by the same individual with the same vendor and check that amount against the individual's transaction limit. If the aggregation exceeds the individual's transaction limit, give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

For Column H ("Split Transactions"):

excel

Copy code

```
=IF(SUMIFS([Transaction Amount], [Employee Number], [@Employee Number], [Vendor Name], [@Vendor Name], [Date], [@Date]) > VLOOKUP([@Employee Number], Transaction_Limit, 4, FALSE), "FLAG", "")
```

Finally, I want to add a formula into column I of the Transactions table, titled "Weekend Transactions" that will look at the date of the transaction. If the transaction occurred on a weekend (Saturday or Sunday), give me the result "FLAG". If not, make the cell appear blank. Write me this formula.

For Column I ("Weekend Transactions"):

excel

Copy code

```
=IF(OR(TEXT([@Date], "ddd") = "Sat", TEXT([@Date], "ddd") = "Sun"), "FLAG", "")
```

Helping with Data Analytics

G3 $\text{=IF(ABS([@[Transaction Amount]] - VLOOKUP([@[Employee Number]], Transaction_Limits, 4, FALSE)) <= 10, "FLAG", "")}$

	A	B	C	D	E	F	G	H	I
1	Date	Employee Number	Employee Name	Last 4 of Car	Vendor Name	Transaction Amount	Threshold Manipulation	Split Transaction	Weekend Transactions
3	7/1/2022	333332	Steve Carlton	1994	StapleSafari Supplies	\$ 998.00	FLAG		
94	8/25/2022	333334	Mike Schmidt	1995	MunicipalMind Advisors	\$ 4,999.99	FLAG		
137	9/19/2022	333334	Mike Schmidt	1995	CitySizzle Caterers	\$ 4,999.00	FLAG		
142	9/22/2022	333334	Mike Schmidt	1995	CitySizzle Caterers	\$ 4,990.00	FLAG		
209	10/31/2022	333334	Mike Schmidt	1995	ExpressPenguin Delivery	\$ 4,991.00	FLAG		
243	11/18/2022	333333	Jim Palmer	1990	CivicWatch Security	\$ 990.00	FLAG		
261	11/30/2022	333332	Steve Carlton	1994	PenPals Office Essentials	\$ 990.00	FLAG		
504	4/19/2023	333330	Tom Seaver	1992	CommunityConnect Telecom	\$ 2,493.00	FLAG		
530	5/4/2023	333334	Mike Schmidt	1995	TownTable Treasures	\$ 4,999.00	FLAG		

H41 $\text{=IF(SUMIFS([Transaction Amount], [Employee Number], [@[Employee Number]], [Vendor Name], [@[Vendor Name]], [Date], [@[Date]]) > 500, "FLAG", "")}$

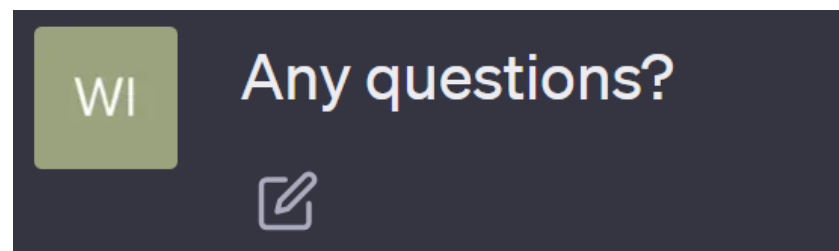
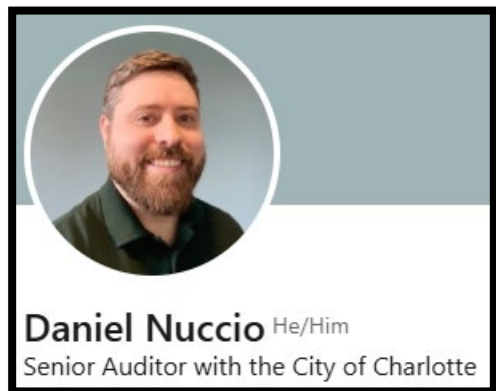
	A	B	C	D	E	F	G	H	I
1	Date	Employee Number	Employee Name	Last 4 of Car	Vendor Name	Transaction Amount	Threshold Manipulation	Split Transaction	Weekend Transactions
41	7/26/2022	333333	Jim Palmer	1990	CityVista Builders	\$ 510.00		FLAG	
42	7/26/2022	333333	Jim Palmer	1990	CityVista Builders	\$ 510.00		FLAG	
319	1/3/2023	333333	Jim Palmer	1990	MufflerMirth Components	\$ 627.00		FLAG	
320	1/3/2023	333333	Jim Palmer	1990	MufflerMirth Components	\$ 500.00		FLAG	
484	4/7/2023	333333	Jim Palmer	1990	UrbanHarbor Shipping	\$ 350.00		FLAG	
485	4/7/2023	333333	Jim Palmer	1990	UrbanHarbor Shipping	\$ 350.00		FLAG	
486	4/7/2023	333333	Jim Palmer	1990	UrbanHarbor Shipping	\$ 350.00		FLAG	

I160 $\text{=IF(OR(TEXT([@Date], "ddd") = "Sat", TEXT([@Date], "ddd") = "Sun"), "FLAG", "")}$

	A	B	C	D	E	F	G	H	I
1	Date	Employee Number	Employee Name	Last 4 of Car	Vendor Name	Transaction Amount	Threshold Manipulation	Split Transaction	Weekend Transactions
160	10/2/2022	333330	Tom Seaver	1992	Pioneer Infrastructure Group	\$ 409.00			FLAG
499	4/15/2023	333330	Tom Seaver	1992	CityRide Transportation	\$ 97.00			FLAG
620	6/25/2023	333330	Tom Seaver	1992	GreenSpace Landscapers	\$ 2,067.00			FLAG

October 2022

Su	Mo	Tu	We	Th	Fr	Sa	Su
25	26	27	28	29	30	31	
2	3	4	5	6	7	8	9
16	17	18	19	20	21	22	23
23	24	25	26	27	28	29	30
30	31	1	2	3	4	5	6



Feel free to email me!

Danny Nuccio – daniel.nuccio@charlottenc.gov

Freebies

Staff Development

New Employee – Asking Open Ended Questions

I am an internal auditor for a local government. Currently, I am working on an audit of asset management.

Rewrite this sentence into three different versions where the question is open ended instead of closed: Is there an established structure of timing on maintenance of inventory?



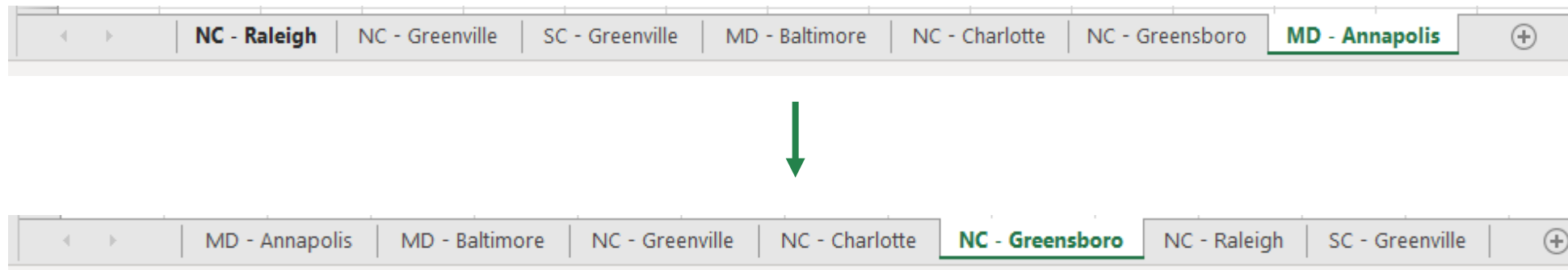
1. How is the timing of inventory maintenance structured within the organization?
2. What procedures are in place to schedule the maintenance of inventory?
3. How does the organization determine the timing for maintaining its inventory?



Time Savings/Efficiency Gains

Time Savings/Efficiency Gains

Alphabetizing Excel Tabs



Time Savings/Efficiency Gains

Alphabetizing Excel Tabs

I have a workbook with numerous tabs. List all the ways I can put them into alphabetical order without manually clicking and dragging them.



There are a few ways to sort the worksheets (tabs) in an Excel workbook alphabetically without manually clicking and dragging them. Here are the methods:

Method 1: Using VBA (Visual Basic for Applications)

You can use a VBA macro to sort your worksheet tabs alphabetically. Here are the steps:

1. Open the VBA Editor:

- Press `Alt + F11` to open the VBA Editor.
- Insert a new module: Right-click on any of the items in the Project Explorer, then choose `Insert` > `Module`.

2. Enter the VBA Code:

- Copy and paste the following code into the module window:

```
vba Copy code

Sub SortSheetsAlphabetically()
    Dim i As Integer, j As Integer
    For i = 1 To ThisWorkbook.Sheets.Count - 1
        For j = i + 1 To ThisWorkbook.Sheets.Count
            If UCase(ThisWorkbook.Sheets(i).Name) > UCase(ThisWorkbook.Sheets(j).Name)
                ThisWorkbook.Sheets(i).Move After:=ThisWorkbook.Sheets(j)
            End If
        Next j
    Next i
End Sub
```

3. Run the Macro:

- Press `F5` to run the macro, or go back to Excel and run it from `Developer` > `Macros`.

Time Savings/Efficiency Gains

Creating multiple folders

I am using windows and trying to add 150 folders inside of a folder called "Audit Documentation". I want each one to be named consecutively, with the first folder having the name "01" and the last folder having the name "150". Is there a way I can automate this instead of creating them all manually?

Time Savings/Efficiency Gains

Creating multiple folders

I am using windows and trying to add 150 folders inside of a folder called "Audit Documentation". I want each one to be named consecutively, with the first folder having the name "01" and the last folder having the name "150". Is there a way I can automate this instead of creating them all manually?



Yes, you can automate this process using a simple batch script in Windows. Here's how you can do it:

1. **Open Notepad** (or any text editor).
2. **Copy and paste** the following script into Notepad:

```
batch                                                                    Copy code

@echo off
setlocal enabledelayedexpansion

REM Change directory to the target folder
cd "C:\path\to\Audit Documentation"

REM Loop to create folders from 01 to 150
for /l %%i in (1,1,150) do (
    set num=%%i
    if %%i lss 10 set num=0%%i
    md !num!
)
```

Make sure to replace `C:\path\to\Audit Documentation` with the actual path to your "Audit Documentation" folder.

3. **Save the file** with a `.bat` extension. For example, you can save it as `create_folders.bat`.
4. **Run the batch file** by double-clicking it. This will create 150 folders named "01" to "150" inside your "Audit Documentation" folder.

Time Savings/Efficiency Gains

Creating multiple folders



Yes, you can automate this process using a simple batch script in Windows. Here's how you can do it:

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Make sure to replace `C:\path\to\Audit Documentation` with the actual path to your "Audit Documentation" folder.

3. Save the file with a `.bat` extension. For example, you can save it as `create_folders.bat`.
4. Run the batch file by double-clicking it. This will create 150 folders named "01" to "150" inside your "Audit Documentation" folder.

Here's a brief explanation of the script:

- `@echo off` prevents the commands from being displayed in the command prompt window.
- `setlocal enabledelayedexpansion` enables the use of delayed variable expansion, which allows us to modify variables within a loop.
- `cd "C:\path\to\Audit Documentation"` changes the current directory to your target folder.
- The `for /l %i in (1,1,150)` loop runs from 1 to 150.
- `set num=%i` stores the current loop number in the `num` variable.
- The `if %i lss 10 set num=0%i` line ensures that numbers less than 10 are prefixed with a zero.
- `md !num!` creates a directory with the name stored in `num`.

Time Savings/Efficiency Gains

Creating multiple folders

