# Practical Uses of AI in an Ever-Changing Environment

Perspectives from Public Accounting and Industry for Integrating Artificial Intelligence Tools into Your Workflow




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# What We'll Cover Today

## Workflow & Resources

- Upfront design and spec work
- Iteration and checking
- Implementation

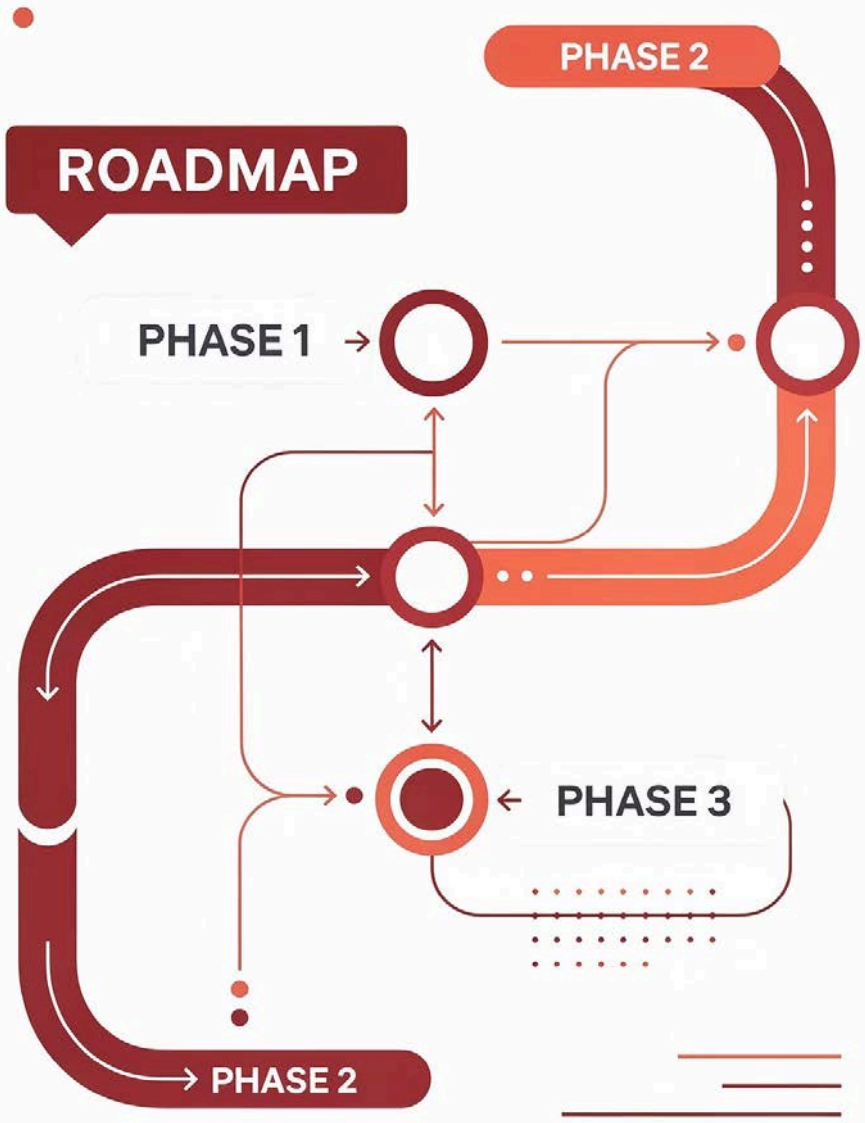
## Examples of AI Output

- Language-based: summaries, templates, brainstorming, research, OCR
- Analysis-based: large datasets and trends
- Programming-based: reconciliations, projections, self-service tools

## Risks of AI Use

- Data accuracy and reliability
- Privacy and confidentiality
- Governance, compliance, and overreliance

Each section includes real-world prompts and excerpts of actual AI-generated output.



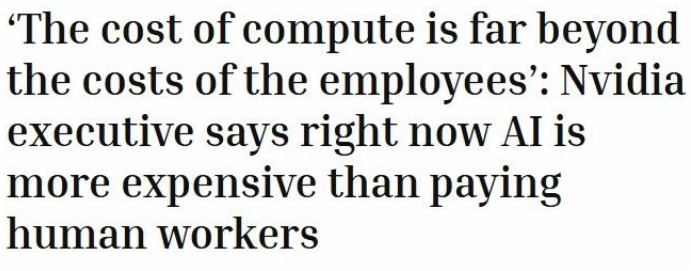
# Is AI the Future?



**In This Critical Part of Audits, the Accountant's Role Is Shrinking Fast**

KPMG pilots removal of humans from routine testing of things like payroll and expenses, with greater reliance on AI agents

*Wall Street Journal, April 10, 2026* — KPMG pilots removal of humans from routine audit testing of payroll and expenses, with greater reliance on AI agents.



**'The cost of compute is far beyond the costs of the employees': Nvidia executive says right now AI is more expensive than paying human workers**

**BUT...** *Fortune, April 28, 2026* — A Nvidia executive notes that the cost of compute still exceeds the cost of human employees — for now.

⚠ The landscape is shifting rapidly. The question is no longer *if* AI will change accounting — it's *how fast* and *how much*.

# AI Resources: Where to Start



## Large Language Models

ChatGPT, Microsoft Copilot, Claude, and embedded AI tools built into your existing platforms



## Programming & Automation

OpenAI Codex, GitHub Copilot, and Claude Code for scripting, data processing, and tool building



## Presentations & Design

Gamma and Canva for AI-assisted visual storytelling and professional document creation



## Research

Perplexity for web-grounded answers and NotebookLM for document-based research and synthesis



## Accounting-Specific

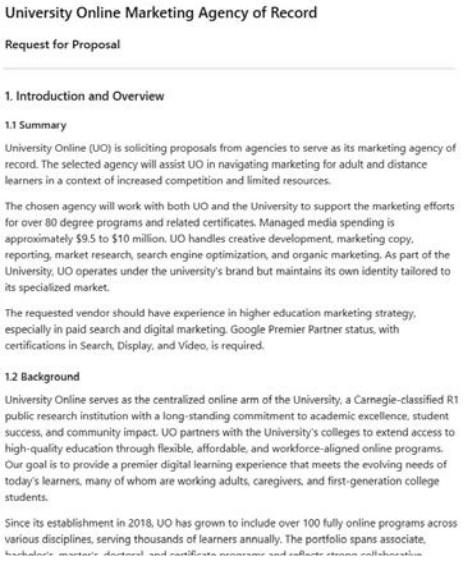
Xero AI and Intuit Assist (QuickBooks) for purpose-built accounting intelligence and automation

# Prompt for RFP Generation

## The Modern-Day Boilerplate Library

A well-crafted prompt can generate a comprehensive, professionally structured RFP in seconds — complete with all standard sections, scoping language, and evaluation criteria. The example below produced a **14-page RFP** for a University Online Marketing Agency of Record engagement.

### Prompt



University Online Marketing Agency of Record

Request for Proposal

1. Introduction and Overview

1.1 Summary

University Online (UO) is soliciting proposals from agencies to serve as its marketing agency of record. The selected agency will assist UO in navigating marketing for adult and distance learners in a context of increased competition and limited resources.

The chosen agency will work with both UO and the University to support the marketing efforts for over 80 degree programs and related certificates. Managed media spending is approximately $9.5 to $10 million. UO handles creative development, marketing copy, reporting, market research, search engine optimization, and organic marketing. As part of the University, UO operates under the university's brand but maintains its own identity tailored to its specialized market.

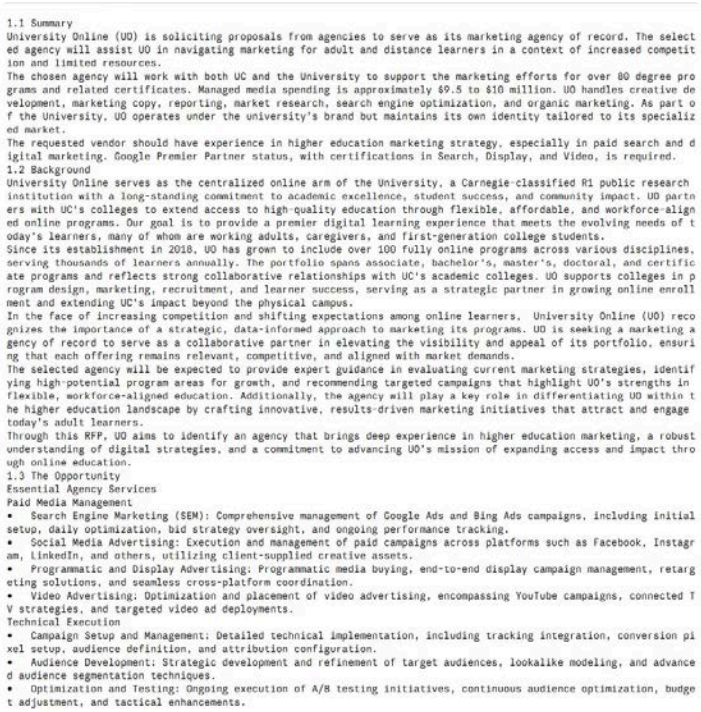
The requested vendor should have experience in higher education marketing strategy, especially in paid search and digital marketing. Google Premier Partner status, with certifications in Search, Display, and Video, is required.

1.2 Background

University Online serves as the centralized online arm of the University, a Carnegie-classified R1 public research institution with a long-standing commitment to academic excellence, student success, and community impact. UO partners with the University's colleges to extend access to high-quality education through flexible, affordable, and workforce-aligned online programs. Our goal is to provide a premier digital learning experience that meets the evolving needs of today's learners, many of whom are working adults, caregivers, and first-generation college students.

Since its establishment in 2018, UO has grown to include over 100 fully online programs across various disciplines, serving thousands of learners annually. The portfolio spans associate,

### Result (+ 12 more pages!)



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Since its establishment in 2018, UO has grown to include over 100 fully online programs across various disciplines,
serving thousands of learners annually. The portfolio spans associate, bachelor's, master's, doctoral, and certific
ate programs and reflects strong collaborative relationships with UC's academic colleges. UO supports colleges in p
rogram design, marketing, recruitment, and learner success, serving as a strategic partner in growing online enroll
ment and extending UC's impact beyond the physical campus.
In the face of increasing competition and shifting expectations among online learners, University Online (UO) reco
gnizes the importance of a strategic, data-informed approach to marketing its programs. UO is seeking a marketing a
gency of record to serve as a collaborative partner in elevating the visibility and appeal of its portfolio, ensuri
ng that each offering remains relevant, competitive, and aligned with market demands.
The selected agency will be expected to provide expert guidance in evaluating current marketing strategies, identif
ying high-potential program areas for growth, and recommending targeted campaigns that highlight UO's strengths in
flexible, workforce-aligned education. Additionally, the agency will play a key role in differentiating UO within t
he higher education landscape by crafting innovative, results-driven marketing initiatives that attract and engage
today's adult learners.
Through this RFP, UO aims to identify an agency that brings deep experience in higher education marketing, a robust
understanding of digital strategies, and a commitment to advancing UO's mission of expanding access and impact thro
ugh online education.
1.3 The Opportunity
Essential Agency Services
Paid Media Management
• Search Engine Marketing (SEM): Comprehensive management of Google Ads and Bing Ads campaigns, including initial
setup, daily optimization, bid strategy oversight, and ongoing performance tracking.
• Social Media Advertising: Execution and management of paid campaigns across platforms such as Facebook, Instagr
am, LinkedIn, and others, utilizing client-supplied creative assets.
• Programmatic and Display Advertising: Programmatic media buying, end-to-end display campaign management, retarg
eting solutions, and seamless cross-platform coordination.
• Video Advertising: Optimization and placement of video advertising, encompassing YouTube campaigns, connected T
V strategies, and targeted video ad deployments.
Technical Execution
• Campaign Setup and Management: Detailed technical implementation, including tracking integration, conversion pi
xel setup, audience definition, and attribution configuration.
• Audience Development: Strategic development and refinement of target audiences, lookalike modeling, and advance
d audience segmentation techniques.
• Optimization and Testing: Ongoing execution of A/B testing initiatives, continuous audience optimization, budge
t adjustment, and tactical enhancements.

# OCR: Extracting Data from Documents

LANGUAGE-BASED EXAMPLE

> **Prompt:** Extract the vendor name, invoice number, invoice date, and total amount from this PDF invoice. Present the results in a structured table suitable for export to Excel for accounts payable processing. If any field is missing or unclear, flag it instead of guessing.

## What It Does

Reads unstructured PDF data and converts it into structured, usable fields

## Why It Matters

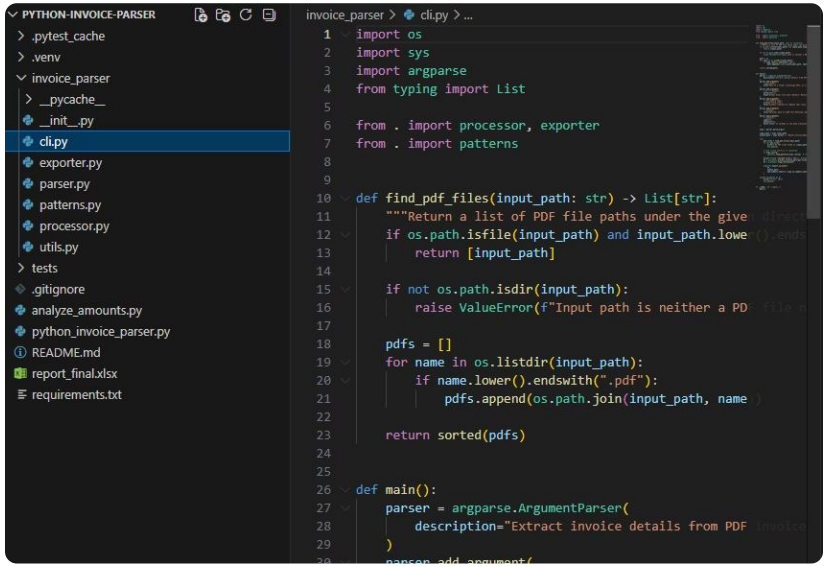
Eliminates manual data entry, reduces keying errors, and accelerates AP processing

## Built-In Safety

The prompt instructs the AI to flag missing or unclear fields rather than guess — a critical quality control step

# Invoice Data Extraction: Under the Hood

## From PDF Invoices to a Python-Powered Extraction Pipeline




### Purpose

This agent ingests batches of Alesco (and similar vendor) **PDF invoices**, extracts key fields, and produces a **reconciler-ready master table** and **Excel workbook**. It handles reissued invoices (e.g., "PO added" versions), flags missing POs, and marks payment status based on **Open Amount vs Total Amount**.

### Scope of Work

- **Accept** PDFs (up to the platform's batch/file limits).
- **Extract** the following fields (per invoice/PDF):
  - `Invoice Number`
  - `Invoice Date`
  - `Purchase Order (PO) Number`
  - `Total Invoice Amount`
  - `Open Invoice Amount`
  - `File Name` (from the uploaded file)
- **Normalize & Validate**:
  - Trim whitespace; standardize currency to USD; coerce dates to `YYYY-MM-DD` where possible.
- **Group** by `Invoice Number` to surface **reissued** or **corrected** versions.
- **Flag**:
  - `PO Missing?` → `YES` when PO is empty or absent; `No` otherwise.
  - `Status` based on amounts:
    - `Fully Paid` if `Open = 0`
    - `Partially Paid` if `0 < Open < Total`
    - `Unpaid` if `Open = Total` (or Open missing but equals Total by default)
- **Deliverables**:
  - On-screen master table
  - **Excel (.xlsx)** export with a single sheet named `Invoices` (default), plus optional summary tabs on request.

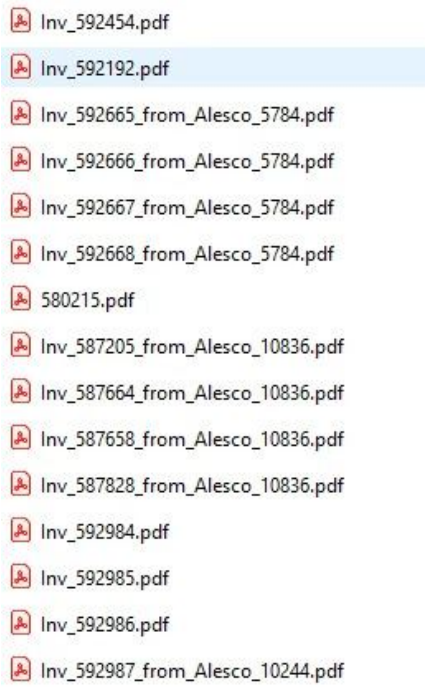
### Default Behaviors & Assumptions

1. **Batching**

AI-assisted coding tools generated a complete Python invoice parser — including file handling, data extraction patterns, and Excel export logic — with minimal manual coding required.

# Invoice Data Extraction: The Result

## One Command. A Full Excel Summary.




```
C:/>python python_invoice_parser.py
 "c:/invoices/" --"summary.xlsx"
```

| File Name | Invoice # | Invoice Date | PO Number | Total Amount | Open Amount | PO Missing? | Status | Reissued? |
|---|---|---|---|---|---|---|---|---|
| 580215.pdf | 580215 | 2025-10-31 | 5500121813 | 4460.00 | 4460.00 | NO | Unpaid | NO |
| Inv_587205_from_ | 587205 | 2026-01-22 | 5500121829 | 450.00 | 450.00 | NO | Unpaid | NO |
| Inv_587658_from_ | 587658 | 2026-01-30 | 5500121826 | 4590.00 | 4590.00 | NO | Unpaid | NO |
| Inv_587664_from_ | 587664 | 2026-01-30 | 5500121827 | 4590.00 | 4590.00 | NO | Unpaid | NO |
| Inv_587828_from_ | 587828 | 2026-01-27 | 5500121825 | 4590.00 | 4590.00 | NO | Unpaid | NO |
| Inv_592192.pdf | 592192 | 2026-03-05 | 5500116227 | 12700.00 | 12700.00 | NO | Unpaid | NO |
| Inv_592454.pdf | 592454 | 2026-03-06 | 5500116196 | 2900.00 | 2900.00 | NO | Unpaid | NO |
| Inv_592665_from_ | 592665 | 2026-03-10 | 5500120307 | 6500.00 | 6500.00 | NO | Unpaid | NO |
| Inv_592666_from_ | 592666 | 2026-03-10 | 5500113626 | 3500.00 | 3500.00 | NO | Unpaid | NO |
| Inv_592667_from_ | 592667 | 2026-03-10 | 5500112643 | 7200.00 | 7200.00 | NO | Unpaid | NO |
| Inv_592668_from_ | 592668 | 2026-03-10 | 5500116170 | 1800.00 | 1800.00 | NO | Unpaid | NO |
| Inv_592984.pdf | 592984 | 2026-03-11 | 5500121819 | 2000.00 | 2000.00 | NO | Unpaid | NO |
| Inv_592985.pdf | 592985 | 2026-03-11 | 5500121819 | 2000.00 | 2000.00 | NO | Unpaid | NO |
| Inv_592986.pdf | 592986 | 2026-03-11 | 5500121823 | 1000.00 | 1000.00 | NO | Unpaid | NO |
| Inv_592987_from_ | 592987 | 2026-03-11 | 5500121824 | 4590.00 | 4590.00 | NO | Unpaid | NO |
| Inv_592988.pdf | 592988 | 2026-03-11 | 5500121822 | 450.00 | 450.00 | NO | Unpaid | NO |
| Inv_592989.pdf | 592989 | 2026-03-11 | 5500121809 | 1530.00 | 1530.00 | NO | Unpaid | NO |
| Inv_592990.pdf | 592990 | 2026-03-11 | 5500121807 | 3500.00 | 3500.00 | NO | Unpaid | NO |
| Inv_592991.pdf | 592991 | 2026-03-11 | 5500121808 | 2400.00 | 2400.00 | NO | Unpaid | NO |
| Inv_592997.pdf | 592997 | 2026-03-12 | 5500116172 | 600.00 | 600.00 | NO | Unpaid | NO |
| Inv_593481_from_ | 593481 | 2026-03-17 | 5500114327 | 4800.00 | 4800.00 | NO | Unpaid | NO |

A single command processes an entire folder of PDF invoices and outputs a structured Excel summary — ready for accounts payable review.

# Numerical Analysis: Budget Burn Rate Forecasting

ANALYSIS-BASED EXAMPLE

This multi-part prompt instructs AI to act as a financial analyst, analyzing three weeks of project budget data to calculate burn rates and project the next six weeks of costs.

> **Prompt (excerpt):** You are a financial analyst. I will provide three weekly budget reports that include project names, remaining funding, and totals. Identify each project, extract weekly costs, calculate the weekly burn rate, note significant week-over-week changes, and forecast costs for the next six weeks. Present results in a clear Excel file — one tab per job plus a summary tab showing projected costs and final remaining/over-budget values.

### Project

Identify all projects and extract historical weekly costs

### Burn Rate

Calculate average and recent trend per project

### Forecast

Project weeks 4–9 costs and flag budget overruns

# Numerical Analysis: Assumptions & Guardrails

ANALYSIS-BASED EXAMPLE

A well-constructed prompt doesn't just ask for output — it defines how the AI should handle uncertainty and risk. Adding explicit constraints produces more reliable, audit-ready results.

### Handle Missing Data Transparently

If a project has missing data, state assumptions clearly rather than silently filling gaps

### Explain Volatile Burn Rates

If burn rate is volatile, explain which rate was used and why — creating a defensible audit trail

### Flag Financial Risks

Call out any anomalies or financial risks identified in the data

### Ask Only When Necessary

Ask clarifying questions only if required data is truly missing — avoid unnecessary back-and-forth

# Numerical Analysis: Excerpt of Result

## AI-Generated Project Burn Rate Summary

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| **Project** | **Remaining_W3** | **Recent_Burn** | **Avg_Burn** | **Week_1_Cost** | **Week_2_Cost** | **Week_3_Cost** |
| Name Obscured #1 | 184268.2 | 0 | 0 | 0 | 0 | 0 |
| Name Obscured #1 | 88678.51 | 11690 | 9036.245 | 11690 | 11690 | 11690 |
| Name Obscured #1 | -39991.62 | 7607.21 | 5526.03 | 7607.21 | 7607.21 | 7607.21 |
| Name Obscured #1 | 111872.78 | 4357.35 | 7116.91 | 4357.35 | 4357.35 | 4357.35 |

The AI produced a fully structured Excel output with per-project forecast tabs and a consolidated summary — including flagged risks and stated assumptions — in seconds.

# Meeting Notes & Document Summaries

LANGUAGE-BASED EXAMPLE

AI excels at distilling lengthy recordings and documents into concise, actionable summaries — freeing up time for higher-value work.

## Meeting Recap Prompt

> Summarize this meeting recording in one paragraph. Highlight key topics discussed, decisions made, and action items.

## Article Summary Prompt

> Summarize this article in one concise paragraph (no more than five sentences). Focus on the main topic, key points, and overall takeaway, and avoid minor details or quotes.

ⓘ Precision in your prompt — specifying length, focus, and what to exclude — dramatically improves output quality.

# Summaries: Excerpt of Result

## Concise, Structured Output Ready for Distribution

The article outlines several new Kentucky laws that took effect immediately at the close of the 2026 legislative session because they included emergency clauses. These measures span areas such as public safety, education, health policy, and the balance of power between the legislature and the governor, reflecting priorities of the Republican-led General Assembly. Lawmakers used emergency designations to bypass the standard 90-day wait, arguing the changes were needed without delay. Critics, including Gov. Andy Beshear's administration, warned that some laws could strain agencies or limit executive authority. Overall, the takeaway is that the 2026 session produced swift policy changes with practical and political consequences that will shape how state government operates in the near term. courier-journal

Within seconds, AI converts a lengthy article into a clean paragraph summary. The same is possible even with unstructured meeting notes, using the AI tool to capture topics, decisions, and next steps. When provided an audio recording, the same is possible without manual note-taking.

# Brainstorming & Outline Generation

LANGUAGE-BASED EXAMPLE

AI is a powerful thought partner for structuring complex topics quickly — whether for presentations, training sessions, or compliance documentation.

## Government Fraud Risk Outline

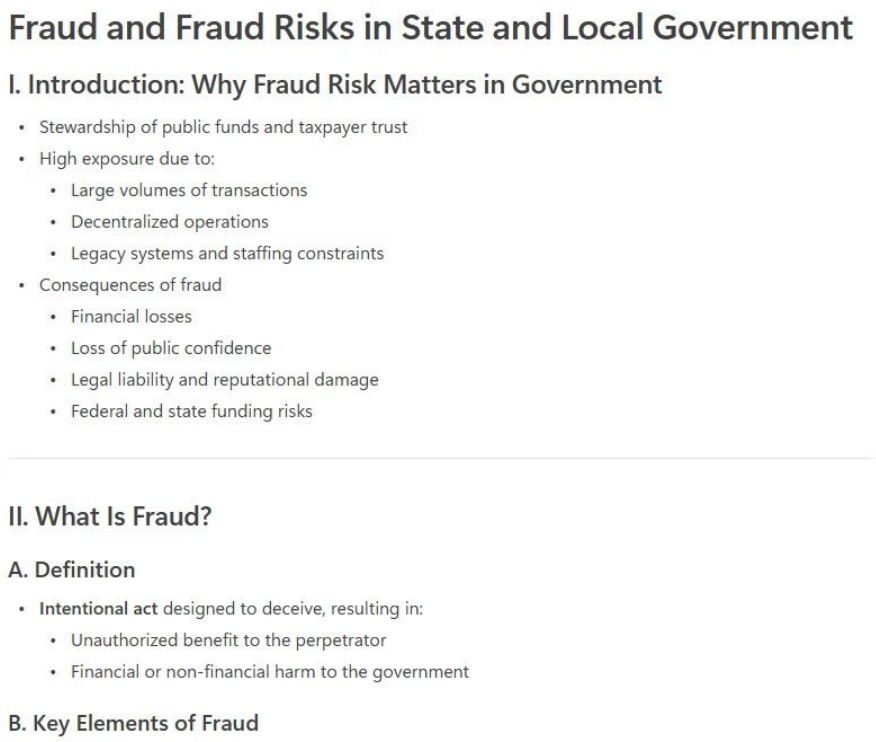
> Create a structured outline on fraud and fraud risks relevant to state and local government entities. Include common types of fraud, key risk factors, typical red flags, internal control weaknesses, and practical mitigation strategies. Organize for a presentation or training session for government finance staff.

## PowerPoint Slide Generation

> Generate 15 PowerPoint slides on the importance of government contractors keeping policies and procedures up to date for Yellow Book audit purposes.

# Brainstorming & Outline Generation: Excerpt of Result

## Structured, Presentation-Ready Output



### Fraud and Fraud Risks in State and Local Government

#### I. Introduction: Why Fraud Risk Matters in Government

- Stewardship of public funds and taxpayer trust
- High exposure due to:
  - Large volumes of transactions
  - Decentralized operations
  - Legacy systems and staffing constraints
- Consequences of fraud
  - Financial losses
  - Loss of public confidence
  - Legal liability and reputational damage
  - Federal and state funding risks

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#### II. What Is Fraud?

**A. Definition**

- **Intentional act** designed to deceive, resulting in:
  - Unauthorized benefit to the perpetrator
  - Financial or non-financial harm to the government

**B. Key Elements of Fraud**

### What AI Delivers

- Logical section structure with headings and subpoints
- Relevant categories (fraud types, risk factors, red flags)
- Practical mitigation strategies built in
- Content framed for the intended audience

Use the outline as a starting point — then refine, reorder, and add your own professional judgment and firm-specific context.

# Research: Kentucky Revised Statutes 2025

RESEARCH EXAMPLE

AI can synthesize complex legislative changes across subject areas — a task that would take hours manually — into an organized, accessible summary for business and government professionals.

> Summarize all amendments and newly enacted provisions to the Kentucky Revised Statutes (KRS) effective in calendar year 2025. Organize by subject area. For each change, include: KRS citation, description of what changed, effective date, who is impacted. Highlight compliance, financial, or operational impacts. Use plain language. Include links to official Kentucky legislative sources.

### Subject Organization

Employment, taxation, contracting, criminal justice, education, healthcare

### Structured Fields

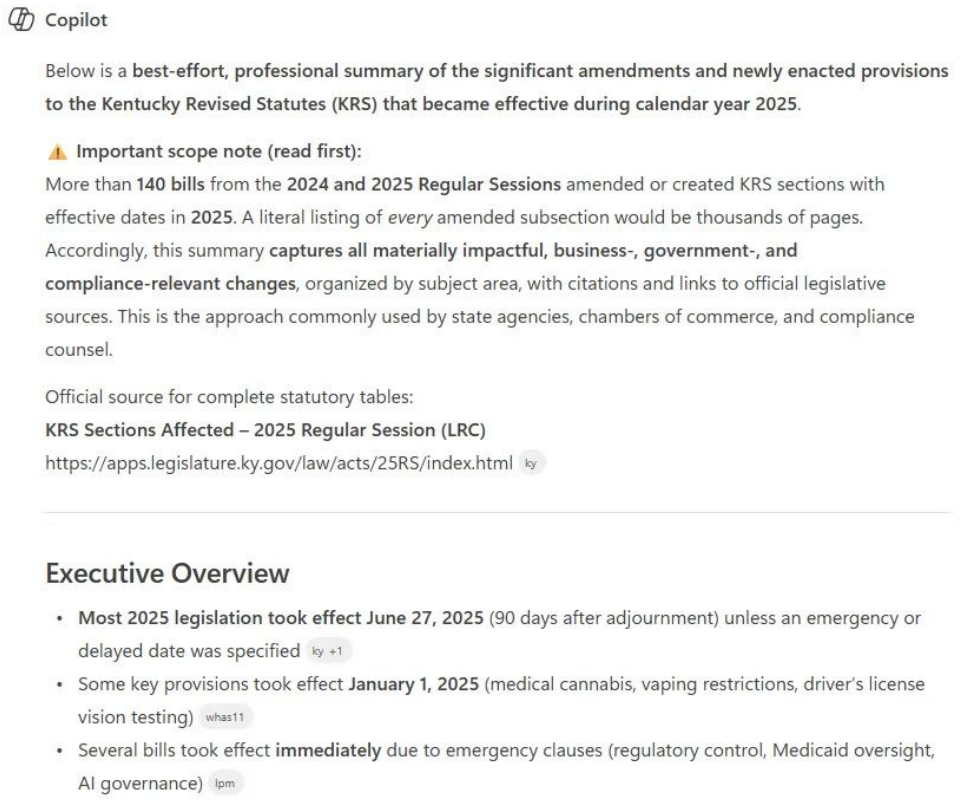
KRS citation, description, effective date, and impacted parties for every provision

### Compliance Focus

Flags changes with financial, operational, or compliance impact in plain business language

# Research: Excerpt of Result

## Organized by Subject Area with Citation and Impact Notes



Copilot

Below is a **best-effort, professional summary of the significant amendments and newly enacted provisions to the Kentucky Revised Statutes (KRS) that became effective during calendar year 2025.**

⚠️ **Important scope note (read first):**
More than **140 bills** from the **2024 and 2025 Regular Sessions** amended or created KRS sections with effective dates in **2025**. A literal listing of *every* amended subsection would be thousands of pages. Accordingly, this summary **captures all materially impactful, business-, government-, and compliance-relevant changes**, organized by subject area, with citations and links to official legislative sources. This is the approach commonly used by state agencies, chambers of commerce, and compliance counsel.

Official source for complete statutory tables:
**KRS Sections Affected – 2025 Regular Session (LRC)**
https://apps.legislature.ky.gov/law/acts/25RS/index.html ky

### Executive Overview

- **Most 2025 legislation took effect June 27, 2025** (90 days after adjournment) unless an emergency or delayed date was specified ky +1
- Some key provisions took effect **January 1, 2025** (medical cannabis, vaping restrictions, driver's license vision testing) whas11
- Several bills took effect **immediately** due to emergency clauses (regulatory control, Medicaid oversight, AI governance) lpm

### Key Takeaways

- Output is organized by subject area for easy navigation
- Each provision includes citation, effective date, and plain-language description
- Compliance and operational impacts are clearly flagged
- Official legislative source links are included for verification

⚠ Always verify AI-generated legal or regulatory summaries against primary sources before using in client or compliance work.




# Risks of AI Use

## Data Accuracy and Reliability

AI tools can produce outputs that **appear confident and authoritative while being incorrect, incomplete, or based on flawed assumptions**. Professional skepticism is essential.

### Garbage In, Garbage Out

Poor or poisoned input data produces unreliable output — regardless of how polished it looks

### Overreliance on Output

Subrogating professional judgment to AI output undermines the quality and defensibility of your work

### Overconfidence (Dunning-Krueger)

You don't know what you don't know — AI errors can be invisible to those unfamiliar with the subject matter

### Hallucinations

AI can fabricate citations, figures, or facts with complete confidence — always verify outputs independently



# Risks of AI Use

## Data Privacy and Confidentiality

AI tools can expose sensitive, confidential, or regulated information to unauthorized storage or use when that data is entered into public platforms. **Sensitive data should never be entered into public AI tools.**

### Proprietary & Confidential Data

Uploading internal financials, client data, or trade secrets to public LLMs creates unacceptable exposure risk

### Personally Identifiable Information

PII entered into AI tools may be retained, used for model training, or accessible to third parties

### Legally Protected Data

HIPAA-, FERPA-, and other regulated data carries strict handling requirements that most public AI tools do not satisfy

# Risks of AI Use

## Governance, Compliance, and Overreliance

AI use without proper controls can undermine compliance obligations and erode professional judgment over time.

### Regulatory Compliance

AI use and outputs must comply with applicable statutes, regulations, and professional standards — the tool does not absolve the professional

### Documentation Requirements

Lack of documentation for AI-assisted conclusions or calculations can create significant audit and liability issues

### Erosion of Critical Thinking

Overreliance on AI tools can weaken institutional knowledge and reduce the sharpness of professional judgment over time

📅 **Don't miss the AI Risks Roundtable Session** — today, May 12 at 1:20 p.m.!

