

Proposal: Invoice Rate Detection System

Prepared for: Southern Safety Supply

Prepared by: Clarity Business Solutions

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Situation Appraisal

Southern Safety Supply, a leader in the safety products industry, is facing a persistent challenge: frequent overcharges on line items in customer invoices. This issue requires the owner, Ms. Sizemore, to manually sift through dozens of PDFs to catch minor discrepancies—an inefficient use of time and attention. Each missed overcharge increases costs, while each hour spent checking invoices takes time away from growth-driving activities.

What's at Stake

- Time cost: ~1 hour/week manually checking invoices
- Annual labor equivalent: ~\$3,120 at \$60/hr
- Risk: Continued overpayments or operational inefficiencies

Objectives

- Automate Detection: A tool that flags overcharged line items across batches of PDF invoices.
- Summarized Reports: Outputs clear, Excel-friendly reports.
- User-Friendly: Runs on a Windows desktop with simple double-click or CLI usage.
- Validation Layer: Simulated and known invoice data are used to verify accuracy.
- Optional GUI: Optional desktop interface for users preferring not to use the command line.
- Optional Docker Deployment: For customers preferring containerized environments.

Proposed Solution

CLI-Based Invoice Checker

- Input: Folder of PDF invoices.
- Output: CSV/TXT report summarizing overcharges by invoice, date, and item.
- Configuration: Threshold configurable by user (default \$0.30).
- Validation:
 - Against simulated test data to test core logic.
 - Against a sample block of verified invoices to ensure practical accuracy.

Optional UI Add-On

- Functionality: File/folder selection, threshold input, visual report preview.
- Benefit: Makes the tool accessible for non-technical users.

Optional Docker Deployment

- Available at additional cost.
- Useful for organizations requiring consistent environments or devops workflows.

Implementation Approach

Phase 1: CLI Tool + Validation

- Develop CLI script using pdfplumber and pandas.
- Implement parsing logic for Southern Safety Supply's invoice format.
- Validate accuracy with:
 - Simulated test data
 - Historical invoice batch

Phase 2: Optional GUI Interface

- Lightweight Python GUI (Tkinter or PyQt)
- Includes file browsing and visual progress

Deliverables

- Python-based CLI Tool (Windows-ready)
- ReadMe and usage guide
- Validation report (summary of test outcomes)
- Optional GUI interface (priced separately)
- Optional Dockerfile + deployment instructions (additional cost)

Timeline & Cost

Phase 1 (CLI+Validation): \$1,250 USD (fixed price)

Phase 2 (Optional GUI): +\$500 USD (upon request)

Optional Docker Package: +\$250 USD (if requested)

Timeline: ~1 week for CLI + Validation

~1 additional week for GUI (if added)

Success Metrics

- Reports match expected validation output
- Tool processes invoices without errors or crashes
- Ms. Sizemore can run the process independently
- Time spent reviewing invoices reduced by 80% or more

Value Proposition

- A highly targeted automation that solves a specific, measurable pain
- Local-first, privacy-respecting implementation
- Low-complexity, high-utility solution with optional scalability
- Long-term time savings and cost control

Next Steps

1. Approve proposal and confirm optional features (GUI, Docker)
2. Provide:
 - Sample invoice PDFs
 - Known examples of overcharges (if available)
3. Clarity begins development and testing
4. Delivery + walkthrough session

Company Information

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GST/HST #: [Insert]

Business #: [Insert]