Printing Calculator

A simple, dynamic, and intuitive web application to help small print shops or individuals manage paper inventory, calculate print job costs and profits, and track financial performance over time.

This calculator is designed to provide quick insights into your printing operations, from individual job profitability to overall stock management and financial trends.

Features

- **Dynamic Inventory Management:**
  - Track **A4, Letter, and Legal** paper stock levels.
  - Manually adjust current inventory counts directly via input fields.
  - Set **custom prices** for Black & White (B&W) and Color prints.
  - View **initial estimated profit** based on your default starting inventory (1500 sheets).
- **Accurate Print Job Calculation:**
  - Input **B&W Sheets** and **Colored Sheets** for successfully printed output.
  - Account for **Rejected B&W** and **Rejected Colored** sheets (unsuccessful prints).
  - Select **paper type** (A4, Letter, Legal) and **print type** (Single-sided / Double-sided).
  - For **double-sided prints**, the calculated cost of *each* B&W and Color sheet is automatically **doubled** to reflect increased ink/toner usage.
  - Calculates Total Cost, Total Loss, and Net Profit for each job.
  - Provides alerts for insufficient paper.
- **Comprehensive Job History:**
  - All completed print jobs are logged with detailed information.
  - History is **persisted using local storage**, so your data is saved even if you close the browser.
  - View and sort Job History by date.
- **Insightful Financial Summary:**
  - Filter Job History and the Usage Over Time graph by custom date ranges.
  - See Total Profit for Period and Total Loss for Period (reflecting only data within the applied filter).
  - Track Overall Potential Remaining profit for both B&W and Color, indicating how much profit potential is left from your **initial default inventory** based on successful prints.
- **Data Management:**

- Reset Inventory function to clear all data, clear job history, and reset paper stock to default (500 sheets each).
- Save to File option to export all current application data as a JSON file.
- Print Report functionality for a quick physical record.
- **Clean & Intuitive User Interface:**
  - Modern, neutral design with subtle animations for a smooth user experience.

How to Use

1. **Clone the Repository:**
   git clone https://github.com/lylemiro/printing-calculator.git

2. **Navigate to the Project Directory:**
   cd printing-calculator

3. **Open in Your Browser:**
   - Simply open the index.html file in your preferred web browser (e.g., Chrome, Firefox, Edge).
   - You can usually do this by double-clicking the index.html file, or by using a command in your terminal like start index.html (Windows), open index.html (macOS), or xdg-open index.html (Linux).
4. **Start Calculating!**
   - **Inventory Section:** Adjust your current paper stock and set B&W/Color prices.
   - **Print Job Section:** Enter details for a new print job, remembering that all "Pages" inputs refer to **sheets**. Click "Add Print Job".
   - **Summary Section:** Review your job history, financial summaries, and usage trends. Use the date filter to analyze specific periods or the "Clear Filter" button to see all data.

Understanding the Calculations in Detail

- **Sheet Counts:**
  - B&W Pages and Colored Pages inputs represent **successfully printed sheets**.
  - Rejected B&W and Rejected Colored inputs represent **unsuccessfully printed (wasted) sheets**.
- **Total Sheets Used (for Inventory Deduction):**
  - The sum of B&W Pages + Colored Pages + Rejected B&W + Rejected Colored is the **total number of physical sheets deducted from your inventory** for a given job.

- **Print Job Cost (Revenue Side):**
  - **For Single-sided prints:** (B&W Sheets * B&W Price) + (Colored Sheets * Color Price)
  - **For Double-sided prints:** (B&W Sheets * B&W Price * 2) + (Colored Sheets * Color Price * 2)
- **Total Loss for Job:**
  - (Rejected B&W Sheets * B&W Price) + (Rejected Colored Sheets * Color Price)
  - (Note: Loss is calculated based on the standard per-sheet price, not doubled for "double-sided" rejected prints, as they didn't complete a double-sided job.)
- **Net Profit for Job:** Print Job Cost - Total Loss for Job
- **Total Estimated Profit (in Inventory Section):** This is a **fixed baseline** representing the maximum potential profit if your **initial default inventory of 1500 sheets** (500 A4 + 500 Letter + 500 Legal) were sold at the *current B&W and Color prices*. This value changes only if you modify prices or use the "Reset Inventory" button.
- **Overall Potential Remaining (in Summary Section):** This calculates how much of that Total Estimated Profit baseline (from your initial 1500 sheets) is still available. It's derived by taking the Total Estimated Profit and subtracting the value of all **successfully printed B&W and Colored sheets** throughout the entire history. This provides an overall long-term view of remaining profit potential.

Development & Contribution

This project is built purely with **HTML, CSS, and JavaScript**, utilizing the Chart.js library for data visualization.

Feel free to fork this repository, suggest improvements, or submit pull requests.

License

This project is open-source and available under the MIT License.