

Custom
Software
Projects

Personal Profile



Premanandhan Narayanan has **30 years of software expertise** and specializes in developing **custom software solutions** tailored to meet client needs. His deep technical background is complemented by his ability to **create automated workflows** and **optimize manual processes**, ensuring enhanced efficiency.

In addition to his spiritual and personal development content on YouTube, he extends his professional skills to individuals and businesses. If you are spending **long hours working on a computer** and looking for ways to **streamline or automate repetitive tasks**, Premanandhan can assist in **building custom tools** that significantly reduce your workload.

Contact for Software Solutions

As an experienced software professional, Premanandhan offers his services to:

- **Develop automation tools** for repetitive tasks.
- **Create efficient, custom software** to meet unique business needs.
- **Optimize workflows** to save time and boost productivity.

Feel free to **contact him @ +91 98844 86609** or **email him at premanandhan@gmail.com** for any software or automation needs to make your work smoother and more efficient

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Project Title:

Automated Sunday Class PDF Organizer for a Spiritual Organization

Customer Need:

A spiritual organization conducts daily classes throughout the year. Their Sunday sessions are especially important, requiring them to isolate Sunday-specific PDFs from a folder containing 365 files (one for each day). However, the files were not consistently named—some used the dd-mm-yyyy format while others used mm-dd-yyyy format, further complicating the process.

Previously, they:

1. Manually opened each PDF file to check if it corresponded to a Sunday.
2. Cross-referenced the date with a calendar to confirm the correct day.
3. Moved Sunday files to a separate folder, discarding non-Sunday PDFs.

This tedious task took 7 to 10 days to complete each year, consuming significant time and energy.

Solution Offered:

We built a custom software solution to automate the entire process:

1. File Scanning and Date Parsing:
 - The program scans all 365 PDFs in the provided folder, correctly identifying dates from inconsistent file naming formats (dd-mm-yyyy or mm-dd-yyyy).
2. Automated Sunday Filtering:
 - It checks which dates correspond to Sundays and retains only the relevant files, deleting the rest.
3. File Renaming and Organization:
 - The remaining Sunday PDFs are renamed uniformly in yyyy-mm-dd format and arranged in ascending order from January to December for easy access and tracking.
4. Speed and Efficiency:
 - The program completes the entire task in under 10 minutes, a dramatic improvement over the previous manual effort.

Outcome / Gain:

With our software solution, the organization now benefits from:

- Time Savings: The task that previously took 7 to 10 days is now completed in minutes.
- Error Reduction: Eliminates human error from misidentifying dates or manually filtering files.
- Standardization: All Sunday PDFs are now renamed consistently and organized chronologically.
- Increased Productivity: Staff can now focus on more meaningful work instead of tedious manual tasks.

Impact:

This project demonstrates our ability to understand customer workflows and create tailored automation solutions that solve real-world problems. By replacing a time-consuming, manual process with efficient software, we empowered the organization to streamline operations and improve efficiency. This case exemplifies how automation can make even the most complex, repetitive tasks manageable, providing tangible benefits in both time and productivity.

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Project Title:

Automated Multi-Language PDF Compilation for Spiritual Organization Archives

Customer Need:

The client, a well-established spiritual organization, needed to efficiently manage and organize over 50 years of teachings, available in 25+ languages, from their website in PDF format. Previously, they compiled monthly PDFs into yearly collections manually. The labor-intensive process took **two months of manual effort** for each language, requiring 5-6 hours of work per day. The organization sought a faster, automated solution to handle this repetitive task, saving time and resources.

Solution Offered:

We developed a **custom software solution** to automate the collection and merging of PDFs. The software was designed to:

- Extract relevant PDFs for each month from the repository.
- Combine monthly PDFs into **one yearly compilation** for each language.
- Organize the compiled PDFs by **year and language** into structured folders.
- Support batch processing for **multiple years and languages** simultaneously.
- Include **manual intervention** options where necessary, giving flexibility to the process.

This hybrid solution balanced automation with manual adjustments to ensure accuracy and alignment with the client's specific needs.

Outcome / Gain:

With the implementation of the software:

- **Time Savings:** Tasks that previously took **two months** were reduced to just **2 hours** per language.
 - **Increased Productivity:** Staff were freed from repetitive tasks, allowing them to focus on more meaningful work.
 - **Cost Efficiency:** Drastically reduced the operational overhead and resource usage.
 - **Scalable Solution:** The software can be reused annually for new content with minimal adjustments, making it a future-proof investment.
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Impact:

Our solution not only saved the organization significant time and effort but also demonstrated our expertise in **workflow automation, customized software solutions, and process optimization**. This project showcases our ability to deliver impactful results even in highly specialized domains like **spiritual organizations**.

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Project Title

Automated Cover Page Generation for Multi-Language E-Books

Customer Need:

The client, an organization publishing e-books in multiple languages for several years, required a consistent way to generate customized cover pages. Each cover page had to feature:

- A standard background image provided by the client.
- The language name and the month and year of publication printed on the cover.

Previously, the client relied on tools like Adobe Photoshop and other graphic design software to create these images manually. This process was time-consuming, requiring several months to complete covers for multiple languages and publication periods. The client sought a custom solution to automate this repetitive task.

Solution Offered:

We developed a custom software program to automate the generation of cover pages, eliminating the need for manual intervention. Key features of the solution include:

- Batch processing: The user inputs the languages and the date range (from which month and year to which).
- Dynamic text printing: The software overlays the relevant language and publication date onto the standard background image.
- High-speed output: The program generates multiple cover pages programmatically in a matter of minutes.
- User-friendly interface: The client can easily update inputs without needing advanced graphic design skills.

Outcome / Gain:

With the implementation of our solution:

- Massive Time Savings: The process that previously took months to complete is now finished in minutes.
- Consistency and Accuracy: Every cover page is generated with consistent formatting, reducing human error.
- Cost Efficiency: The client no longer needs to rely on specialized graphic designers or design software for routine tasks.
- Scalability: The software can handle multiple languages and years of publications, making it future-proof for ongoing needs.

Impact:

This project highlights our ability to transform manual design processes into efficient, automated solutions. Our software not only optimized the client's workflow but also demonstrated our capability to handle projects that bridge software development and creative design.

This success story showcases our expertise in custom automation software, graphic handling, and batch processing solutions, making us an ideal partner for clients with similar needs.

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Project Title:

Email Validation and Campaign Automation for AI Education Firm

Customer Need:

A software education firm specializing in Artificial Intelligence courses wanted to launch a targeted email campaign to potential customers. Over the years, they had built a substantial email database but faced several challenges:

- Invalid email addresses leading to high bounce rates.
- Inability to confirm whether email domains were still active, reducing campaign efficiency.
- Spam risk: Their approach of sending individual emails manually to avoid being flagged as spam consumed time and resources.

They required a custom software solution to validate emails, check domain activity, and automate their email sending process without compromising deliverability.

Solution Offered:

We developed a custom email management solution with the following features:

1. Email Validation: The software verifies the syntax and existence of email addresses to minimize bounces.
2. Domain Verification: It checks whether the email domains are active, ensuring the addresses belong to functioning domains.
3. Spam-Free Email Delivery:
 - The software sends up to 500 personalized emails per day to avoid triggering spam filters.
 - Each email is sent individually on behalf of the client, maintaining high deliverability and avoiding blacklisting risks.
4. Automation and Efficiency: It reduces manual effort, allowing the client to schedule emails and track delivery status.

Outcome / Gain:

Our software provided the following benefits:

- Reduced Bounce Rates: Validating emails and domains improved the accuracy of their campaigns.
- Time and Effort Savings: Automation allowed them to send hundreds of emails daily without manual intervention.
- Improved Campaign Performance: Personalized delivery ensured better engagement rates and reduced spam risk.

- Cost Efficiency: Eliminated the need for expensive third-party email tools or manual processes.

Impact:

This project demonstrates our expertise in email automation, validation processes, and spam management. Our tailored software empowered the client to execute their AI course marketing campaigns efficiently while maintaining high email deliverability.

This case showcases our ability to build solutions that integrate validation, domain management, and personalized email automation for clients in education and technology sectors, making us a reliable partner for future projects.

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Project Title:

Automated Exam Marks Consolidation and Ranking for Higher Secondary School

Customer Need:

A school conducting exams for higher secondary students faced significant challenges in compiling and processing student marks. Each batch had 6 subjects, and the marks from each exam were managed independently by subject teachers, leading to a lengthy manual process:

1. Excel sheets from each teacher containing the students' marks were shared with the class teacher.
2. The class teacher manually copied or entered the data from six sheets into a consolidated master sheet.
3. The teacher calculated totals, identified failed students, and ranked students based on their scores.
4. Special ranking rules applied:
 - If two students had the same total, they shared the same rank (e.g., two students with the highest score would share Rank 1, and the next rank would be Rank 3).
5. The teacher also generated graphs and statistics for each subject to analyze student performance.

This manual consolidation took 7 to 10 days, creating a bottleneck in the examination process.

Solution Offered:

We developed a custom software solution to automate the entire marks consolidation and ranking process. Key features include:

1. Automated Data Consolidation:

- The software collects marks from six individual Excel sheets and consolidates them into a master sheet automatically.

2. Total Calculation and Failure Detection:

- It computes total marks for each student and flags failed students (those scoring less than 35 in any subject).

3. Automated Ranking System:

- The software assigns ranks according to the school's rules, ensuring that shared ranks are handled correctly (e.g., two students sharing Rank 1 will result in the next rank being Rank 3).

4. Graph Generation and Statistics:

- It generates performance graphs and subject-wise statistics instantly.

Outcome / Gain:

The introduction of our software reduced the time required from 7-10 days to 1 hour. The class teacher can now:

- Save time and effort by eliminating manual data entry and calculations.
- Ensure accuracy in ranking and identifying failed students.
- Quickly generate graphs and statistics for analysis.

Impact:

This project illustrates how custom automation software can streamline traditionally manual processes in educational institutions. By eliminating redundant steps, we not only improved efficiency but also ensured accuracy and consistency in handling exam results. This success story reflects our ability to develop scalable, time-saving solutions for academic workflows, reinforcing our expertise in data processing and reporting automation.

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Project Title:

Automated Horoscope Generation for Astrologers

Customer Need:

An astrologer approached us for help in automating horoscope analysis. The traditional method of preparing a horoscope involved:

1. Collecting birth details: Date of birth, time of birth, and place of birth.
2. Manually calculating planetary positions and determining if planets were in their own house, exalted, or debilitated.
3. Ashtakavarga point calculations to provide deeper insight into strengths and weaknesses.
4. Evaluating which planet is aspecting specific houses and understanding the associated pros and cons.
5. Providing detailed Dasa and Bhukti predictions to forecast future trends.

This process required 1 to 1.5 hours of intense study for each horoscope, limiting the astrologer's ability to serve more clients efficiently.

Solution Offered:

We developed a custom astrology software that automates the horoscope analysis process with the following features:

1. Automated Planetary Positioning:
 - Our program maps the planets into the appropriate houses based on the provided birth details.
 - It identifies whether planets are in their own house, exalted, or debilitated to assist with precise predictions.

2. Ashtakavarga Calculations:

- The software automatically calculates Ashtakavarga points to help the astrologer determine strengths and weaknesses across different areas of life.

3. Planetary Aspects and Analysis:

- The program determines which planets are aspecting specific houses and provides pros and cons for accurate forecasting.

4. Dasa and Bhukti Tracking:

- It generates the current Dasa and Bhukti cycles along with the next two Bhuktis, giving a comprehensive outlook on the individual's future prospects.

Outcome / Gain:

Using our software, the astrologer:

- Reduced preparation time from 1-1.5 hours to 10-15 minutes per horoscope.
- Increased efficiency, allowing them to serve more clients in less time.
- Improved accuracy through automated calculations, reducing the risk of human error.
- Provided clients with detailed reports quickly, enhancing the customer experience.

Impact:

This project highlights our expertise in automation for niche fields like astrology. By integrating complex planetary calculations with efficient reporting, we enabled the astrologer to scale their practice and focus on client interactions instead of repetitive tasks. This showcases our ability to build customized software solutions that improve productivity and enhance service delivery in specialized industries.

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Project Title:

Automated ID Card Generation for School Students

Customer Need:

A photographer responsible for creating ID cards for a school was handling the task manually. His workflow involved:

1. Capturing passport-size photos of students.
2. Collecting data such as student name, roll number, and group details.
3. Using image editing software to manually overlay the collected data onto each student's photo for the ID card.
4. Printing the photos with the embedded information.

The process was time-consuming, prone to human error, and required significant effort to manually manage and align the information across several ID cards.

Solution Offered:

We provided a custom software solution that automated the entire workflow:

1. Excel Data Integration:

- The photographer supplied an Excel sheet containing fields such as student name, roll number, batch details, and image file names for each student.

2. Automated Image Processing:

- Our program automatically:
 - Opened each photo based on the image filename in the Excel sheet.
 - Overlaid the necessary student information (name, roll number, batch details) on the image in a standardized format.

3. Validation Mechanism:

- To ensure data integrity, the program verified that the image filenames matched the correct student data in the Excel sheet.

4. Neat and Consistent Output:

- The software ensured that the final output was neatly aligned, with all images formatted uniformly.

5. Speed and Accuracy:

- The manual task that previously took several hours was reduced to minutes.

Outcome / Gain:

With our automated solution, the photographer achieved:

- **Significant Time Savings:** The previously manual process was automated, reducing time and effort.
- **Error-Free Processing:** The matching and overlaying process ensured zero mismatches or alignment issues.
- **Consistent Formatting:** Every ID card maintained the same professional appearance.
- **Improved Efficiency:** The photographer could now focus on other tasks rather than spending hours on repetitive manual editing.

Impact:

This project showcases how automation can transform repetitive manual tasks, especially in scenarios involving data processing and image handling. By developing this custom software, we helped the photographer enhance productivity, eliminate errors, and deliver high-quality ID cards in a fraction of the time. This solution reflects our capability to provide tailored software to streamline operations across various industries.

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Project Title:

Automated Audio Extraction for YouTube Playlists

Customer Need:

A YouTube channel wanted to launch a podcast by repurposing content from their existing video playlists. However, they encountered challenges with:

1. Manual extraction of audio using free software tools, which resulted in unwanted pop-ups and interruptions.
2. The process was tedious and time-consuming, as some playlists contained hundreds or thousands of videos.
3. They needed the audio files in MP3 format to suit podcast requirements and wanted to organize them in appropriate folders for easy access.

Solution Offered:

We developed a custom software solution to automatically extract audio from the channel's playlists with minimal manual intervention.

1. Automated Audio Extraction:

- Using just the playlist URL, our program extracted the audio from all videos in MP3 format, as requested.

2. Folder Organization:

- The software stored each extracted MP3 file in a pre-defined folder structure, ensuring smooth organization.

3. Click-and-Forget Process:

- The client could initiate the process with a single click and leave it unattended.
- The software automatically halted once all files from the playlist were processed, saving time and effort.

4. Scalable Solution:

- The processing time depended only on the number of videos in the playlist, but the program worked efficiently for any playlist size—from 20 videos to 1,000 or more.

Outcome / Gain:

With our software, the YouTube channel experienced:

- Significant Time Savings: What once required manual effort was now fully automated.
- Elimination of Disruptions: The client no longer had to deal with pop-ups and interruptions from free tools.
- Efficient File Management: The extracted MP3s were neatly organized by folders, improving accessibility.
- Effortless Scaling: The solution worked seamlessly across playlists of various sizes, with minimal input from the user.

Impact:

This project demonstrates our ability to provide tailored automation solutions that transform complex, repetitive processes into simple, efficient workflows. Our software empowered the client to focus on launching their podcast while automating the technical work behind the scenes, reflecting our expertise in process optimization and custom development.

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