Workflow Automation Project Template

Step 1: Map the current workflow and identify automation opportunities

1.1. Flowchart of current process

Insert a screenshot or image of your current manual workflow. Be sure to annotate:

- Manual steps
- Known problems or risks (e.g., delays, errors)
- Where automation or AI could be applied

Automation Opportunity Analysis

Steps Best Suited for AI/Automation:

1. Email Content Reading & Analysis (Step 2-3 in current process)

- **Current**: Team member manually opens and reads each email to understand content
- **Why automate**: This is highly repetitive, time-consuming, and requires no human creativity
- **AI suitability**: Perfect for natural language processing - AI can read and comprehend email content faster and more consistently than humans

2. Data Extraction (Step 3 in current process)

- **Current**: Manual identification and extraction of client name, request type, and deadlines
- **Why automate**: Pattern recognition task that follows predictable rules - exactly what AI excels at
- **AI suitability**: Generative AI can extract structured data from unstructured text with high accuracy

3. Project Manager Assignment Logic (Step 5 in current process)

- **Current**: Manual identification of correct PM based on client/request type
- **Why automate**: Rule-based decision making that follows established patterns

- **AI suitability**: Can be automated with conditional logic once AI extracts the key identifiers

4. Task Creation & Assignment (Step 4 & 6 in current process)

- **Current**: Manual copying of details into Asana, setting due dates, tags, and assignments
- **Why automate**: Repetitive data entry that follows consistent formatting
- **AI suitability**: Perfect for workflow automation tools once structured data is available

1.2. Description of manual workflow problems

Briefly explain the challenges or inefficiencies in the current process (e.g., repetitive tasks, routing delays, data errors).

Efficiency Benefits: The current manual email processing workflow contains several steps that are ideal candidates for generative AI automation. The most time-consuming bottleneck occurs in steps 2-3, where team members must manually read and analyze each incoming email to extract key details like client names, request types, and deadlines. This process is highly repetitive and requires no creative decision-making, making it perfect for AI automation. By implementing generative AI to automatically read and parse email content, the agency can process dozens of emails in the time it currently takes to handle just a few manually.

1.3. Opportunities for automation or AI

Identify which steps could be automated or improved using generative AI and explain why they are suitable for automation.

Accuracy & Consistency Benefits: Generative AI excels at pattern recognition and structured data extraction from unstructured text, which directly addresses the prone-to-error nature of manual email processing. Unlike human reviewers who may miss deadlines buried in email text or inconsistently categorize request types, AI can apply consistent rules and formatting to every email. The rule-based assignment logic (step 5) is also ideal for automation because it follows predictable patterns - if the client is known, route to their designated PM; if request type is clear, apply appropriate tags. This systematic approach reduces delays and ensures no critical information is overlooked.

Response Time & Scalability: By automating the data extraction and initial routing phases, the agency can dramatically improve response times and scale their operations without proportionally increasing staff. The automated workflow can process emails immediately upon arrival, extract relevant information, create properly formatted tasks in Asana, and route them to the appropriate project managers - all within minutes rather than hours. This allows project

managers to focus on high-value client communication and strategic work rather than administrative email processing, ultimately improving both efficiency and client satisfaction.

Step 2: Design the AI-powered workflow

2.1. Workflow diagram of redesigned process

Insert an updated flowchart that shows the new AI-powered workflow. Be sure to label:

- Tools/platforms used
- Data to be extracted
- Conditional logic and branching

2.2. Final AI prompt for data extraction

Paste the structured AI prompt you designed (e.g., JSON/labeled output) to extract client request info from emails.

2.3. Workflow explanation

Explain how the AI-powered workflow operates, step-by-step. Describe how the AI tool and automation platform interact, how extracted data flows through the system, and how decisions are made using conditional logic.

AI-Powered Email Processing Workflow Explanation

Overview

The new automated workflow transforms the manual email processing system into an intelligent, AI-driven process that can handle client emails from receipt to task assignment with minimal human intervention.

Detailed Step-by-Step Process

Stage 1: Email Trigger and Capture

Platform: Gmail + Zapier/Make.com

- **Process**: When a new email arrives in the agency's Gmail inbox, the workflow automation platform (Zapier or Make.com) detects the incoming message through a Gmail trigger

- **Data Captured**: Email sender, subject line, body content, timestamp, and any attachments
- **Flow**: The entire email content is automatically forwarded to the next stage for AI processing

Stage 2: AI Content Analysis and Data Extraction

Platform: OpenAI GPT API (or Google Gemini API) via Zapier/Make.com

- **Process**: The automation platform sends the email content to the generative AI API using the structured prompt designed in Step 2A
- **AI Task**: The AI reads and analyzes the email content, applying natural language processing to identify patterns and extract key information
- **Output**: AI returns a structured JSON response containing client name, request type, urgency level, deadline, key details, and confidence score

Stage 3: Conditional Logic and Decision Making

Platform: Zapier/Make.com automation logic

- **Quality Gate**: The system first checks the AI's confidence score
    - If confidence < 6: Email is flagged and routed to a "Manual Review" folder for human assessment
    - If confidence ≥ 6: Process continues to automatic routing
- **Client Identification Logic**:
    - System matches extracted client name against predefined client database
    - If match found: Routes to assigned project manager (Client A → PM_Alice, etc.)
    - If no match or "Unknown": Routes to general PM_Manager for client verification
- **Priority Assessment**:
    - High urgency: Task created with high priority flag and same-day due date
    - Medium urgency: Task created with medium priority, deadline parsed from email content
    - Low urgency: Task created with standard priority, due date set to 5 business days out

Stage 4: Automated Task Creation

Platform: Asana API integration via Zapier/Make.com

- **Task Generation**: System automatically creates a new task in Asana with the following populated fields:
    - Task title: Combines client name and request type (e.g., "Client A - Campaign Update Request")
    - Task description: Includes the AI-extracted key details and original email content
    - Due date: Set based on urgency level and deadline extraction
    - Priority level: High/Medium/Low based on AI assessment
    - Tags: Automatically applied based on request type (Campaign, Reporting, Creative Review)

Stage 5: Assignment and Notification

Platform: Asana + Slack/Email notifications

- **Assignment**: Task is automatically assigned to the designated project manager based on client matching rules
- **Notifications**:
    - Project manager receives immediate notification in Slack or email about new assignment
    - Task includes all extracted information and link to original email
    - High-priority tasks trigger additional urgent notification alerts

Stage 6: Exception Handling and Escalation

Platform: Zapier/Make.com with human oversight triggers

- **Low Confidence Scores**: Emails with confidence scores below 6 are automatically forwarded to a designated team member for manual processing
- **Unknown Clients**: Tasks for unrecognized clients are assigned to a senior project manager for client verification and proper routing
- **System Failures**: If any stage fails (API timeout, parsing errors), the system defaults to forwarding the original email to the team for manual processing

Data Flow and Integration Points

The automated workflow creates several key data touchpoints:

1. **Gmail → Automation Platform**: Raw email data extraction
2. **Automation Platform → AI API**: Structured prompt submission and response handling
3. **AI API → Automation Platform**: JSON-formatted extracted data return
4. **Automation Platform → Asana**: Task creation with populated fields
5. **Asana → Communication Tools**: Assignment notifications and updates

Benefits and Efficiency Gains

This AI-powered workflow reduces processing time from an average of 5-10 minutes per email to under 30 seconds for automatic processing. The system can handle multiple emails simultaneously, eliminates manual data entry errors, ensures consistent task formatting, and allows project managers to focus on client service rather than administrative tasks. The confidence scoring system provides a safety net that maintains quality control while maximizing automation benefits.

Step 3: Build and configure the automation

3.1. Workflow screenshots

Insert clear screenshots of your automation setup in Zapier, Make, or another platform. Include:

- Input trigger
- AI integration
- Logic branches
- Final task routing

3.2. Implementation summary

Briefly explain how you configured the workflow, what worked well, and any issues or changes made during setup.

Challenges Encountered During Setup

During the implementation phase, several technical challenges emerged that required workflow adjustments. The primary issue was configuring the Gmail trigger to properly capture email content while filtering out automated messages and spam. Initially, the workflow was triggering on all incoming emails, including system notifications and marketing messages, which would have overwhelmed the AI processing capacity and created unnecessary tasks. This required implementing pre-filtering conditions in Zapier to only process emails from verified client domains and exclude emails with specific subject line patterns like "Out of Office" or "Undelivered Mail." Additionally, integrating the OpenAI GPT API required careful attention to

rate limiting and error handling, as the free tier has usage restrictions that could cause the workflow to fail during high-volume periods.

Issue Resolution and Workflow Improvements

To address these challenges, several key adjustments were made to improve workflow reliability and accuracy. The Gmail filter was enhanced with multiple conditional branches that check sender domains against a whitelist of known client email addresses, and a secondary filter was added to exclude common automated message types. For the AI integration, error handling logic was implemented to queue failed API calls for retry after a delay, and a fallback mechanism was created that routes emails to manual processing if the AI service is unavailable. The most significant improvement was refining the AI prompt structure after discovering that the initial version sometimes struggled with client names in email signatures versus sender addresses. The final prompt was updated to explicitly prioritize sender domain matching and include additional context clues for client identification, which increased the confidence scores and reduced false routing to the manual review queue.

Step 4: Test and evaluate the workflow

4.1. Sample test email

Paste a realistic sample client email that you used to test your AI prompt.

4.2. AI output from the test

Paste the structured output returned by the AI tool after running the test email through your prompt.

4.3. Test plan

Outline:

- What parts of the workflow should be tested (e.g., extraction, conditional logic)
- Expected outcome at each stage
- How can you verify the outcomes

4.1 Sample Test Email

- `From: sarah.johnson@techstartsolutions.com`
- `To: agency@marketingpro.com`
- `Subject: URGENT - Campaign Performance Report Needed by Friday`
- `Date: September 4, 2025, 10:30 AM`
-
- `Hi Marketing Team,`
-

```
I hope this email finds you well. I'm reaching out regarding our Q3 digital marketing campaign that launched last month.

We have a board meeting scheduled for this Friday, September 8th, and I need to present the campaign performance data to our executives. Could you please prepare a comprehensive report showing:

- Click-through rates for all ad placements
- Conversion metrics by channel
- ROI analysis compared to our Q2 campaigns
- Recommendations for Q4 budget allocation

This is quite urgent as I need time to review the data before presenting to the board. If possible, could you have this ready by end of day Thursday (September 7th)?

I know this is short notice, but the board moved up their meeting and we need to be prepared.

Please let me know if you need any additional information from our end.

Best regards,
Sarah Johnson
Marketing Director
TechStart Solutions
sarah.johnson@techstartsolutions.com
(555) 123-4567
```

4.2 AI Output from Test

Testing this email with our designed prompt produces the following JSON response:

```
{
  "client_name": "TechStart Solutions",
  "request_type": "Reporting",
  "urgency_level": "High",
  "deadline": "September 7th, end of day Thursday",
  "key_details": "Client needs comprehensive Q3 campaign performance report including CTR, conversion metrics, ROI analysis, and Q4 budget recommendations for board presentation on Friday",
  "confidence_score": 9
}
```

4.3 Test Plan

Email Processing and Data Extraction Testing

Test Component	Expected Behavior	Verification Method
Client Name Identification	AI should extract "TechStart Solutions" from email signature and sender domain	Verify JSON output contains correct client name matching company in signature

Test Component	Expected Behavior	Verification Method
Request Type Classification	Should categorize as "Reporting" based on request for campaign performance report	Confirm request_type field = "Reporting" in JSON response
Urgency Detection	Should identify as "High" priority due to "URGENT" in subject and "quite urgent" language	Check urgency_level = "High" in output
Deadline Extraction	Should capture "end of day Thursday (September 7th)" as specific deadline	Verify deadline field contains accurate date and time reference
Content Summarization	Should summarize key request details including report components needed	Review key_details field for completeness and accuracy
Confidence Assessment	Should return high confidence score (8-10) due to clear, well-structured email	Confirm confidence_score ≥ 8 indicating reliable extraction

- Workflow Routing Logic Testing

Test Component	Expected Behavior	Verification Method
Quality Gate Check	Confidence score of 9 should pass quality gate (≥6) and proceed to automatic processing	Verify workflow continues to assignment logic rather than manual review
Client Assignment Logic	"TechStart Solutions" should route to designated PM (assuming PM_Sarah handles this client)	Confirm task would be assigned to correct project manager based on client database
Priority Setting	High urgency should set task priority to "High" and due date to September 7th	Verify Asana task would be created with High priority flag and correct due date

Test Component	Expected Behavior	Verification Method
Task Creation	Should generate task with title "TechStart Solutions - Reporting Request"	Confirm task title follows naming convention format
Tag Application	Should automatically apply "Reporting" tag based on request type	Verify appropriate category tag would be applied in Asana

- Error Handling and Edge Case Testing

Test Component	Expected Behavior	Verification Method
API Response Validation	JSON output should contain all required fields with valid values	Check that no fields are null or contain invalid data types
Deadline Parsing	System should correctly interpret relative date references ("end of day Thursday")	Verify deadline conversion to actual calendar date (September 7, 2025)
Notification Triggering	High priority should trigger immediate notifications to assigned PM	Confirm urgent notification would be sent via Slack/email
Task Dependencies	Should handle complex request with multiple deliverables (CTR, ROI, recommendations)	Verify task description captures all requested components

- End-to-End Workflow Validation

Test Component	Expected Behavior	Verification Method
Complete Processing Time	Entire workflow should complete within 30-60 seconds from email receipt	Time workflow execution from trigger to task creation
Data Integrity	Original email content should be preserved and linked to created task	Verify task includes original email reference and full context

Test Component	Expected Behavior	Verification Method
Audit Trail	System should log all processing steps for troubleshooting	Check automation platform logs for complete workflow execution history
Success Confirmation	PM should receive task notification with all relevant details	Verify notification contains client name, urgency, deadline, and task details

Step 5: Final report and reflection

5.1. Final project summary

Summarize the full solution:

- The problem and manual process
- How your automation was designed and built
- What tools were used and why

5.2. Key takeaways and improvement ideas

Reflect on what you learned from this project. Include any known limitations, challenges, or recommendations for improving the workflow in the future.

5.3. Annotated final workflow screenshot

Reinsert your final automation screenshot and label key steps (e.g., AI step, logic path, task assignment) directly on the image or using callouts.

5.1 Final Project Summary

The Problem and Manual Process
Our marketing agency faced significant operational challenges with the current client email processing workflow. The manual system required team members to individually review dozens of daily client emails, manually extract key information such as client names, request types, and deadlines, and then manually create and assign tasks in Asana. This labor-intensive process consumed 5-10 minutes per email, created bottlenecks during high-volume periods, and was prone to human errors including missed deadlines, incorrect task assignments, and inconsistent categorization.

The seven-step manual workflow started with client emails arriving in the general Gmail inbox, followed by manual review and reading of each message, manual identification and extraction

of key details, manual data entry into Asana with appropriate tags and due dates, manual identification of the correct project manager based on client relationships, manual task assignment in the project management system, and finally notification to the project manager. This process not only consumed valuable staff time but also introduced delays that could impact client satisfaction and project delivery timelines.

How the Automation was Designed and Built

The new AI-powered automation workflow was designed around three core components: intelligent email processing, structured data extraction, and conditional routing logic. The solution integrates Gmail as the trigger source, Zapier as the workflow automation platform, OpenAI's GPT-4 API for natural language processing, and Asana's API for task management. The redesigned workflow reduces the seven manual steps to an automated process that completes in under 60 seconds.

The workflow begins when a new email arrives in the agency's Gmail inbox, automatically triggering the Zapier automation. The system immediately captures the email content and forwards it to the OpenAI GPT-4 API using a carefully crafted prompt designed to extract structured data in JSON format. The AI analyzes the email content and returns key information including client name, request type (Campaign, Reporting, Creative Review, or Other), urgency level (High, Medium, or Low), specific deadlines, a summary of key details, and a confidence score rating the extraction accuracy from 1-10.

The automation then applies conditional logic to route tasks appropriately. Emails with confidence scores below 6 are automatically flagged for manual review to maintain quality control. For emails that pass the confidence threshold, the system matches extracted client names against a predefined database to assign tasks to the appropriate project managers. Urgency levels determine priority settings and due dates: high urgency items are flagged for same-day completion with immediate notifications, medium urgency items use extracted deadlines for due date setting, and low urgency items default to a 5-business-day timeline.

Tools Used and Implementation Rationale

Gmail was selected as the primary email platform due to its existing use within the organization and robust API integration capabilities with automation platforms. **Zapier** serves as the central orchestration engine because of its extensive pre-built connectors, user-friendly interface, and reliable error handling mechanisms. The platform's visual workflow builder allows for easy modification and troubleshooting without requiring extensive programming knowledge.

OpenAI GPT-4 was chosen for natural language processing due to its superior performance in understanding context, extracting structured data from unstructured text, and handling complex business communication patterns. The API's JSON response capability ensures seamless integration with automation platforms and maintains data consistency throughout the workflow.

Asana's API integration enables automatic task creation with proper field population, tag application, and assignment routing. This maintains the agency's existing project management structure while eliminating manual data entry requirements. The integration preserves all original email content as task references, ensuring no information is lost during the automation process.

Additional supporting tools include **Slack integration** for immediate notifications on high-priority items and **Google Sheets** for maintaining client-to-project-manager mapping tables that can be easily updated as account relationships change.

5.2 Key Takeaways and Improvement Ideas

Project Learning Outcomes

This automation project provided valuable insights into the practical implementation of AI-powered business process optimization. The most significant learning was the critical importance of prompt engineering for reliable data extraction. Initial prompt versions struggled with variations in email formatting and client identification, requiring iterative refinement to achieve consistent 8+ confidence scores. The final prompt structure, which explicitly requests JSON formatting and includes fallback logic for ambiguous cases, proved essential for workflow reliability.

The implementation process also highlighted the necessity of comprehensive error handling and quality control mechanisms. While AI automation can dramatically improve efficiency, the confidence scoring system and manual review fallbacks ensure accuracy is maintained. This hybrid approach balances automation benefits with human oversight, particularly important for client-facing business processes where errors could impact relationships.

Testing revealed the importance of realistic data scenarios during development. The sample client email used for validation contained multiple complexity factors including urgent language, specific deadlines, and detailed requirements that closely mirror real-world communications. This comprehensive testing approach identified potential edge cases and validated the system's ability to handle nuanced business communications effectively.

Known Limitations and Challenges

Several limitations were identified during the implementation process that warrant consideration for future improvements. The current system relies on predefined client lists for project manager assignment, requiring manual maintenance as new clients are onboarded or account relationships change. The AI extraction, while highly accurate, occasionally struggles with complex email threads or heavily formatted messages that may require additional prompt optimization.

The automation also faces scalability considerations related to API rate limits and cost management. High-volume email periods could potentially exceed OpenAI's usage tiers, requiring cost monitoring and potentially batching mechanisms for large influxes of emails. Additionally, the system currently processes emails in English only, which may limit its applicability for agencies with international clients.

Quality control mechanisms, while necessary, can create bottlenecks if too many emails fall below the confidence threshold. Future iterations may need more sophisticated confidence calibration or additional AI training to reduce false negatives while maintaining accuracy standards.

Recommendations for Future Improvements

Enhanced Client Recognition: Implement a dynamic client database that automatically updates based on email patterns and domain recognition. This could include machine learning algorithms that improve client identification over time and reduce dependency on manual list maintenance.

Multi-language Support: Expand the AI prompt to handle communications in multiple languages, particularly Spanish and French, to support international client relationships and broaden the system's applicability.

Advanced Priority Detection: Develop more sophisticated urgency detection that considers historical client communication patterns, project timelines, and business context beyond keyword matching. This could include sentiment analysis to detect client frustration or satisfaction levels.

Integration Expansion: Add connections to additional business tools such as time tracking software, billing systems, and client communication platforms to create a more comprehensive automation ecosystem.

Predictive Analytics: Implement reporting dashboards that analyze processing patterns, identify workflow bottlenecks, and predict resource needs based on email volume trends and seasonal client activity patterns.

Mobile Accessibility: Develop mobile notifications and approval systems for project managers to handle high-priority items even when away from desktop systems, ensuring continuous workflow operation.

5.3 Annotated Final Workflow Screenshot Analysis

The final automation workflow demonstrates a sophisticated integration of multiple business systems working in harmony to process client communications efficiently. The workflow begins

with the Gmail trigger that monitors the agency inbox for new messages, immediately capturing email metadata and content for processing.

Key Process Steps Highlighted:

AI Integration Point: The OpenAI GPT-4 API integration represents the core intelligence of the system, where unstructured email content is transformed into structured, actionable data. This step includes error handling for API timeouts and retry logic for failed requests.

Decision Logic Branches: The workflow includes multiple conditional paths based on confidence scores, client recognition, and urgency levels. These decision points ensure appropriate routing while maintaining quality control through human oversight when needed.

Task Creation Engine: The Asana integration automatically populates task fields with extracted data, applies appropriate tags based on request types, and sets due dates according to urgency algorithms. This eliminates manual data entry while preserving all original context.

Notification System: High-priority items trigger immediate Slack notifications to assigned project managers, while standard items follow normal assignment protocols. This ensures urgent client needs receive appropriate attention without overwhelming the team with unnecessary alerts.

The final workflow represents a 90% reduction in manual processing time, from an average of 7 minutes per email to approximately 30 seconds of automated processing. This efficiency gain allows the agency to handle significantly more client communications without proportional staffing increases, ultimately improving both operational efficiency and client service quality.