PROJECT 046

# AI Lead Intelligence & Sales Operations System

Detailed Workflow Notes | Zapier Flagship Project | 7 Modular Workflows

## System Overview

This document records the implementation logic, workflow responsibilities, important fields, state controls, and testing notes for Project 046. The project uses Zapier Tables as the central lead operations database. Each Zap owns one stage of the lead lifecycle and reads/writes the same lead record, creating a modular system rather than one monolithic automation.

| Component | Implementation Role |
|---|---|
| Zapier Tables | Central source of truth for lead profile, AI intelligence, scoring, routing, follow-up, and CRM sync state. |
| Google Forms | Primary intake source used for the portfolio implementation. |
| AI by Zapier | Contextual qualification and personalized follow-up generation. |
| Code by Zapier | Lead ID generation, deterministic scoring, and external CRM payload construction. |
| Filters / Paths | Eligibility gates and controlled routing decisions. |
| Delay by Zapier | Timed nurture and no-response waiting periods. |
| Gmail / Slack | Automated prospect outreach and human sales escalation. |
| Webhooks by Zapier | REST API transmission to an external CRM/test endpoint. |

## WF01 - Multi-Source Lead Intake

**Purpose:** Create a clean, deduplicated lead record and establish the business Lead ID used throughout the system.

| Step | Node / Logic |
|---|---|
| 1 | **Capture Google Form Lead** - receives contact, company, service, budget, timeline, and goals/challenges. |
| 2 | **Normalize Lead Email** - Formatter standardizes the email used for lookup. |
| 3 | **Extract Company Domain** - Formatter derives the company website/domain value. |
| 4 | **Validate Required Lead Data** - Filter blocks incomplete submissions. |
| 5 | **Find Existing Lead** - Zapier Tables lookup uses normalized Email. Search is allowed to succeed when no record is found. |
| 6 | **Route New vs Existing Lead** - Paths uses the search-found status. |
| 7-9 | **New Lead Path** - condition = record not found; Code generates unique Lead ID; Tables creates the record. |
| 10-11 | **Existing Lead Path** - condition = record found; Tables updates the dynamic existing Record ID instead of creating a duplicate. |

- **Critical mapping:** never hard-code the Zapier Tables Record ID on update actions.
- **Created At:** preserve the original value for existing leads. **Updated At:** use Zapier System Current time.
- **Current-state values:** where Zapier exposes old/new trigger values, downstream workflows generally map the **(new)** value.

## WF02 - AI Lead Qualification

**Purpose:** Convert raw lead information into structured sales intelligence that downstream workflows can reuse.

| Step | Node / Logic |
|---|---|
| 1 | **Trigger Lead for Qualification** - watches new/updated Zapier Tables records. |
| 2 | **Filter Unqualified Leads** - allows only records that have not yet received AI qualification. |
| 3 | **Analyze Lead with AI** - evaluates business need, intent, fit, readiness, and context. |
| 4 | **Save AI Qualification Results** - updates the same record while preserving source lead data. |

- Saved outputs: **AI Qualification, Business Need, Intent Level, Service Fit, Buying Readiness, AI Summary, Recommended Action, AI Qualified At**.
- Representative result: **Qualified / High Intent / Strong Fit / Ready Now**.
- AI performs contextual analysis; later priority scoring is deliberately deterministic.

## WF03 - Lead Scoring & Priority

**Purpose:** Translate AI intelligence and commercial signals into a transparent numeric score and operating priority.

| Step | Node / Logic |
|---|---|
| 1 | **Watch Leads Ready for Scoring** - monitors the central table. |
| 2 | **Validate Lead Scoring Eligibility** - AI Qualification must exist and Lead Score must not yet exist. |
| 3 | **Calculate Lead Score & Priority** - Code by Zapier evaluates qualification, intent, service fit, buying readiness, budget, and timeline. |
| 4 | **Save Lead Score & Priority** - writes score, priority, explanation, and timestamp back to the record. |

- Test result: **Lead Score 100 / Lead Priority Hot**.
- Example scoring reason combined positive points for AI qualification, high intent, strong fit, ready-now buying readiness, strong budget, and near-term implementation.
- Persist **Scoring Reason** so a sales user can understand why a lead received its priority.

## WF04 - Lead Routing & Sales Handoff

**Purpose:** Convert priority into a concrete operating path and immediately involve sales when appropriate.

| Step | Node / Logic |
|---|---|
| 1 | **New or Updated Record** - watches lead state changes. |
| 2 | **Validate Lead Routing Eligibility** - requires Lead Score and Lead Priority; Routed At must be empty. |
| 3 | **Route Leads by Priority** - Paths creates Hot, Warm, and Cold tracks. |
| 4-6 | **Hot Lead - Sales Handoff** - priority = Hot; Slack notifies sales; Tables updates lead for sales handoff and sets Routed At. |
| 7-8 | **Warm Lead - Follow-Up** - priority = Warm; Tables queues the record for Follow-Up. |
| 9-10 | **Cold Lead - Nurture** - priority = Cold; Tables queues the record for Nurture. |

- Slack Hot Lead alert includes name, company, job title, email, service, budget, timeline, score, priority, AI Summary, Recommended Action, and an urgent contact instruction.
- **Routed At** is an important loop-prevention/state field: once populated, later table updates should not reroute the same lead.
- End-to-end Hot path testing passed: eligibility filter passed, Hot path executed, Warm/Cold paths skipped, Slack sent, and Tables updated.

## WF05 - Automated Lead Follow-Up & Nurture

**Purpose:** Run a controlled, multi-stage nurture sequence without sending stale or unnecessary outreach.

| Step | Node / Logic |
|---|---|
| 1 | **Detect Lead Ready for Follow-Up** - watches the lead table. |
| 2 | **Validate Follow-Up Eligibility** - confirms the lead belongs in the nurture/follow-up process. |
| 3 | **Wait Before First Follow-Up** - Delay by Zapier creates the first waiting period. |
| 4 | **Recheck Lead Status After Delay** - retrieves current state after waiting. |
| 5 | **Confirm Follow-Up Still Required** - prevents outreach if the lead changed state. |
| 6 | **Generate Personalized Follow-Up** - AI uses stored lead context to create outreach. |
| 7 | **Send Personalized Follow-Up** - Gmail sends the first message. |
| 8 | **Update Follow-Up Tracking** - saves Last Follow-Up At / relevant state. |
| 9 | **Increment Follow-Up Count** - Formatter updates the counter. |
| 10-12 | **Second-stage wait and recheck** - Delay, table refresh, and eligibility confirmation. |
| 13-16 | **Second Follow-Up** - AI generates, Gmail sends, Tables updates, and the follow-up count is incremented again. |

- **Design rule:** after every meaningful delay, re-read the source record before acting.
- Follow-Up Count and Last Follow-Up At make the nurture sequence stateful and auditable.
- The AI message generator should use current lead intelligence, not invent facts outside the stored record.

## WF06 - No-Response Recovery & Lead Disposition

**Purpose:** Decide what happens after automated follow-up fails to produce a response, with human escalation reserved for valuable opportunities.

| Step | Node / Logic |
|---|---|
| 1 | **Detect Lead Ready for No-Response Recovery** - watches leads that completed the expected follow-up stage. |
| 2 | **Validate No-Response Eligibility** - confirms the record should enter recovery. |
| 3 | **Delay For** - provides the final waiting period. |
| 4 | **Recheck Lead After Final Wait** - retrieves the latest table state. |
| 5 | **Confirm Lead Still Has No Response** - stops recovery if the prospect has since progressed. |
| 6 | **Route No-Response Lead by Priority** - Paths divides high-value recovery from long-term nurture. |
| 7-9 | **Path A - High-Value Lead Recovery** - Slack escalates the no-response lead; Tables updates it to Human Recovery. |
| 10-11 | **Path B - Long-Term Nurture** - Tables moves the lead into long-term nurture/disposition. |

- This module prevents valuable Hot/high-priority leads from being silently abandoned.
- Human recovery is a deliberate handoff, not a failure of automation: automation identifies when judgment and personal outreach have greater value.

## WF07 - External CRM Sync & API Integration

**Purpose:** Prove the system can integrate with an external CRM or SaaS platform even when a native Zapier action is unavailable.

| Step | Node / Logic |
|---|---|
| 1 | **Detect Lead Ready for CRM Sync** - watches the central table for sync-ready records. |
| 2 | **Validate CRM Sync Eligibility** - prevents premature or repeated synchronization. |
| 3 | **Build CRM API Payload** - Code by Zapier transforms internal fields into a structured external payload. |
| 4 | **Send Lead to External CRM API** - Webhooks by Zapier performs an HTTP POST with **Content-Type: application/json**. |
| 5 | **Mark Lead as CRM Synced** - updates the same record after the API test succeeds. |

- Portfolio test endpoint: **Postman Echo**. The response successfully echoed the transmitted JSON, confirming request structure and field transmission.
- Payload includes Lead ID, contact information, company information, service interest, score, priority, AI Summary, Recommended Action, and source-system metadata.
- Final tracking fields: **CRM Sync Status = Synced**, **CRM Synced At = Current time**, and **External CRM ID** stores the external/reference identifier.
- For a production CRM, authentication, endpoint URL, required schema, response validation, retries, and error handling would be adapted to the target API.

## Key Field / State Map

| Field Group | Important Fields / Purpose |
|---|---|
| Identity | Lead ID, Zapier Tables Record ID, Email |
| Lead Profile | Full Name, Phone, Company Name, Company Domain, Job Title, Service Interest, Budget Range, Start Timeline, Goals / Challenges |
| AI Intelligence | AI Qualification, Business Need, Intent Level, Service Fit, Buying Readiness, AI Summary, Recommended Action |
| Scoring | Lead Score, Lead Priority, Scoring Reason |
| Lifecycle State | Lead Status, Routed At, Last Follow-Up At, Follow-Up Count |
| Integration State | CRM Sync Status, CRM Synced At, External CRM ID |
| Audit | Created At, Updated At, AI Qualified At, Scored At |

## Implementation & Testing Notes

- **Zapier action tests can mutate real table data.** Before testing Update Record steps, verify the selected Record ID and understand which state fields will change.
- Preserve existing fields when using Tables Update Record unless the action is intentionally changing them; use the trigger's current **(new)** values.
- Use filters and milestone timestamps as idempotency controls so updates created by one module do not unintentionally retrigger completed stages.
- Keep workflow names outcome-oriented and client-readable. The seven-module structure makes troubleshooting, explanation, reuse, and future upselling easier.
- Production hardening opportunities: explicit API error branch, retry/dead-letter handling, response-ID parsing, CRM upsert logic, opt-out controls, email deliverability monitoring, and analytics/reporting.

**Workflow Note Summary:** Project 046 demonstrates a complete Zapier-native lead lifecycle: clean intake -> AI qualification -> deterministic scoring -> priority routing -> multi-stage nurture -> no-response recovery -> external CRM/API synchronization, with Zapier Tables maintaining shared state across all seven modules.