Real Estate Lead Management System - Detailed Timeline (100 Hours)

Overview & Summary

This document provides a 100-hour timeline for implementing an AI-powered lead management system for a real estate business. The goal is to capture high-quality leads from digital campaigns and manage them efficiently through a WhatsApp-integrated workflow using Gallabox. Four specialized AI agents **Qualifier**, **Scheduler**, **RAG (Q&A)**, and **CRM Update** will enhance the process, with **n8n** orchestrating automations and a **CRM** maintaining centralized lead data.

The system will streamline lead qualification, visit scheduling, proposal generation, and specific scenario handling, ensuring brokers can close deals effectively.

Key Objectives:

- Integrate WhatsApp via Gallabox for lead communication.

- Automate workflows with n8n and four AI agents.

- Synchronize lead data with a CRM for efficient management.

Tools Used:

- **Gallabox**: WhatsApp communication.

- **n8n**: Workflow orchestration.

- **CRM**: Centralized lead management (e.g., HubSpot, Salesforce, Zoho).

- **Calendly/Cal.com or Google Calendar (only one of these)**: Scheduling visits.

- **Knowledge Base**: RAG Agent support (e.g., Pinecone, Supabase).

Real-Life Scenario

Imagine a lead, John, clicking a Facebook ad for a new apartment complex. He's redirected to WhatsApp, where the system engages him:

- **Qualifier Agent**: "Hi John! Are you looking for a 1-bedroom or 2-bedroom apartment?"
  John: "2-bedroom."
  Qualifier Agent: "Great! What's your preferred location and budget?"
  John: "Downtown, around $300,000."
  The agent qualifies John based on his responses.

- **Scheduler Agent**: "We have visit slots on Monday at 10 AM or Wednesday at 2 PM. Which works for you?"
  John: "Monday at 10 AM."
  The agent books the slot and sends reminders.

- **RAG Agent**: John asks, "Does the apartment have a gym?"
  The agent replies, "Yes, there's a fully equipped gym on-site," using the knowledge base.

- After the visit, the broker generates a proposal from the CRM, shares it via WhatsApp, and John accepts.
  The **CRM Update Agent** marks the lead as "Sold" in the CRM.

Phase 1: AI Engine Development & Setup (34 Hours)

Module 1: Initial Setup and Integration

- **Task 1.1**: Set up Gallabox and integrate with WhatsApp Business API (4 Hours)
  - Configure Gallabox for WhatsApp communication.
  - *Tools*: Gallabox platform.

- **Task 1.2**: Configure n8n for workflow automation (4 Hours)
  - Set up n8n to orchestrate AI agents and integrations.
  - *Tools*: n8n.

Module 2: AI Agents Development

Note that these agents will be general prototypes and more tools discussed below will be integrated with them

- **Task 2.1**: Develop Qualifier Agent (7 Hours)
  - Build conversational flow to qualify leads (e.g., preferences, budget).
  - *Tools*: NLP tools (e.g., Dialogflow, OpenAI API).

- **Task 2.2**: Develop Scheduler Agent (7 Hours)
  - Implement scheduling logic with Calendly integration and reminders.
  - *Tools*: NLP tools, Calendly API.

- **Task 2.3**: Develop RAG Agent (7 Hours)
  - Set up Q&A functionality with a knowledge base for property details.
  - *Tools*: NLP tools, knowledge base (e.g., Pinecone).

- **Task 2.4**: Develop CRM Update Agent (5 Hours)
  - Create logic to sync conversation data with the CRM.
  - *Tools*: NLP tools, CRM API.

Acceptance Criteria:

- Gallabox and n8n are fully configured.

- All four AI agents are operational and integrated with WhatsApp and CRM.

Phase 2: Lead Management and Transfer (17 Hours)

Module 3: CRM Integration and Automation

- **Task 3.1**: Set up CRM integration with n8n (3 Hours)
    - Connect n8n to the CRM via API for data transfer.
    - *Tools*: CRM API (e.g., HubSpot API).
- **Task 3.2**: Develop automation to import leads into CRM (7 Hours)
    - Automate lead import from WhatsApp conversations.
    - *Tools*: n8n, CRM API.
- **Task 3.3**: Implement lead distribution logic (4 Hours)
    - Create round-robin or rule-based assignment to brokers.
    - *Tools*: n8n or CRM api.
- **Task 3.4**: Set up real-time notifications for brokers (3 Hours)
    - Send instant alerts for new leads or actions.
    - *Tools*: n8n, notification service.

Acceptance Criteria:

- Leads are imported and distributed accurately.
- Brokers receive real-time notifications.

Phase 3: Visit Scheduling (11 Hours)

Module 4: Scheduling Functionality

- **Task 4.1**: Integrate Calendly with n8n and Scheduler Agent (2 Hours)
    - Link Calendly , Cal.com or google calendar (only one of these depending upon the further integration) for slot availability.
    - *Tools*: Calendly API, n8n.
- **Task 4.2**: Develop logic for proposing available slots (4 Hours)
    - Enable Scheduler Agent to suggest times based on broker availability.
    - *Tools*: n8n.
- **Task 4.3**: Implement confirmation mechanism via WhatsApp (3 Hours)

- o Confirm visits with clients through Gallabox.
- o *Tools*: Gallabox, n8n.
- **Task 4.4**: Set up automatic reminders (2 Hours)
  - o Send reminders to clients and brokers.
  - o *Tools*: n8n, Gallabox.

Acceptance Criteria:

- Clients can book and confirm visits via WhatsApp.
- Reminders are sent automatically.

Phase 4: Proposals (19 Hours)

Module 5: Proposal Generation and Tracking

- **Task 5.1**: Set up proposal templates in CRM (2 Hours)
  - o Create reusable templates for brokers.
  - o *Tools*: CRM.
- **Task 5.2**: Develop functionality for brokers to generate proposals (5 Hours)
  - o Enable proposal creation from CRM data.
  - o *Tools*: CRM API, n8n.
- **Task 5.3**: Integrate proposal sharing via WhatsApp and email (4 Hours)
  - o Share proposals through multiple channels.
  - o *Tools*: Gallabox, email service.
- **Task 5.4**: Implement AI to track responses and assist in negotiations (6 Hours)
  - o Use AI to monitor replies and suggest follow-ups.
  - o *Tools*: n8n or NLP tools.
- **Task 5.5**: Update lead status based on proposal acceptance (2 Hours)
  - o Mark leads as "Sold" or "Lost" in CRM.
  - o *Tools*: CRM API, n8n.

Acceptance Criteria:

- Proposals are generated and shared seamlessly.
- Lead status updates reflect client responses.

Phase 5: Handling Specific Scenarios (11 Hours)

Module 6: Special Case Automations

- **Task 6.1**: Develop automation for inactive lead reactivation or archiving (4 Hours)

  - Trigger drip campaigns or archive leads after inactivity.

  - *Tools*: n8n, CRM API.

- **Task 6.2**: Implement logic for reassigning leads if brokers are unresponsive (3 Hours)

  - Reassign leads based on response time rules.

  - *Tools*: n8n.

- **Task 6.3**: Set up targeted campaigns for declined leads (4 Hours)

  - Engage "Lost" leads with tailored messaging.

  - *Tools*: n8n, marketing tools.

Acceptance Criteria:

- Inactive, unresponsive, and declined leads are managed automatically.

Phase 6: Testing and Deployment (8 Hours)

Module 7: Final Testing and Deployment

- **Task 7.1**: Test all functionalities (5 Hours)

  - Validate workflows, integrations, and AI performance.

  - *Tools*: Testing frameworks, manual testing.

- **Task 7.2**: Deploy the system (3 Hours)

  - Launch on a cloud platform i.e n8n cloud or specialized docker for n8n.

  - Simulating a little real life scenario.

  - *Tools*: Cloud platform (e.g.,n8n , AWS).

Acceptance Criteria:

- System passes all tests and is fully operational.

- Deployment is stable and scalable.

Final Summary (100 Hours)

Phase	Module	Task	Time (Hours)	Tools

Phase 1	Initial Setup	Set up Gallabox and WhatsApp integration	4	Gallabox
		Configure n8n	4	n8n
	AI Agents Development	Develop Qualifier Agent	7	NLP tools
		Develop Scheduler Agent	7	NLP tools, Calendly API
		Develop RAG Agent	7	NLP tools, knowledge base
		Develop CRM Update Agent	5	NLP tools, CRM API
Subtotal			34	
Phase 2	CRM Integration & Automation	Set up CRM integration	3	CRM API
		Develop lead import automation	7	n8n, CRM API
		Implement lead distribution logic	4	n8n
		Set up notifications	3	n8n, notification service
Subtotal			17	
Phase 3	Scheduling Functionality	Integrate Calendly	2	Calendly API, n8n
		Develop slot proposal logic	4	n8n
		Implement confirmation mechanism	3	Gallabox, n8n
		Set up reminders	2	n8n, Gallabox
Subtotal			11	
Phase 4	Proposal Generation	Set up proposal templates	2	CRM

		Develop proposal generation functionality	5	CRM API, n8n
		Integrate proposal sharing	4	Gallabox, email service
		Implement AI response tracking	6	NLP tools
		Update lead status	2	CRM API, n8n
Subtotal			19	
Phase 5	Special Case Automations	Inactive lead automation	4	n8n, CRM API
		Lead reassignment logic	3	n8n
		Declined lead campaigns	4	n8n, marketing tools
Subtotal			11	
Phase 6	Testing & Deployment	Test all functionalities	5	Testing tools
		Deploy the system	3	Cloud platform
Subtotal			8	
Total			100 Hours	

Additional Notes

- **Assumptions**:

  - The CRM provides a robust API for integration.

  - AI agents leverage existing NLP platforms to minimize development time.

  - The knowledge base for the RAG Agent is provided or quickly set up.

  - User training is minimal and handled separately.

- **Dependencies**:

  - Access to Gallabox, n8n, CRM, and Calendly/Cal.com/Google Calendar credentials.

o   Predefined property data for the RAG Agent's knowledge base.

- **Considerations**:

    o   Scalability is ensured through cloud deployment.

    o   Performance targets: Responses within 2-5 seconds for most interactions.

This timeline ensures a balanced distribution of effort, delivering a fully functional system within 100 hours while meeting the client's requirements efficiently.