Real Estate Land Sales and Home Security Automation n8n Workflow

This workflow integrates real estate land sales data with a home security system, allowing for automated actions based on property status changes and security events. The home security aspect will leverage integration with a home automation platform like Home Assistant, which then interfaces with various sensors and alarms.

Workflow Overview

1. **Trigger (Real Estate):** Detect a change in property status (e.g., land sold, new listing).
2. **Trigger (Security):** Detect a security event (e.g., camera motion, heat sensor anomaly, alarm trigger).
3. **Process Real Estate Data:** Extract relevant property information.
4. **Process Security Event:** Identify the type and severity of the security event.
5. **Automated Actions:** Perform actions based on combined real estate and security data (e.g., arm/disarm system, send notifications, log events).

Detailed Steps and Suggested Tools

Phase 1: Trigger (Real Estate)

- **Option A: Real Estate API Polling:**
  - **n8n Node:** `Cron` + `HTTP Request` (for Real Estate API)
  - **Description:** Periodically query a real estate API (e.g., Zillow API, Realtor.com API, or a local MLS API if available) for updates on property listings or sales. You'll need to track previously processed listings to identify new sales or status changes.
- **Option B: Web Scraping (Less Reliable):**
  - **n8n Node:** `HTTP Request` + `Cheerio` or `HTML Extract`
  - **Description:** Scrape real estate websites for changes. This is generally less reliable due to website structure changes and can be against terms of service. Use only if no API is available.

Phase 2: Trigger (Security)

This phase relies on an intermediary home automation platform like Home Assistant.

- **n8n Node:** `Webhook` (from Home Assistant) or `MQTT` (if Home Assistant publishes events via MQTT)
- **Description:** Configure Home Assistant to send webhooks to n8n when specific security events occur. Examples:
  - **Camera Motion:** Home Assistant detects motion from a connected camera and sends a webhook to n8n.
  - **Heat Sensor:** A heat sensor detects an unusual temperature rise and Home Assistant triggers a webhook.
  - **Alarm Trigger:** The home security alarm system (integrated with Home Assistant) is triggered, and Home Assistant sends a webhook.

Phase 3: Process Real Estate Data

- **n8n Node:** `Set`, `IF`, `Code` (JavaScript/Python)
- **Description:** Parse the data received from the real estate trigger. Extract key information such as property ID, address, sale status, sale price, and date. Use `IF` nodes to check for specific conditions (e.g., `status ==

sold" or `new_listing == true`).

Phase 4: Process Security Event

- **n8n Node:** `Set`, `IF`, `Code` (JavaScript/Python)
- **Description:** Parse the data received from the security trigger (Home Assistant webhook). Identify the type of event (motion, heat, alarm), the sensor/device that triggered it, and any associated data (e.g., camera snapshot URL, temperature reading).

Phase 5: Automated Actions

This phase combines information from both real estate and security triggers to perform intelligent actions.

- **n8n Nodes:** `IF`, `HTTP Request` (to Home Assistant API), `Email`, `Telegram`, `Slack`, `Google Drive`

- **Description:**
    1. **Conditional Logic (`IF` Nodes):** Implement complex logic based on the combined state:
        - **Property Sold & Security Event:** If a property has just been sold, and a security event (e.g., motion detection) occurs, perhaps send a notification to the new owner or a property manager.
        - **New Listing & Security Event:** If a property is newly listed and a security event occurs, it might indicate a need for immediate attention (e.g., a break-in during an open house).
        - **Specific Sensor Trigger:** If a heat sensor detects an anomaly, trigger an alarm and notify emergency services (via Home Assistant integration).
    2. **Home Assistant Control (`HTTP Request` to Home Assistant API):** Send commands back to Home Assistant to control devices:
        - **Arm/Disarm Alarm:** Based on property status (e.g., disarm when a new owner moves in, arm when property is vacant).
        - **Activate Siren/Lights:** In case of an alarm trigger.
        - **Record Video:** Trigger camera recording when motion is detected.
    3. **Notifications:** Send detailed notifications to relevant parties:
        - **Email:** Send an email to the real estate agent, property owner, or security company with event details and camera snapshots.
        - **Telegram/Slack:** Send instant messages for critical alerts.
    4. **Logging/Archiving:**
        - **Google Drive/S3:** Upload camera snapshots or video clips to cloud storage for evidence or record-keeping.
        - **Database:** Log all security events and associated real estate data for auditing and analysis.

Considerations

- **Home Assistant Setup:** A robust Home Assistant setup is crucial, with all security devices (cameras, sensors, alarms) properly integrated and configured to send events.
- **API Keys & Authentication:** Securely manage API keys for real estate APIs and Home Assistant. Home Assistant typically uses a Long-Lived Access Token for API access.
- **Privacy:** Be mindful of privacy concerns, especially with camera footage. Ensure proper consent and data handling procedures.
- **Emergency Services Integration:** Direct integration with emergency services (police, fire) is highly sensitive and typically requires specialized, certified systems.

This workflow would primarily focus on notifications to human operators who can then contact emergency services.

- **False Positives:** Implement logic to minimize false alarms from security sensors (e.g., combining multiple sensor inputs, using AI for object detection in camera feeds).
- **Scalability:** For managing multiple properties, ensure the workflow can scale to handle numerous triggers and actions concurrently.

This workflow provides a comprehensive framework for integrating real estate and home security, offering automated responses to various scenarios.