

Hackathon - Solving Critical Painpoints for Law Firms with AI

1. Introduction

The Swans Applied AI Hackathon is designed to bring together builders, operators, and problem-solvers to tackle real operational challenges faced by modern law firms using practical AI and automation solutions. Swans works directly with personal injury law firms to build systems that streamline intake, automate administrative workflows, and accelerate case handling, enabling firms to operate faster, scale efficiently, and focus more time on delivering legal outcomes for their clients.

In this hackathon, participants step into the role of a Legal Engineer and are challenged to design and implement production-ready solutions that address high-impact workflow bottlenecks common across the legal industry. Rather than theoretical exercises, the competition focuses on building deployable prototypes that demonstrate clear business value – improving speed-to-lead, reducing manual administrative work, and creating seamless client onboarding experiences powered by AI.

Top submissions will showcase not only technical execution but also strong operational thinking: identifying real requirements, architecting scalable automation, and communicating the solution in a way that mirrors real client delivery scenarios. By the end of the challenge, participants will have built a tangible system that reflects the kind of practical, end-to-end AI implementations Swans deploys daily across leading personal injury law firms.

2. Context

In the Personal Injury sector, law firms provide critical legal representation to individuals who have suffered harm due to various incidents. These firms operate primarily on a **contingency fee** basis, meaning attorneys are only compensated if they successfully secure a settlement for the client. Because industry-standard fees are typically set at **33%** of the final settlement, firms do not compete on price; instead, one primary differentiator is "**speed-to-lead**" – the ability to quickly provide reassurance and secure a binding retainer agreement that establishes an exclusive attorney-client relationship.

Law firms that struggle with slow data entry, manual document generation, or delayed follow-ups risk losing high-value cases, as potential clients often contact multiple firms and will sign with the first one that provides a fast, professional, and seamless onboarding experience.

3. Instructions

You have hypothetically received an email from a new client, Andrew Richards, at *Richards & Law*, a high-profile Law Firm Owner in New York. He has a problem, something many law firms in the industry struggle with every day, and you must help him implement a solution.

Your objective is to play the role of a Legal Engineer @ Swans and:

- **Analyze** the client's request to identify stated and *unstated* requirements. While the client email will guide you, it will not explicitly spell out every technical step – part of this challenge is identifying and implementing all the necessary pieces on your own.
- **Architect and Build** a solution. Apart from the specific tools the client mentions (Clio Manage), you have the flexibility to use the stack that best solves the problem (e.g., Make.com, n8n, Lovable/AI Studio, LLMs, Custom Code).
- **Deliver** a working prototype and a persuasive explanation of your work. (details for the final delivery are outlined later)

4. The Client Email

Subject: Automating police reports & retainers?

Body:

"Good Morning!

Thanks for your help so far in streamlining our operations! I was hoping you could now help me tackle my biggest headache right now: We are losing potential clients because my team is simply too slow at entering data in Clio Manage. We usually receive these Police Reports from potential new clients right when they first contact us, before we even schedule a consultation ([here](#) you will find some examples from past clients). The problem is that by the time my paralegals open the file, read through the messy scanned text, and manually type every single detail into Clio Manage to create an agreement, the potential new client has often already called another firm to represent them. I need a solution where we can just automatically digest the PDF file and work much faster.

Basically, I want a system that reads the Police Report and pulls out all the critical info—specifically the details mentioned in the retainer agreement—and updates the already existing Matter in Clio Manage after the data is verified by someone in my team. Once the data is inside Clio, I don't want any manual steps. I want the Retainer Agreement to be generated and stored immediately in Clio Manage with those accident details and the parties involved already pre-filled. I've tried to make it work before with Clio Manage's document automation feature and merge fields with conditional logic, but I'm not sure how it works – maybe you'll have more luck with that. Here is a [copy of a retainer agreement template](#) we used to use with some notes I added – it should help you format your own template for the automation. I would also love to have the Statute of Limitations date

calendared 8 years after the accident date of this case automatically in the Responsible Attorney's calendar in the Clio Manage Matter.

After that, it's important that the potential new client gets a warm, personalized email that references what happened to them and when, briefly referencing the accident description. Additionally, I want the retainer agreement attached as a PDF so they can look it over before we meet. In that same email, I want them to have a link to book a consultation – but it's important that the link changes depending on the season. From March to August, it should take them to our [in-office scheduling link](#), and from September to February, it should take them to the [virtual scheduling link](#).

I've attached a few sample Police Reports for you to test with; if we can get this running, it will save us hours per case and fix our speed-to-lead problem. Please let me know as soon as you have a working demo for us to test it out!

Andrew Richards @ Richards & Law

4. Expected Delivery

When you are ready to deliver your case study, you will send **three separate emails on the same day. Only one submission for each email will be evaluated.**

Email #1 – Manual Submission Email to “the Client/Andrew” (sent by you)

Send to talent.legal-engineer.hackathon.client-email@swans.co:

- Write this email as if you are the **legal engineer** delivering the completed automation to the fictional client in the case study (Andrew). The email should:
 - Showcase how you would manage this conversation in a real scenario
 - Offer to meet at a specific time next Friday morning to review feedback
 - Provide a video or visual materials to help showcase your solution to Andrew

When writing your submission to Andrew, you must adopt the mindset of a **strategic partner**. A winning submission will translate complex workflows into **clear business value** for the law firm owner. Success is defined by a professional tone and **clarity**.

Email #2 – Manual Submission Email to us (sent by you)

Send to talent.legal-engineer.hackathon.submission-email@swans.co:

- **Subject:** Legal Engineer Hackathon Submission - [Your Name]
- This email is addressed to **us** for evaluation purposes. Include:
 - A **15 min** (maximum) **Video Link** (sharing screen + webcam) including:
 - A walkthrough of the flow behind your submission and everything it does. Include any issues you encountered and any assumptions used.

- Include your perspective on the high-level implications you envision for this build post-deployment.
- **The file(s)** of your final automation blueprint(s). [e.g. JSON]
- **The link to your AI App/Workflow.** We must be able to access it and test how well it digests one randomly selected police report from [this folder](#).

The submission to the Swans team is your opportunity to demonstrate your technical **“Legal Engineer” mindset** through a transparent architectural walkthrough. We are looking for a comprehensive explanation of how your entire system is connected. Your evaluation will depend on your ability to showcase the solution transparently, explaining how you ensured a production-ready system. Use this space to justify decision-making, and any assumptions you made in creating your prototype.

Email #3 – Automatic Submission Email (sent by your automation)

Send to talent.legal-engineer.hackathon.automation-email@swans.co:

- An **Email** with the output of your automation; meaning the email that is sent to the Contact associated with the matter that triggered your solution.
 - Use the email above as the email of the Contact/Potential New Client associated with the already existing matter in Clio Manage.
 - This email should include everything that Andrew highlighted as important for his Potential New Client to receive.
 - Only **one email** sent by your automation will be evaluated.

[Example of all expected outputs.](#)

5. Clarifications

- You are expected to create a new free account in Clio Manage ([US region](#)) via [this link](#) for this case study and build it as if it was the account of Andrew. This means:
 - Creating new custom fields to store the case details needed for the retainer agreement.
 - Creating a new Matter and Contact with [this email](#) as the email of the existing Potential New Client.
- Before receiving the Police Report, the only information the firm has in a Clio Manage Matter about the case is:
 - Matter Fields:
 - Responsible Attorney = Andrew Richards
 - Contact Associated to the Matter as the Potential New Client:
 - First Name
 - Last Name
 - Email

- Please note that the Client's Email Address is not contained within the police report PDF. In this scenario, the email is one of the few pieces of information the firm collects prior to receiving the police report. You must assume that the Client Contact associated with the Matter already exists in the system with the following email address: talent.legal-engineer.hackathon.automation-email@swans.co
- For your final delivery, please demonstrate your solution using the Police Report of "GUILLERMO_REYES_v_LIONEL_FRANCOIS". However, be aware that your final solution must be capable of processing any of the provided reports [here](#), not only the "GUILLERMO_REYES_v_LIONEL_FRANCOIS" file.
- The Retainer Agreement MUST be generated using Clio Manage's document automation feature.
- Videos in your final submission can be shared as a Loom, Google Drive file or any other format that enables you to showcase your solution and explain everything that's required above.
- Please send all of your submission emails using the same email address.
- You are expected to work independently without additional guidance from us. To ensure a successful submission, please pay careful attention to all instructions and details. If you have any doubts, feel free to make your own assumptions – just be sure to clearly explain them in your video walkthrough. Only if absolutely necessary, you may email hackathon@swans.co with your questions, using the subject line: "Hackathon Question: [Your Name]".