Tech Test: Interactive R&D Claim Pre-Notification Flow

Objective
Develop an interactive R&D Claim Pre-Notification (PNF) Tool similar to the tools available on Queen's Lane Consultants, such as:
- R&D Tax Credit Calculator - https://queenslc.com/resources/r-and-d-tax-credit-calculator/
- Enquiry Risk Calculator - https://queenslc.com/resources/enquiry-risk-calculator/

This tool will guide users through a series of questions and determine whether they need to prenotify HMRC (PNF) for their R&D claim.

Requirements
1. Use vanilla JavaScript, HTML, and CSS.
2. Must be interactive and user-friendly, dynamically showing/hiding questions based on responses.
3. Date-based logic must be implemented correctly.
4. Outputs must be either "PNF Required" or "No PNF Required."
5. Must be designed to fit seamlessly within a webpage, with a style and layout similar to tools on the Queen's Lane website.

Question Flow
The logic follows the decision tree outlined in the provided diagram.
Step 1: Have you claimed for R&D relief before?
- Yes → Move to Step 2.
- No → PNF Required.

Step 2: On what date did you file the last claim?
- User inputs a date (DD/MM/YYYY).
- Move to Step 3.

Step 3: Enter the start and end dates of the accounting period for the last claim.
- User inputs Start Date and End Date.
- The script checks:
  - If the Claim Period (CP) started before April 1, 2023 → Move to Step 4.
  - If the Claim Period (CP) started after April 1, 2023 → No PNF Required.

Step 4: Was the claim filed as an amended tax return or with the original submission?
- Amended Submission → Move to Step 5.
- Original Submission → No PNF Required.

Step 5: Have you ever claimed before this?
- Yes → Move back to Step 3 to input previous claim data.
- No → PNF Required.

Claim Notification Period Calculation

The Claim Notification Period is defined as:

1. Starts on the first day of the Period of Account.
2. Ends 6 months after the Period of Account ends.

*Assume all accounting periods are 1 year.

Example, for a company with a March 2024 year-end, the claim notification period is 1st April 2023 to 30th September 2024. The relevant period for Step 2 in the diagram is 3 years before the CNP end date, so applies to claims made from 1st October 2021 to 30th September 2024.
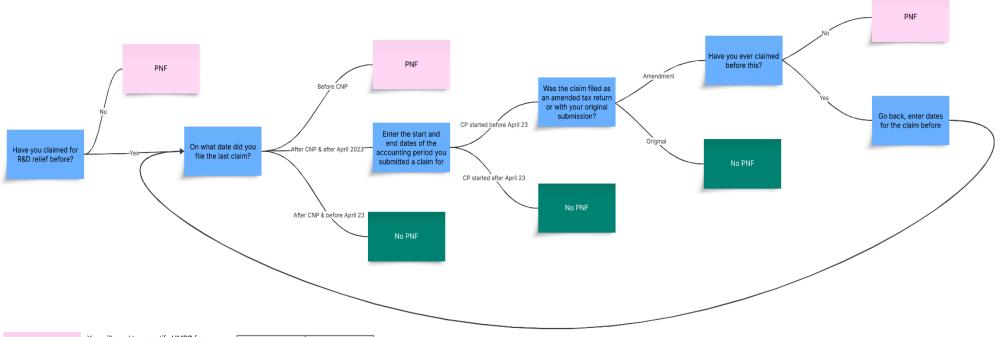
Implementation Guide

1. HTML Structure
   - Create a structured form with dynamic fields that appear/disappear based on user responses.
2. JavaScript Logic
   - Capture user responses.
   - Implement date-based conditions using JavaScript Date objects.
   - Dynamically show or hide relevant questions.
   - Calculate and display PNF Required or No PNF Required.
3. CSS Styling
   - Apply simple and clean styling to maintain consistency with Queen's Lane Consultants's existing tools.
   - Ensure a responsive layout that works on desktop and mobile.

Expected Deliverable

Develop a functional HTML, CSS, and JavaScript tool that:
   - Follows the logic outlined above.
   - Looks and functions similarly to existing calculators.
   - Provides clear results: "PNF Required" or "No PNF Required."
   - Is self-contained and embeddable in a webpage.

Flowchart

Have you claimed for R&D relief before?

- **No** → PNF
- **Yes** → On what date did you file the last claim?

On what date did you file the last claim?

- **Before CNP** → PNF
- **After CNP & after April 2023** → Enter the start and end dates of the accounting period you submitted a claim for
- **After CNP & before April 23** → No PNF

Enter the start and end dates of the accounting period you submitted a claim for

- **CP started before April 23** → Was the claim filed as an amended tax return or with your original submission?
- **CP started after April 23** → No PNF

Was the claim filed as an amended tax return or with your original submission?

- **Amendment** → Have you ever claimed before this?
- **Original** → No PNF

Have you ever claimed before this?

- **No** → PNF
- **Yes** → Go back, enter dates for the claim before

Legend

PNF — You will need to prenotify HMRC for your next R&D claim. For [Next Claim Period] , you need to submit the prenofication form by [End of CNP]. Click here to use our handy tool!

No PNF — You do not need to submit a prenofication form to HMRC for your next claim. However, if you would like to anyway you can use our tool here!

Date Type	Source
Year end	Monthly Dropdown
Available Claim Periods	Calculate from YE
Claim Notification Period	Calculate from ACP