Take-Home Exam - Solution Engineering

Objective: Thanks for taking the time to work on this take-home. Our goal is to assess your technical problem-solving skills, your ability to work with the Dynamic SDK, and how you communicate in a customer-facing role. If anything is unclear, feel free to reach out with questions - we're happy to help.

Section 1: Demo and Responding to a customer

You received the following message from Jeff, a representative from a large enterprise prospect currently evaluating Dynamic:

Message from Jeff:

My team heard some great things about Dynamic, but we have quite a bit of issues (see the note below that I got from my team). We would really like some guidance on how to approach these. **A demo app would help! Can you build us one, please?** This would allow us to evaluate how easy it is to use Dynamic while we are still evaluating you.

Issues:

1. They need to mint NFTs using Dynamic's embedded wallet.
2. They want to be able to offer their service on as many chains as Dynamic can offer.
3. They do not understand how account abstraction with Dynamic works, but it sounds like a good idea because…what are gas fees?! (Their end users probably do not know, either.)

4. They want to make sure user security is clear and that users can add additional security to their account.
5. They want it to be really clear how to send money.

Task:

Your task is to create a demo app/environment that addresses the issues mentioned by Jeff's team. The demo should be functional, easy to understand, and something the customer can reference as they evaluate Dynamic.

Instructions:

1. Set up the Dynamic SDK locally in a React application.
2. Develop solutions to address each of the issues mentioned:
    a. Explain account abstraction and how it handles gas fees.
    b. Implement and demonstrate adding MFA or other security for users.
    c. Explain how it works.

Deliverables:

1. **A functional demo environment** that addresses the customer's concerns.
2. **A short recorded Loom video** demonstrating how the demo works and explaining key aspects to Jeff, the customer.

Instructions:

Submit your code changes via a GitHub repository (please include clear commit messages).

- Include a README file explaining the setup process, the issues, and how you addressed them.
- Prepare a live demo you could walk the team through on a panel

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Section 2: Communication

Draft a technical response message to this customer. The message should be informative, friendly, and tailored for a technical audience. The message should be drafted like you would be sending it in Slack as that is the primary form of communication we use. It should include any relevant material from the demo or other places you suggest would be valuable

Deliverables:

1. **A concise, professional message** that highlights key information the customer needs.
2. **FAQs** Prepare a list of questions and answers that you believe would be helpful for Jeff as he goes deeper with our product. This can be based on your learnings from using the product.

Section 3: Efficiency and Process

Draft a very brief write up (paragraph with a few bullets) of how you would go about expediting your next set of customers - whether that would be using specific AI tools; building sample apps etc.

What are 3 things you would do to ensure you make the next set of customers have a better experience and a more efficient process?