

Redwood Materials Back End Take Home

Overview:

Redwood Materials buys end-of-life batteries from customers who would like to dispose of them. These customers interact with a custom web application to provide pickup details and information about the battery (weight, location, etc.) so they can receive a quote. Please design and implement an HTTP API to act as the back end for this web application by storing customer pickup information, providing battery quotes, and accepting a pricing rules document to inform how quotes are generated.

This assignment is intentionally open-ended, and you'll need to make lots of assumptions about how such a real system should work – that's part of the fun! Please use your best judgment to inform things like which fields to include in various requests, how the pricing rules document should work, and handle error conditions in a sensible way.

Please focus on writing code in such a way that it is easy to maintain and extend to add additional functionality. You don't need to worry about data persistence between server restarts, but please manage data in an orderly and extensible way.

Please shoot to spend no more than 5 hours on this take home. Please email your results to brice@redwoodmaterials.com and nicka@redwoodmaterials.com when you're finished.

Details:

Your server should allow for the following functionality:

- Receive and send information about a given battery pickup (standard form POST and GET resource). Include the fields you think would be important for facilitating battery pickup.
- Accept a document (JSON for example) which provides rules relating to different battery qualities that inform how much Redwood is willing to pay for the battery.
- Calculate and send a quote for a given battery pickup and provide functionality for the customer to accept the quote and agree to the transaction.

Please provide a test or demo script which demonstrates the functionality of your API implementation.

You don't need to worry about authentication, data persistence between server restarts, or payment details, but you're not prohibited from adding anything useful that you would like to.

Please feel free to include anything else that you feel would be helpful to the folks who will evaluate your system.