Project Participants:

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Title:

Accounting WebApp

Executive Summary:

The Accounting WebApp is a project intended to provide accounting functionality through a web application. The goal is to allow users to manage products, create invoices, and track transactions. The web application will have a database design that includes entities such as Products, Invoices/Cart, and Invoice Items/Cart Items.

Initial Features:

- As a customer, I want to be able to add an item to an open invoice, so that I can purchase it.
  POST /invoices/{invoice_id}/items

- As a customer, I want to be able to modify the quantity of a product on an invoice so that I can get more or less as needed.
  PUT /invoices/{invoice_id}/{product_id}

- As an owner, I want to be able to make an invoice as closed so that no more items can be added to a processed or completed order.
  PUT /invoices/{invoice_id}/close
  /invoices/{invoice_id} { state: 'fulfilled' }

Example of list of Features/Endpoints for a Library API:

- Product:
  - Create a new product (POST /products)
  - Retrieve all products (GET /products)

    - Retrieve a specific product (GET /products/{product_id})
    - Update a product (PUT /products/{product_id})
    - Delete a product (DELETE /products/{product_id})
- Customer:
    - Create a new customer (POST /customers)
    - Retrieve all customers (GET /customers)
    - Retrieve a specific customer (GET /customers/{customer_id})
    - Update a customer (PUT /customers/{customer_id})
    - Delete a customer (DELETE /customers/{customer_id})
- Invoice:
    - Create a new invoice (POST /invoices)
    - Retrieve all invoices (GET /invoices)
    - Retrieve a specific invoice (GET /invoices/{invoice_id})
    - Update an invoice (PUT /invoices/{invoice_id})
    - Delete an invoice (DELETE /invoices/{invoice_id})
- CustomerInvoice:
    - Assign a customer to an invoice (POST /customer-invoice)
    - Retrieve all invoices for a specific customer (GET /customers/{customer_id}/invoices)
    - Retrieve all customers for a specific invoice (GET /invoices/{invoice_id}/customers)
    - Update the relationship between a customer and an invoice (PUT /customer-invoice/{customer_id}/{invoice_id})
    - Remove the relationship between a customer and an invoice (DELETE /customer-invoice/{customer_id}/{invoice_id})
- Invoice Item:
    - Add a product/item to an invoice (POST /invoices/{invoice_id}/items)
    - Retrieve all items on an invoice (GET /invoices/{invoice_id}/items)
    - Retrieve a specific item on an invoice (GET /invoices/{invoice_id}/items/{invoice_item_id})
    - Update the quantity of an item on an invoice (PUT /invoices/{invoice_id}/items/{product_id})
    - Delete an item from an invoice (DELETE /invoices/{invoice_id}/items/{product_id})

Stretch Goals (to be completed if time allows, or after graduation):

- Generate financial reports: Implement the functionality to generate financial reports such as balance sheets, income statements, and cash flow statements.

- Payment integration: Integrate a payment gateway to enable online payment processing for invoices.
- Multi-user support: Implement role-based access control to allow different levels of access for different users (e.g., admin, accountant, customer).
- Integration with accounting software: Explore integration options with popular accounting software to synchronize data between the web application and external accounting systems.
- Automated invoice reminders: Set up automated reminders for overdue invoices and send notifications to customers.
- Data analytics: Implement data analytics features to provide insights into financial trends, sales patterns, and customer behavior.