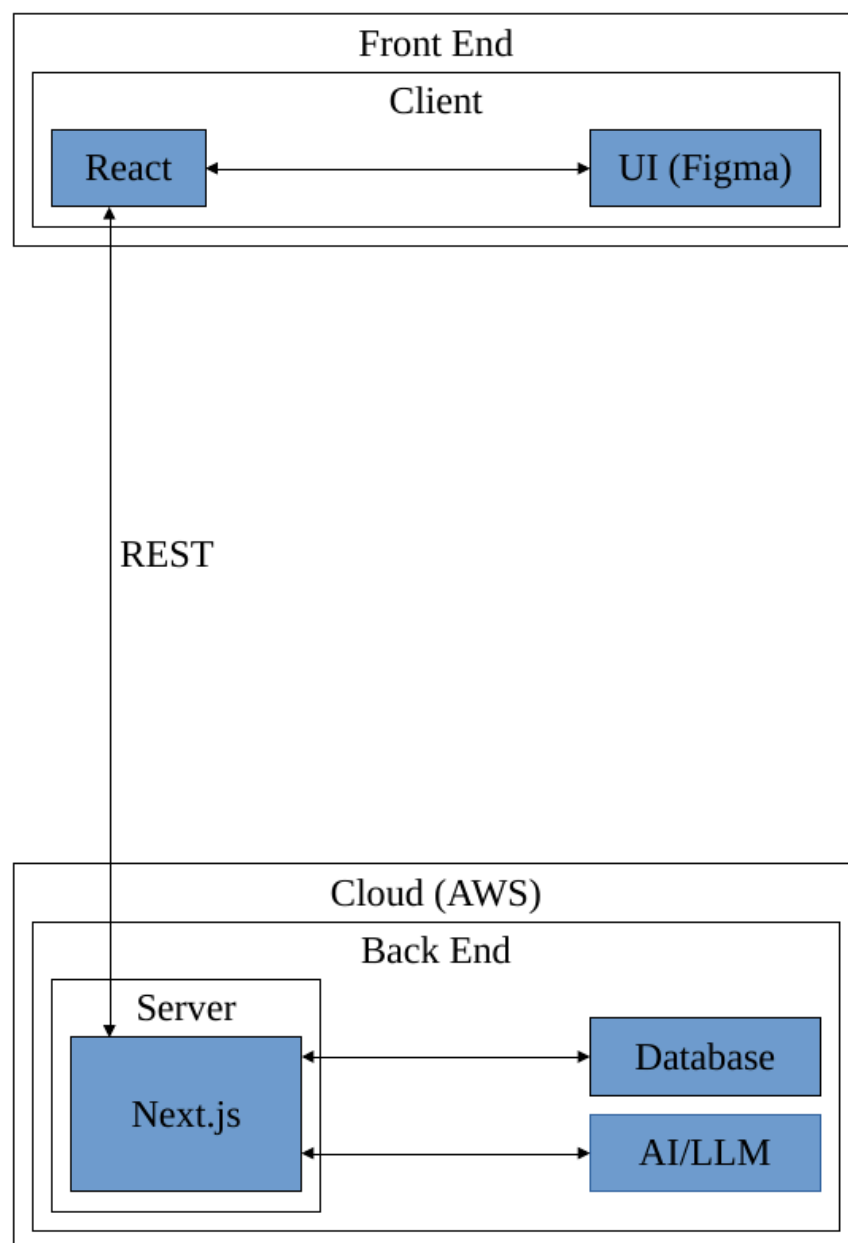


CS 4485 Team 1 - Weekly Report

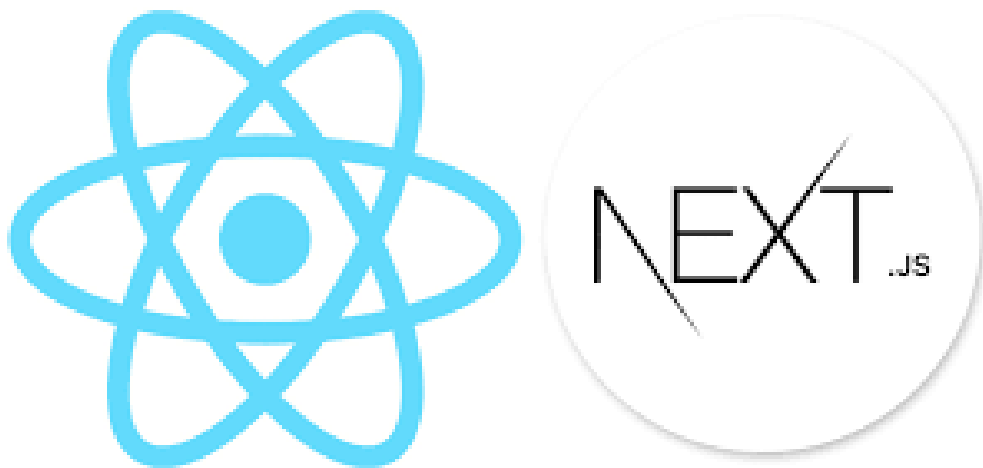
Friday, 02/20/2026

Jonathan Gruber (Leader) - Architectural Diagram



Notes

Cassandra Marquez - [API Contract](#)



Notes

Next.js is a better choice for this project because it lets us build the React UI and the backend API in a single application, which simplifies development, deployment, and demoing for a one page dashboard. We can still safely call OpenAI on the server, validate and normalize the AI output into a fixed schema, and return only clean, predictable data to the UI without exposing raw AI responses. We can still enforce strict DTO based validation using schema libraries.

Sophia Chau - Figma Dashboard



Notes

Marcelo Mejia - Mock Data

[Kaggle Set 1 - 4-Year Personal Finance Dataset](#)

| date | description | category | amount | type |
|-----------|-------------------|------------------|---------|---------|
| 1/2/2020 | Coffee Shop | Food & Drink | 28.88 | Expense |
| 1/2/2020 | Phone Bill | Utilities | 47.53 | Expense |
| 1/4/2020 | Rent Paid | Rent | 918.36 | Expense |
| 1/5/2020 | Pet Supplies | Investment | 108.5 | Income |
| 1/13/2020 | McDonald's | Food & Drink | 11.16 | Expense |
| 1/14/2020 | Target | Shopping | 205.84 | Expense |
| 1/18/2020 | Thai Restaurant | Food & Drink | 37.32 | Expense |
| 1/19/2020 | Other | Other | 25.58 | Expense |
| 1/21/2020 | Streaming Subsc | Entertainment | 40.42 | Expense |
| 1/25/2020 | Rent Paid | Rent | 918.36 | Expense |
| 1/25/2020 | Office Supplies | Health & Fitness | 99.27 | Expense |
| 1/26/2020 | Salary Received | Salary | 1082.96 | Income |
| 1/29/2020 | Target | Shopping | 224.12 | Expense |
| 1/30/2020 | Pet Supplies | Health & Fitness | 63.99 | Expense |
| 1/31/2020 | Thai Restaurant | Food & Drink | 13.57 | Expense |
| 1/31/2020 | Rent Paid | Rent | 918.36 | Expense |
| 1/31/2020 | Online Retail Ord | Shopping | 208.7 | Expense |
| 2/2/2020 | Office Supplies | Health & Fitness | 29.58 | Expense |
| 2/4/2020 | Train Ticket | Travel | 450.05 | Expense |
| 2/5/2020 | Rent Paid | Rent | 918.36 | Expense |

[Kaggle Set 2 - Personal Transactions Dataset](#)

| Date | Description | Amount | Transaction Type | Category | Account Name | Month |
|-------|---------------------|---------|------------------|---------------------|---------------|---------|
| ##### | Amazon | 11.11 | debit | Shopping | Platinum Card | 2018-01 |
| ##### | Mortgage Payment | 1247.44 | debit | Mortgage & Rent | Checking | 2018-01 |
| ##### | Thai Restaurant | 24.22 | debit | Restaurants | Silver Card | 2018-01 |
| ##### | Credit Card Payment | 2298.09 | credit | Credit Card Payment | Platinum Card | 2018-01 |
| ##### | Netflix | 11.76 | debit | Movies & Dvds | Platinum Card | 2018-01 |
| ##### | American Tavern | 25.85 | debit | Restaurants | Silver Card | 2018-01 |
| ##### | Hardware Store | 18.45 | debit | Home Improvement | Silver Card | 2018-01 |
| ##### | Gas Company | 45 | debit | Utilities | Checking | 2018-01 |
| ##### | Hardware Store | 15.38 | debit | Home Improvement | Silver Card | 2018-01 |
| ##### | Spotify | 10.69 | debit | Music | Platinum Card | 2018-01 |

Notes

Cleaned 4-Year Personal Finance Dataset - AI/Analytics Layer

- This will most likely be the primary dataset for training an AI budgeting tool in budgeting analytics and recommendations.
- It has a long time horizon which will be useful for modeling trends
- Has both income and expenses

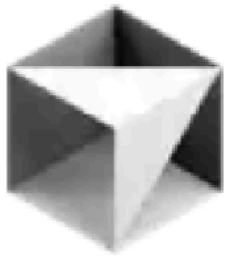
Preprocessing/Edits:

- All transactions labeled as “Salary” were corrected to be treated as Income.
- Salary amounts were changed to be consistent month-to-month, with small periodic increases to represent raises or promotions.
- Rent amounts were changed to be consistent month-to-month, with small annual adjustments to represent lease changes.
- The “Other” category was changed to have a mix of Income and Expense transactions.
 - ◆ Amounts in this category were rescaled so that “Other” would not disproportionately dominate total spending or income.
- The dataset originally came with gibberish in the transaction descriptions. This was replaced with realistic, category-appropriate descriptions (e.g., food, utilities, shopping, transportation).
- Salary and rent descriptions were changed to consistent labels (e.g., “Salary Received,” “Rent Paid”).
- “Other” transactions were labeled generically (“Other”).

Personal Transactions Dataset - Frontend/UI Demonstrations

- This dataset could be primarily used to seed the application UI with realistic transaction histories for demos and user interface development.
 - It supports testing of features such as transaction lists, category breakdowns, and dashboard visualizations.
-

Jonathan Strong - AI Tool Research



CURSOR

Notes

Cursor vs Claude

- Cursor:
 - Free tier includes code ai
 - Utilizes multiple models including claude
 - IDE with ai built in
 - Claude:
 - Autonomous coding and debugging
 - Can handle git operations
 - Multi-file understanding
 - References
 - <https://medium.com/@aadiyaubhat/claude-code-review-ed117fa662f2>
 - <https://www.builder.io/blog/cursor-vs-claude-code>
 - **AI/ML:** Cursor
 - Has a free tier that include code ai while claude doesnt
 - Utilizes an older version of claude
 - VS code like IDE makes it familiar and easy to use
 - <https://cursor.com/students>
 -
-