Budget.io

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Agenda

- Introduction
- Problem Definition
- Design Requirements
- Solutions
- Project Management
- Conclusion and Future Work

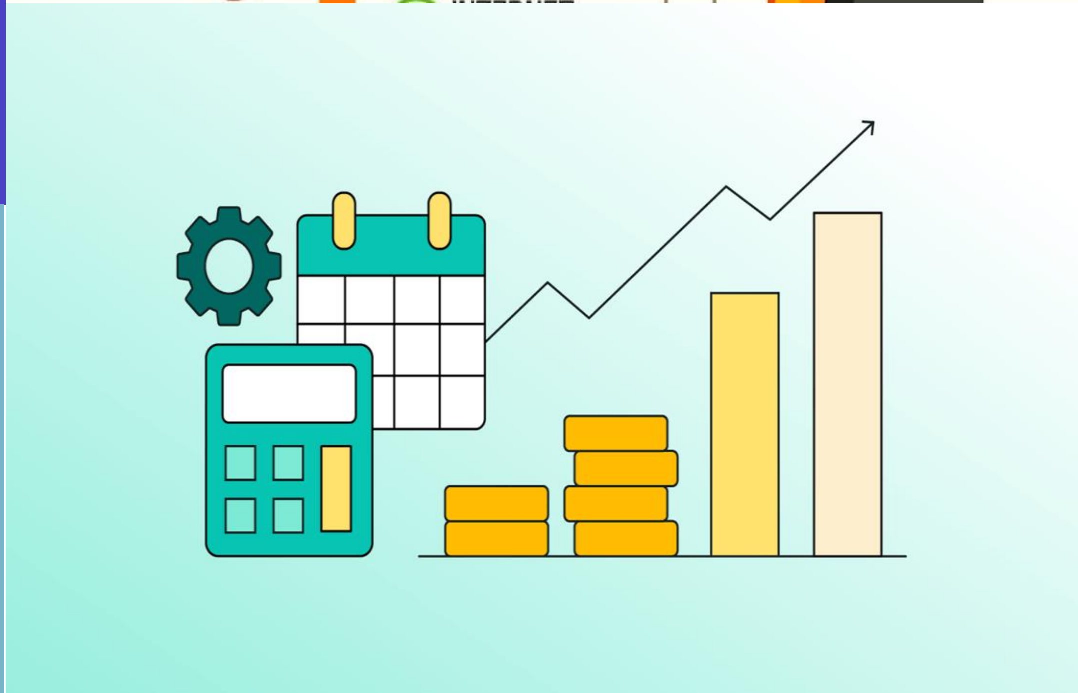
Introduction

In today's day and age, with rising grocery prices, easy access to fast food, online ads and subscription services offered everywhere it can be difficult to keep track of where money is being spent. Considering Canada's annual interest rate of 3.1%, Canadians use digital tools for budgeting to stay on top of their bills and monthly cashflow.

Budget.io is a website that was developed in hopes of being able to automate everything starting with income, budgets and transactions. Our vision was to leave almost nothing for the user to do.

Problem Definition

What is the problem we are trying to solve?



Problems and Solutions

- Simplified Data Entry (User Input)
  - The website allows easy input of financial data, such as expenses, income and savings, possibly through intuitive interfaces manually, or hypothetically by syncing with bank accounts.
- Real-Time Feedback (User Output)
  - The website provides real-time feedback on how expenses affect budget limits, saving goals, and overall financial health.
- User-driven Customization (User Input)
  - Allows users to customize categories, set their budgeting intervals, and create personalized financial plans.

Design Requirements

Functions

- Goal Tracking
- Budget Planning
- Integrating Financial Institutions
- Expense Tracking

Objectives

- Promote Financial Discipline and Literacy
- Facilitate Goal Achievement
- Ease of Financial Management

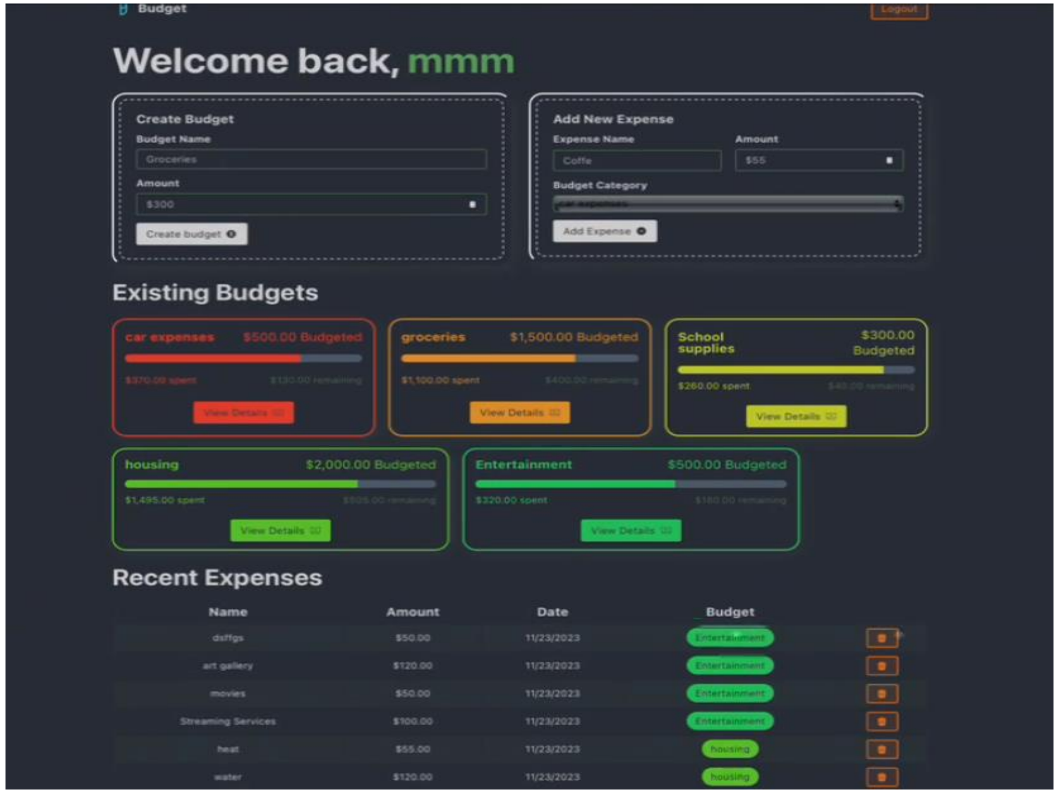
Design Requirements

Constraints

- Economic Factors
- User Interface and Experience
    - Balanced complexity and usability. Considering how this is a budgeting app, we made this a low floor website. The last thing a user needs to do is have a hard time figuring out how to use our product.
- User Privacy and Data Security
    - Passport was used to hash passwords.
- Reliability
    - Local host was used so this wasn't an issue. EJS and MongoDB are pretty straightforward. Countless tests were done to make sure functions work.
- Integration Challenge
    - For obvious reasons we are unable to connect with banks; therefore, we simulated financial management(MongoDB) with manually inputted data instead of automated data.

Solutions(React vs EJS)

React



Budget

Welcome back, mmm

Create Budget

Budget Name	Groceries
Amount	$300

Create budget

Add New Expense

Expense Name	Coffe
Amount	$55
Budget Category	car expenses

Add Expense

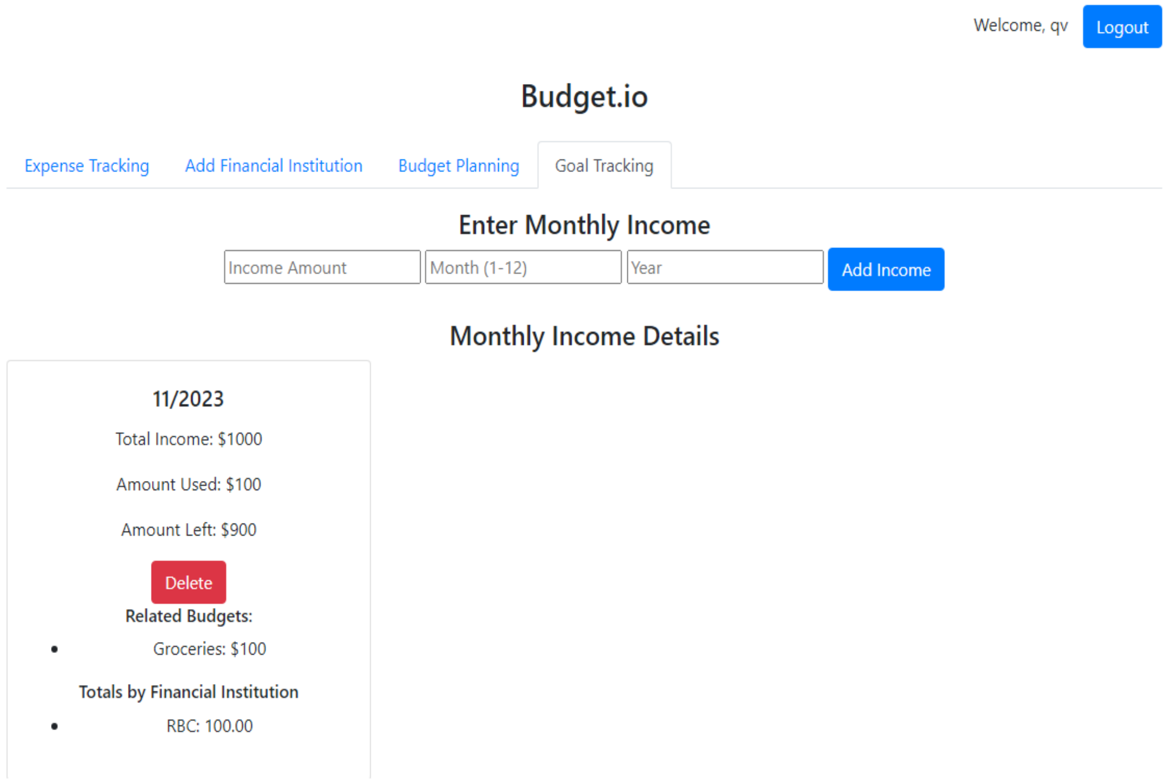
Existing Budgets

Budget	Budgeted	Spent	Remaining
car expenses	$500.00 Budgeted	$370.00 spent	$130.00 remaining
groceries	$1,500.00 Budgeted	$1,100.00 spent	$400.00 remaining
School supplies	$300.00 Budgeted	$260.00 spent	$40.00 remaining
housing	$2,000.00 Budgeted	$1,495.00 spent	$505.00 remaining
Entertainment	$500.00 Budgeted	$320.00 spent	$180.00 remaining

Recent Expenses

Name	Amount	Date	Budget
dsffgs	$50.00	11/23/2023	Entertainment
art gallery	$120.00	11/23/2023	Entertainment
movies	$50.00	11/23/2023	Entertainment
Streaming Services	$100.00	11/23/2023	Entertainment
heat	$55.00	11/23/2023	housing
water	$120.00	11/23/2023	housing

EJS



Welcome, qv

Budget.io

Enter Monthly Income

Income Amount	Month (1-12)	Year

Monthly Income Details

11/2023

Total Income: $1000

Amount Used: $100

Amount Left: $900

Related Budgets:

- Groceries: $100

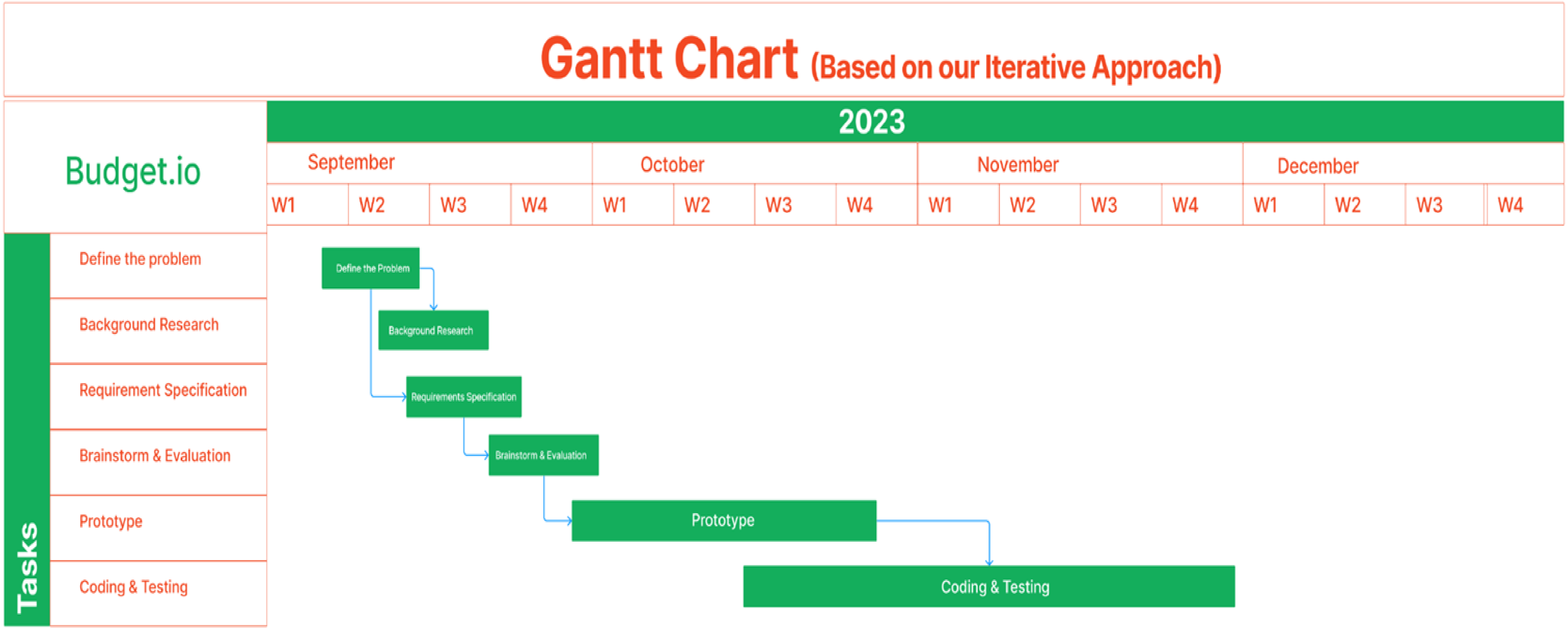
Totals by Financial Institution

- RBC: 100.00

Solutions

	Learnability	Looks	Database Integration	Decision
MERN	React was explored, but it required us to learn how it works on our own.	Incomplete product looked better and user-friendly.	Implementing MongoDB is another learning experience that required time.	Although viable, it would've taken us a long time. We didn't think it was worth it.
EJS, Node.js, Express.js	Learned in our labs so this was easier.	Bootstrap is good enough to make a website look fine but nothing spectacular.	MongoDB was easy to integrate with the guidance of our lab instructor.	We chose this since we already accumulated experience throughout the labs and it can easily satisfy the project description and requirements

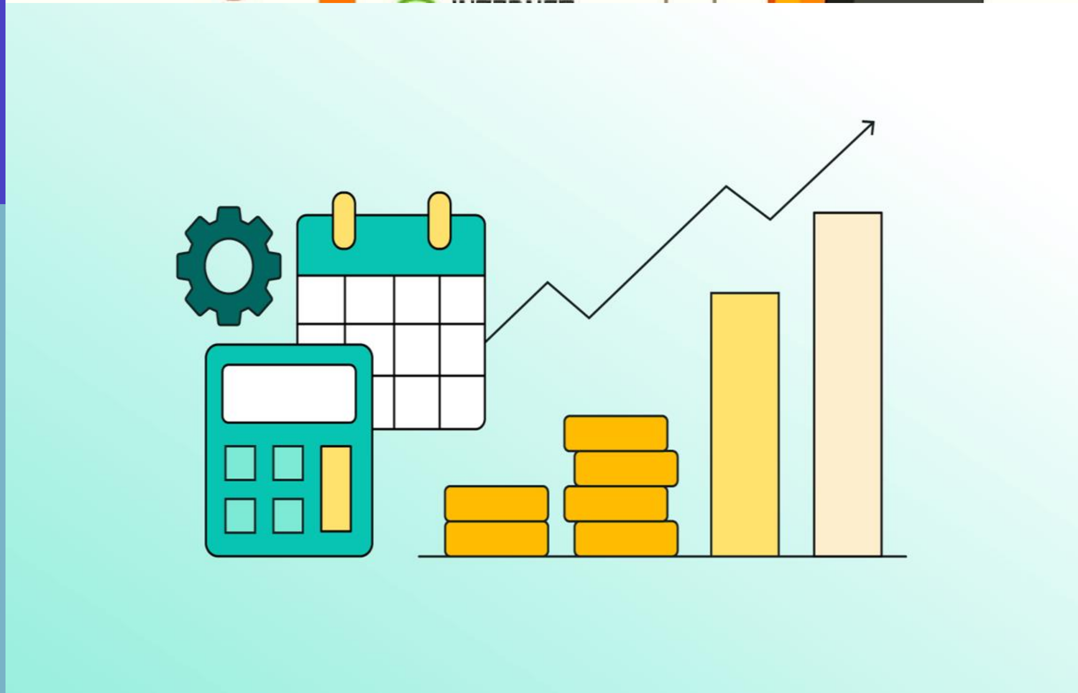
Project Management



Demo Time

MONTHLY EXPENSES
FOOD
ELECTRIC
WATER
PHONE

195
BILL
CREDIT CARD
1234 5678 9012 3456



Conclusion

In summary, our budgeting website represents a transformative approach to personal finance management. We've seen how its intuitive design simplifies budgeting and its real-time tracking helps users with immediate insights. Unfortunately, we weren’t able to automate everything as we had no access to financial institutions. Otherwise, we showed how well automated goal tracking, budget planning and expense tracking can benefit a user.

Thank you