

QBudge

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The Problem

Student Life

- Majority of students struggle to manage their expenses.
- Steep learning curve to personal finance
- Can we help students organize their budgets and plan their finances?



Our Solution

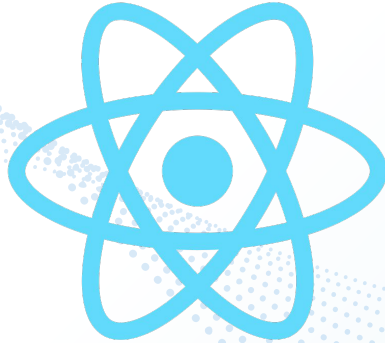
The background features a solid blue color. Overlaid on this are several wavy, horizontal lines composed of small, dark blue dots. These lines create a sense of motion and depth, with some lines appearing more prominent than others, creating a layered effect.

QBudge Web App

- App takes in:
 - Chequing and Savings Principle Amounts
 - Income
 - Expenses
- Algorithm determines optimal account values
- Creates visualizations of algorithm outputs

Code Structure

- UI
 - ReactJs (jsx)
- API
 - Flask (python)
- Database
 - MongoDB (nosql)



Flask



mongoDB

The Algorithm

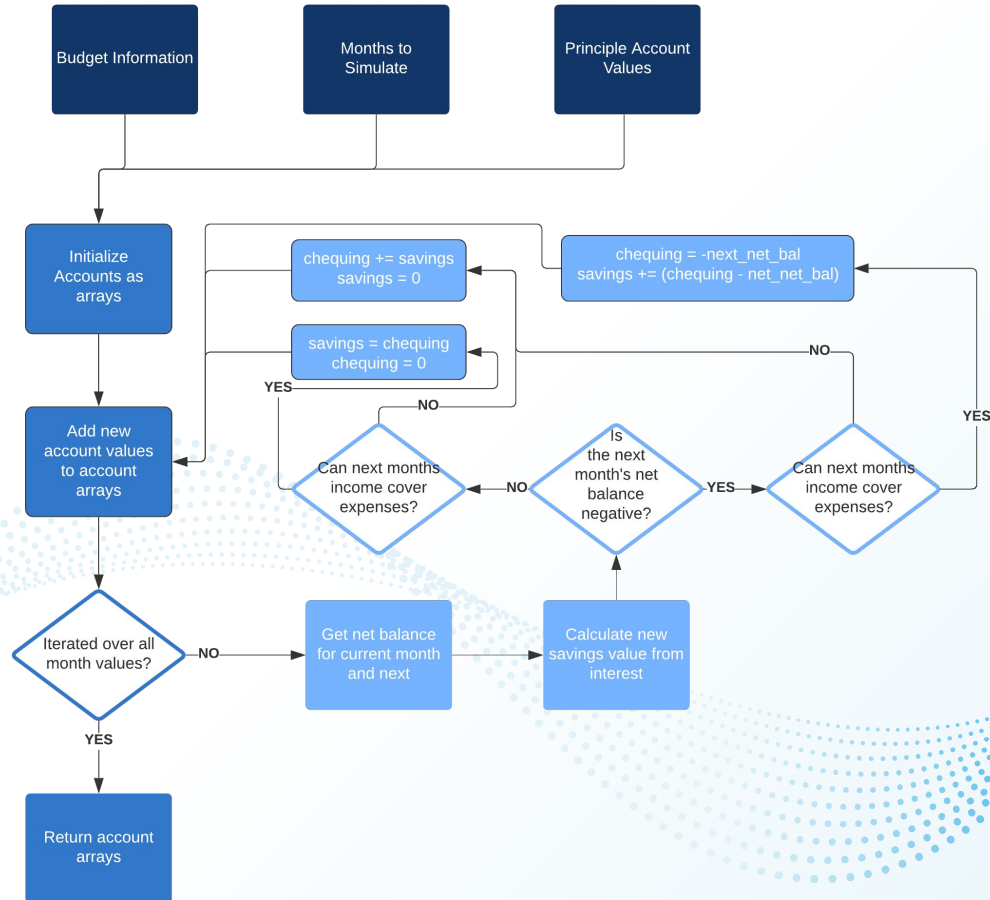
The background features a solid blue color. Overlaid on this are several wavy, horizontal lines composed of small, dark blue dots. These lines create a sense of motion and depth, with some lines appearing more prominent than others, giving the impression of a 3D effect or a stylized representation of data flow.

What Does it Do?

- Uses the provided budget to manage different account
- Will tell user when to move money into savings or chequing
 - Optimizes income from interest to maximize budget (using MinMax)
- Able to recommend when to open a GIC

Account Management Algorithm

QEC 2021



Demo

<http://qbudge.duckdns.org:8080/>

Next Steps

Data Fields

Collect more data from users to improve our algorithm and analysis

Login and Account

Create accounts for users to save their data and budgets

User Preferences

Allow users to set their preferences, i.e how aggressively they'd like to save or invest

Scraping Bank Data

Using web scraping (with security permissions) to scrape credit and debit transactions from bank sites for further analysis

User Statistics

Creating a dashboard where the user can see their spending habits and tips on how to save their money

TFSA & RRSP

Incorporate TFSA and RRSP contributions into algorithm calculations

Questions

A decorative graphic consisting of multiple parallel, wavy lines of small blue dots. The dots are arranged in a way that creates a sense of depth and movement, flowing from the bottom left towards the top right, framing the central text.