Team Financially Illiterate

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Project Overview

Project/Business Case

Problem: Keeping track of money is complicated

- Budgeting requires a lot of tracking

- Numbers have to come from many different places

- Automating calculations could save a lot of stress

Project/Business Case

Solution: Financial Planner

- Track income, bills and other payments

- Calculate monthly budget and savings

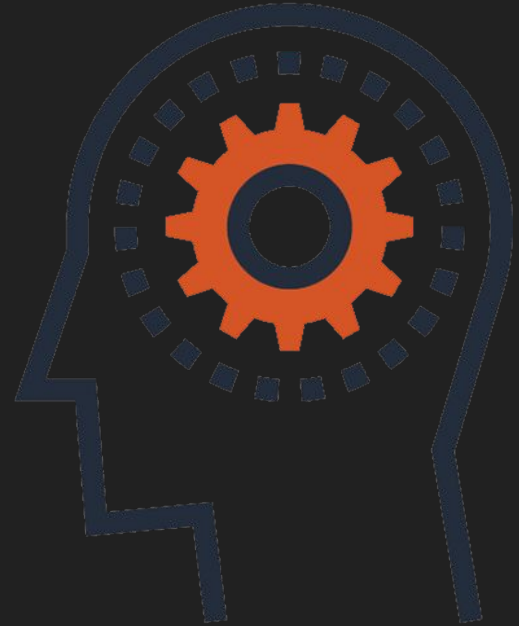- Visualize spending and savings to make it understandable

What I've learned - Ethan Shilo-Draper

- Difficulties of group coding

  - Making progress without stepping on each other's toes

  - Importance of frequent communication and progress sharing

- Plan for things to go wrong

  - Tight schedules are near impossible to adhere to

- Different development frameworks are more similar than I realized

  - More of my .Net knowledge was transferable to React than expected

  - Being a good software developer is as much about methodology as language knowledge

What I've learned - Kasey Bourdier

- Team
  - I've gained experience with working with a team in a large project
- Communication
  - I learned being punctual is very important when working with team members
- Project
  - I gained knowledge of new technologies I was not previously familiar with like React

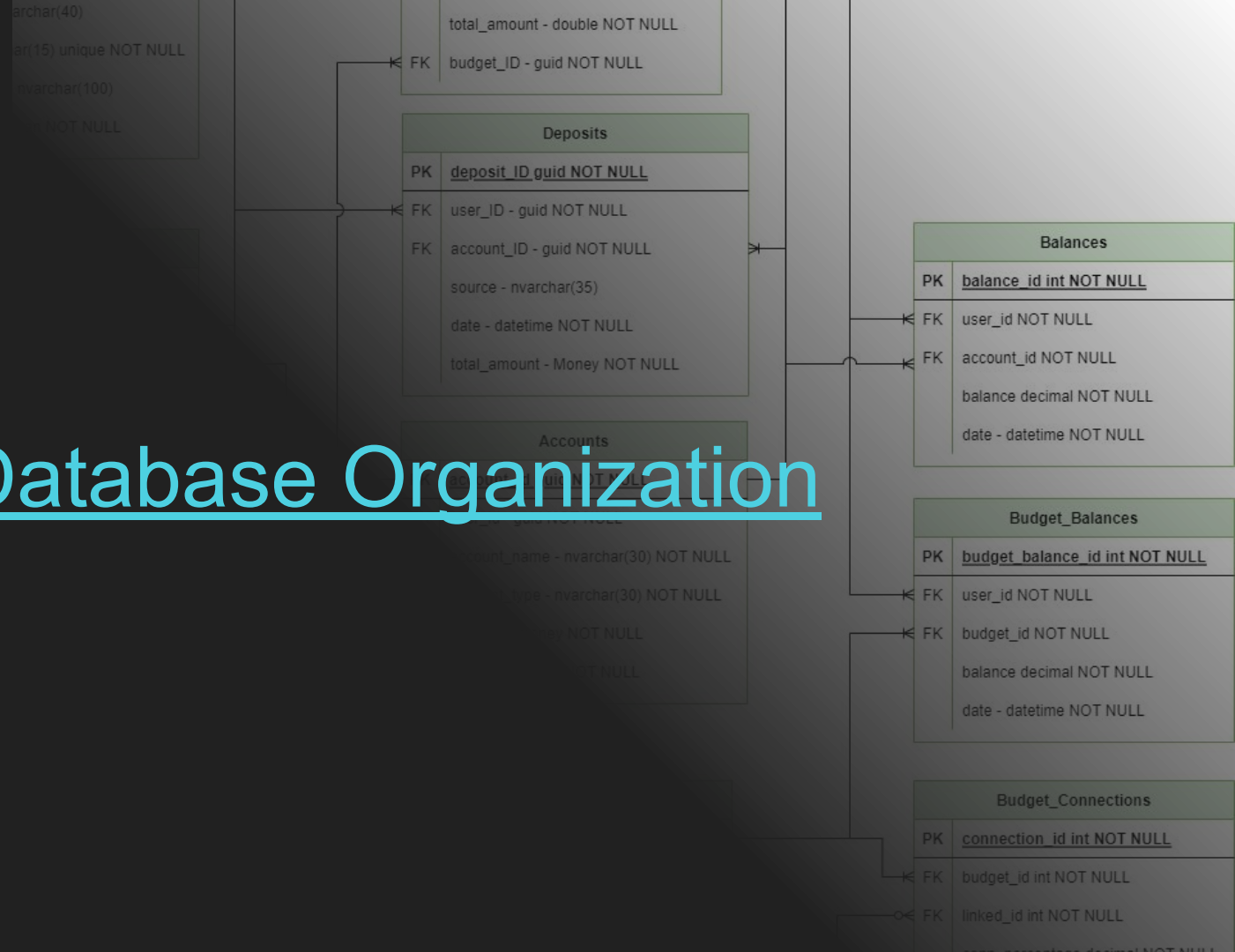# What I've learned - Ryan Nixon

- Communication

    - Clear Communication is key

- Thorough planning is important

    - Plans always change

- Technologies

    - Familiarized myself more with Node, Express, React.js, AWS, and Heroku

DUE DATE	DURATION	PCT OF TASK COMPLETE	STARTING DAY	WEEK 1							WEEK			
				Su	M	T	W	R	F	Sa	Su	M	T	W
68														
61		100.00%	7.00											
		100.00%	0.00											
		100.00%	7.00											
		100.00%	14.00											
		100.00%	14.00											
		100.00%	17.00											
			24.00											
			.00											

Project Timeline

Database Organization

total_amount - double NOT NULL

FK budget_ID - guid NOT NULL

Deposits

PK	deposit_ID guid NOT NULL
FK	user_ID - guid NOT NULL
FK	account_ID - guid NOT NULL
	source - nvarchar(35)
	date - datetime NOT NULL
	total_amount - Money NOT NULL

Accounts

archar(40)

ar(15) unique NOT NULL

nvarchar(100)

NOT NULL

count_name - nvarchar(30) NOT NULL

ype - nvarchar(30) NOT NULL

NOT NULL

NULL

Balances

PK	balance_id int NOT NULL
FK	user_id NOT NULL
FK	account_id NOT NULL
	balance decimal NOT NULL
	date - datetime NOT NULL

Budget_Balances

PK	budget_balance_id int NOT NULL
FK	user_id NOT NULL
FK	budget_id NOT NULL
	balance decimal NOT NULL
	date - datetime NOT NULL

Budget_Connections

PK	connection_id int NOT NULL
FK	budget_id int NOT NULL
FK	linked_id int NOT NULL

Stored Procedures

Stored Procedures List:

Create_Budget
Create_Deposit
Create_Snapshot
Delete_Deposit
Delete_Expenditures
Edit_Deposit
Edit_Expenditures
Edit_Income
Take_Snapshot
Update_Bills
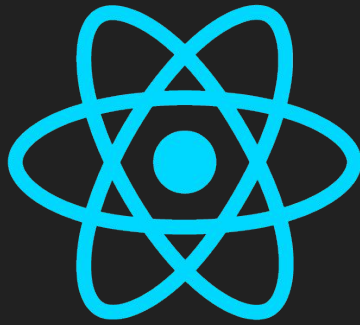Update_Income

Project Obstacles

- Technology Unfamiliarity

  - Some technologies were unfamiliar to us

- Keeping Deadlines

  - Catching up on overdue tasks while continuing forward progress

- Team Communication

- Increase of Scope

Technical Design

Client Side

- Built in React.js
  - Mix of Javascript and Typescript
- MVC design
  - Model - Handled by backend and MySQL server
  - View - JSX pages and components
  - Controller - React hooks using Ajax calls
- Use of components
  - Keeping CSS centralized through reusable JSX
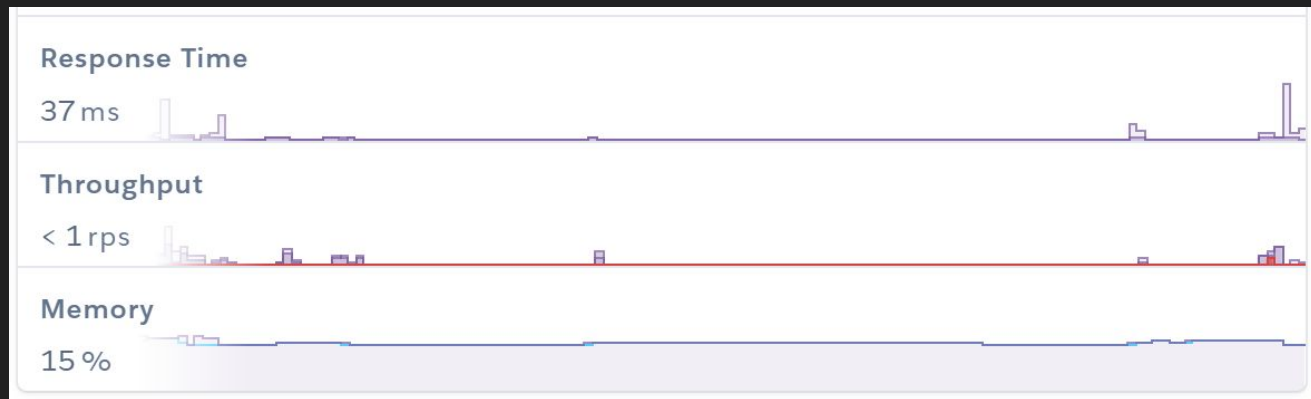 - All forms, modals, buttons, etc. are handled together

React

Backend

- Server
  - Express
  - Structure
    - Routes
- MySQL Database
  - Run in AWS
  - Connected and escaped using MySQL node module

Deployment

- 2 Heroku Dynos
  - ~$7 a month each
- AWS Relational Database Service
  - Free Tier 20gb/750 hours month
- Backend
  - Application config var's set on heroku
    - Db info

Summary

To Summarize:

- Project scope
  - What we initially planned can always change
  - Technical design changes
  - Changes in team assignments

- Gained more technical experience
  - Group coding / Working with teams
  - Communication
  - Became more competent software engineers

[Project Demonstration](#)