Project Plan Presentation
Money Moves
The Capstone Experience

Team Ally
Blake Morris
Tim Moran
Odon Mulambo
Jack Patton
Bohan Zhang

Department of Computer Science and Engineering
Michigan State University
Fall 2023
Project Sponsor Overview

• Company that specializes in financial assistance and improving financial literacy
• Based in Detroit, MI
• Provide banking services such as mortgage lending, deposits, online saving, etc.
Project Functional Specifications

• Our project Money Moves focuses on improving user financial literacy
• Using interactive lessons and tests to teach fundamental financial topics
• Variety of mediums used to give information
  • (Multiple choice, videos, text, etc.)
Project Design Specifications

• Mobile-based web application, easy-to-use navigation bar to traverse through the application
• User Profile creation and establishing preferences to tailor the website to fit user needs and wants
• Reward system that utilizes app-specific currency to unlock financial tools to assist users, earned by consistent completion of financial lessons
Screen Mockup: Profile Questionnaire
Screen Mockup: Profile Questionnaire

Topics that interest you are:

- Creating / tracking a budget
- Paying off debt or loans
- Saving for retirement
- Improving my credit score
- Saving when I am living pay check to Paycheck
- Managing my day to day money
Screen Mockup: Dashboard

Welcome Back
Hey, John!

What Would You Like To Learn Today!

Recommended For You

Save And Grow
FOR BEGINNERS
Course Duration: 1.5 Hrs
30 Coins

Credit Guru
FOR BEGINNERS
Course Duration: 5.5 Hrs
100 Coins

Save And Grow
FOR BEGINNERS
Course Duration: 1.5 Hrs
30 Coins
Screen Mockup: Dashboard (Mobile View)
Screen Mockup: Profile Page
Screen Mockup: Profile Page

Congratulations On Completing 100+ Hrs

3500 COINS EARNED TILL NOW!!

Financially Stable
2/6 SECTIONS COMPLETED
$ 3/10 Coins

Save And Grow
2/6 SECTIONS COMPLETED
$ 3/10 Coins
Screen Mockup: Planner
Screen Mockup: Course Content

Unit 5: Earning

Gross Income is the amount of money you earn before anything is taken out for taxes.

Net Income is the amount of money you earn before anything is taken out from your pay. This will always be less than gross income and can be easily calculated by subtracting from the initial amount.

Financial Literacy

What is an example of a passive income source?

- Freelance work
- Hourly wages
- Stock dividends
- Salary from a full time job
Screen Mockup: Reward Screen
Screen Mockup: Reward Screen
Project Technical Specifications

- Web app built using ReactJS
- MaterialUI is used for styling
- React Router is used for routing
- NodeJS handles the server-side code
- Express is utilized to connect the both ends
- All application components are packaged into a Docker container
- This container will be hosted on AWS
Project System Architecture
Project Risks

• **Risk 1**
  ▪ Heavy use of JavaScript frameworks like React might slow down the site for users with slower connections or devices.
  ▪ Mitigation: Optimize React components, consider lazy loading components, and use tools like Google Lighthouse for performance checks.

• **Risk 2**
  ▪ Different browsers (and versions of those browsers) might render website differently.
  ▪ Mitigation: Regularly test the website using tools like BrowserStack. Use CSS reset stylesheets or normalize.css to ensure consistency.

• **Risk 3**
  ▪ There's a risk of data being tampered with during transfer or serialization/deserialization issues leading to data corruption.
  ▪ Mitigation: Validate and sanitize incoming and outgoing data. Use tried and tested serialization methods.

• **Risk 4**
  ▪ Figuring out and understanding how to store and access video data/information, and use it for the web application’s content
  ▪ Mitigation: Research various hosting platforms or CDN’s to find a solution that allows us to import video to our application without storing all video locally. This involves exploring various libraries and cloud solutions to mitigate our risk.
Project System Components

• Hardware Platforms
  ▪ iMacs
  ▪ Local machines

• Software Platforms / Technologies
  ▪ React
  ▪ HTML
  ▪ CSS
  ▪ NodeJS
  ▪ Express
  ▪ MySQL
  ▪ Docker
  ▪ AWS
Questions?