

An Interactive Website to Support the Co-Design Process

Learning React

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MOTIVATION

- Simplifying technology evaluation
- Bridging the knowledge gap
- Enhancing Accessibility
- Empower Researchers
- Encouraging wider adoption of GPU computing

INITIAL PLAN & CHALLENGES

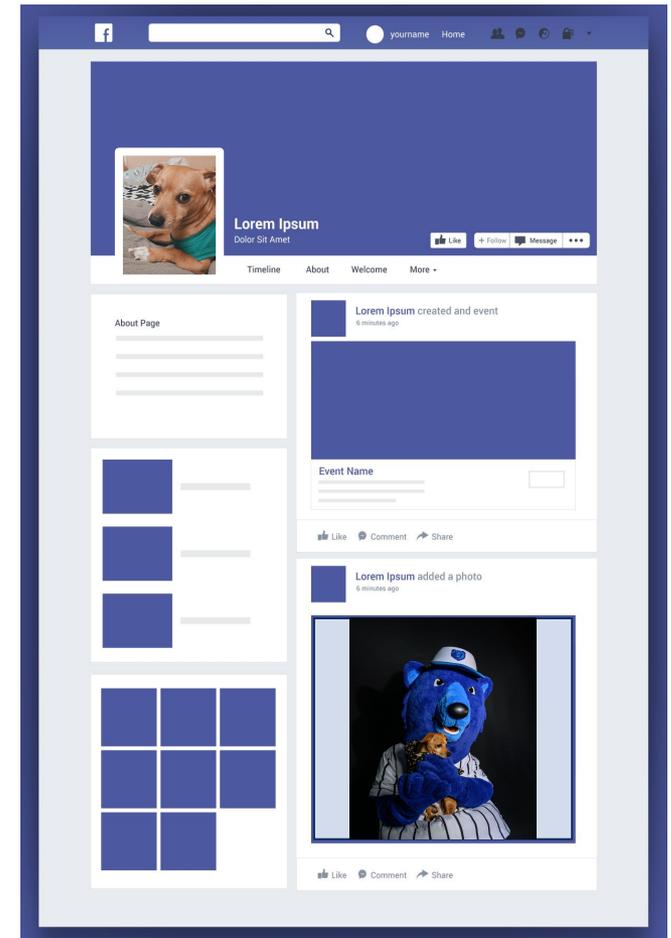
- Started with HTML/CSS and JS
- Challenges:
 - a. Limited Interactivity
 - b. Code Complexity and Organisation
- Switched to REACT

WHAT IS REACT

- JavaScript Library for building user interfaces
- Developed by Facebook in 2013
- Reusable User Interface Components
- The word “React” - components react to user interaction
- Used to create dynamic websites

WHAT IS A DYNAMIC WEBSITE

- Shows unique content to every user
- Gets information from the user and tailors the website
- Examples: ecommerce websites, online banking platforms, social media sites, news websites



ADVANTAGES OF USING REACT

- Declarative Syntax
- Component-Based Architecture
- Reusable components
- Virtual DOM

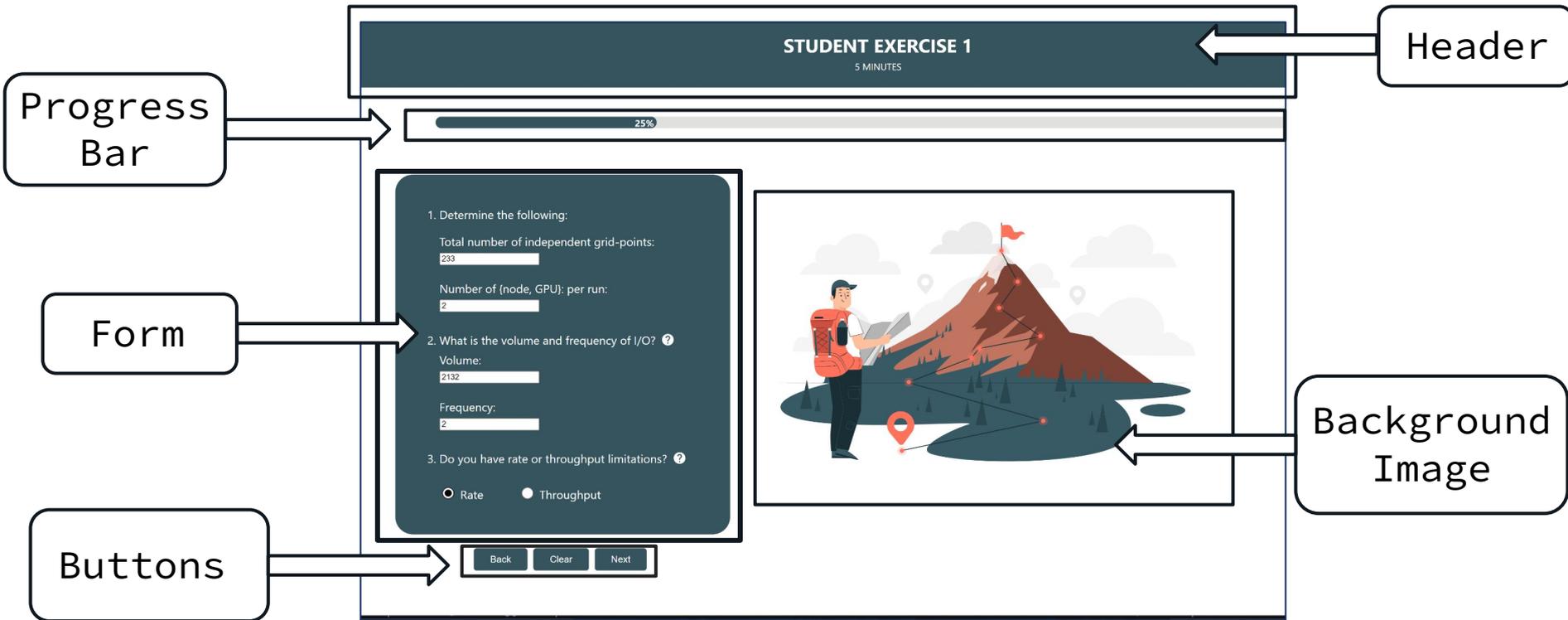
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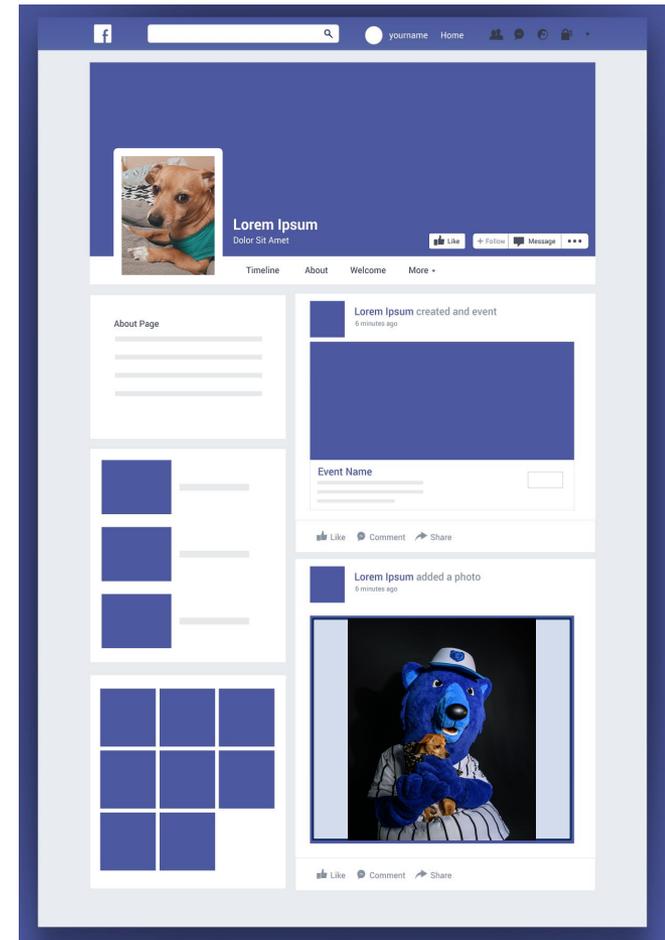
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COMPONENT BASED ARCHITECTURE



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- Displaying tailored answers in summary page
- Converting JS functions to React components
- Navigation - using React Router
- Using built in component libraries
- Saving information in the form

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Result : Query Page

STUDENT EXERCISE 0
5 MINUTES

Progress Bar: 0%

1. Do you have a Makefile created for your code? 

Yes No

2. Do you have the ability to flexibly execute your code by other users?

Yes No

3. Is your code in a revision control system like Git?

Yes No

4. Do you have a way to determine non-bit-for-bit answer changes from software bugs?

Yes No

Navigation Buttons: Back Clear Next



Tool Tip

? 

A Makefile is a script-like text file used to automate the compilation and building of software projects by defining rules for dependencies and actions needed to generate target files.

Result : Summary Page

Summary Page
These are your results

100%



Page 0 result:
Based on your answers, it appears that there is still some work that needs to be done before you can start the process of GPU-enablement. In particular the following steps should be done first:

1. Create a Makefile
2. Add the ability to flexibly execute the code by other users
3. Add your code into revision control system like Git
4. Develop a verification framework that allows the identification of non-bit-for-bit answer changes from software bugs

Feedback tailored to user's responses

Steps to take to start GPU porting process

Thank you!

- **Mentors:** John Dennis and Cena Brown for support throughout the project
- **Program Coordinators:** Virginia Do , Jerry Cyccone and Julius Owusu Afriye for making this internship a seamless experience
- NCAR, CISL and ASAP Team
- Fellow interns for an amazing summer



QUESTIONS?

CITATION

<https://www.uxpin.com/studio/blog/react-vs-html/#:~:text=React%20also%20has%20many%20workflow,for%20its%20efficiency%20and%20flexibility.>

<https://www.udemy.com/course/complete-react-developer-zero-to-mastery/learn/lecture/15081794#overview>