

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Machine Learning for Numeracy Training

The Capstone Experience

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Spring 2023



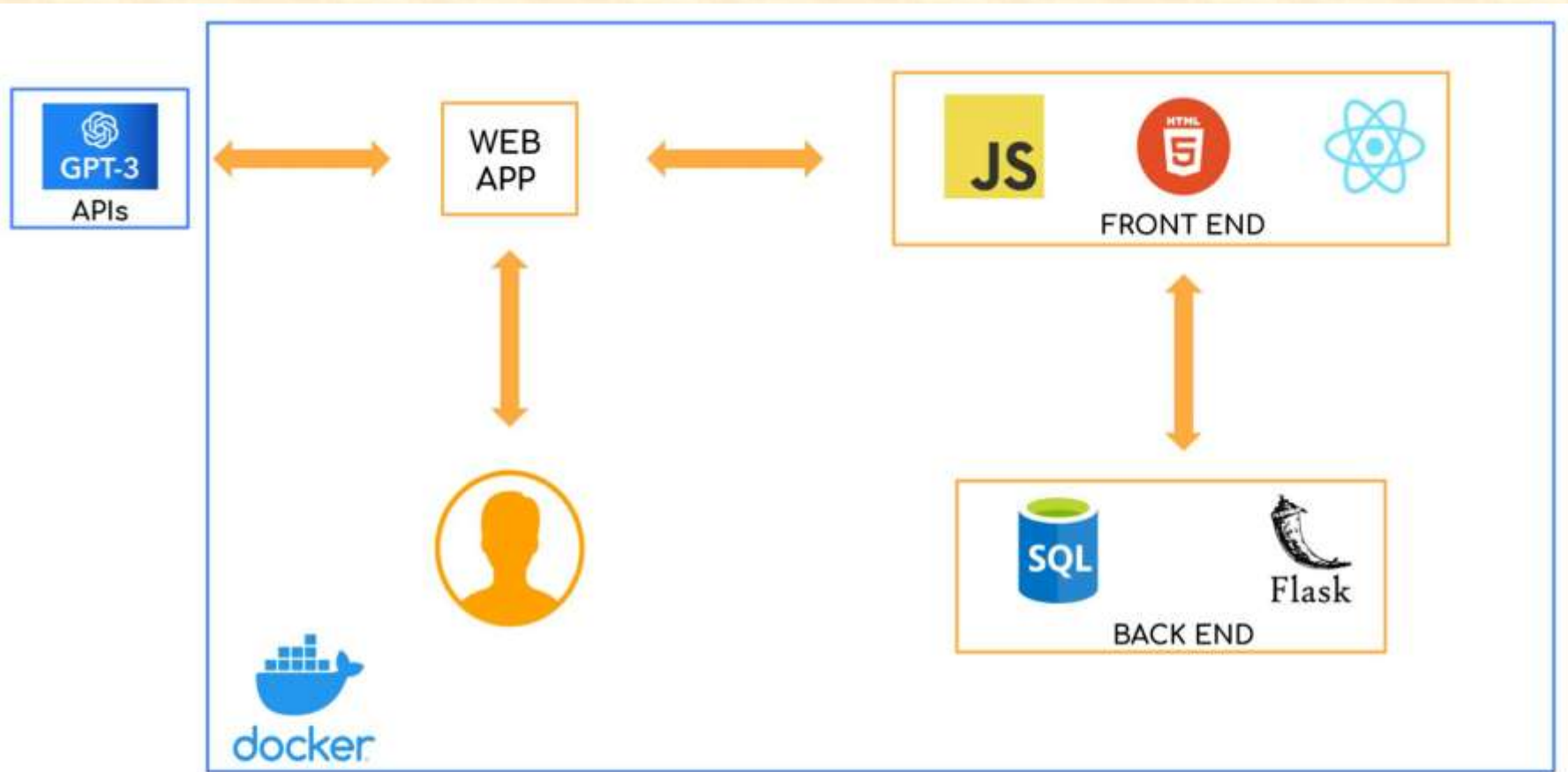
*From Students...
...to Professionals*

Project Overview

- Many people lack numeracy skills
- Guided learning to provide users a basic foundation
- Engaging games to reinforce learning and provide a fun experience
- Help create a better informed public



System Architecture



Hangman Versus

Document

localhost:8080/hangman/standard/versus/MQ%3D%3D

Standard-VS

Time Elapsed 3 : 59

Metric Hangman

Lives: 0

M _ _ i _ _ i _ _ c _ _ e _ _ t

10⁻⁶

Question: 1/10

Opponent

Lives: 0

✓ _ _ _ i _ _ _ i _ _ _ e _ _ _ t



Estimates

The screenshot shows a web browser window displaying the Anthropocene Institute website. The browser's address bar shows "Next Secure | 8.0.0.8 | 8000 | www.anthropoceneinstitute.com". The website header includes the logo "Anthropocene Institute" and navigation links for "Learn", "Activities", "chinyutt", and "Log Out".

The main content area is titled "Questions" and features a central "Estimates" section. The "Estimates" section has a "Timer 2:00" in the top right corner and "Lives 3" below the title. The question text reads: "If the average American driver spends \$1340 per year on car insurance, and there are 232.8 million registered drivers in the U.S., what is the total amount of insurance costs for Americans?". Below the question is an input field labeled "Answer".

In the bottom right corner, there is a small "Ask AI" chat window with a close button (X) and an "Ask a question" button at the bottom.



Learn Home

← → ↻ http://127.0.0.1:8080/learn

Learn Numeracy

Welcome bob! The world of numbers awaits!

Big Numbers

3 / 5

Of

Significant Figures

Word Form Conversions

Exponential Growth

Scientific Notation

0 / 2

Intro To Scientific Notation

Converting To And From Scientific Notation



Metric Prefix Module

Metric Prefixes

Metric prefixes are a set of symbols that are added to the front of the base unit of measurement to express values that are either too small or too large to be conveniently expressed in terms of the base unit. These prefixes indicate a multiple or a fraction of the base unit.

The most commonly used metric prefixes are kilo, hecto, deca, deci, centi, and milli. For example, a kilometer is equal to 1000 meters, and a millimeter is equal to 0.001 meters. However, there are many more prefixes used to describe dramatically large or small numbers. The table below contains all prefixes with values that range from 10^{24} to 10^{-24} .

Metric Prefix	Symbol	Value	Scientific Notation
yotta	Y	1,000,000,000,000,000,000,000,000,000	1×10^{24}
zetta	Z	1,000,000,000,000,000,000,000,000	1×10^{21}
exa	E	1,000,000,000,000,000,000,000	1×10^{18}
peta	P	1,000,000,000,000,000,000	1×10^{15}

Ask AI ✕

How can I help you today? - AI

Why are metric prefixes important? - You

Metric prefixes are important because they allow us to express very large or very small numbers in a more concise and manageable way. For example, instead of writing out 1,000,000, we can use the prefix "mega" and write 1 megabyte (1 MB). Similarly, instead of writing out 0.000001, we can use the prefix "micro" and write 1 microgram (1 μ g). This makes it easier to communicate and work with numbers across different fields of study and industries. - AI

Ask a question



What's left to do?

- Features
- Stretch Goals
 - Expand on user statistics
 - Versus mode for Estimates
- Other Tasks
 - Refine the UI
 - More instructions for games



Questions?

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