**MICHIGAN STATE** UNIVERSITY **Beta Presentation Crowd-Sourcing Intuitions of Vowel** Classification The Capstone Experience Team Michigan State University Linguistics **Angelina Daoud** Isaiah Fatka **Collin Heavner Elizabeth Hier** Luke Norvid **Blenda Yan** Department of Computer Science and Engineering Michigan State University

Spring 2025



From Students... ...to Professionals

#### **Project Overview**

- Web application for trained linguists to classify vowel pronunciation across dialects
- Utilizes pre-tests and modular classification
- Intuitive interface for categorizing words into lexical sets
- Collects and documents data to update the North American dialect atlas



#### Team Member's Technical Tasks

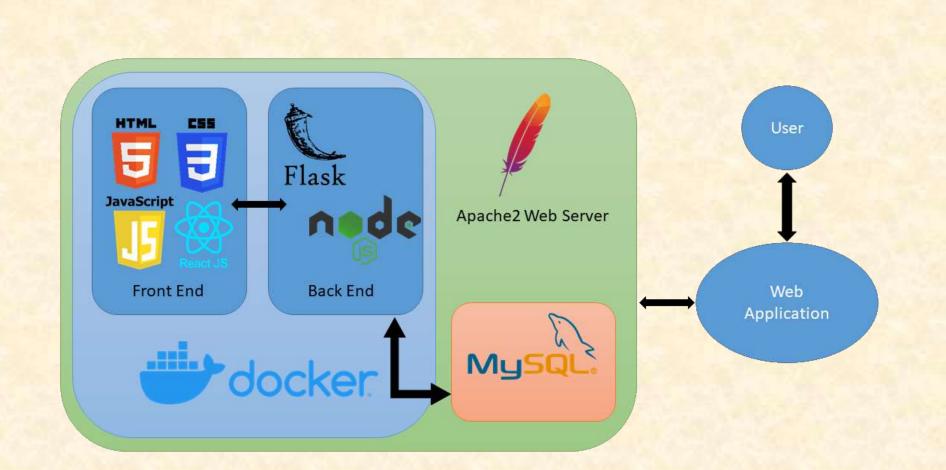
#### Technical Tasks Assigned

- Angelina Daoud
  - Word import/export
  - Daily streak widget
  - Account and contact page
- Isaiah Fatka
  - Design back-end tools for database population
  - Classification front end/back end
  - Level progression logic
- Collin Heavner
  - Prototype deployment on server
  - Dynamic vowel highlighting
  - Monophthong pretest
- Elizabeth Hier
  - Data tab
  - Select multiple classification functionality
  - Gamification alerts
- Luke Norvid
  - UI design
  - Badges
  - Profile picture
- Blenda Yan
  - New user signup functionality
  - Edit classification selection functionality
  - Confetti for gamification

#### Technical Tasks Completed

- Angelina Daoud
- Word import/export
- Daily streak widget
- Account and contact page
- Isaiah Fatka
  - Design back-end tools for database population
  - Classification front end/back end
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### System Architecture





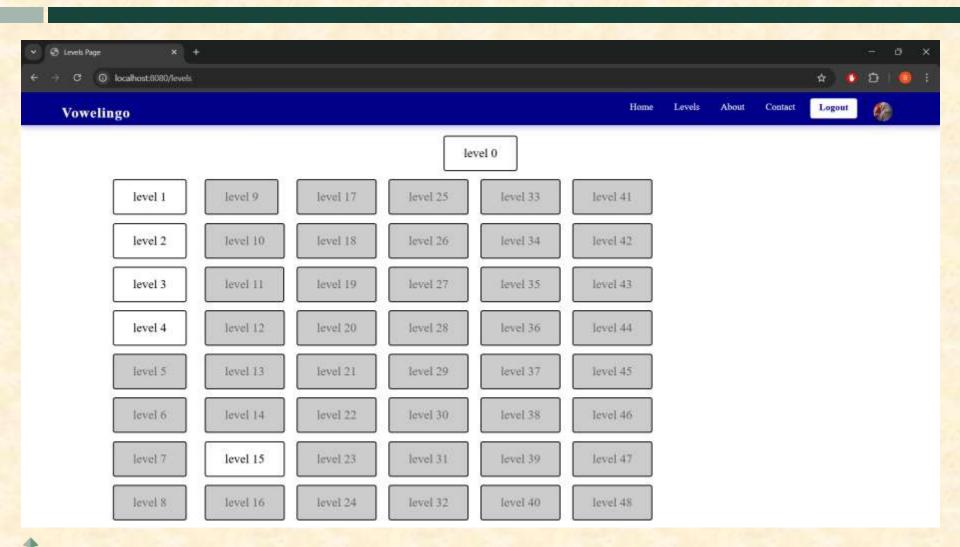
## **Home Page**

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Welcome back, isaiah_test_account!	Leaderboard
Continue contributing to our understanding of regional dialects	Top contributors this week
Words classified today O Continue Classification	1 CollinH 825 words
	2 isaiah_test_account words
652	3 Joey Stanley 540 words
Total Classifications	4 O zayadude@gmail.com 40
👌 Daily Streak	5 Betsy Sneller 240 words
You've classified words for <b>2</b> consecutive days!	6 O Monica 217 Nesbitt words
Keep going!	7 ZayaTheDude 27 words

### **Pre-test Page**

Pre-Test Please answer the following questions. LOT-THOUGHT merger: Do you categorize <u>cot</u> and <u>caught</u> as having the same vowel? O Yes O No TRAMP-TRAP split: Do you categorize <u>tramp</u> and <u>trap</u> as having the same vowel? Yes O No	8080/pretest	Home	Levels	About	Contact	☆ ● Logout	(† 1905) († 1905) († 1905)
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# Levels Page



### Account Page

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The Capstone Experience

Team Michigan State University Linguistics Beta Presentation 8

#### What's left to do?

- Stretch Goals
  - Thematic levels
  - Additional badges
- Other Tasks
  - Complete mobile responsiveness
  - Ul styling
  - Implement feedback from beta testers



#### **Questions?**

