

Project: Languru

SPRING 2023 - CS 691- CAPSTONE PROJECT

PROFESSOR HENRY WONG

PACE UNIVERSITY

Team 5 – RADIANT

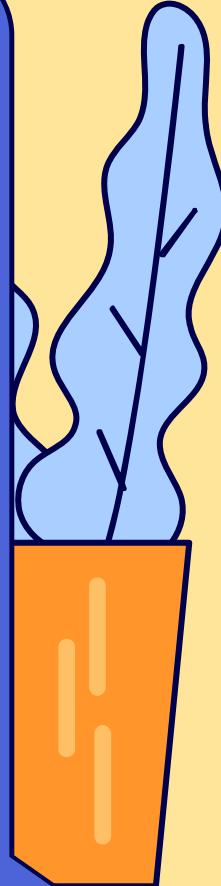
Thanh Pham

Musa Nishat

Noel Sam Routhu

Indeevara Tadikonda

Hariharammurthy Krishnamoorthy



Agenda

- The objective of this presentation is to show what we planned and took for the Sprint 2.
- Improvement from previous deliverable.
- Describe the Minimal Viable Product and our mock up design.
- Acceptance Criteria and user stories.
- Sprint 2 backlog and Test cases.
- Retrospective Sprint 2.
- Sprint 3 Schedule and Plans.
- Product Demo and Screenshots.

Team member roles



Thanh Pham
(Developer,
Scrum Master)



Noel Sam Routhu
(Database
Administrator)



Musa Nishat
(Developer)



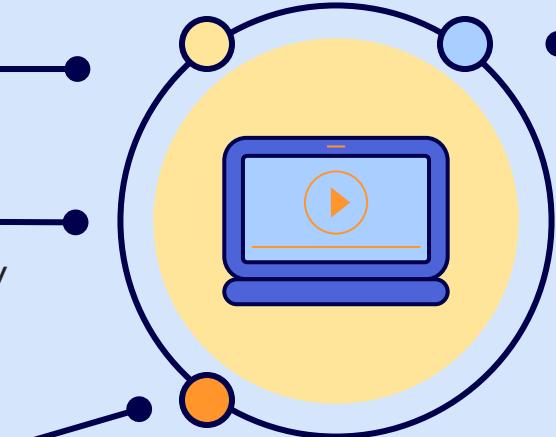
Indeevara
Tadikonda
(Developer)



Hariharanmurthy
Krishnamoorthy
(Quality Analyst And Tester)



Improvement + Change

- 
1. Project's schedule was added in this sprint.
 2. We ran our meetings using Agile's standup methodology, which greatly improved efficiency
 3. We added a statement above whenever adding bullet points your the presentation slide.
 4. In the retrospective slides, we added actions in the next steps for future sprint.
 5. Radiant team decided to build a mobile application instead of creating a web application.



Problem Statement

English learners faces challenges when they speak E.L correctly due to limited feedback on their speech while English teachers' feedback is costly and time consuming.

The current speech recognition technology is not accurate enough to provide reliable feedback on pronunciation, which can hinder the learning process.

Project Description



Languru - Project Description

Project Description	
Project Name:	Languru
Team:	Radiant
Project Description:	<p>Recording voice and breaking down the sound of a word with real-time feedback on users pronunciation accuracy.</p> <p>For customers who want to improve their English pronunciation.</p> <p>the Languru is a mobile app that checks users' single words and provides accurate feedback.</p> <p>unlike the traditional way English learners get feedback from their teachers.</p> <p>our application brings together the best of language and guru to help English learners improve their pronunciation and fluency.</p>
Benefit Outcomes:	<ul style="list-style-type: none">- Users can improve their speaking skill anywhere and anytime.- Users can record their voice and receive feedback from Languru to improve.- Users will have a number of topics to choose to master their speaking skill.
Github Link:	https://github.com/htmwl/Languru/wiki

Team Working Agreement

Team Working Agreement

Purpose of the agreement:

- To complete Computer Science Project 1(CS 691) as smoothly as possible.

Name of the Project:

- Languru

Terms of Agreement:

- All the team members are expected to attend the weekly meetings(Wednesday 8:00 PM) without fail
- If in any case you are not able to join the call, you are expected to update the other team members of your absence.
- In the case of absence for a weekly meeting, you are expected to make it up before the next team meeting.
- The weekly meetings are held on zoom and any updates can be communicated through Whatsapp messenger.
- Google workspace, GitHub and Agile can be used to track and divide all of our work.
- You are expected to be active on the WhatsApp messenger group chat for any updates.
- Work should be divided equally amongst the peers.
- Each team member should complete the work before the deadline. In case you are not able to do so, inform your peers so that they can divide the work accordingly. Failing to do so might lead to the decrease of the Team's grade.
- The Scrum Master is responsible for organizing the weekly meets, and everybody should be open to meet virtually more than once weekly if the situation demands it.
- Every team member is expected to be active in the weekly meetings, be productive and open to discussions and give a timely update of their part of the work.

Team Members:

Indeevara Tadikonda	it49412n
Thanh Pham	tp89638n
Musa Nishat	mn64635n
Noel Sam Routhu	nr66642n
Hariharanmurthy Krishnamoorthy	hk97281n

Personas



"With languru, I can easily practice my English pronunciation for IELTS without having to go through a long sign up process or paying a premium fee."

Name: Areeba

Age: 21

Occupation: University Student

Location: Lahore, Pakistan

Level: Senior

Goals

- Finish her undergrad
- Study for IELTS and GRE
- Apply to MBA programs in the United States

Loves

- School
- Maths
- Spending time with her family

User Description

Areeba is in the final year of her Business Management degree from LUMS University. When she graduates, she wants to get an MBA in the UK

Interests

- Entrepreneurship
- Reading
- Community Organizing

Frustrations

- Struggling to find an affordable and proficient English tutor
- Apps like Duolingo not focusing on speaking and pronunciation enough

Motivations:

- Convenience
- High Quality
- Price



Personas



"When I first came to America, I could barely speak a word of English. Every night, I would open up languru and practiced and practiced until I mastered the language, which greatly helped my business"

Name: Gao

Age: 37

Occupation: Taxi Driver

Location: New York City

Goals

- Save for children's education and retirement
- Open his own taxi company
- Become a chess master

Frustrations

- Culture shocks, language barriers, racism
- Fundraising and organizing for his taxi business

Loves

- His children
- Playing guitar
- Old Kung Fu movies

Motivations:

- Convenience
- High Quality
- Price

User Description

Gao moved to the United States four years ago from Beijing. After a year, he brought his family along too. They live happily in Queens.

Interests

- Acquiring a green card
- Entrepreneurship
- Joining City Council

Personas



"In a perfect world, I would spend hours every day with every one of the kids I work with, but that's unfortunately not possible. With languru I can rest easy knowing that some of my kids have a resource they can use anytime which helps them with their speech."

Name: Daniella
Age: 31
Occupation: Speech Pathologist
Location: San Juan, Puerto Rico

Goals

- Raise awareness and money for children's healthcare in PR
- Write a book on speech therapy

Frustrations

- Giving each patient enough attention
- Lack of medical resources and infrastructure
- Prejudice to those who are differently abled

User Description

Daniella has loved kids since she was a kid and always knew she wanted to be some kind of children's doctor when she grew up. Today, she helps children with learning and speaking disabilities

Loves

- Kids
- Hiking
- Collecting records

Interests

- Child healthcare
- Medical research
- Development of Puerto Rico

Motivations:

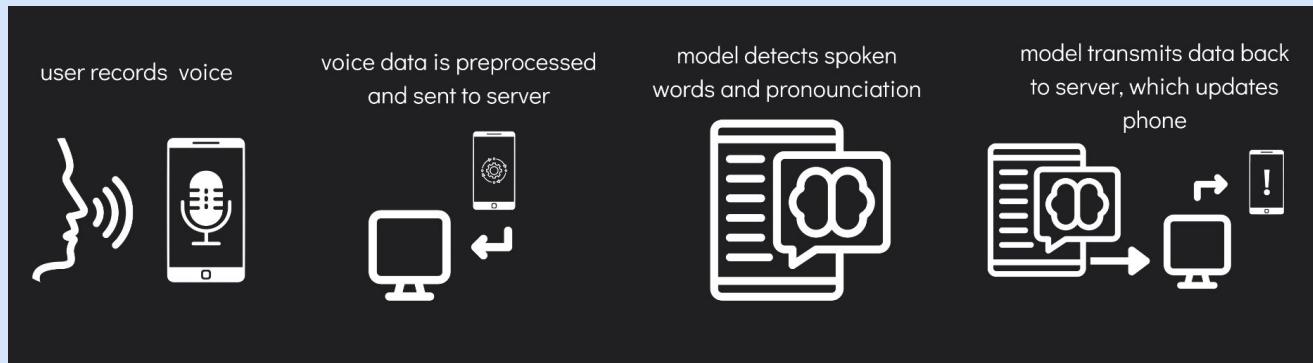
- Convenience
- High Quality
- Price



MINIMAL VIABLE PRODUCT (MVP)

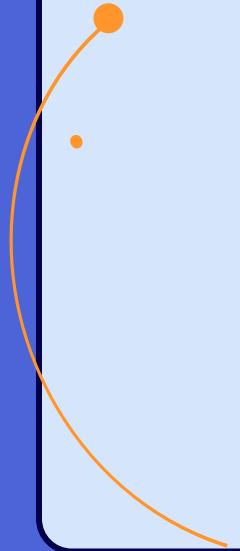
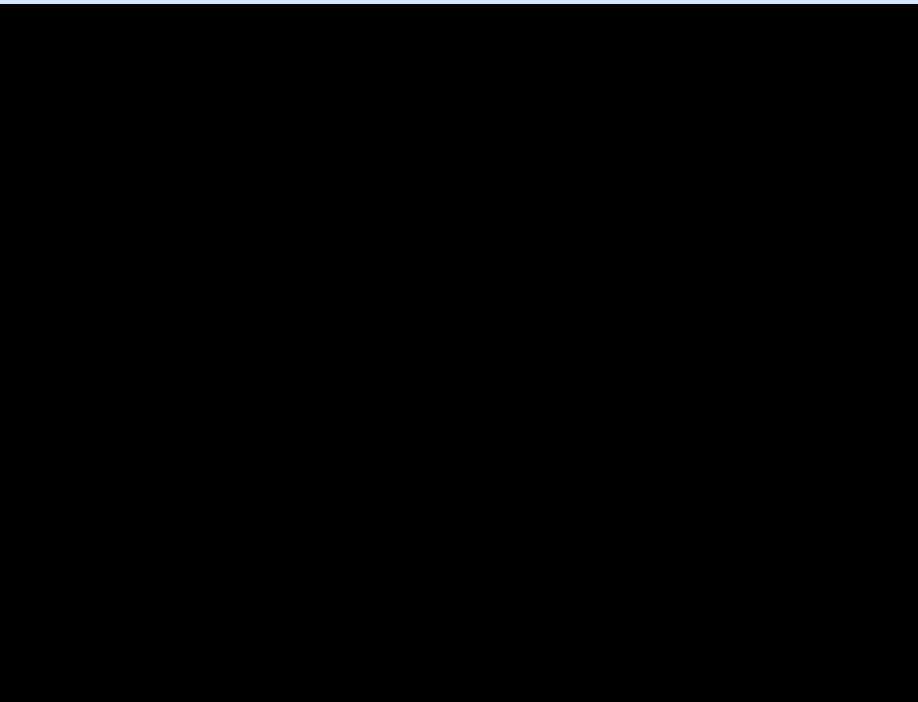
- Mobile application with speech recording capability
- Machine learning algorithm/API to break down individual spoken words, detect, and note incorrect pronunciations
- Server with functionality to receive voice data and send back analyzed data
- Server to host machine learning model

Steps:



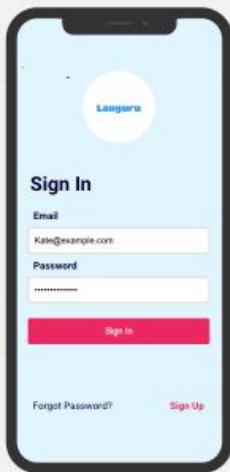


Product Demo



MOCK UP DESIGN

Login



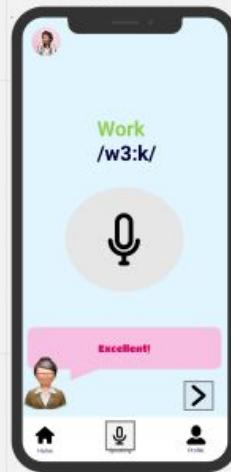
Home Page



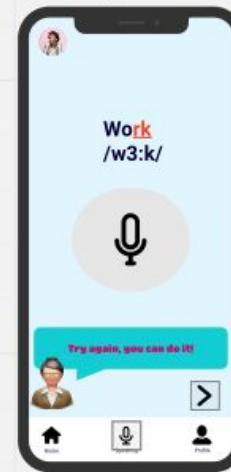
Speaking



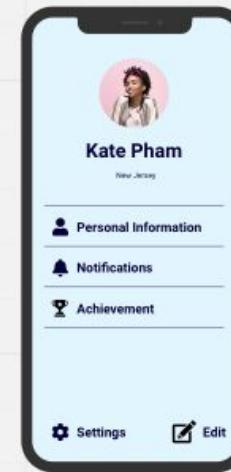
Speaking



Speaking



Profile



Technologies

Coding languages



Databases



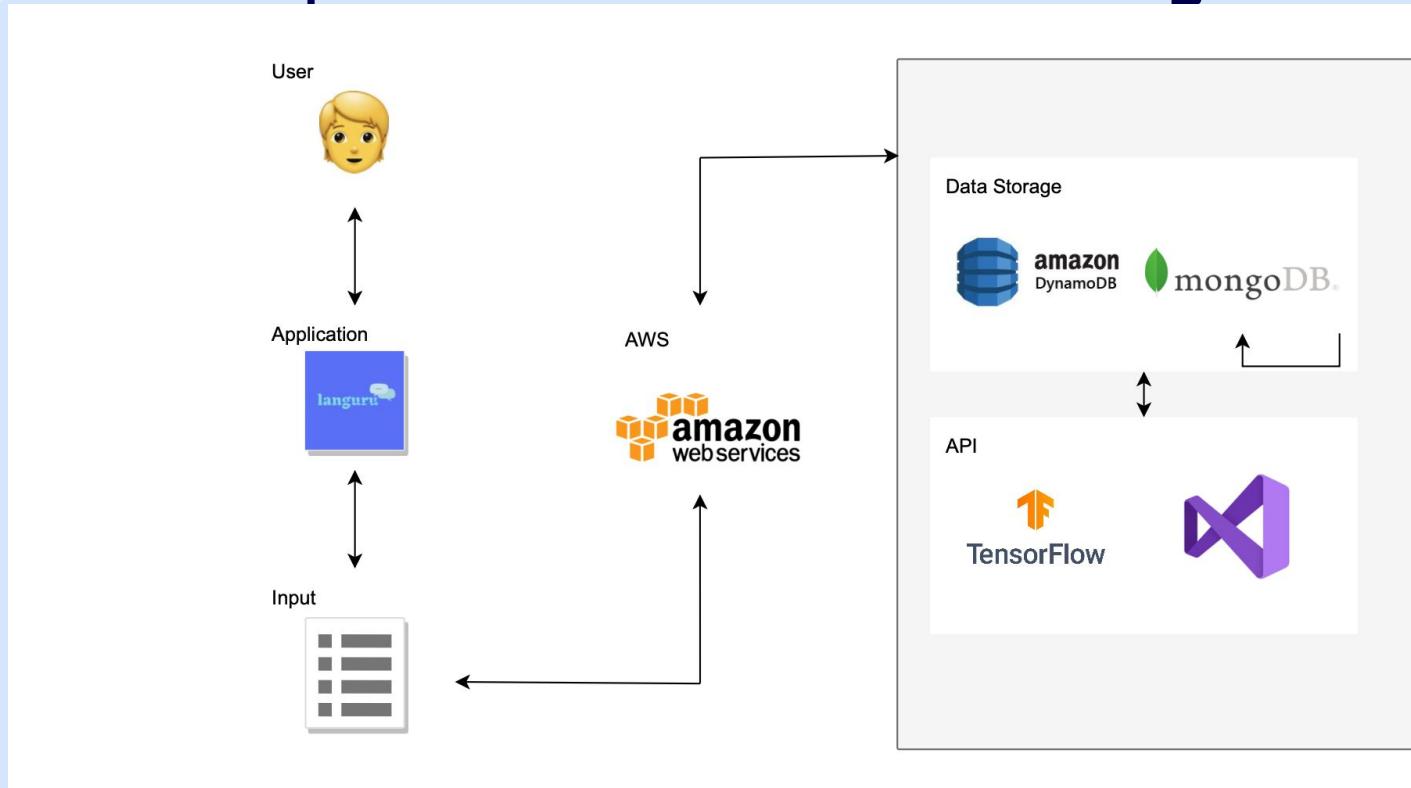
Tools



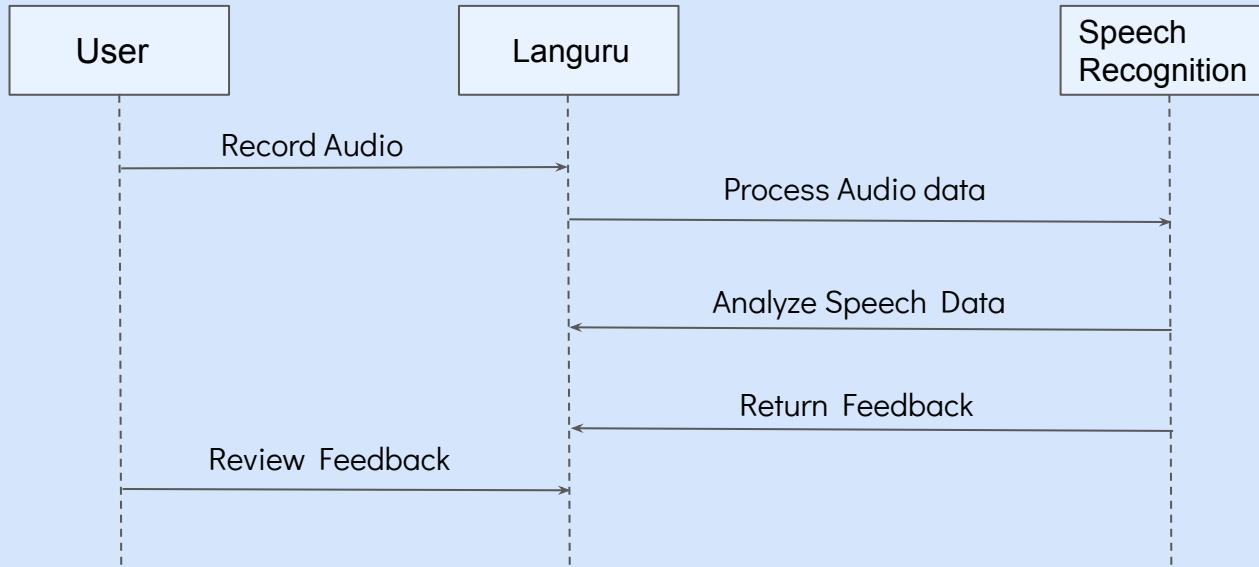
Diagrams



Conceptual Architecture Diagram



Sequence Diagram



User Stories

As a	I want to	so that	Feature
English language learner	Receive real-time feedback on my pronunciation accuracy	I can improve my speaking skills and sound more fluent	Pronunciation Feedback
English language learner	Practice speaking English using different words and phrases	I can expand my vocabulary and improve my pronunciation skills	Vocabulary Practice
English language learner	Receive personalized recommendations for pronunciation practice based on my weaknesses	I can focus on improving areas where I need the most help	Personalized Recommendations
English language learner	Receive feedback on my intonation and stress patterns	I can sound more natural and fluent when speaking English	Intonation and Stress Feedback
English language learner	Track my progress and see improvement over time	I can stay motivated and feel a sense of accomplishment	Progress Tracking

User Stories

As a	I want to	so that	Feature
English language learner	Practice my pronunciation in different contexts, such as in a business setting or social setting	I can prepare for real-life situations where I need to speak English	Contextual Practice
English language learner	Have access to a variety of English accents to practice with	I can become familiar with different accents and improve my listening and speaking skills	Accent Diversity
English language learner	Receive feedback on my grammar and syntax when speaking English	I can improve my overall communication skills	Grammar and Syntax Feedback
English language learner	Record my voice and receive real-time feedback on my pronunciation accuracy	I can improve my English speaking skills more efficiently and effectively	Voice Recognition
English language learner	Have access to a large database of English words and phrases	I can practice my pronunciation and fluency across a wide range of topics	Database

Product Backlog

Product Backlog		Add dates	(11 issues)	0	0	0	Start sprint	...
<input checked="" type="checkbox"/>	CP-23 Develop voice recognition technology to provide real-time feedback on pronunciation accuracy			TO DO				
<input checked="" type="checkbox"/>	CP-24 Create a database of words and phrases for learners to practice speaking			TO DO				
<input checked="" type="checkbox"/>	CP-25 Develop algorithms to analyze user pronunciation and provide personalized recommendations for are...			TO DO				
<input checked="" type="checkbox"/>	CP-26 Implement security and privacy measures to ensure a safe and secure online environment for English l...			TO DO				
<input checked="" type="checkbox"/>	CP-28 Develop algorithms to analyze user intonation and stress patterns and provide feedback			TO DO				
<input checked="" type="checkbox"/>	CP-29 Create a progress tracking system for users to monitor their improvement over time			TO DO				
<input checked="" type="checkbox"/>	CP-32 Create contextual practice scenarios for learners to practice their pronunciation in different settings			TO DO				
<input checked="" type="checkbox"/>	CP-33 Provide access to a variety of English accents for learners to practice with			TO DO				
<input checked="" type="checkbox"/>	CP-34 Develop algorithms to analyze user grammar and syntax and provide feedback			TO DO				
<input checked="" type="checkbox"/>	CP-35 Develop a feature that allows users to record their voice and receive real-time feedback on their pronou...			TO DO				
<input checked="" type="checkbox"/>	CP-36 Provide users with access to a large database of English words and phrases, so they can practice their ...			TO DO				
+ Create issue								

Sprint 2 Backlog

▼ CP Sprint 2 16 Feb – 7 Mar (10 issues)

0 0 0

Complete sprint

...

Deliverable 2

<input checked="" type="checkbox"/> EP-8	Improvements to the presentation to be made based on Client's Feedback (from SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-9	Mock Up Design Creation of Lanquru (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-10	User Stories Creation (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-11	User Stories Analysis (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-12	Sprint 2 Deliverable Presentation (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-13	Acceptance Criteria Confirmation (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-14	Test Cases Creation (SPRINT 2 02/16 - 03/07)	DONE	
<input checked="" type="checkbox"/> EP-15	MVP Demo (SPRINT 2 02/16 - 03/07)	DONE	

Sprint 2 Backlog

CP-16 Development of Front-End and Back-End SPRINT 2 02/16 - 03/07

TO DO ▾



CP-17 Testing of Front-End and Back-End SPRINT 2 02/16 - 03/07

TO DO ▾



Test cases & Acceptance Criteria



Test Case (Login)

Project Name:	Languru								
Module Name:	Login								
Created by:	Thanh Pham								
Date of creation:									
Date of review:									
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_LOGIN_1	Verify the login of email	Enter valid User Name and valid Password	1. Need a valid email Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Valid Password>	Login Successful			
TC_LOGIN_1	Verify the login of email	Enter valid User Name and invalid Password	1. Need a valid email Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Invalid Password>				
TC_LOGIN_1	Verify the login of email	Enter invalid User Name and valid Password	1. Need a valid email Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Valid Password>	A message "The email or password you entered don't match" is shown			
TC_LOGIN_1	Verify the login of email	Enter invalid User Name and invalid Password	1. Need a valid email Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Invalid Password>				

Test Case (Sign Up)

Project Name:	Languru								
Module Name:	Sign Up								
Created by:	Thanh Pham								
Date of creation:									
Date of review:									
									
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_SIGNUP_2	Verify sign up	Enter valid User Name and valid Password	1. Need a valid user name and password (characters and number from 1 to 9) to sign up	1. Enter User Name 2. Enter Password 3. Click "signup" button	<Valid User Name> <Valid Password>	Sign up Successful			
TC_SIGNUP_2	Verify sign up	Enter used User Name	1. Need a valid user name and password (characters and number from 1 to 9) to sign up	1. Enter User Name 2. Enter Password 3. Click "signup" button	<used User Name >	A message "The user name is already used" is shown			
TC_SIGNUP_2	Verify sign up	Enter invalid User Name and invalid Password	1. Need a valid user name and password (characters and number from 1 to 9) to sign up	1. Enter User Name 2. Enter Password 3. Click "signup" button	<Invalid Password>	A message "password don't match our requires" is shown			

Test Case (Home page)

Project Name:	Languru								
Module Name:	Home Page								
Created by:	Thanh Pham								
Date of creation:									
Date of review:									
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_HOME PAGE_3	Verify the HOME PAGE	A welcome message should show up on screen				Check if a welcome message appear on the home screen			
TC_HOME PAGE_3	Verify the HOME PAGE	User should be able to search from homepage				Homepage can show expected results.			
TC_HOME PAGE_3	Verify the HOME PAGE	User should be able to open the hompage				Homepage should appear when user click on it.			

Test Case (Profile)

Project Name:	Languru	
Module Name:	Profile	
Created by:	Thanh Pham	
Date of creation:		
Date of review:		

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_PROFILE_4	Check on Profile editable					Users can existing profile information successfully.			
TC_PROFILE_4	Check on features in Profile page					On the Profile page, users should be able to see list of features			

Test Case (Speaking)

Project Name:	Languru								
Module Name:	Speaking								
Created by:	Thanh Pham								
Date of creation:									
Date of review:									
									
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_SPEAKING_5	Verify the speaking page	User should be able to record their voice				Record voice sucessfully			
TC_SPEAKING_5	Verify the speaking page	User should be able to see their feedback after they recorded their voice.				The feeback will show up after voice was recorded.			
TC_SPEAKING_5	Verify the speaking page	User should be able to see the topics that they want to practice and open it				The topics category will show up as expected.			
TC_SPEAKING_5	Verify the speaking page	User should be able to see where was pronounce incorrectly.				User can see the part was pronounce incorrect which is underlined.			
TC_SPEAKING_5	Verify the speaking page	User should be able to access the Speaking page				User can see the part was pronounce incorrect which is underlined.			

Test Case (Forgot Password)

Project Name:	Languru								
Module Name:	Forgot Password								
Created by:	Thanh Pham								
Date of creation:									
Date of review:									
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_FGPASS_6	Check on Forgot Password	Should direct to the email in order to change password.				Password reseted and send back to log in page.			

Acceptance Criteria

User Stories and Acceptance Criteria

User Story ID	Summary	Status	Place
1	As an English language learner I want to receive real-time feedback on my pronunciation accuracy so that I can improve my speaking skills and sound more fluent. Scenario: User is looking for feedback for their speaking Given I'm in a role of user who bad at pronounce in English Then Languru can give feed back	To be done	Pronunciation Feedback
2	As an English language learner I want to Practice speaking English using different words and phrases so that I can expand my vocabulary and improve my pronunciation skills Scenario: User want to practice on different topics Given I'm in the role of user When I'm click on Speaking page Then a list of topics show up for user to choose	To be done	Vocabulary Practice
3	As an English language learner I want to Receive personalized recommendations for pronunciation practice based on my weaknesses so that I can focus on improving areas where I need the most help Scenario: User have trouble cannot improve their speaking after many tries with the same word Given I'm a role of user When many try, the system recommend a personalized lesson	To be done	Personalized Recommendations
4	As an English language learner I want to Receive feedback on my intonation and stress patterns so that I can sound more natural and fluent when speaking English. Scenario: after user record their voice Given I'm in the role of user Then feedback appear on screen on specific stress or sound.	To be done	Intonation and Stress Feedback
5	As an English language learner I want to Track my progress and see improvement over time so that I can stay motivated and feel a sense of accomplishment. Scenario: User want to keep track of their progress Given I'm in the role of user When open the app, click on profile, I can see our progress and achivements.	To be done	Progress Tracking
6	As an English language learner I want to Practice my pronunciation in different contexts, such as in a business setting or social setting so that I can prepare for real-life situations where I need to speak English Scenario: User want to improve speaking through different conversation Given I'm in the role of user When i search on search box the specific contex Then desired outcome should show up	To be done	Contextual Practice
8	As an English language learner I want to Have access to a variety of English accents to practice with so that I can become familiar with different accents and improve my listening and speaking skills Scenario: User want to practice on American or British Given Iam in the role of user When I open Speaking page, I can chose what accent I want to practice with	To be done	Accent Diversity

Retrospective

What went well

- We did a good job on dividing work for each team member equally.
- Our team can help other members in the group when they have difficulty understanding and completing their work.

What hold us back

- Time management
- Understanding our assigned topics and reaching out for help
- Expectations for the sprint were unclear
- Uncoordinated vision over the app and its functionality

Retrospective

Actions for the next Sprint

- Improve Documentation
- Discuss expectations, deadlines, and definitions of done more clearly
- Leave plenty of time before deadlines to fix problems
- Further discuss and align vision of app and its functionality

Sprint 2 Burndown

... ▾ Sprint 2 11 tasks

	task	Status	Priority	Story Points	+	
<input type="checkbox"/>	Complete deliverable-2 Video		Working on it	Critical	5	
<input type="checkbox"/>	Complete deliverable-2 PPT		Done	Critical	5	
<input type="checkbox"/>	Minimal Viable Product Abstract		Done	High	4	
<input type="checkbox"/>	Conceptual Architecture Diagram		Done	Medium	3	
<input type="checkbox"/>	Product Backlog		Done	Medium	3	
<input type="checkbox"/>	Create User Stories		Done	High	4	
<input type="checkbox"/>	Create Sprint Burndown		Done	Medium	3	
<input type="checkbox"/>	Sequence Diagram		Done	Medium	3	
<input type="checkbox"/>	Project Demo		Done	High	4	
<input type="checkbox"/>	Stories planned and committed for Sp...		Done	Medium	3	
<input type="checkbox"/>	ER diagram		Done	Medium	3	
<input type="checkbox"/>	+ Add task					

 40 sum

Help

Sprint 3 Burndown

▼ Sprint 3

	task	Status	Priority	Story Points	+
<input type="checkbox"/>	MVP		Critical	5	
<input type="checkbox"/>	Algorithms		Medium	3	
<input type="checkbox"/>	Retrospective		Medium	3	
<input type="checkbox"/>	Backlogs		High	4	
<input type="checkbox"/>	Divide User Stories		Medium	3	
<input type="checkbox"/>	Deliverable 3 Video		Critical	5	
<input type="checkbox"/>	Deliverable 3 PPT		Critical	5	
<input type="checkbox"/>	+ Add task				

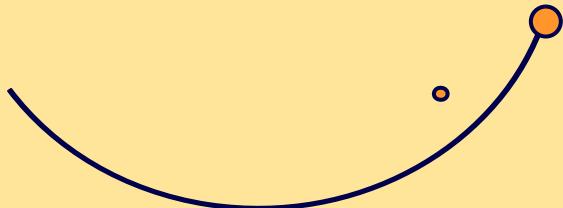
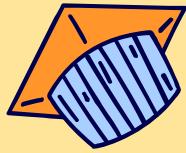
28
sum

Sprint 3 (Stories Planned)

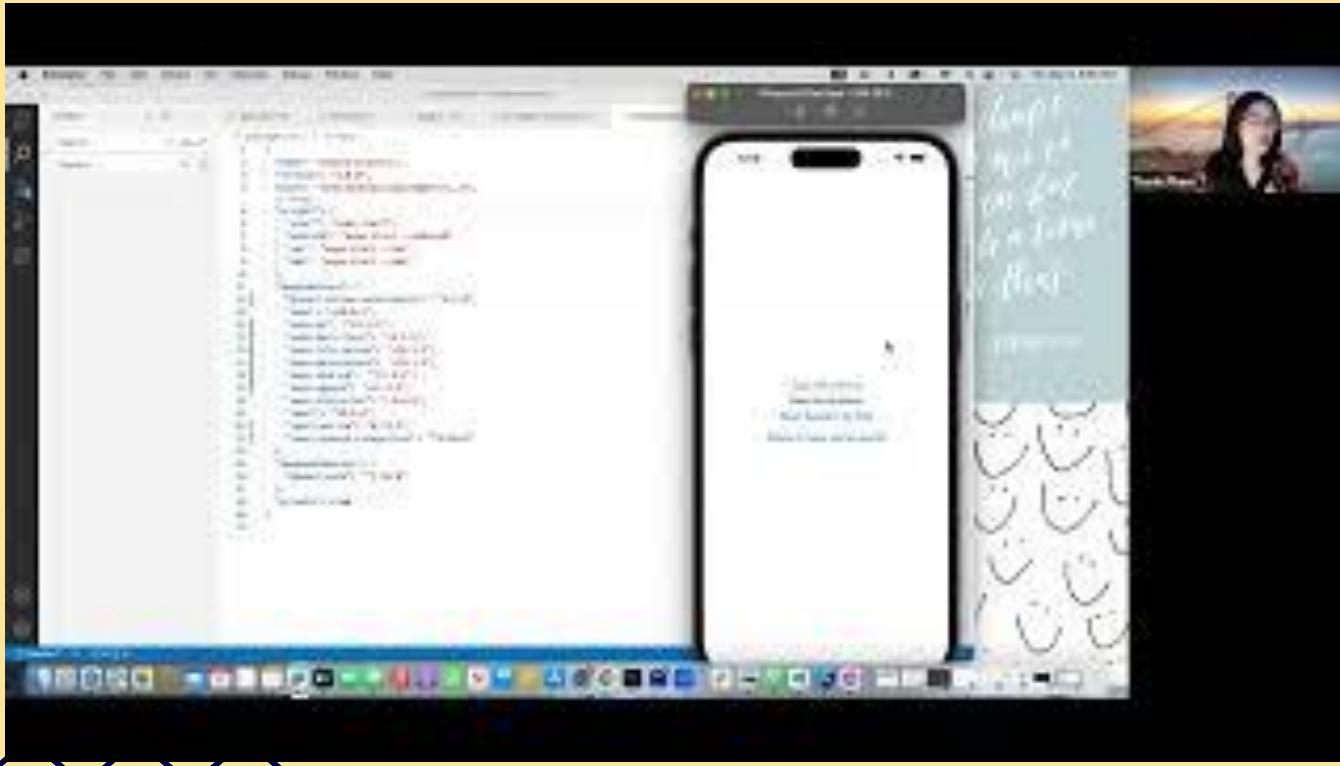
▼ CP Sprint 3 9 Mar – 29 Mar (6 issues)

- CP-38 As an application user, I should be able to navigate to my profile and see my display picture, name and location
- CP-39 As an application user, I should be able to view my personal information such as First Name, Last Name, Age, Gender, Location
- CP-40 As an application user, I should be able to receive Notifications and interact with them
- CP-41 As an application user, I should be able to receive and view my achievements and share them via social media
- CP-42 As an application user, I should be able to edit my personal information
- CP-43 As an application user, I should be able to change privacy settings, theme settings, audio settings etc.,

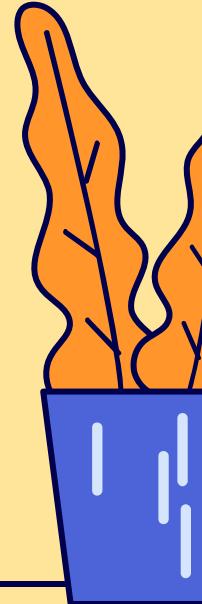
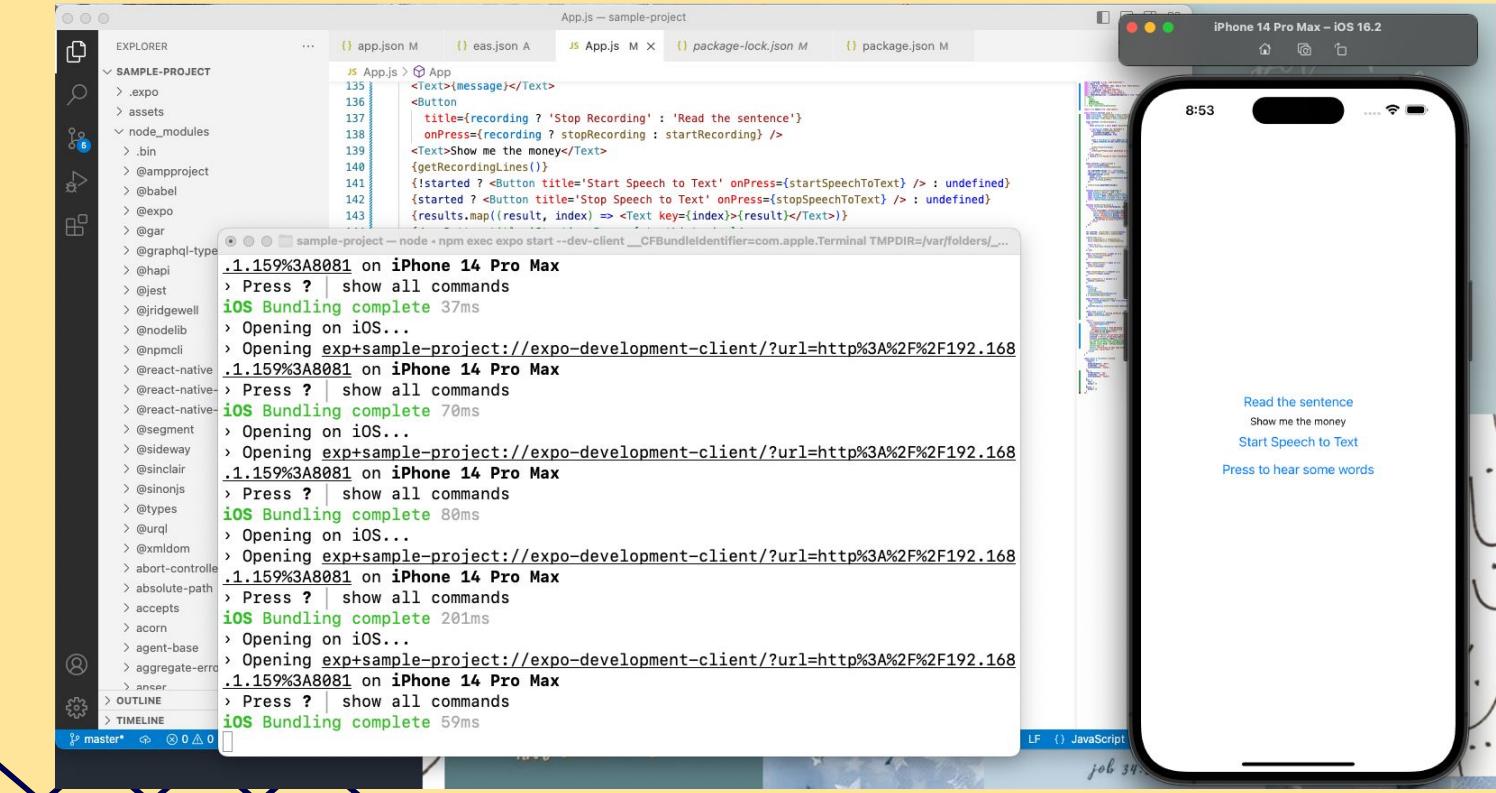
Current Demo
(Sprint 2)



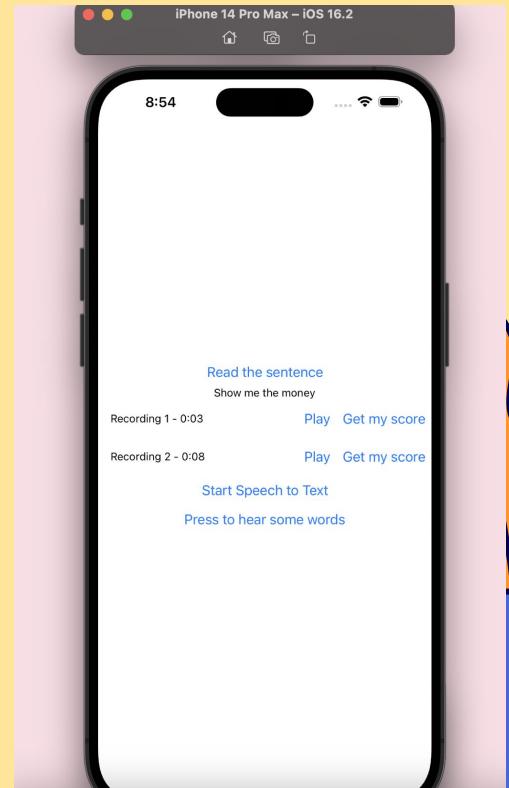
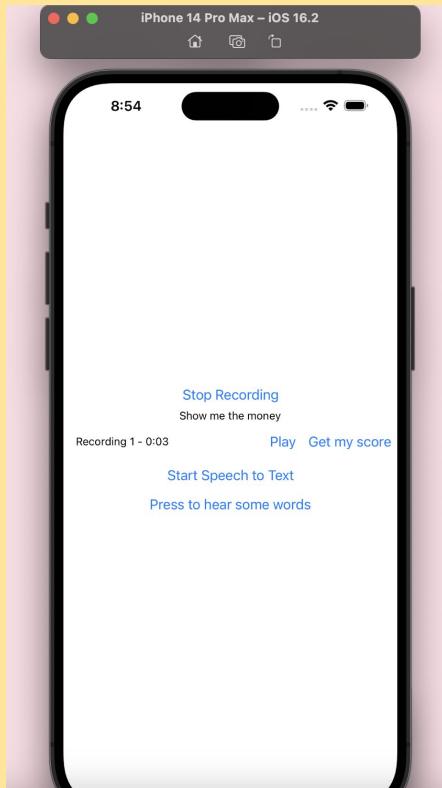
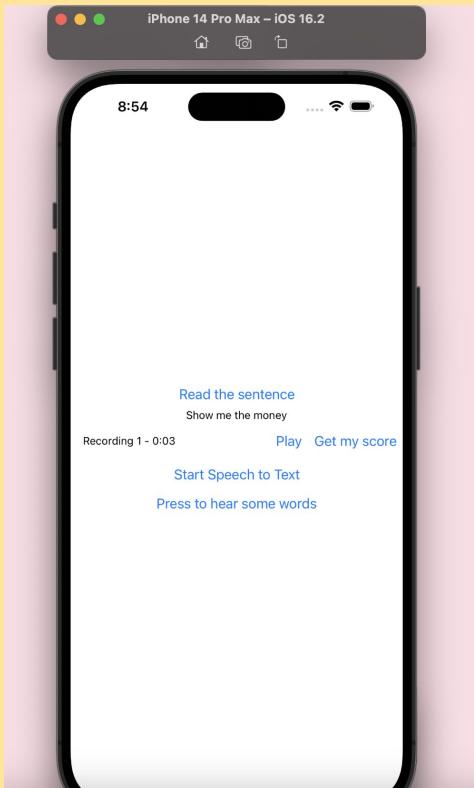
Current Demo (Sprint 2)

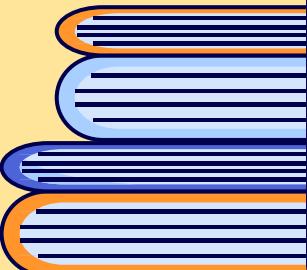


App Demo at Sprint 2



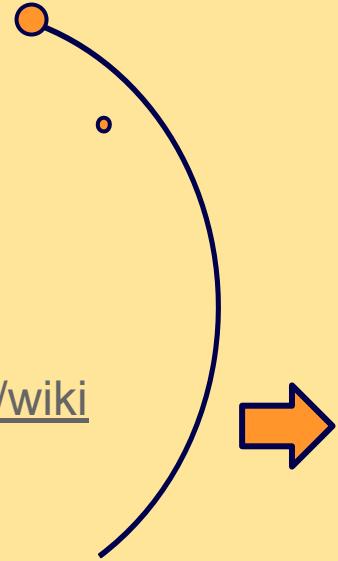
App Demo at Sprint 2





Github Link

<https://github.com/htmwlangu魯/wiki>





Thank you for watching!

