

Project: Languru

SPRING 2023 – CS691 CAPSTONE PROJECT

PROFESSOR HENRY WONG

PACE UNIVERSITY

Team 5 – RADIANT

Thanh Pham

Musa Nishat

Noel Sam Routhu

Indevara Tadikonda

Hariharanmurthy Krishnamoorthy



Team Member Roles



Thanh Pham
(Developer)



Noel Sam
Routhu
(Database
Administrator)

Team Member Roles



Indeevara
Tadikonda
(Developer)



Musa Nishat
(Developer)

Team Member Roles



Hariharammurthy
Krishnamoorthy
(Quality Analyst And
Tester)

Team Members Roles

Name	Roles
Thanh Pham	Developer, Project Manager
Musa Nishat	Developer
Noel Sam Routhu	Database Administrator
Indeevara Tadikonda	Developer
Hariharanmurthy Krishnamoorthy	Quality Analyst And Tester

Agenda

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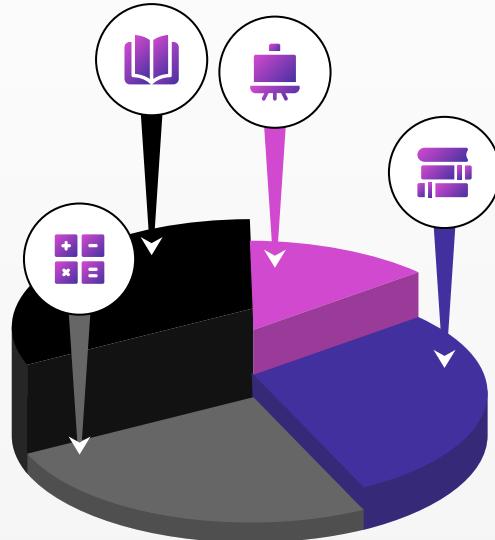
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Problem Statement



- 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 is a cutting-edge web application that brings together the best of language and guru to help English learners improve their pronunciation and fluency. Using advanced voice recognition technology, **Languru** allows users to record their voice and receive real-time feedback on their pronunciation accuracy. **Languru** is capable of breaking down the sound of a word to check individual components, and uses voice recognition algorithms to identify which parts of the word are pronounced correctly or incorrectly. With machine learning, the accuracy of the feedback can be continually improved, making this software an indispensable tool for anyone looking to improve their English speaking skills.



Market Analysis

The main focus of **Languru** is on customers / vendors who strive to learn/speak/teach English language on regular basis.

According to "**Research and Market's**" analysis - 'The global English Language Learning Market is expected to reach \$69.62 billion by 2029, at a CAGR of 9.5% during the forecast period of 2022-2029'

Based on geography, the market is segmented into North America, Europe, Asia-Pacific, Latin America, and Middle East and Africa. In 2023, Asia-Pacific is expected to account for the largest share of the global English language learning market and is expected to grow at the highest CAGR during the forecast period.

Vendor Outreach:

The key players operating in the global English language learning market are Cambridge University Press (U.K.), New Oriental Education & Technology Group Inc. (China), Houghton Mifflin Harcourt Company (U.S.), McGraw-Hill Education, Inc. (U.S.), Duolingo Inc. (U.S.), Berlitz Corporation (U.S.), Busuu Online S.L. (Spain), Babble GMBH (Germany), Linguistica 360, Inc. (U.S.), Mondly (Romania), ELSA Corp. (U.S.), FluentU (A part of Enux Education Limited) (China), Memrise Inc. (U.K.), Mango Languages (U.S.), Rosetta Stone Ltd. (A part of IXL Learning, Inc.) (U.S.), Inlingua International Ltd. (Switzerland), Sanako Corporation (Finland), Transparent Language, Inc. (U.S.), and Open Education LLC (U.S.).

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

Loves

- His children
- Playing guitar
- Old Kung Fu movies

Frustrations

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

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

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

Goals

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

Loves

- Kids
- Hiking
- Collecting records

Interests

- Child healthcare
- Medical research
- Development of Puerto Rico

Frustrations

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

Motivations:

- Convenience
- High Quality
- Price



Languages and Tools

Coding languages



Databases



Tools



Schedule + Sprint

▼ Sprint 1

	Task	Status	Priority	Timeline	Estimation(Days)	
<input type="checkbox"/>	Get approval for the project idea		Done	Critical	Feb 2 - 15	5
<input type="checkbox"/>	Setup Project Tools(Github and Jira)		Done	High	Feb 2 - 15	2
<input type="checkbox"/>	Create Team Roles		Done	Medium	Feb 2 - 15	2
<input type="checkbox"/>	Establish weekly meetings		Done	Medium	Feb 2 - 15	1
<input type="checkbox"/>	Divide work		Done	Medium	Feb 2 - 15	1
<input type="checkbox"/>	Complete deliverable 1		Working on it	Critical	Feb 2 - 15	4
<input type="checkbox"/>	+ Add Task					

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

Retrospective

What Went Well

Open Communication: The team members had open communication, which facilitated the exchange of ideas, opinions, and feedback. The team encouraged collaboration, which ensured that everyone was on the same page and working towards the same objectives.

Well-Defined Roles and Responsibilities: The team had well-defined roles and responsibilities, which ensured that everyone knew what was expected of them. This clarity helped the team to work efficiently and effectively, as everyone knew what they needed to do to achieve the project's objectives.

Agile Methodology: The team's adoption of an Agile methodology was a strength, as it allowed the team to be responsive to changes and adapt to new requirements quickly. The approach enabled the team to work in sprints and focus on prioritized tasks, which resulted in an efficient and effective development process.

What Needs Improvement?

Better Time Management: The team could improve their time management skills by setting more realistic goals and deadlines. The team could also prioritize tasks and set achievable milestones to ensure that they deliver quality work within the given timeframe.

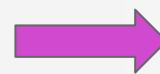
Enhanced Documentation: The team could improve their documentation practices by ensuring that project-related information is accurately documented and easily accessible. This includes project plans, meeting minutes, progress reports, and technical documentation.

Continuous Learning: The team could focus on continuous learning and skill-building to keep up with the latest technology and development trends. The team could also consider incorporating training and development opportunities into the project plan to help team members learn new skills and technologies.

Goals For Next sprint:



Improve our testing practices, including using automated testing and through manual testing to ensure the application is working correctly



Improve our communication by having more focused meetings, reducing unnecessary emails, and using collaboration tools to communicate in real-time.



Enhance our collaboration by sharing knowledge and resources, seeking feedback, and supporting each other. We will also aim to create a positive and inclusive work environment to promote creativity and innovation.

Group Wiki page Link:

<https://github.com/htmwlangu...>



Thank you for your listening!