TALK AR

PRESENTED BY TECHNOCRATS

About Us

The Technocrats is a team of six, formed in Feb, 2020. The team consists of Btech students from NIT, Warangal

Contoso

The Problem

Speech lag in children

Over 15 million people worldwide face with the issue of strutter. And majority of them have it since young

Effects

Inability in proper communication skills due to lack of confidence and growing introvertness as a result

Basic Solution

The kid needs a person to interact with him on a daily basis, teach and rectify his mispronunciations and help him overcome his disorder.

Demand

The increase in rate of both working parents prevents them from being the companion the child needs.

Our Solution

Our app becomes the child's daily companion helping him overcome his disability by talking, listening and correcting him

LEARN .
GROW .
PLAY.

How our app addresses the issue psychologically?

PROBLEMS SOLVED

❏ The most effective learning children do is through play .

❏ ADDRESSING SPEECH AND LANGUAGE DELAY :

1 .speech correction thro TTS and STT technology .

2. Homophones teaching .
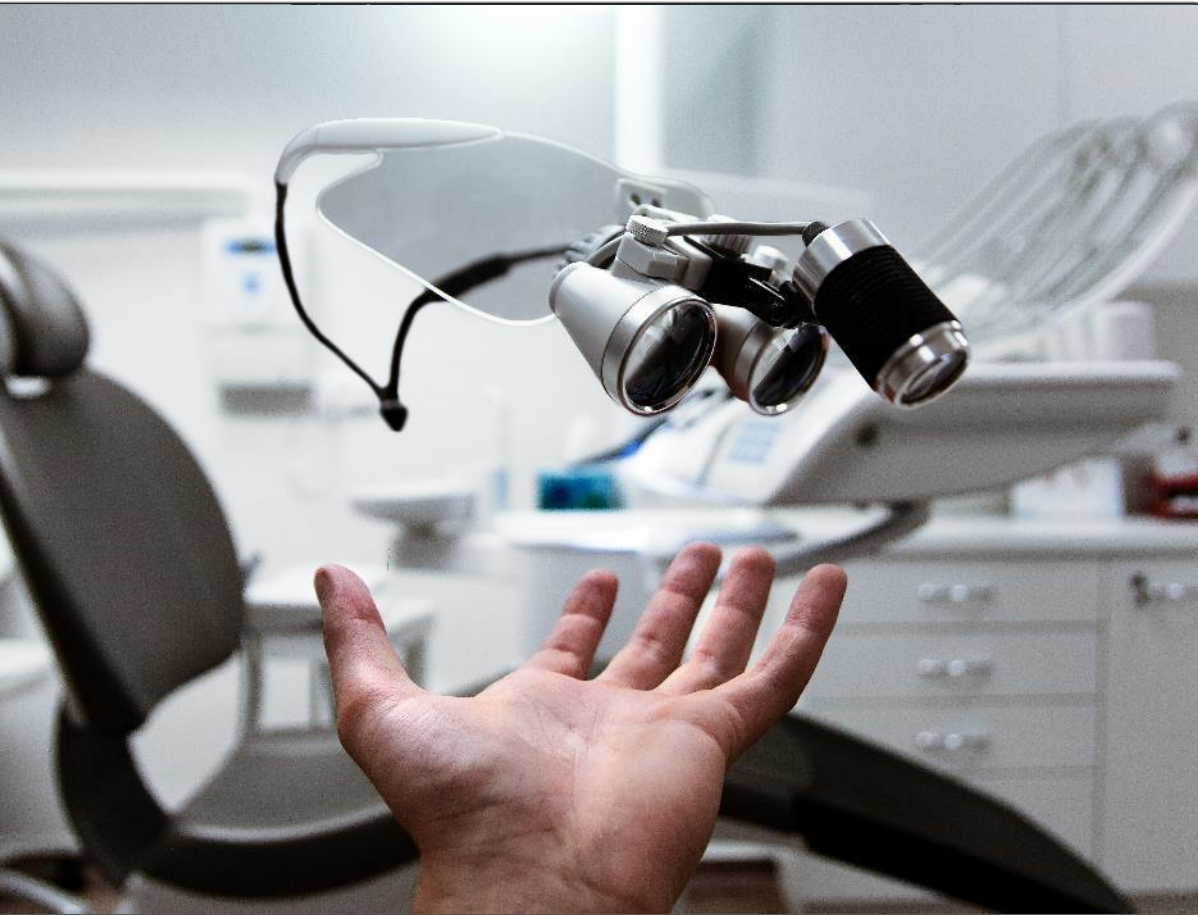
Developemental Milestones for Speech and Language in Children

Age	Receptive	Expressive
6 months	Turns to rattling sound* Turns to voice†	Laughs* Vocalizes (cooing)*
9 months	—	Babbles, single syllables* Says "mama" or "dada," nonspecific† Waves "bye-bye"†
12 months	Follows one-step command[15]	Babbles* Imitates vocalizations and sounds* Says one word† Waves "bye-bye"†
15 months	—	Says one word* Says three words† Waves "bye-bye"*
18 months	Points to at least one body part†	Says three words* Says six words†
2 years	Points to two pictures* Follows two-step command[15]	Combines words† Names one picture†
2.5 years	Points to six body parts*	Knows two actions† Names one picture* Speech half understandable†
3 years	—	Knows two adjectives† Names four pictures* Names one color† Speech all understandable†
4 years	—	Defines five words† Names four colors† Speech all understandable*

NOTE: *Except where otherwise cited, milestones are adapted from Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents.[14]*

*—More than 90 percent of children pass this item.

†—50 to 90 percent of children pass this item.

Information from references 14 and 15.

[Source](#)

HOW IT HELPS CHILDREN?

child must practice speaking to get better at it. it helps to use all the senses when learning how to say sounds.
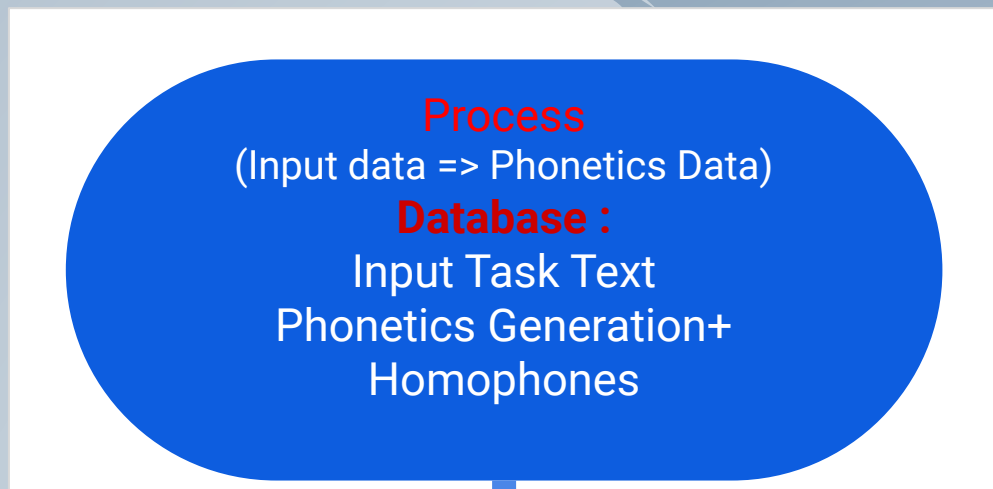
child uses "visual" cues, like looking into the camera when making sounds;

or "listening" cues, like practicing sounds with TTS and STT and then listening to hear if the sounds were made correctly.

app can provide auditory and visual feedback to help your child learn how to form sounds. In addition, your child can hear their own sound productions for comparison

TECHSTACK

- **Augmented Reality and 3D modelling :**
  - Unity ARFoundation
  - ARKit
  - ARCore (by Google)
  - Unity TTS PlugIn

- **Android Studio**

- **Natural Language Toolkit (NLTK)**

- **Django (Backend)**

- **REST API**

FLOW CHART

SERVER

FRONTEND

Process
(Input data => Phonetics Data)
Database :
Input Task Text
Phonetics Generation+
Homophones

Functionality

- **Task Scheduler**
- **Learner Mode**
  - **Homophones Learning**
  - **Material learning**
  - **(TTS Functionality)**
  - **Records and checks correctness**
  - **Data to parent on web dashboard and email**

Web Dashboard (parental console)

Task input through form

Please find demo of working prototype here
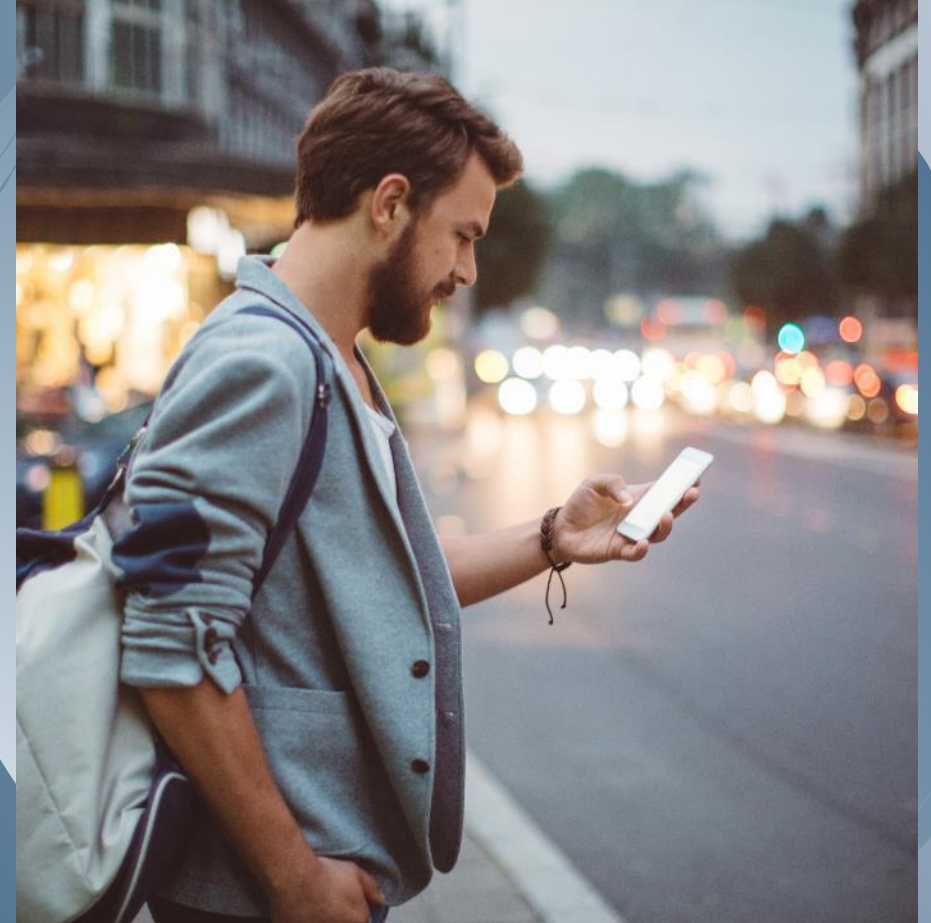
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Demo of working prototype :
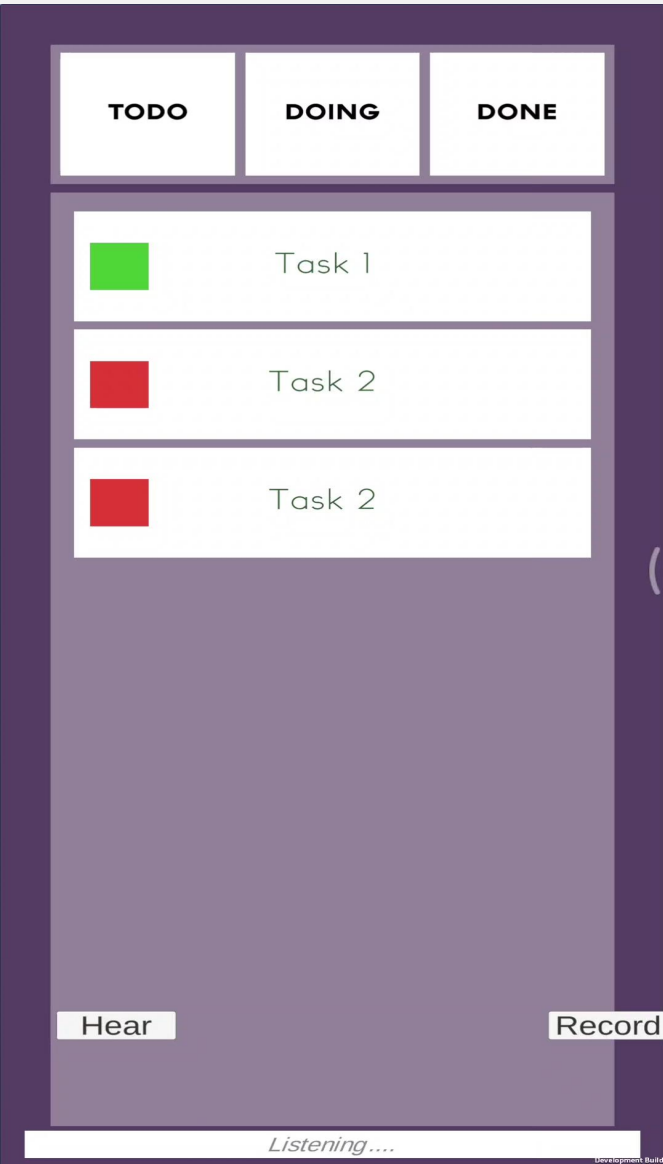
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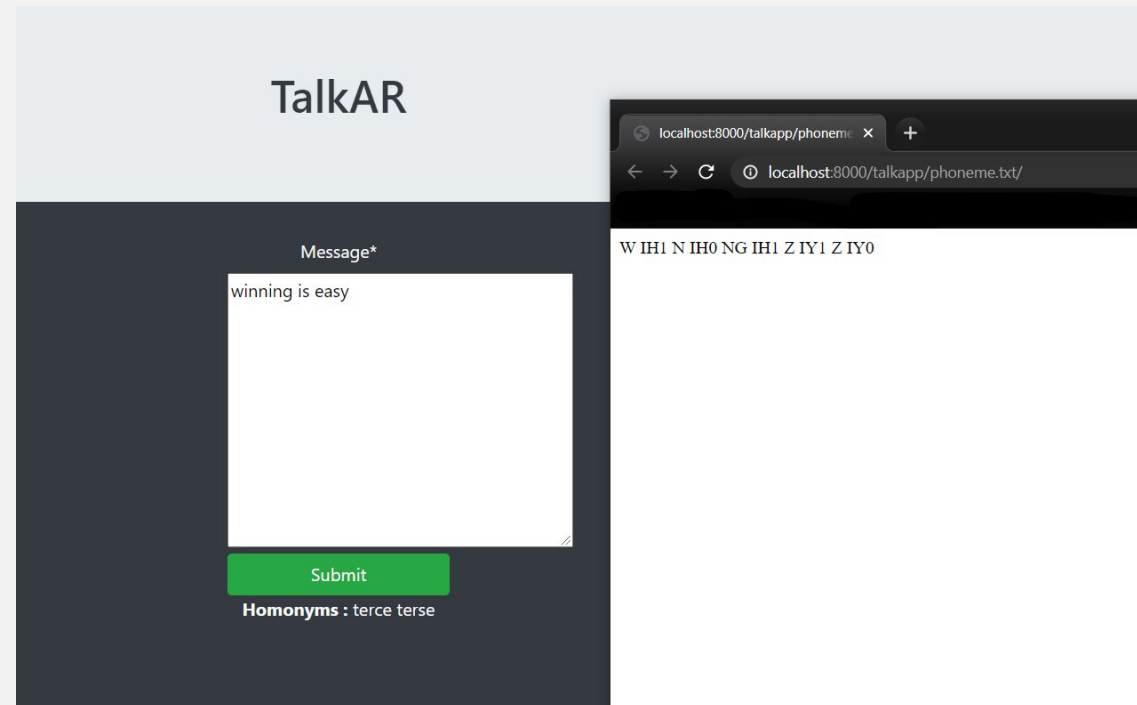
BUSINESS ASPECT

Market Opportunity & Scope

Opportunity to Build

The staggering numbers of people who need a cure for their children's disabilities demands such a product.

Freedom to Invent

The requird technologies exist and the idea can be easily implemented.

Few Competitors

The market doesn't yet have strong competition

USP

- Novelty of idea. Nothing like this has yet been openly introduced to the public. Since we are targeting disabled children.

- No strong competition yet in India.

- The need is strong. Every parent would wish fervently for their child to overcome their disability.

Challenges

- Reducing research and product gap. We would have to take expert advice and feedback extensively before the product is complete and a hundred percent effective.

- The group consists of just Engineer students for now, the gap between Engineering and consumer produce needs to be filled. We would need to hire some professionals in marketing and finance to do it.
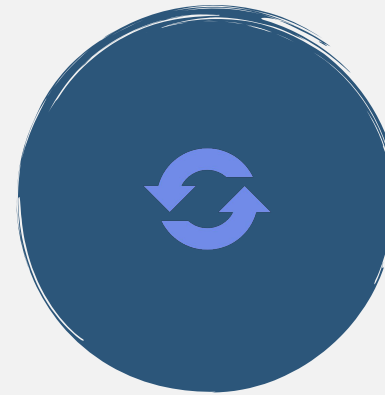
Business Model

Research

We need to obtain a lot of feedback and research data for the product, and customize it properly for quality user experience, from parents and experts.
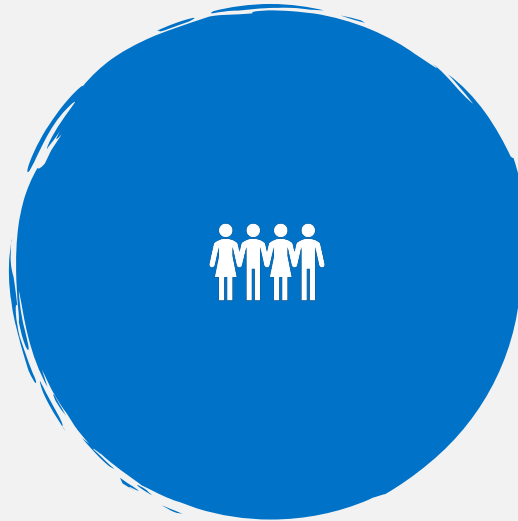
Finance

Also properly decide and manage the investments and the capital
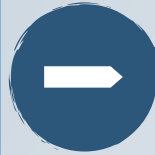
Tech

A team for continuous updating and improvement of the product and its support.

Growth Strategy

Phase 1
Dec, 2020 – Jan, 2021

- Form the managing and research team
- Finish development of version 1 of the product.
- Collect feedback from parents.

Phase 2
February - March , 2021

- Continuously develop the app for public release based on feedback obtained.
- Release a beta version of the product for testing

Phase 3
April , 2021

- Design and release the product in public.
- Expand sales and enter stage two.

THANK YOU