Storyteller Bot

Aneekah Uddin - COS IW 07/08
Advisor: Radhika Nagpal

Table of contents

01 Motivation and Goal

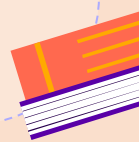
02 Problem Background and Related Work

03 Approach

04 Implementation

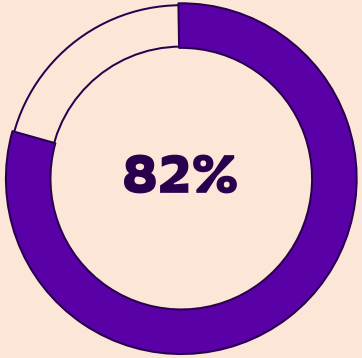
05 Results

06 Conclusion



01

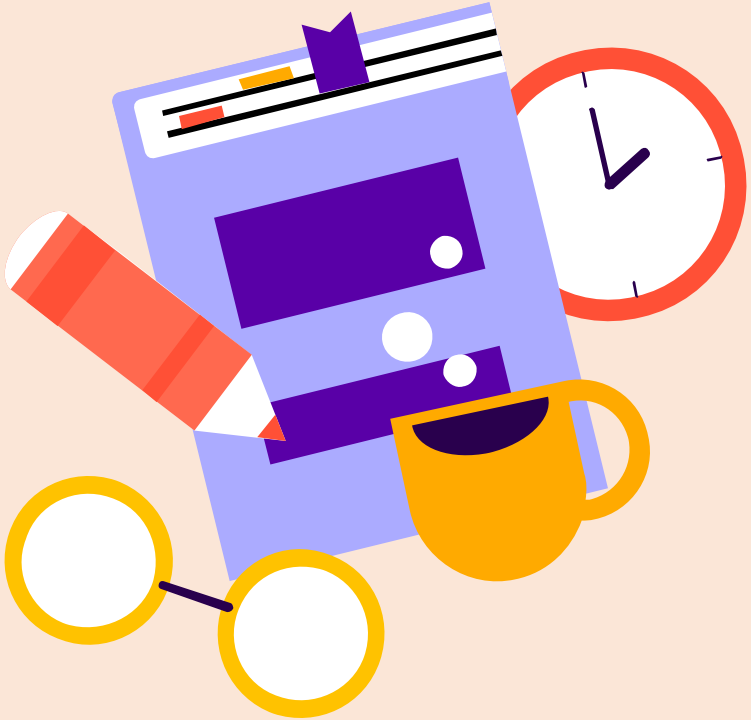
Motivation and Goal



of students eligible for free or reduced lunches do not read at or above proficient levels by fourth grade

Research Question

“How can we design a technological solution to address the education/literacy gap between students of different socioeconomic statuses?”



02

Problem Background
Related Work

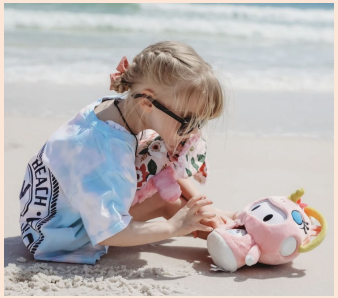
Current Landscape

Tega

MIT Companion AI - Personalized Literary Skills Building

Luka Reads

Singapore Based AI Literary Device - Reads Chinese/English Titles



Codi Bot

Preprogrammed Audiobooks, English Titles

Reading Software

Literary Skills and Comprehension Games Available Online

My Differences

“Storytelling” Focus

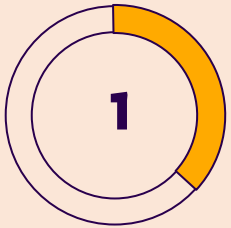
Kid Centric

Cost

03

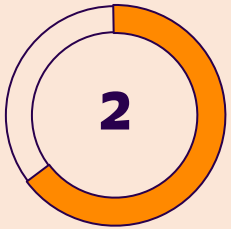
Approach

Project Components



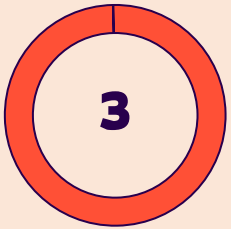
Hardware Loop

Technical Components of the Project (Camera, Wiring, Connecting to Laptop/UI/Software)



Software Loop

Developing Framework, Computer Vision, Choosing/Connecting APIs, Additional Features (Gamification, UI Development)



Physical Product

Assembling the Product, Kid-Proofing/Kid-Encouraging, Lowering Cost, Effective Positioning/Ease of Use

ITERATE,
ITERATE,
ITERATE.

04

Implementation

Software Components

Computer Vision

OpenCV, PyTesseract, Vision Language Models, Google API

Additional APIs

Translation, Audiobooks, Libraries, etc.

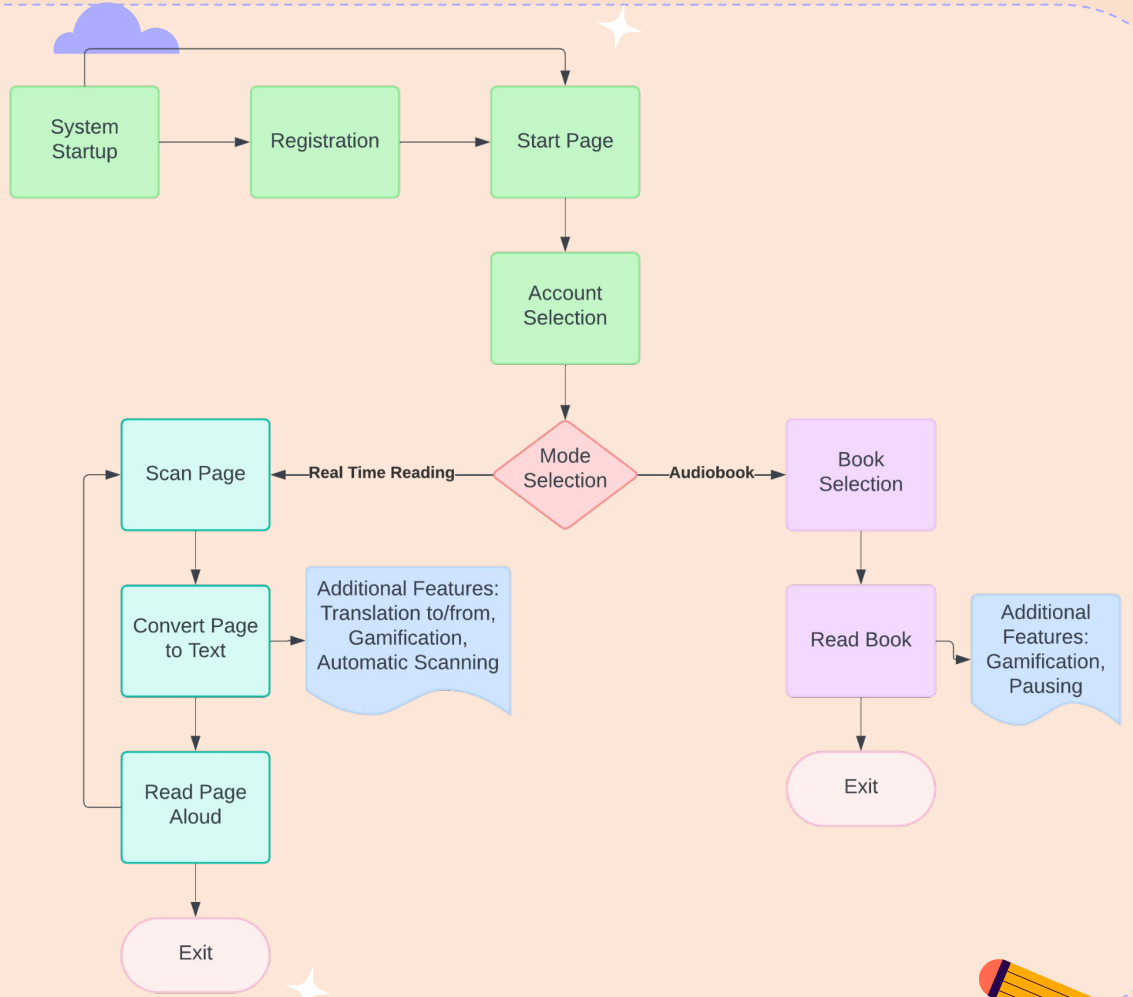
Speech API

gTTS, Google API, alternatives

User Interface

Human-In-The-Loop, Terminal, Python GUI, Remote, etc.

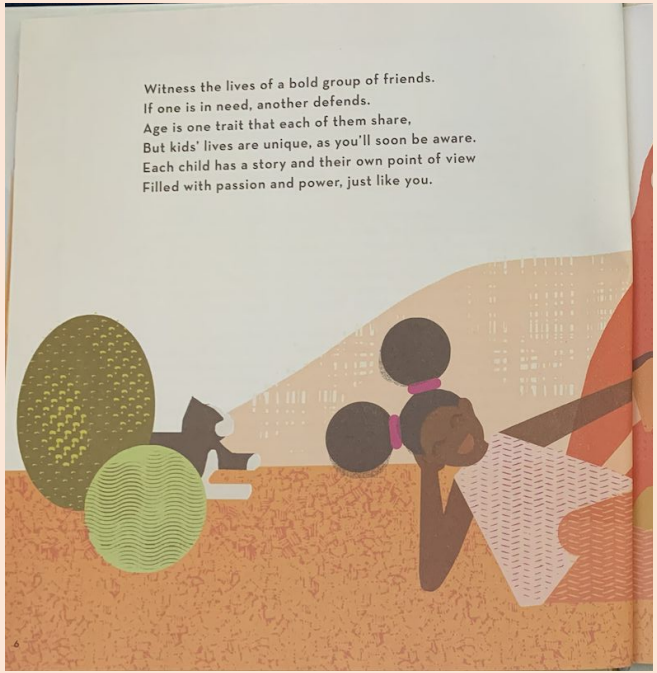
Software System Design Framework



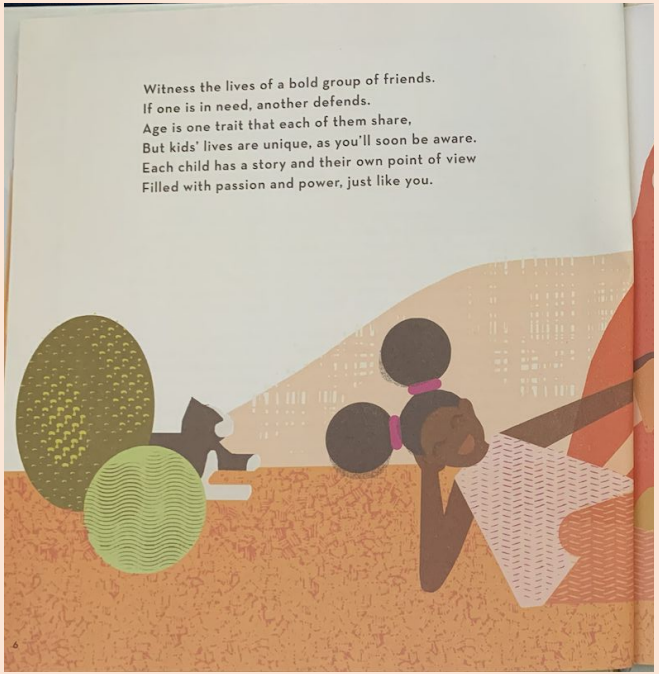
05

Results

Current Progress Video



Current Progress



Current Progress

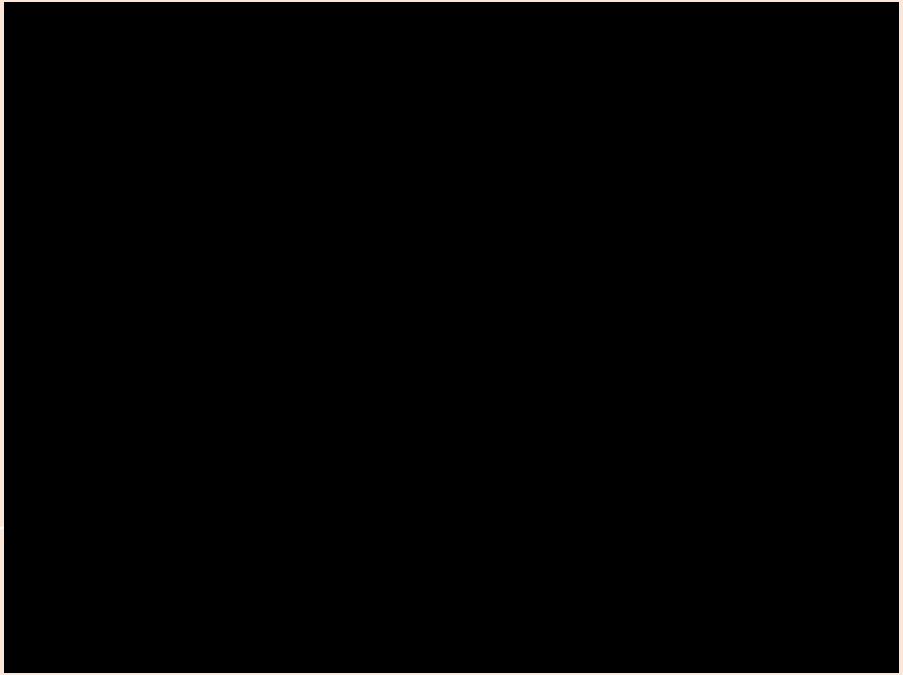
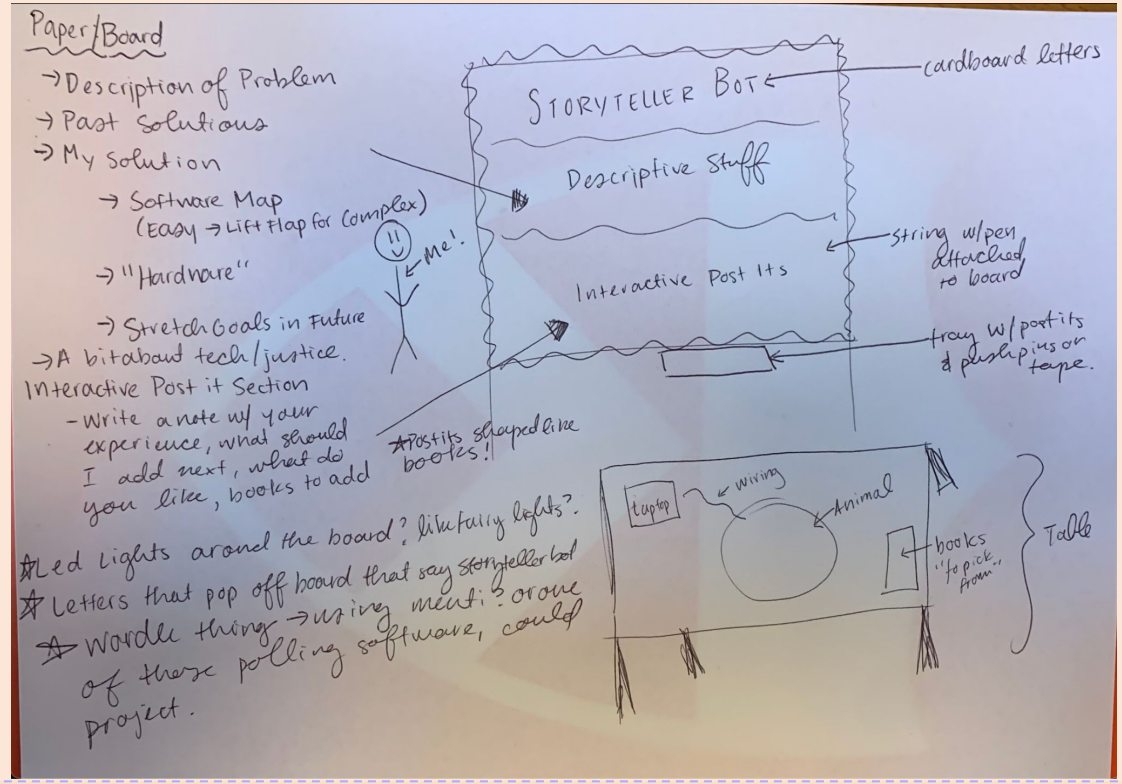


Exhibit Preparation



06

Conclusion