

# Task 2 Report: Low-fi Prototype

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## 1. User Requirements & Data Gathering Methods

### a. User requirements:

- **Multilingual Support:** The study of the Multilingual Education (MLE) program in Odisha provides clear evidence that students learn better when they can use their native language. [[Panigrahi,S.S.\(2025\), An Evaluation of Multi Lingual Education Programme in Odisha](#)] This is important because it means any career guidance system needs to work in languages students actually understand, not just English. Thus, the system must allow students to interact in their native or regional language, with culturally sensitive phrasing and examples that reflect their local context and educational environment.
- **Conversational and Personalized Guidance :**  
Students should receive instant, understandable, and empathetic feedback through a chatbot or interactive interface that explains results, career options, and next steps in plain language. This builds along the work [[Kamble S. \(et al\) Machine Learning based Intelligent Career Counselling chatbot](#)] which features a chatbot having emotional intelligence.
- **Inclusive design:** Despite the prevalence of the digital landscape, only 38% of the households are digitally literate, and in rural areas this number falls to about 18%. [[Digital literacy in India, a pressing priority - The CSR Journal](#)]. Thus, the system must be easy to use for students with limited digital literacy, use visual or voice support where possible, and present information in a way that builds confidence and trust rather than confusion.
- **Holistic Career Assessment:** The test assesses aptitudes and interests as well as values, favourite subjects to study, future career aspirations of the student, whether the student will go to college etc. The holistic assessment was curated after thoroughly reviewing the existing ones.

## b. Data Gathering Methods

- **Systematic literature review and synthesis :** We conducted a systematic literature review of which we shortlisted 17 papers that explored works exploring this problem statement. Through the extensive review we were able to explore the problem space, user needs and gaps in the existing solutions for them.
- **Review of existing career assessments:** Various existing career assessments were reviewed, including the RIASEC test [[source](#)], NCERT's career guidance framework [[source](#)], and the UK National Career Service test [[source](#)], to understand how aptitude, interests, and values are measured across contexts. The RIASEC model provided insights into interest-based categorization, while the NCERT test emphasized holistic assessment suited to Indian students. The UK NCS highlighted the importance of linking assessments with real-world job and training opportunities.
- **User interaction:** Talked to kids studying at **Nyasa**, IIT Gandhinagar to understand their viewpoint.

## 2. Personas & Scenarios

- a. Persona 1 : Priya, a 15-year-old 10th-grade student from a small town in India. She is bright but anxious about choosing a career

Scenario: Priya, a bright 10th grader, has just wrapped up her exams. But instead of feeling relieved, she's overwhelmed with confusion and anxiety about what to do next. Her parents, though well-meaning, keep encouraging her to choose a "safe" path like engineering or medicine options that don't really excite her. Still, she's unsure what else is out there or how to even start exploring. That uncertainty is what truly drives her right now. Priya desperately needs personalized career advice that is not only easy to understand and trustworthy but also helps her unravel her confusion by presenting clear, relevant alternatives

- b. Persona 2 : Mr/Ms Kaya

Profile - A tribal from the forest area of Gujarat with no smartphone and internet access , what all they have is a nokia mobile.

Scenario – Kaya has just completed their 10th standard and wants to get good, personalized career advice from someone in a way that's easy to access. However, since Kaya only has a basic Nokia mobile phone with no internet access, they are looking for a solution that works through simple voice calls or SMS in their local language, making it convenient and understandable for them.

### 3. Prototypes:

#### a. Prototype 1 - Webapp

This prototype is a multilingual, AI-driven career guidance platform that helps students discover their strengths through carefully curated aptitude and values assessments, along with their personal information consisting of 53 questions across the 3 sections . It offers instant, personalized insights through an interactive chatbot and a seamless, low-setup interface. This prototype was made using Figma.

#### b. Prototype 2 - Phone based

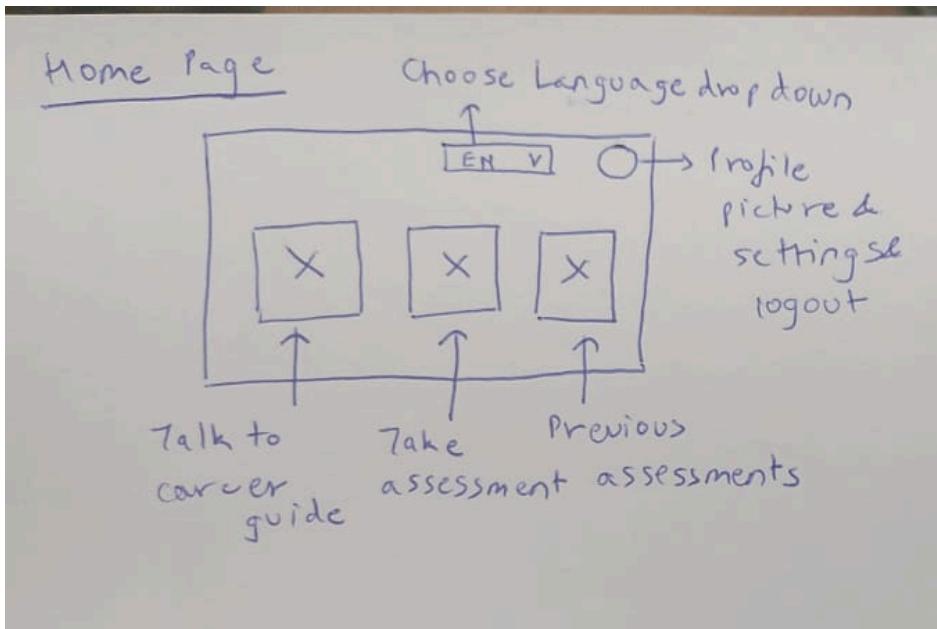
This prototype is a voice-based career guidance system designed for accessibility even without internet or smartphone access. The user simply calls a **toll-free number**, where an automated voice assistant will firstly ask to choose from 3 languages English , Hindi and Gujarati and then will ask around **18 personalized questions** related to their interests, strengths, and education. Based on the responses, the system generates a **customized career path** and sends a **detailed career guidance report via SMS**, ensuring that even users with basic mobile phones can receive valuable and tailored career advice. This prototype was made using twilio.

### 4. Interface Layout Elements

#### a. Prototype 1

The low-fi prototype can be accessed through [this link](#).

We initially made basic on paper wireframe of main pages post which we iterated to arrive at our final wireframe solution in the above link.



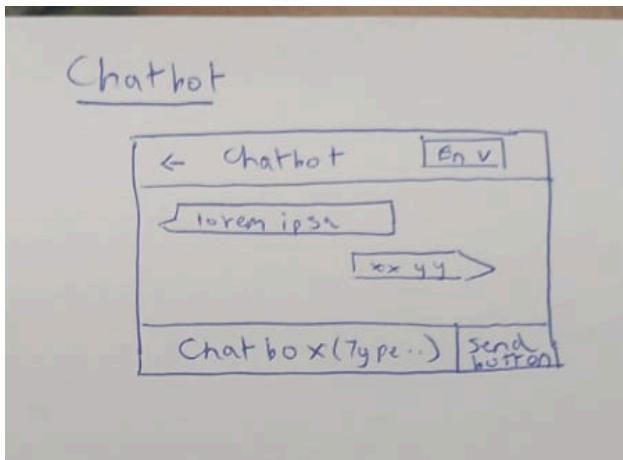
Assessment Page

← Assessment EN Zawr

Q1. Lorem ipsum delta?

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

Q2. Alpha beta gamma?



#### Screenflow navigation:

##### a. Onboarding and Setup

Students begin by completing a brief form that requests their name, class, and age, and by providing consent to use their data for guidance purposes. After submitting, they're taken straight to the home dashboard. Each page offers an option to select your preferred language.

##### b. Home Dashboard

The dashboard greets the student by name. The upper side of the dashboard features a user profile icon, which includes a dropdown menu with settings & logout options. The dashboard displays three actions:

Talk to Career Guide – Opens the chatbot for quick guidance.

Take Assessment – Starts a new assessment.

Previous Assessments – Allows students to review their past results.

If a test is already in progress, a progress card appears, showing the percentage of the form that has been filled. By clicking it, the user can continue the assessment that was left off.

##### c. Assessment Flow

Students complete three assessments in order: Aptitude, Values & Motivation, and Personal Information. Assessment begins with a brief instruction box. Questions are displayed on a single scrollable page with clean, card-style sections. Horizontal options make it easy to compare answers without too much scrolling. A fixed Save button is always visible, allowing users to save a partially completed form and return to it later.

Progress bars show the percentage of questions answered. If a user tries to move to the next section with any unanswered questions, a pop-up is displayed, warning the user to answer all the questions.

##### d. Processing and Analysis

After submitting answers, a Processing screen appears with short animated messages, such as "Analysing responses" or "Matching career paths." Each step updates visually, making the short wait feel purposeful. The screen ends with a success message and a clear button to view results. Clicking this takes the user to the chatbot interface, which responds with guidance based on the analysed data from the assessment.

#### e. Chatbot Interaction

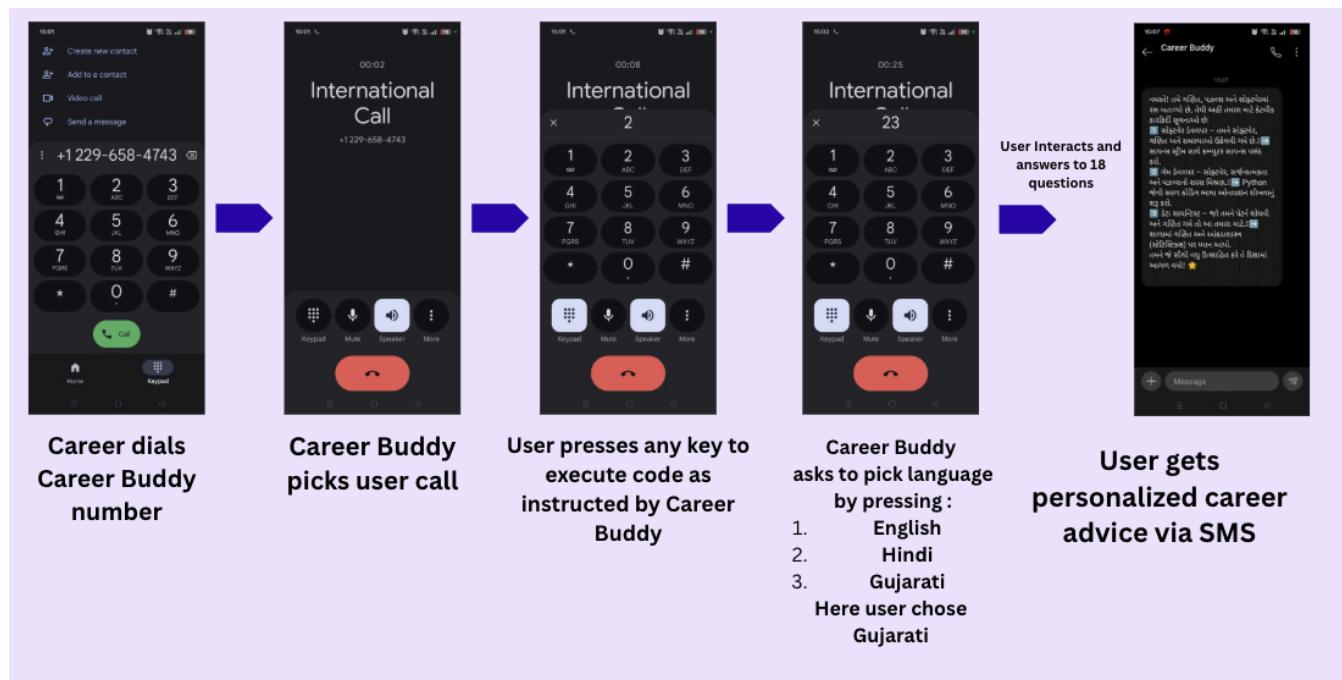
The Career Guide chatbot shares the results in a friendly chat format. Typing dots appear before each reply, making the bot feel more natural and conversational. The chat shows the student's strengths, suitable study streams, and career options. Students can ask follow-up questions, and the chat clearly separates user and bot messages for readability. If they reach the demo limit, a gentle "connection error" message ends the session smoothly.

#### f. History and Settings

The Previous Assessments card on the dashboard shows the number of completed assessments. Opening it displays all assessments. Users can view the chat history, allowing users to continue discussing with the chatbot and revisit results to view the chosen options for each assessment. In Settings, students can update personal info or delete their account. Account deletion uses a clear warning dialogue to prevent accidental actions. Using the Logout button, the user can log out of the current session.

### b. Prototype 2

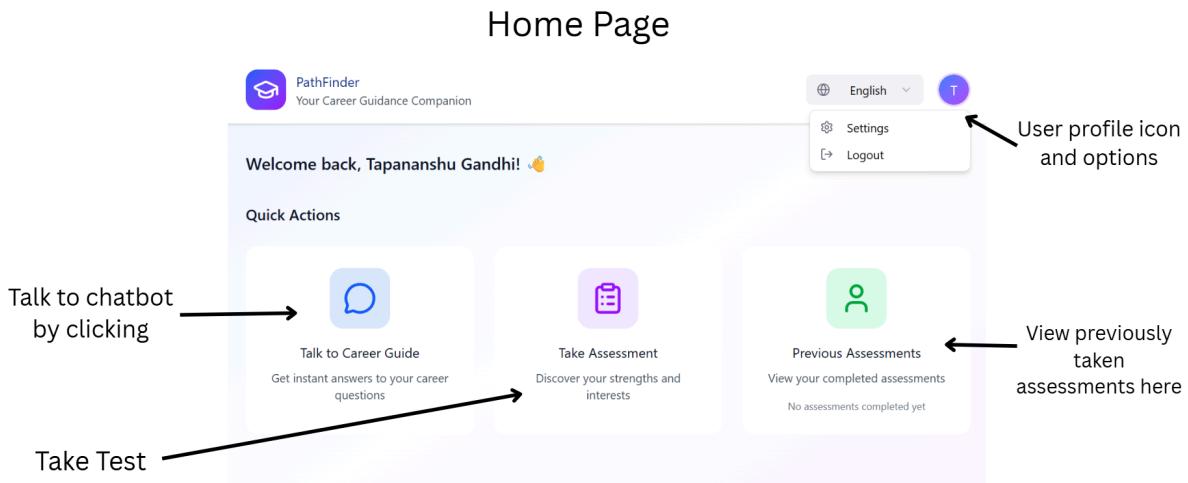
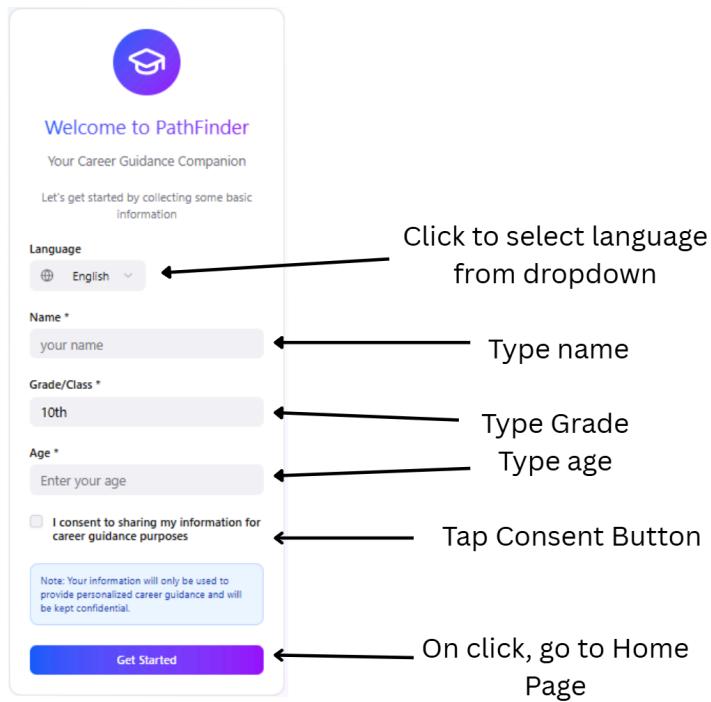
The wireframe and screenflow navigation is shown below, it will all happen on the phone app in the user's phone.

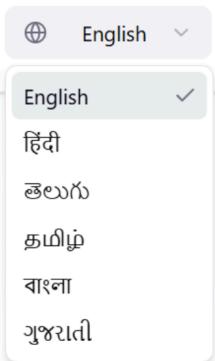


## 5. Interaction & Behaviour Elements

### a. Prototype 1

Annotations & Clickable regions:





Each page has this option:  
Change language according to your need

We have provided this option on every page,  
allowing user to change language when needed.

Home page in a different selected language



पाथफाइंडर  
आपका करियर मार्गदर्शन साथी



हिंदी



वापसी पर स्वागत है, Tapananshu Gandhi! 🙌

### त्वरित कार्य



करियर गाइड से बात करें  
अपने करियर प्रश्नों के तुरंत उत्तर पाएं



मूल्यांकन लें  
अपनी शक्तियों और रुचियों की खोज करें



पिछले मूल्यांकन  
अपने पूर्ण मूल्यांकन देखें

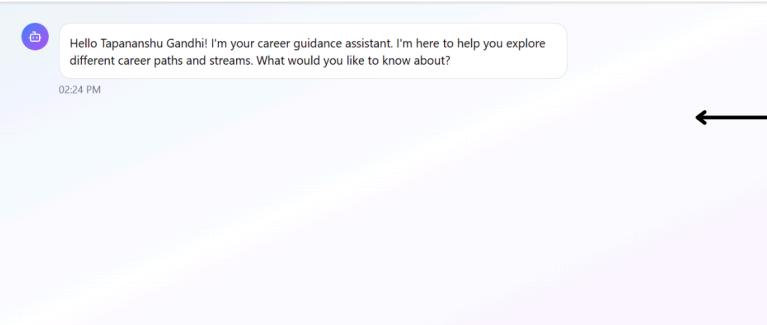
1 मूल्यांकन



Click to go back to home page

← Career Guide  
● Online

⊕ English



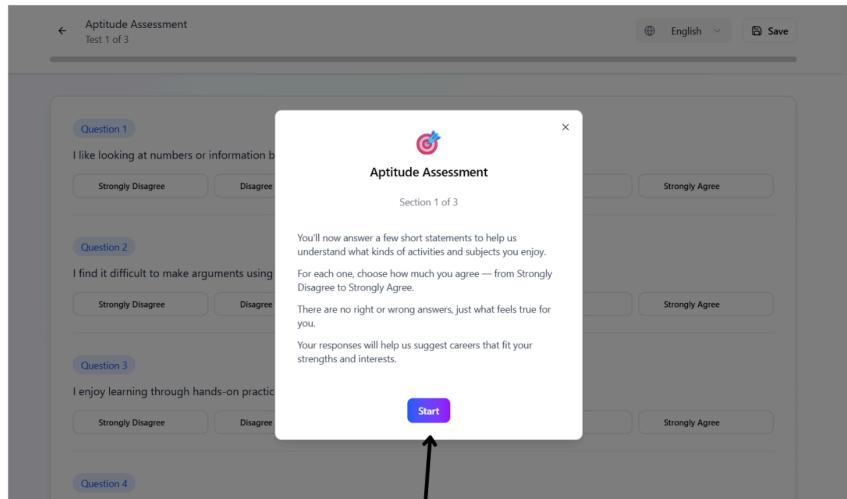
← Chatbot interface

Type your question here...

Press Enter to send, Shift+Enter for new line

← Tap to send to chatbot  
Type your query here

### Pop occurs on starting the assessment



Click start to go to aptitude test page

A screenshot of the same aptitude assessment test. The top bar shows "Aptitude Assessment Test 1 of 3", "English", and "Save". A red error message box in the center says "Incomplete Section" with an exclamation mark and "Please answer all questions before proceeding." Below the message, there are two questions: Question 32 ("I like working outdoors.") and Question 33 ("I like to draw."). Each question has five response options: "Strongly Disagree", "Disagree", "Neutral", "Agree", and "Strongly Agree". At the bottom left, it says "6 / 33 answered". At the bottom right, there is a green "Next Section" button with a right-pointing arrow. A question mark icon is in the bottom right corner of the page.

Error occurs on trying to submit without choosing all the option

Click to go back to home page

Aptitude Assessment  
Test 1 of 3

Progress Saved!  
You can continue this assessment later.

English Save

Question 32  
I like working outdoors.  
Strongly Disagree Disagree Neutral Agree Strongly Agree

Question 33  
I like to draw.  
Strongly Disagree Disagree Neutral Agree Strongly Agree

6 / 33 answered

Next Section

Pop up showing form saved to complete later

Button to save the form

Click to select the option

Click to move to next section page



Welcome back, Tapananshu Gandhi! 🙌

Pending Assessment  
Aptitude Assessment - Continue where you left off

18% Complete

Continue

Percentage of form filled is also shown

Click to continue filling partially filled form

## Test Section 2 & 3

← Values & Motivation Test 2 of 3

⊕ English

Question 1  
I try to give time to my hobbies and family, not just studies or work.

Strongly Disagree Disagree Neutral Agree

Question 2  
I don't mind doing school or work-related tasks at home if needed.

Strongly Disagree Disagree Neutral Agree

Question 3  
Getting the first position or being known as "the best" is not very important to me.

← Personal Information Test 3 of 3

⊕ English

Economics  
Physical Education / Sports

Question 2  
Is there any field you want to make your career in? Specify.  
Type your answer here...

Question 3  
Do you plan to go to college for further education?

Analysis Complete!  
your personalized career recommendations are ready

⊕ English

Progress 100%

On clicking view results user is taken to career guide which provides response after analyzing chosen option

Analysis Complete!  
We've analyzed your responses and prepared personalized career recommendations based on your aptitudes, values, and interests.

View Results click button

Career Guide • Online

Excellent work, Tapananshu Gandhi!

Based on your complete assessment, here are your career recommendations:

Your Strengths:  
• Strong analytical and problem-solving skills  
• Good technical aptitude  
• Creative thinking abilities

Recommended Streams:  
1. Science - Engineering, Technology, Architecture  
3. Commerce - Business, Finance, Management

What would you like to explore further?

02:30 PM

Type your question here...  
Press Enter to send, Shift+Enter for new line

Thank you for completing the assessment, Tapananshu Gandhi!

After attempting a test,  
the previous assessment icon  
on the home page gets updated

The screenshot shows the home page of an application. On the left, there is a large green circular icon with a white person symbol. Below it, the text "Previous Assessments" and "View your completed assessments" is displayed. A blue button labeled "1 Assessment" is present. An arrow points from this button to the text "clicking this takes you here". On the right, there is a sidebar titled "Assessment History" with the sub-instruction "View your completed assessments". Inside this sidebar, there is a card for "Assessment #1" which was completed on Oct 31, 2025 at 02:29 PM. Two arrows point to buttons labeled "View Responses" and "Chat History".

View Response takes you here

The screenshot shows the "Assessment Responses" page for the "Aptitude Test". At the top, it says "Assessment Responses" and "Review your selected options". Below that, there is a section for the "Aptitude Test" with a checkmark icon and the text "Options selected will appear here". It also states "Your assessment responses are not available in demo mode". At the bottom, there is a section for the "Values & Motivation Test".

Chat history takes you here

The screenshot shows the "Career Guide" page. At the top, it says "Career Guide" and "Online". Below that, it displays a message for "Tapananshu Gandhi" with a checkmark icon. It says "Excellent work, Tapananshu Gandhi! 🎉" and "Based on your complete assessment, here are your career recommendations:". It lists "Your Strengths" (Strong analytical and problem-solving skills, Good technical aptitude, Creative thinking abilities), "Recommended Streams" (Science - Engineering, Technology, Architecture, Commerce - Business, Finance, Management), and a question "What would you like to explore further?". At the bottom, there is a text input field with the placeholder "Type your question here..." and a note "Press Enter to send, Shift+Enter for new line".

Settings page:

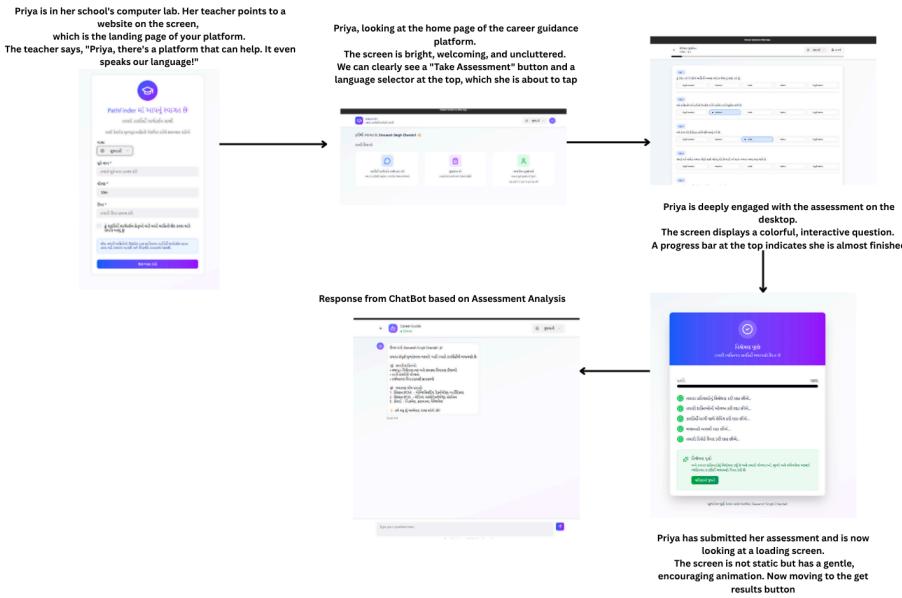
The screenshot shows the 'Account Settings' page. It includes fields for Name (Tapananshu Gandhi), Grade/Class (10th), Age (Optional) (21), Email Address (Optional), Phone Number (Optional), and a Password field (Enter new password). A 'Save Changes' button is located at the bottom left. Below this is a 'Danger Zone' section containing a 'Delete Account' link (Permanently delete your account and all associated data) and a red 'Delete My Account' button.

← Button to save updated information

← Account deletion button

Storyboard:

This is the storyboard for persona 1 Priya using our prototype 1:



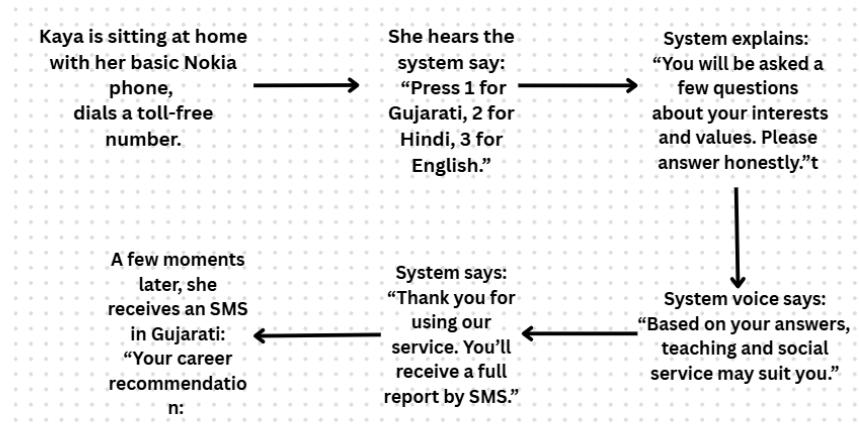
## b. Prototype 2

### Annotations & Clickable regions:

Since the prototype involves a mobile phone there are no screens/pages hence no need for annotations. The clickable region involved is the keypad and call button in the phone app of any regular phone

### Storyboard:

This is the storyboard for persona 2, Kaya using our prototype 2:

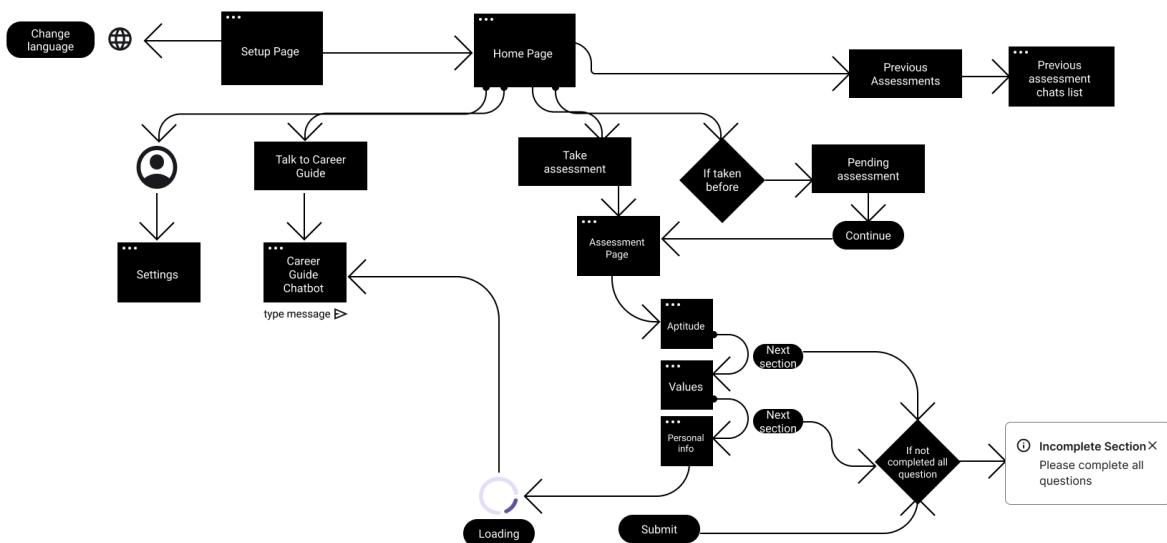




## 6. Content & Information Structure

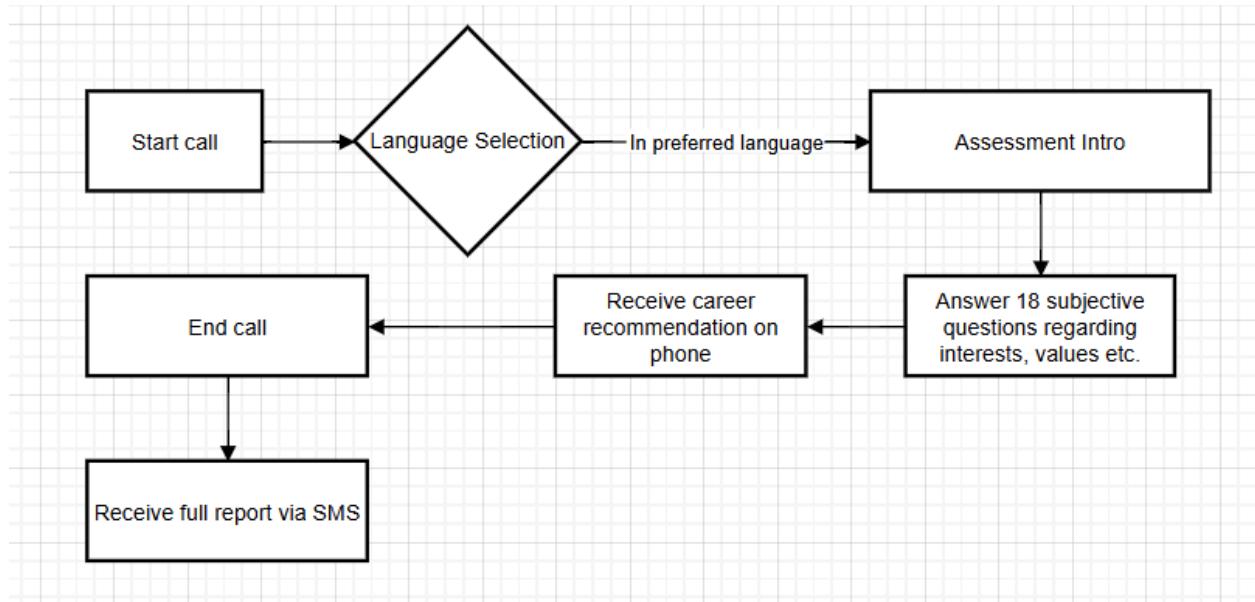
### a. Prototype 1

This is the sitemap for the webapp.



## b. Prototype 2

This is the flow diagram for the phone-based assessment prototype.



## 7. Feedback & Testing Elements

### a. Prototype 1

System Feedback:

- The system gives feedback in terms of the percentage of the test done in the progress bar, as well as the number of questions answered

Question 31

I like to get into discussions about issues.

Strongly Disagree

Disagree

Neutral

Agree

• Strongly Agree

Question 32

I like working outdoors.

Strongly Disagree

Disagree

Neutral

• Agree

Strongly Agree

Question 33

I like to draw.

Strongly Disagree

Disagree

Neutral

Agree

• Strongly Agree

7 / 33 answered

Next Section ↗

- The Progress bar shows that the test is being processed and the career recommendation is being generated



## Processing Your Assessment

Please wait while we analyze your responses

Progress

20%



Analyzing your responses...



Identifying your strengths...



Matching with career paths...



Generating recommendations...

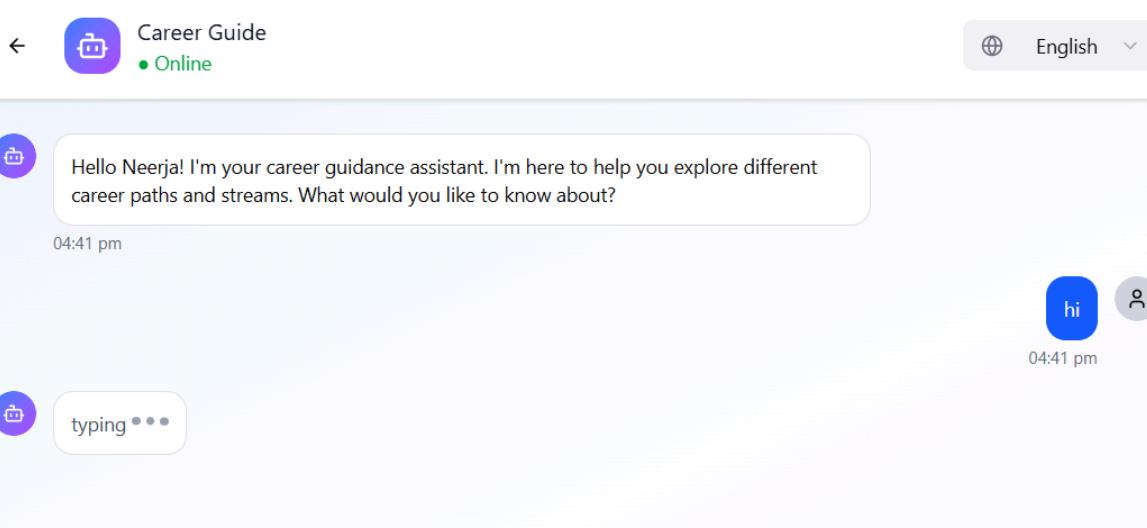


Preparing your report...

**Did you know?** There are over 12,000 different career options available in India! We're helping you find the ones that match your unique profile.

Thank you for completing the assessment, Neerja!

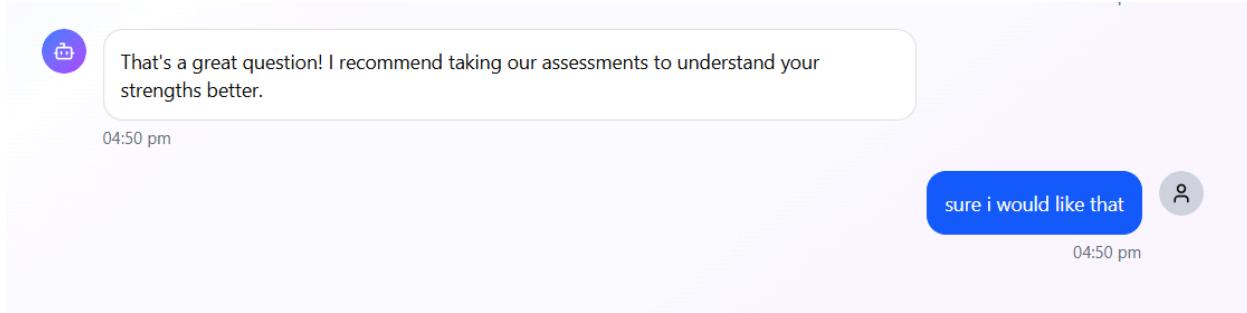
- Chatbot typing indicator to reassure the user their response is being processed



Error message:

Simple error messages addressing real world errors as well as user driven errors

- Connection error if connection with chatbot fails



- If user presses next section before answering all questions a pop up asking them to complete all questions

Aptitude Assessment  
Test 1 of 3

**Incomplete Section**  
Please answer all questions before proceeding.

English Save

Question 31  
I like to get into discussions about issues.  
Strongly Disagree Disagree Neutral Agree Strongly Agree

Question 32  
I like working outdoors.  
Strongly Disagree Disagree Neutral Agree Strongly Agree

Question 33  
I like to draw.  
Strongly Disagree Disagree Neutral Agree Strongly Agree

2 / 33 answered [Next Section](#)

- Setup page requires users to fill all fields and tick consent box before continuing

Language  
English

Name \*  
your name  
This field is required

Grade/Class \*  
10th

Age \*  
Enter your age  
This field is required

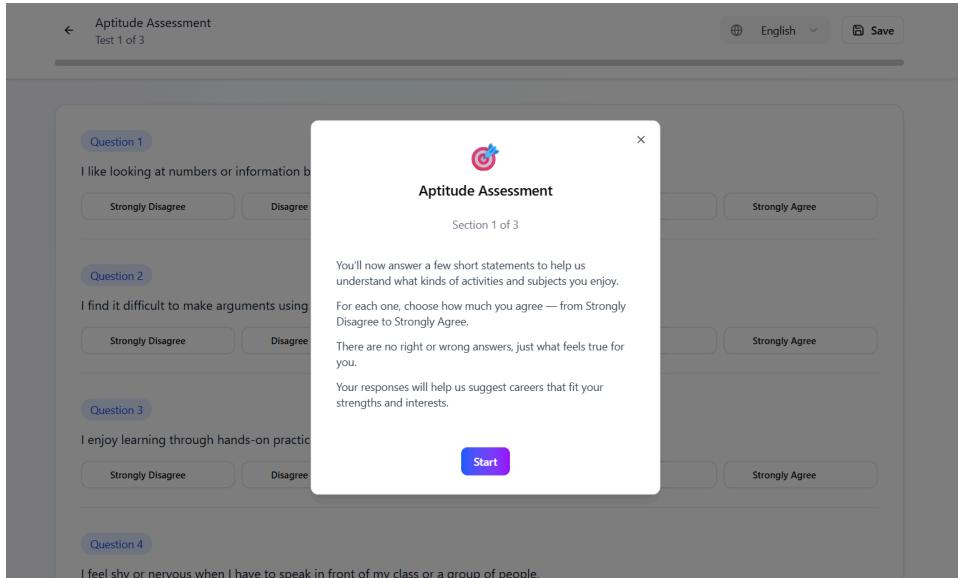
I consent to sharing my information for career guidance purposes  
Please consent to continue

Note: Your information will only be used to provide personalized career guidance and will be kept confidential.

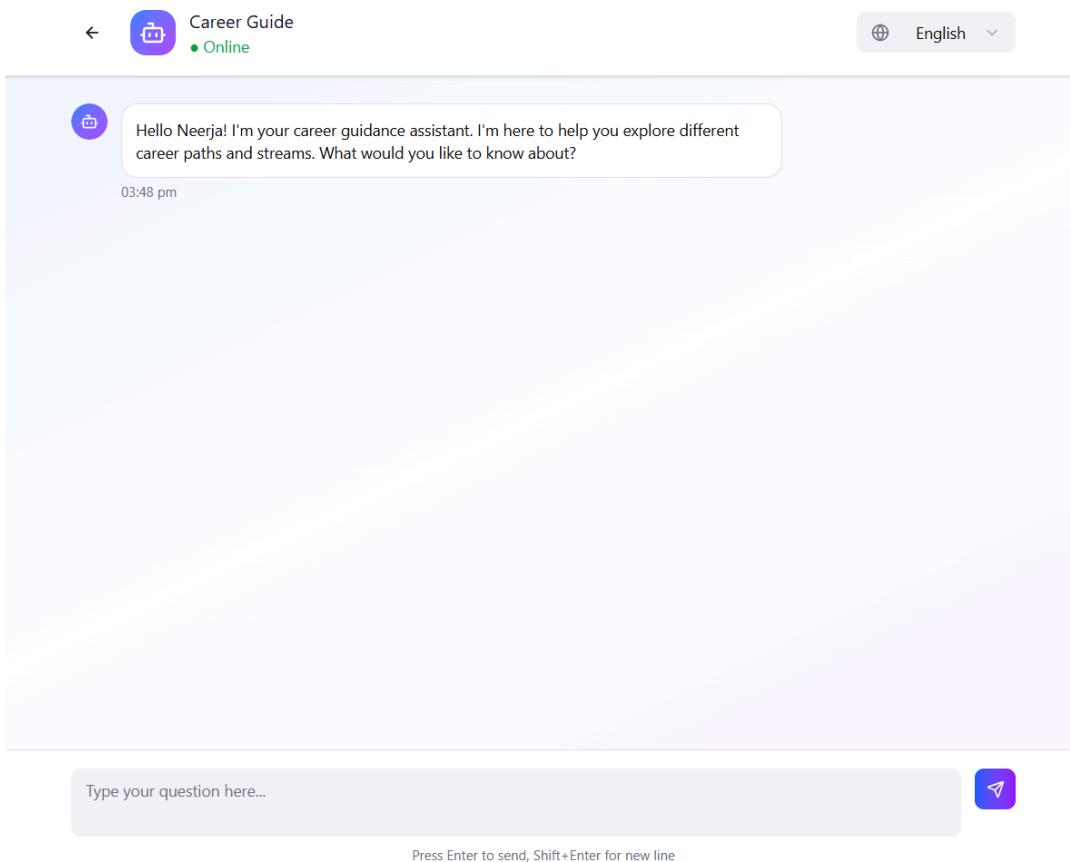
[Get Started](#)

## Task instructions:

- Easy-to-understand instructions provided at each phase for easy usability and guidance for the test users.
- Pop up appear before each test section providing clear instructions and guidance e.g.



- Chatbot has a welcome message inviting users to chat, and clear instructions to follow on the page



## b. Prototype 2

Task instructions:

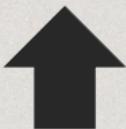
- System provides instructions to select preferred language.



CareerBuddy

Please pick your language by pressing a button. Press  
1 for english, 2 for hindi, 3 for gujarati.

कृपया बटन को दबाकर अपनी भाषा चुनें। अंग्रेज़ी के लिए 1 दबाएँ, हिंदी  
के लिए 2 दबाएँ, गुजराती के लिए 3 दबाएँ। .....



System asks for user's  
preferred language,  
repeating instructions in all  
languages

- System provides full usage instructions in your preferred language over call.



CareerBuddy

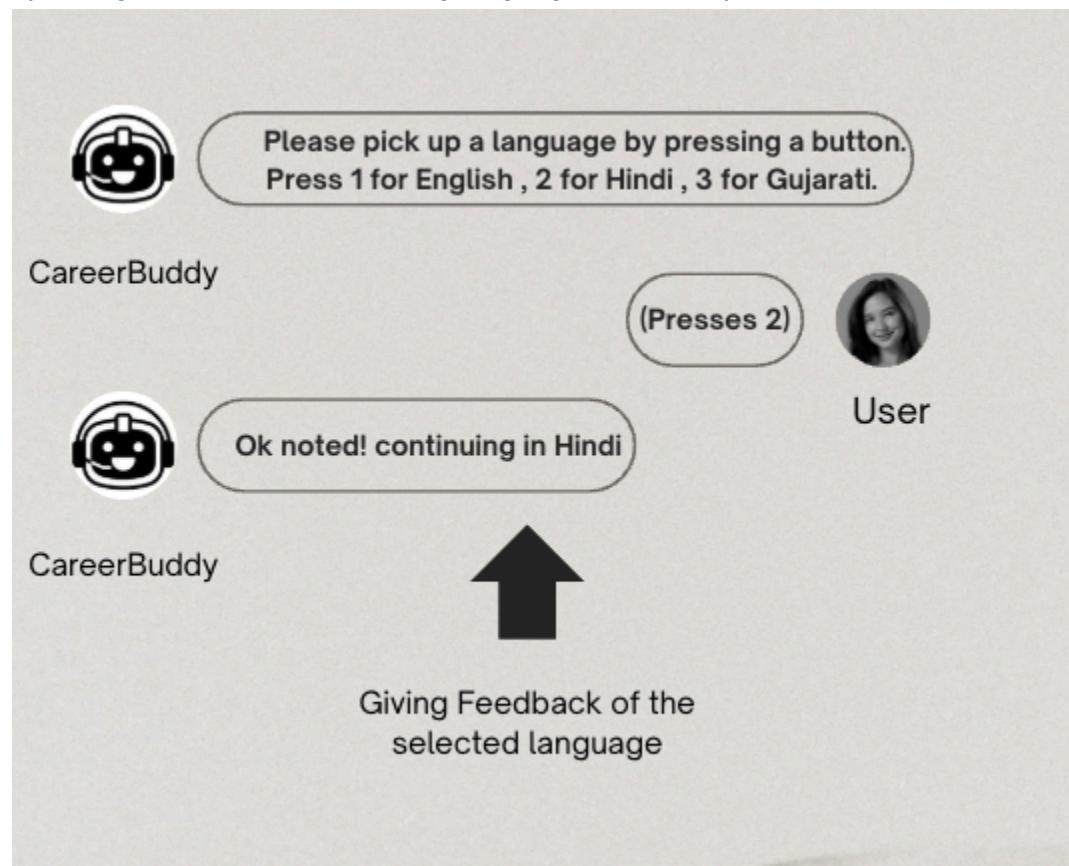
Hi! I'm Career Buddy, your personal guide to exploring  
career paths after school. I'll ask you a few simple  
questions about your interests, strengths, and goals.  
Based on your answers I will share career  
recommendations as well as a full report via SMS



System introduces itself in  
user's preferred language

System Feedback:

- System gives feedback confirming language selected by user



- System gives feedback that the answer has been noted as well as how many questions are completed from the total.



अगर आप अपने दोस्तों के साथ कोई छोटा प्रोजेक्ट या क्लब शुरू करें, तो वह किस विषय पर होगा?

CareerBuddy

शतरंज के  
विषय पर



धन्यवाद, नोट कर लिया।  
18 में से 4 प्रश्न समाप्त हुए।

User

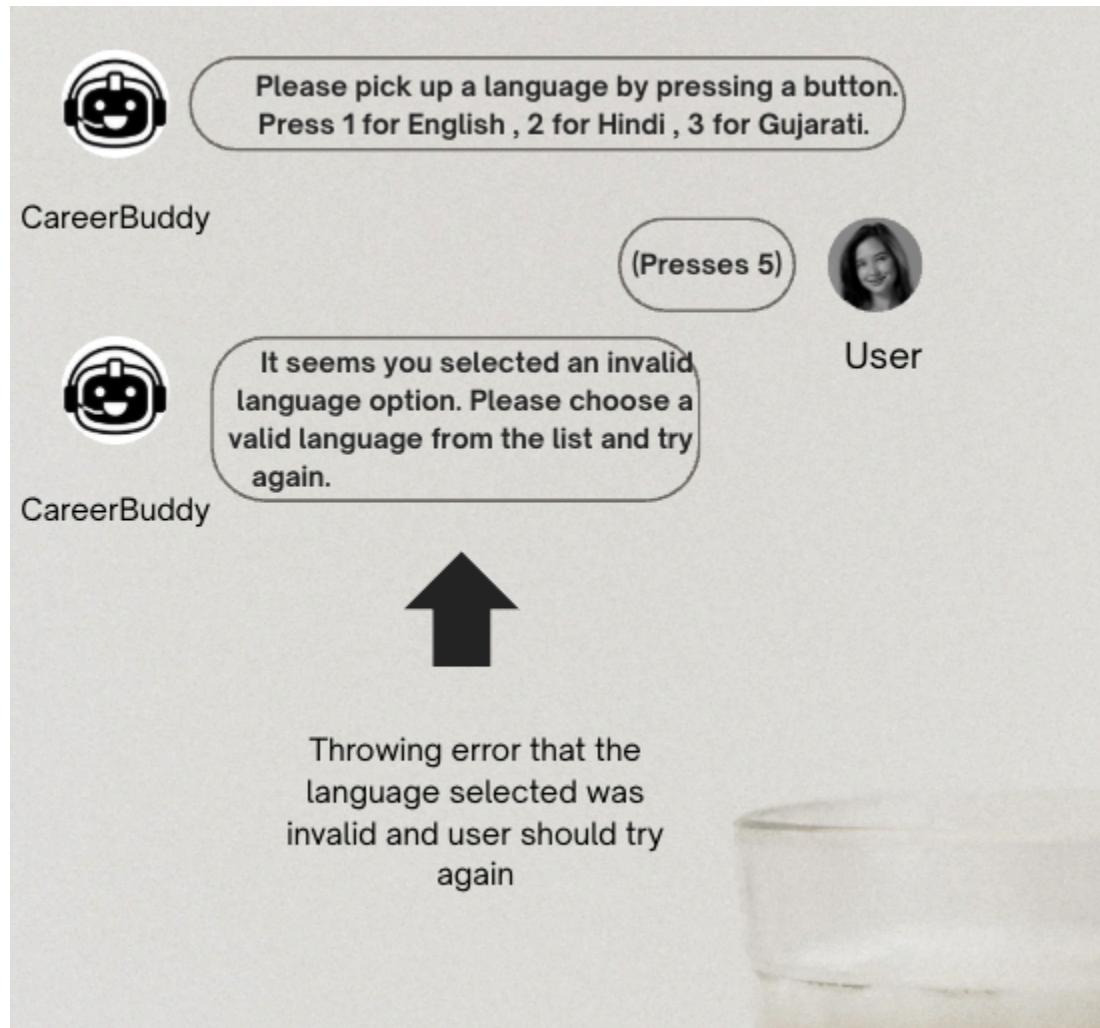
CareerBuddy



Giving Feedback that how  
many questions has been  
completed

Error Message:

- System will throw an error when user mistakenly presses wrong button while selecting language.



- System will throw an error message that an empty response was detected on users side and user should try answering again

