ACS Project Report

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ACS Project Report

Goal:
The goal here is to build a windows desktop app which can be used to impart knowledge to people who seek it. To learn a new language in bite sized lessons.

Course:
Advanced Computer Science

Project Title:
Learn Hindi

Project Description:
It is a Hindi language learning app for people who don't have much time to invest in learning a language. It shares the basic knowledge of alphabets and their usage. The user can also get acquainted with some common Hindi phrases that he can use on the go.

Users:
The target audience is people who are interested in learning the Hindi Alphabet as a starter. It can be basically anybody who is curious about learning how to read and write the Hindi Alphabet and make use of it along with some day-to-day phrases.

Requirements/Functionalities:
Navigation:

- The user should be able to navigate between the different screens like Alphabets, Phrases, Quiz.

Activities:

- The user should be able to see a list of alphabets grouped based on its category.
- On clicking on each block of alphabet, the user should be able to view information about each alphabet.
- The user should be able to play and listen to the sound of each alphabet and phrase by clicking on the appropriate button.

Learn Alphabets:

- The user should be able to navigate through the different alphabets and able to distinguish between Vowels and Consonants.

- On clicking on each alphabet, he should be directed to a new window with the alphabet information.

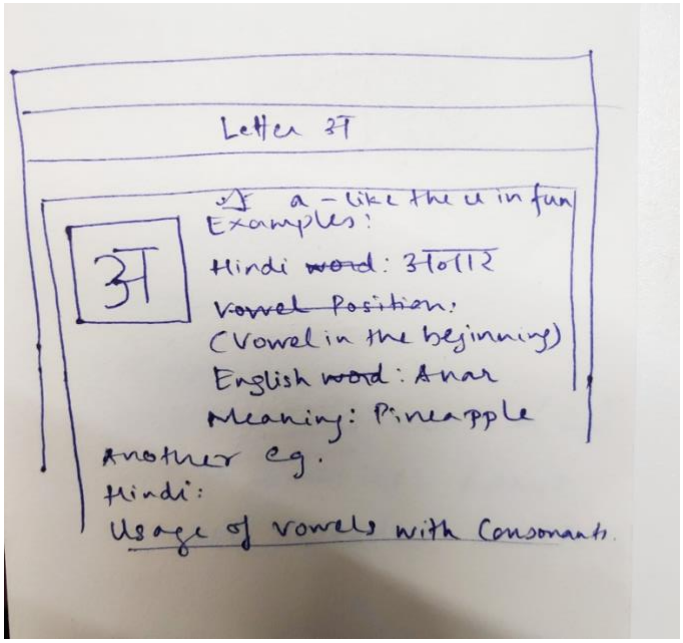
Learn Phrases:

- The user should be able to navigate through the different phrases and able to listen and read words in Hindi and English.

Playing the Quiz:

- The user should be able to play the quiz based on all the alphabets and phrases learned in the app.
- The user should be able to start the quiz and record answers by clicking on the right choice.
- The user should be able to view questions in a random order every time he clicks on Start Quiz.
- The choices of each question should change after every instance of the question.

Initial Wireframes:



Learn Hindi

Alphabet Details:

1) अ - उच्चार Hindi word

2) Anar English word

3) Audio

4) Image

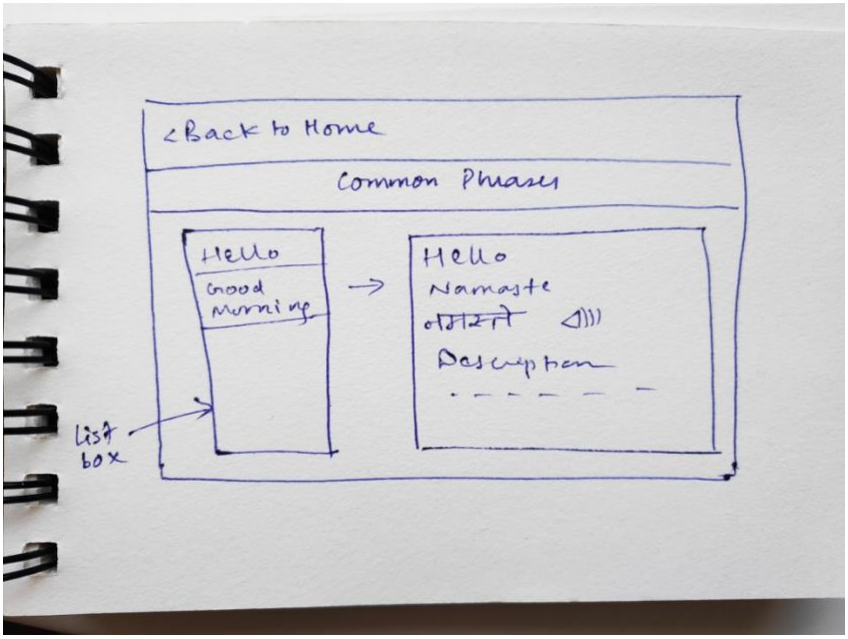
5) अ a- like the u in fun.

Eng equiv Pronunciation tip

6) ज्ञ (gya) Matra with consonant

7) Use of vowels with consonants / in hindi / in Eng

7) Pineapple - English meaning of the word



Result Discussion:

1. Dialogue Principles:

1. 1 Suitability for task:

- As we can see in the fig [1]. We are making it easy for the user to distinguish between Vowels and Consonants by displaying them in separate grids.
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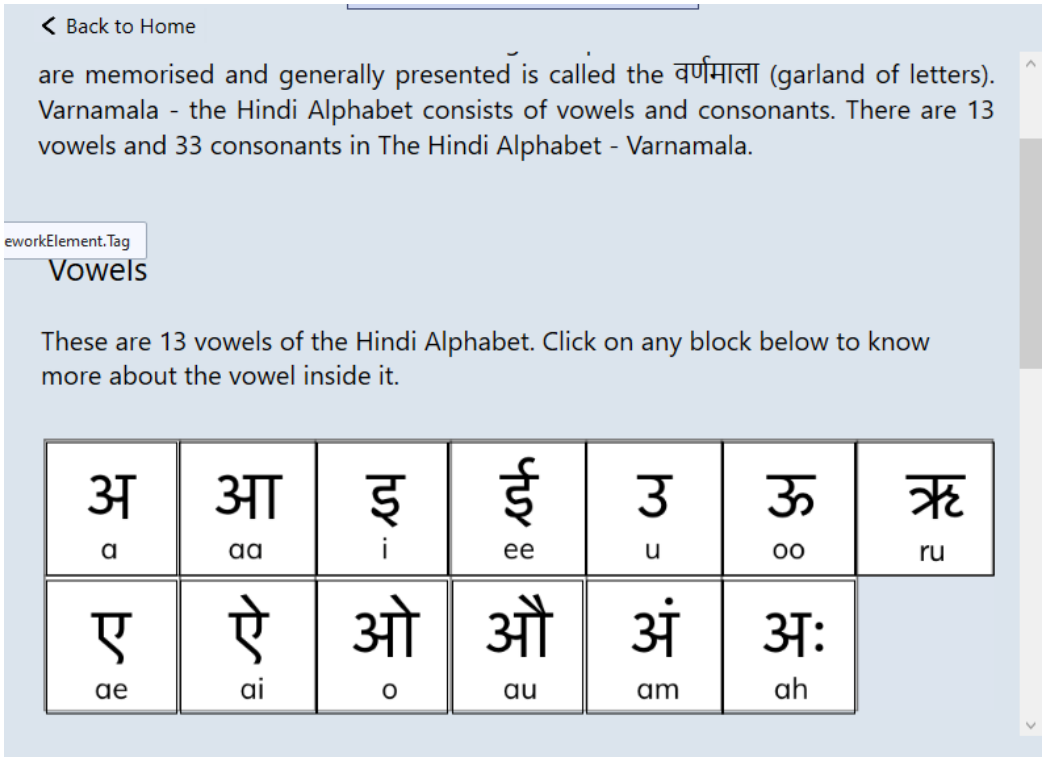
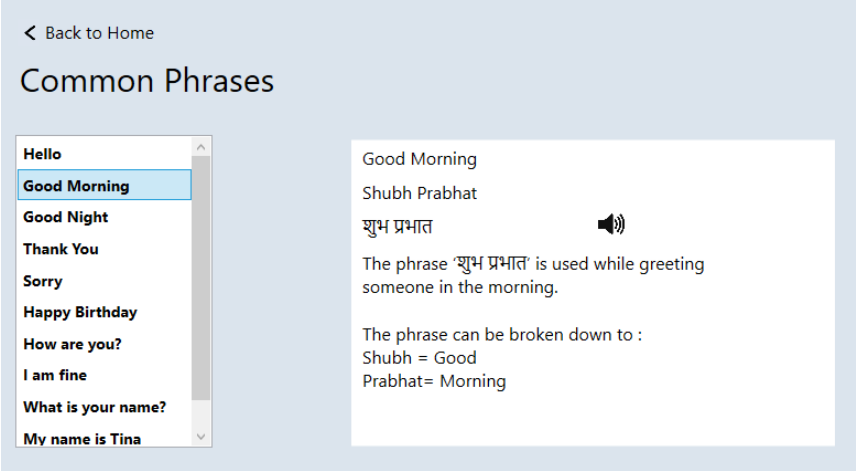
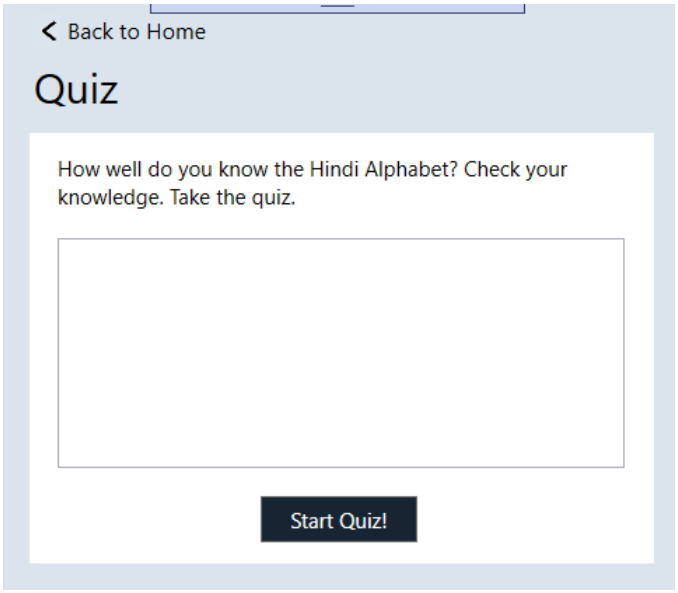


[1]

1.2 Self Descriptiveness:

- As shown in fig [1] there's a back arrow used to denote going back to the home page, so the user exactly knows what the button stands for.
- We are also using labels like "Click on any block below to know more about the vowel" to denote the user what exactly it does.





[2]

1.3 Controllability:

- In the fig [2], the Quiz window has a Start Quiz button and a Quit Quiz button so that the user will only be able to record answers after clicking the Start Quiz button and on clicking the Quit Quiz button, the questions will be disabled from being answered.

2. Gestalt Principles:

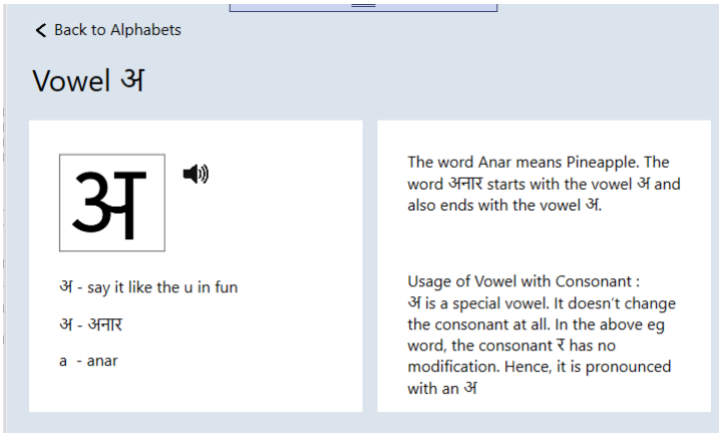
2.1 Proximity, similarity and unified connectedness:

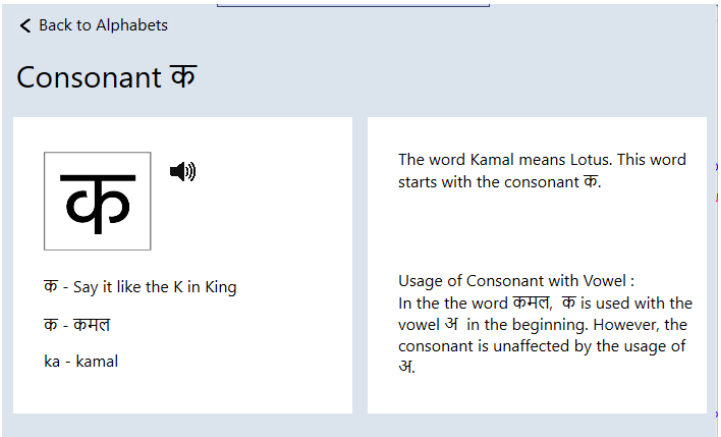
- Button designs and colours are used in a way that the user becomes familiar with the functionality. For eg. We have the same button to go back one page. The Homepage also has similar buttons to suggest similar activity.
- Navigation, background, panel and button colors all have the same color from a colour palette which goes well with each color and is uniform throughout the application to preserve unified connectedness.
- The text blocks are placed in a grid structure with the same spacing and alignment.

3. Presentation of Information:

3.1 Consistency:

- A listbox and a stack panel are used to display information of all the phrases with each phrase having the same structure to display information.
- All the pages showing Alphabet details have the same layout since they do similar operations.





[3]

4. User Centered Design:

4.1 Understanding:

I, being from India felt the need to make beginners interested in learning Hindi. The lack of handy and quick lessons on basics of Hindi was the motivation for coming up with this app idea. So, I've tried to cover as many use cases by thinking from the user's perspective.