Human Computer Interaction

Final Project: FreeSkills App
A skill learning app used in spare time for housekeeping workers

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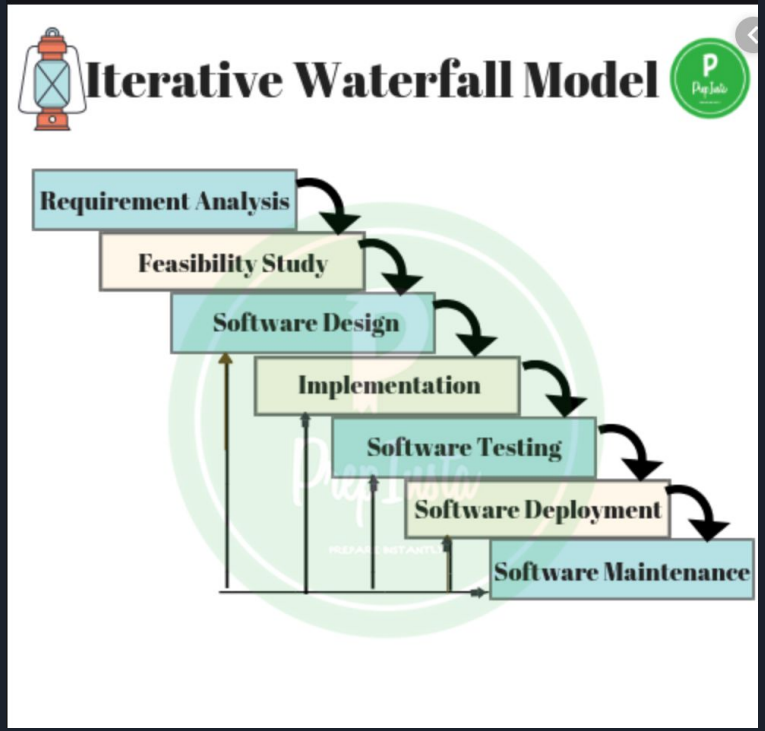
HCI principles:
Iterative Waterfall Model followed



The following 4 phases were predefined:

- Requirement Specifications (involves user survey,what skills they need,etc)
- Architectural Design
- Detailed Design(involves going back to architectural design
- Because of change in design by users)
- Coding and testing
- Deployment

Requirements and planning:

The first part was surveying the user about different things:

- The amount of spare time they had
- The skills they had an interest in.
- Their proficiency in english
- Their proficiency in using a mobile application

Conclusions drawn from the survey :

- The users were free for about 3 to 4 hours after 12:00 pm with only on demand work if asked for.
- Usually they spent most of their spare time just talking and sleeping near the store room
- They are not proficient in english but most of them are comfortable using the basic applications.

Skills by survey :

- 90 percent users chose cooking as the top skill to learn.
- Following cooking was sewing which was also used.
- Skills like first aid was added as a mandatory for the overall welfare of the users.
- Other skills suggested by the user was learning how to use the banks and how do paytm work.

Design phase

During this phase,i went through several iterations and design changes:

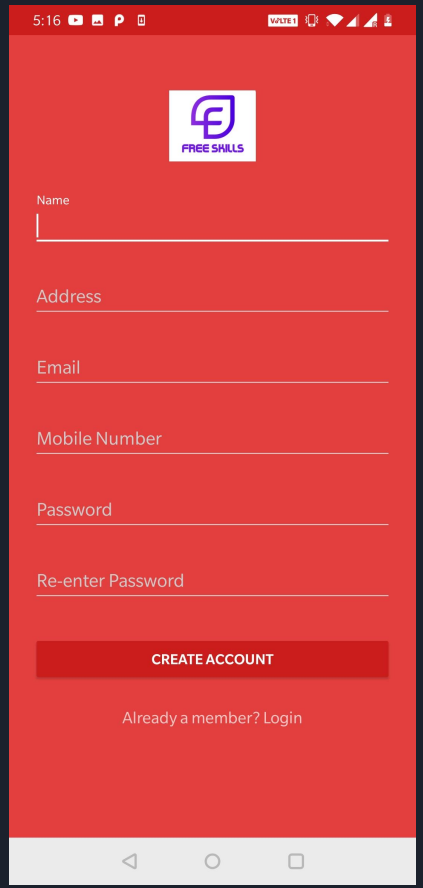
The first and foremost thing which was taken into account was the login page.

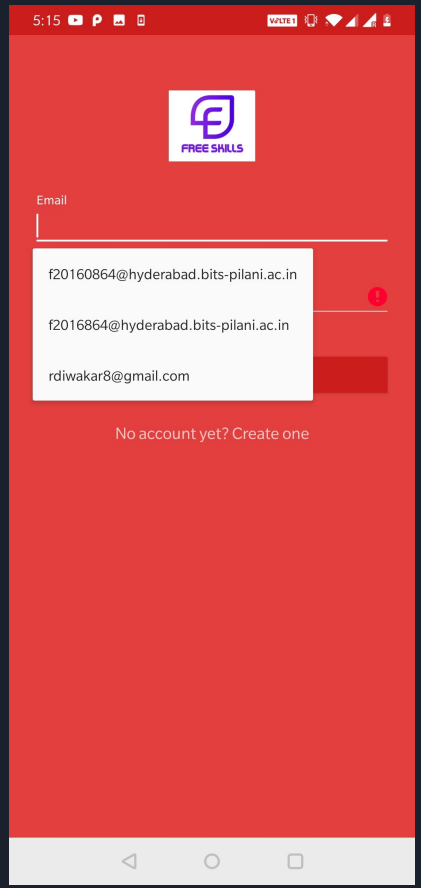
Users were asked whether they would use this app on another devices if required and that meant

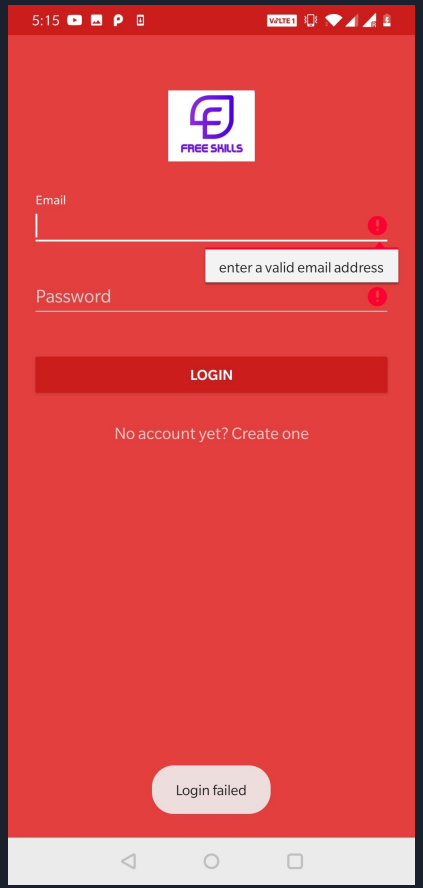
The local cache way would not work if anyone wanted to maintain progress of the skills learned

So accounts(login facilty) were made for easier use and better accessibility.

Login Page along with sign up page:







Card View for Skills:

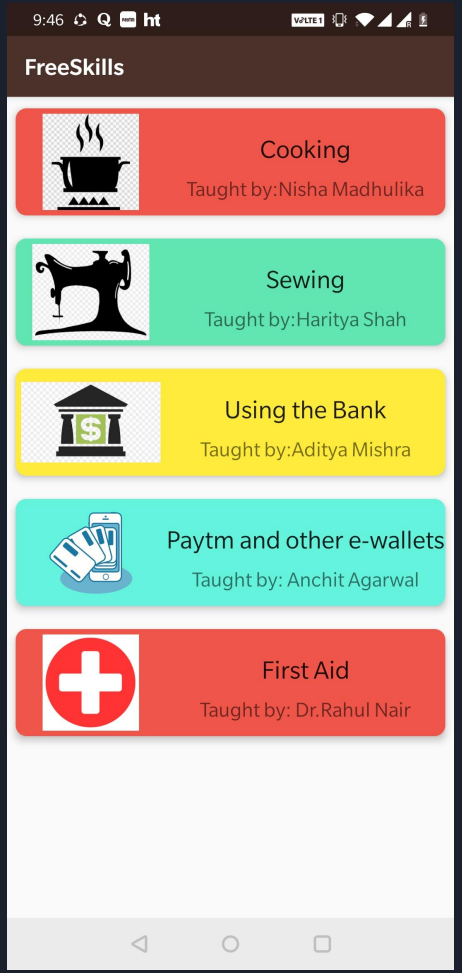
Initially a normal linear layout was thought but apparently

On a user based survey the card view was voted as the more

appealing one.

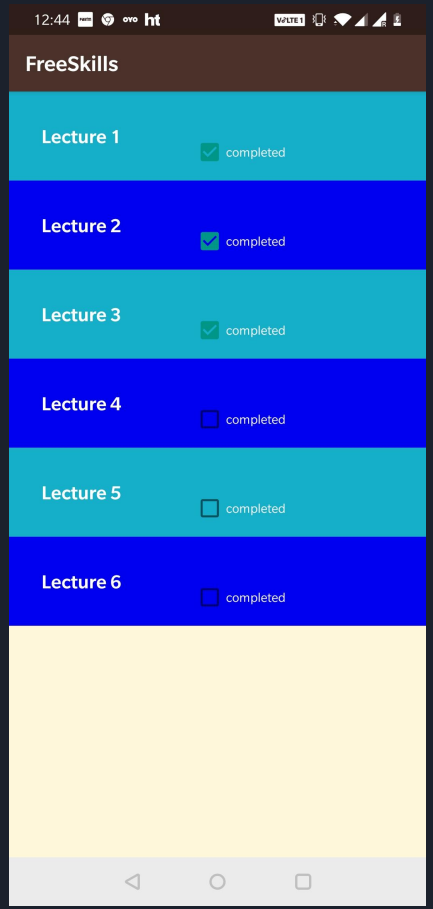
Simplified Symbols:

These symbols also act as a visual aid for non-English readers.



Main Lectures Activity :

The resources and lectures activity in the first iteration were the initial proposed Design layouts.

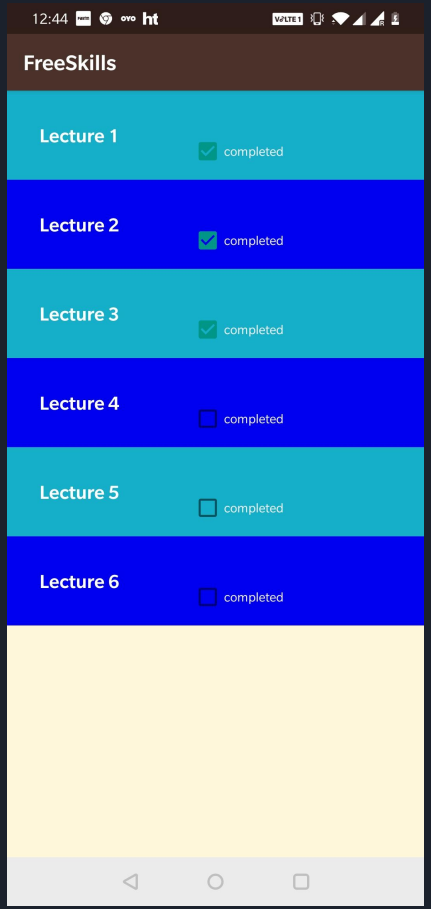


Addition of checkboxes

- It’s a known fact that the human brain can’t remember everything
- So to avoid any inconsistencies and keep a check on the progress
- We have introduced user-defined checkboxes
- Why user defined ?
- A multiple number of times we watch the video but don’t feel

  like actually learning it so it was better to leave it to the user

  itself.



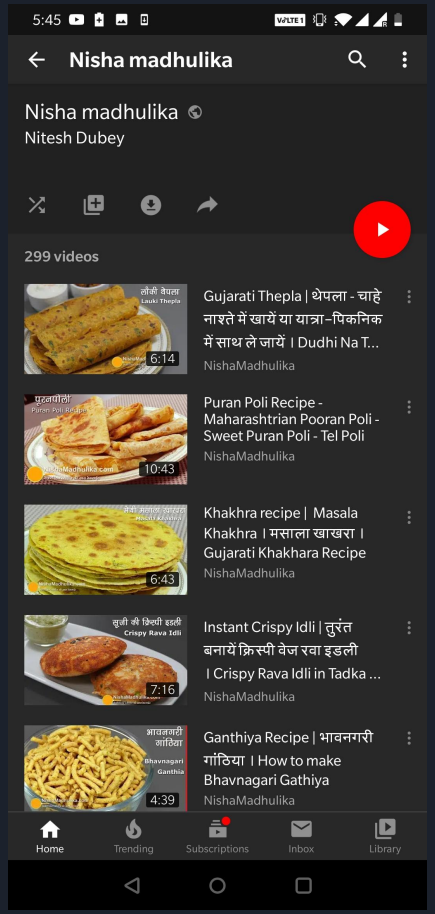
Lectures Activity Page:

Because of the obsoleteness of the resources activity we decided to integrate it with the lecture videos activities itself.

Using youtube APIs for faster Video streaming

We asked the users with their proficiency with any video application and the most used by them was youtube so it was better to provide the youtube api for user convenience.

Another advantage of youtube is you can also download the videos and make them offline and avoid the problems pertaining to internet connectivity.



Universal Design Principles:

1. Equitable Use
2. Flexible Use //maintained
3. Simple/Intuitive Use //by using already simple youtube
4. Perceptible Information
5. Error Tolerance
6. Minimal Physical Effect
7. Size and space in approach and usage.//online option doesn’t take space

Typography and color iterations: *Scheme used A/B testing*

The pinkish color tone on the login page was more well received by the users because of the less hue.

Secondly,on the lectures activity page the contrasting nature(analogous) was more well received while on the skills activity people preferred the tetradic policy.

Qualitative Analysis :

Sr.No	User Description	Task A : Login	Task B:Resource Analysis	Task C:Video Lectures
1	workers with no education	most of them had a problem	None of them were able to do it	Were only able to watch the videos
2	workers with primary education	most of them after signing up didnt have any issues	They could do it but was not preferred	Were able to watch and could make videos offline
3	workers with 10+2 education	most of them were able to do it	They could do it but still it was not preferred	Were able to do almost every youtube functionality and used checkboxe
4	male workers on an average	30 percent could do it	only 4 percent did it	almost ever male did it but only 10 percent used checkboxes
5	female workers on an average	only 5 percent could	none did it	5 percent female worker used checkboxes