



FINAL REPORT (Digital Learning)

GROUP MEMBERS

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COURSE:	HUMAN COMPUTER INTERACTION
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FACULTY:	MA'AM AFSHAN SAAD
DUE DATE:	31-JUL-2020

Github Link of Final Report:

<https://github.com/Mohd-Ahmed-04/HCI-project>

Drive Link for Prototype Video:

https://drive.google.com/file/d/1Oyhmm9cEXIe_FbDA5TPXsWjrW5udI5TS/view?usp=drivesdk

DIGITAL LEARNING

According to a recent statistical analysis conducted in 2018, more than 40 percent of the population lacks reading and writing skills especially in Pakistan's northern regions. So basically this the main issue on which we want to do some contribute to help them out from these types of problems. It is a mobile application which can be used to teach illiterate people who cannot study or doesn't know how to speech or doesn't have any knowledge about education.

DESCRIPTION:

The mobile phone users, on the contrary, have grown at a very steep rate, even with a stagnant literacy rate. We formed a user-driven approach to mobile application research, development, and test prototype that could be used to teach basic reading, writing, counting, and language learning skills to analphabets without the use of traditional schooling techniques and without any fees. The developed mobile literacy application consists of 4 main components:

- 1) Reading training
- 2) Handwriting training
- 3) Pronunciation training
- 4) Language learning

Some of the key factors due to the national's weakness is the shortage of qualified teachers that can provide successful teaching for the analphabet adults. Additionally, the majority of literacy classrooms are clustered around large cities and industrial regions, while the majority of

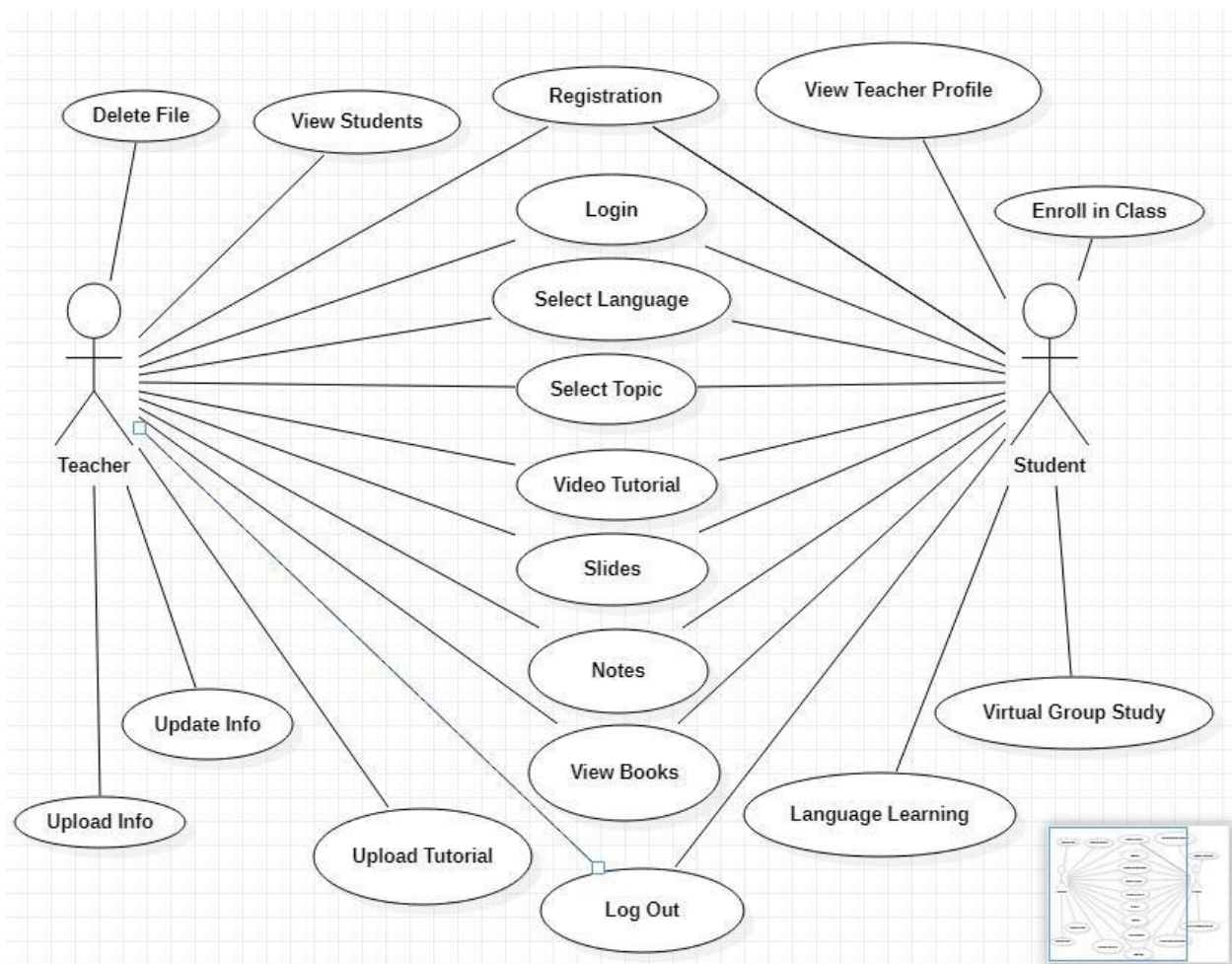
analphabets reside in rural areas, particularly when the higher percentage of analphabetism is among women who suffer from attending distant literacy centers.

Task Analysis:

- First, there will be a demo at the beginning that will show the product a quick description.
- A teacher and student button click will push the user to their destination.
- Shortly after the teacher button has been selected there would be welcome page, which asks the user to login if there account has already been established.
- There is another click that tells the person to sign in.
- After signing in to the account a home screen should appear.
- A page is open for users to build or change their profile.
- On the same page user can see his work and reviews.
- He can simply see his latest work on his main page, which he uploaded either its video or audio.
- He can simply delete his video or audio from there.
- Another page is exclusively for videos where he can display his videos till date with feedbacks, likes and comments and also erase these videos from there.
- A separate page is there for audio where the user can use the same features as on the video page.
- User can generate a quiz for the students.
- Student don't need to log in, just press the student button.
- There will be a tutorial video that shows our newbie how to use it.

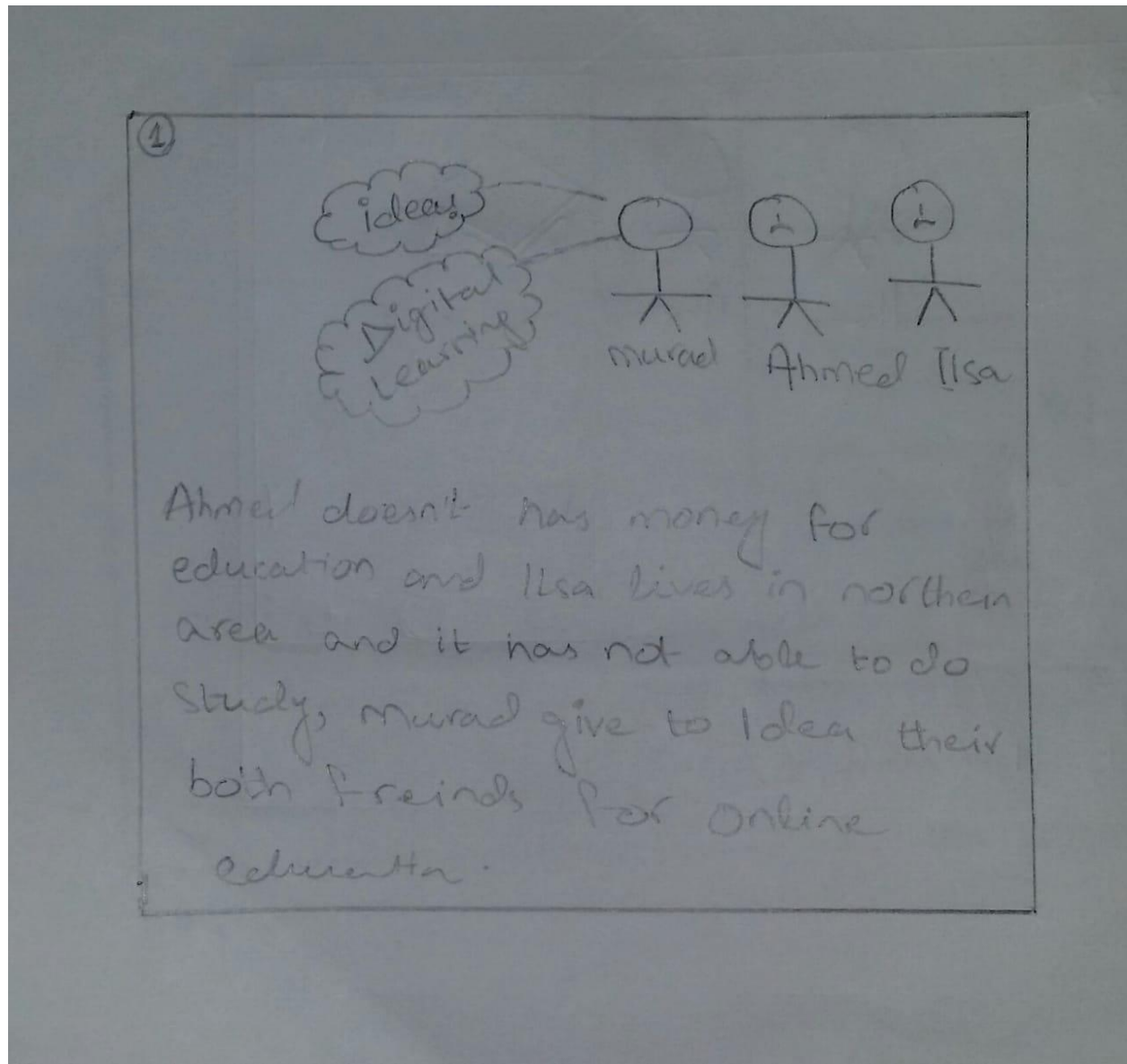
- Students can pick a specified subject.
- He can pick the video or audio from the specific subject on which he want to learn.
- Students may seek some specific quiz on the subject.
- Quizzes have different stages according to the level or standard of students.

USECASE DIAGRAM OF DIGITAL LEARNING MOBILE APPLICATION



STORYBOARD OF DIGITAL LEARNING

STUDENT USER



②



Ilse



Ahmed



Digital Learning

Install

Ahmed and Ilse install
an application for
better self education.



③

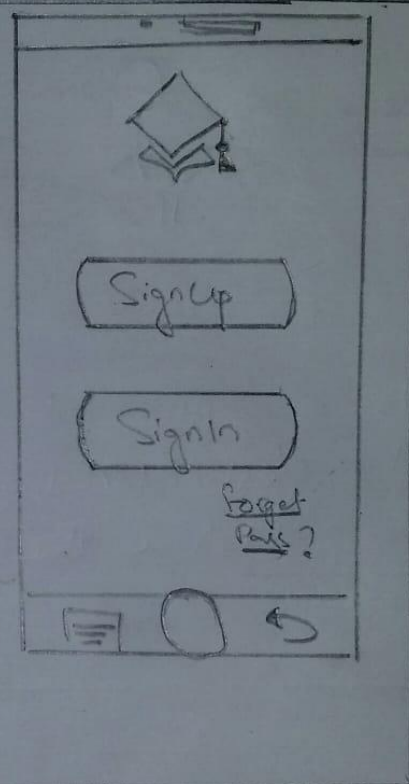


Usa



Ahmed

For this learning application
Ahmed and Usa needs to
Signup or Signin.



④



Hsa



Ahmed

Select
Topic

English ▼

Done

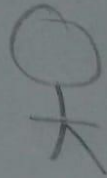
Hsa and Ahmed select
the particular topic which
is given for the learning



⑤



Lisa

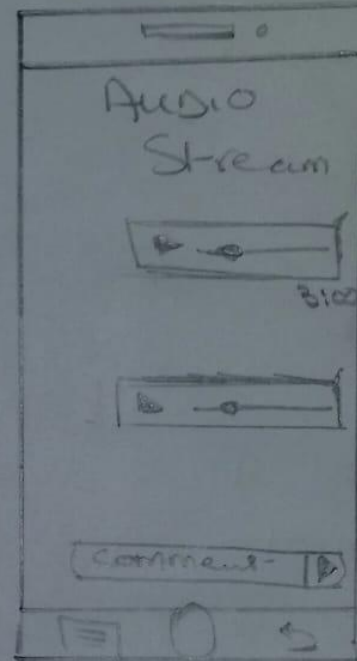
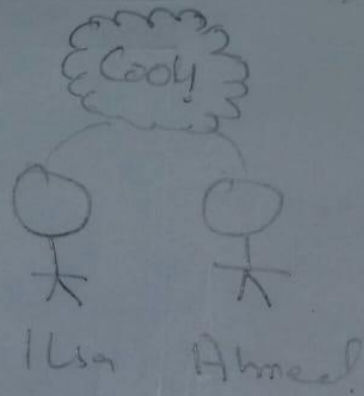


Ahmed

First- Lisa and Ahmed
Select- particular topic
then they should select
their level of topic.

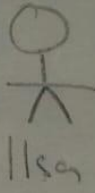
The interface is a hand-drawn sketch of a mobile application screen. At the top, there is a header bar with a hamburger menu icon on the left and the word "TOPIC" in the center. Below the header, the word "ENGLISH" is displayed. A large rectangular box contains the text "Select Level". Below this box is a dropdown menu showing the number "1" with a downward-pointing triangle on the right. At the bottom of the screen, there is a navigation bar containing three icons: a hamburger menu icon, a circular profile icon, and a back arrow icon.

⑥



Ilsa and Ahmed
learn from an audio
related to the topic
which is uploaded by the teacher.

7



Ilsa

Ahmed

Ilsa and Ahmed learn
from pictures with
descriptions related
to the topic.

Sir John upload

Description

A B C

Next

⑧



Hsa



Ahmed

Hsa and Ahmed give
quiz for better preparation
which is uploaded by
the teacher.

Submit
Quiz

+ Add

Done

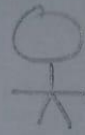
Comment



9



Isha



Ahmed.

Isha And Ahmed make
assignment which is
given by teacher.

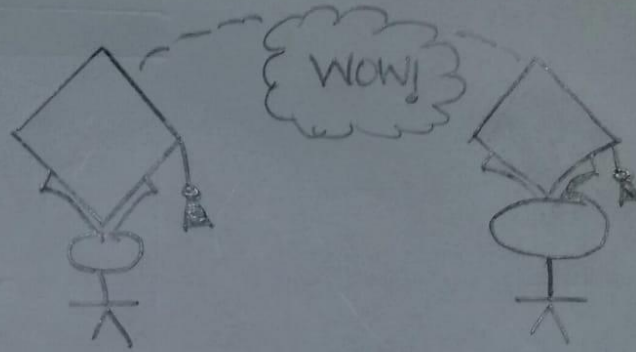
Submit
Assignment

+ Add

Done

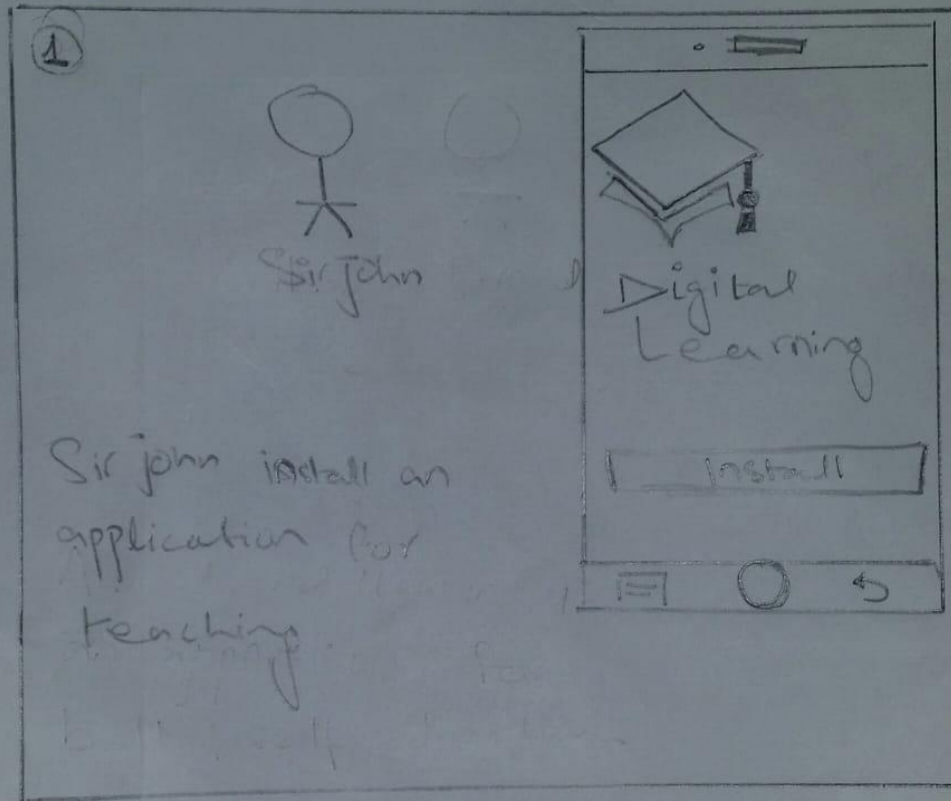
Comment

10

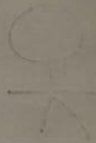


Ilse and Ahmed is not
ashamed of themselves and
preferred other to use it !

TEACHER USER



②



Sir John.

For this learning application
Sir John needs to
sign up or sign in.




SignUp

SignIn

forget
Pass?



③


Sir John

Select
Topic

English ▼

Done

|| Sir John - I select
the particular topic which
is given for the teaching

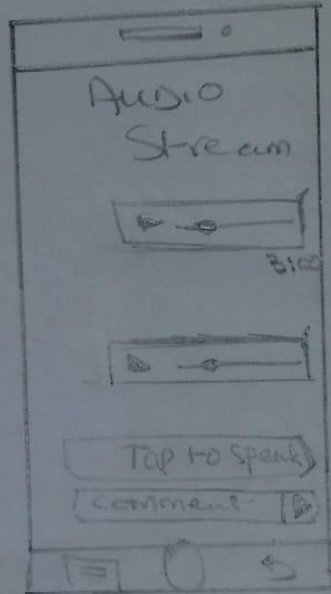


④



Sis John

Sis John can upload
an audio related
to the topic.



5



Sir John.

Sir John can upload
Quiz for students

ADD Quiz

Add Title

Description

Upload
Picture

Submission
Date 30/05/17

Upload

6



Sir John.

Sir John can upload
assignment for students

ADD Assignment

Add Title

Description

Upload

Picture

Submission
Date 30/05/17

Upload

7



Sir John.

Sir John can upload
pictures for students
which is helpful

ADD Picture

Add Title


Description

Upload
Picture

Submission
Date 30/05/17

Upload

②


Sir John.

Sir John can upload
grading separately.

GRADING

ST	Quiz	Assign	m1	m2
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

UPDATE

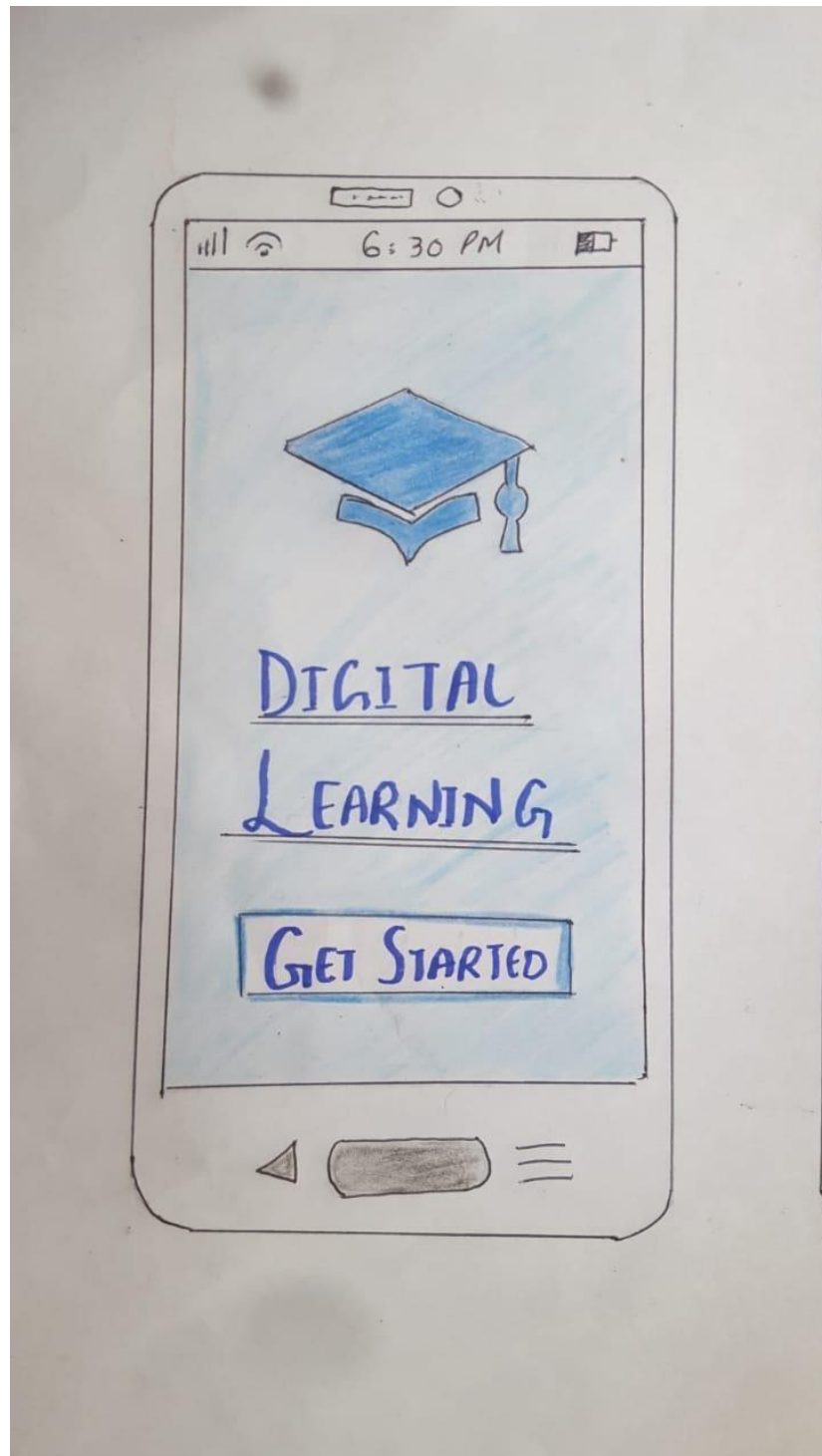
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○

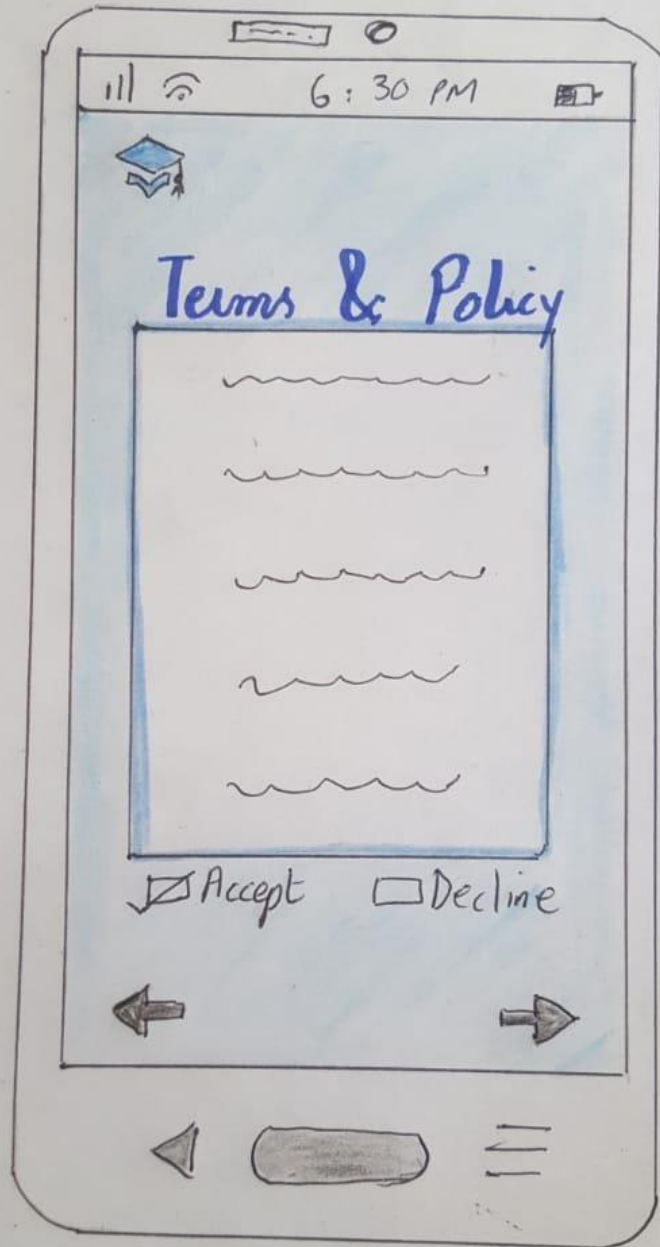
➔

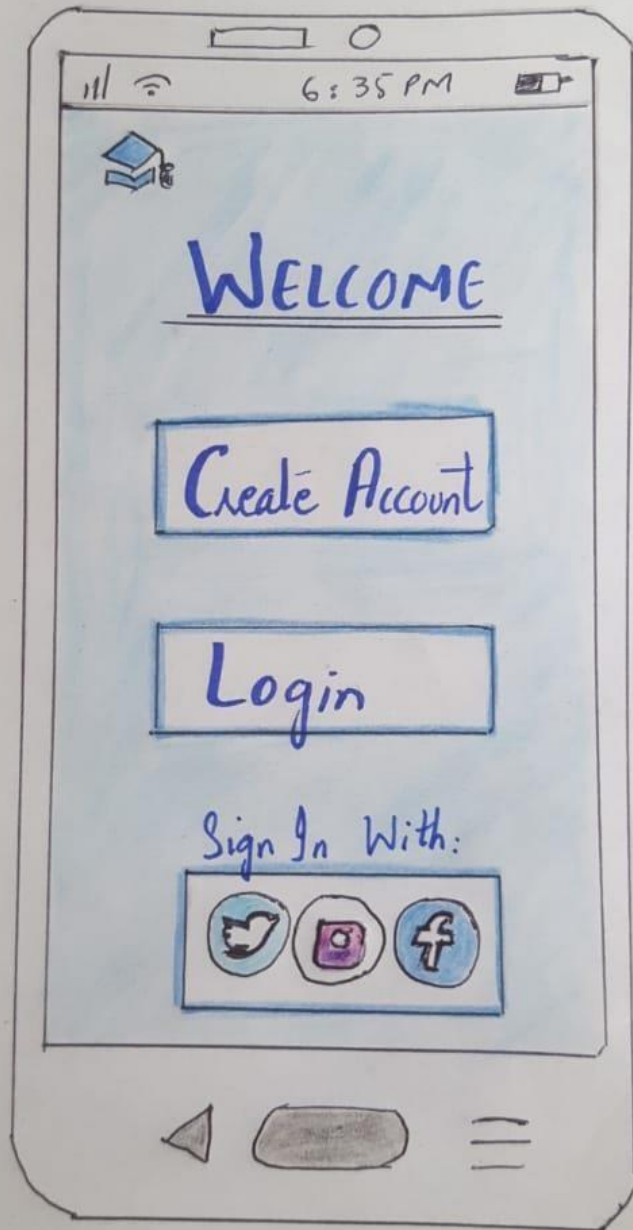
HIGH FIDELITY PROTOTYPE

(Digital Learning Mobile Application)

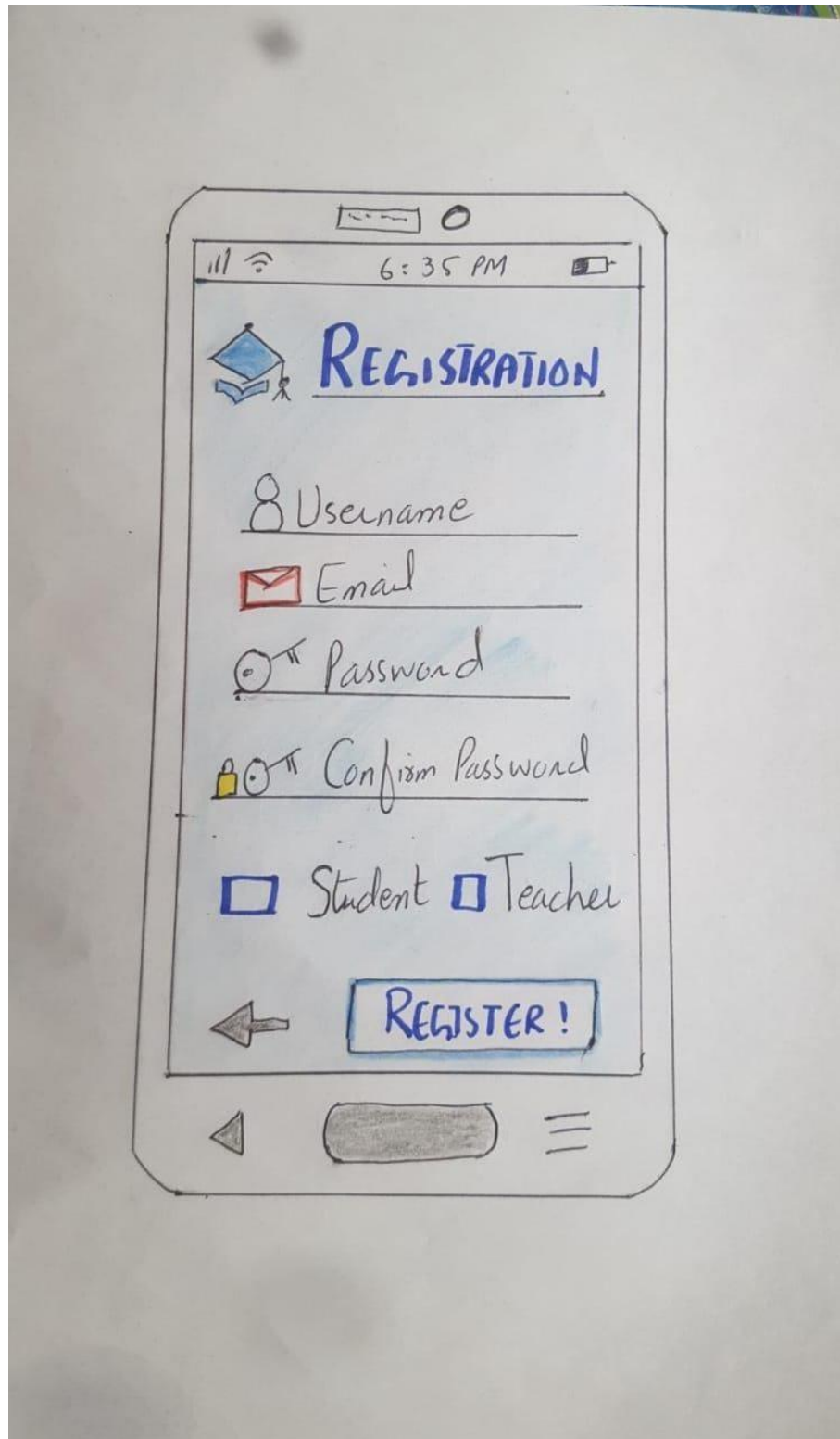


1

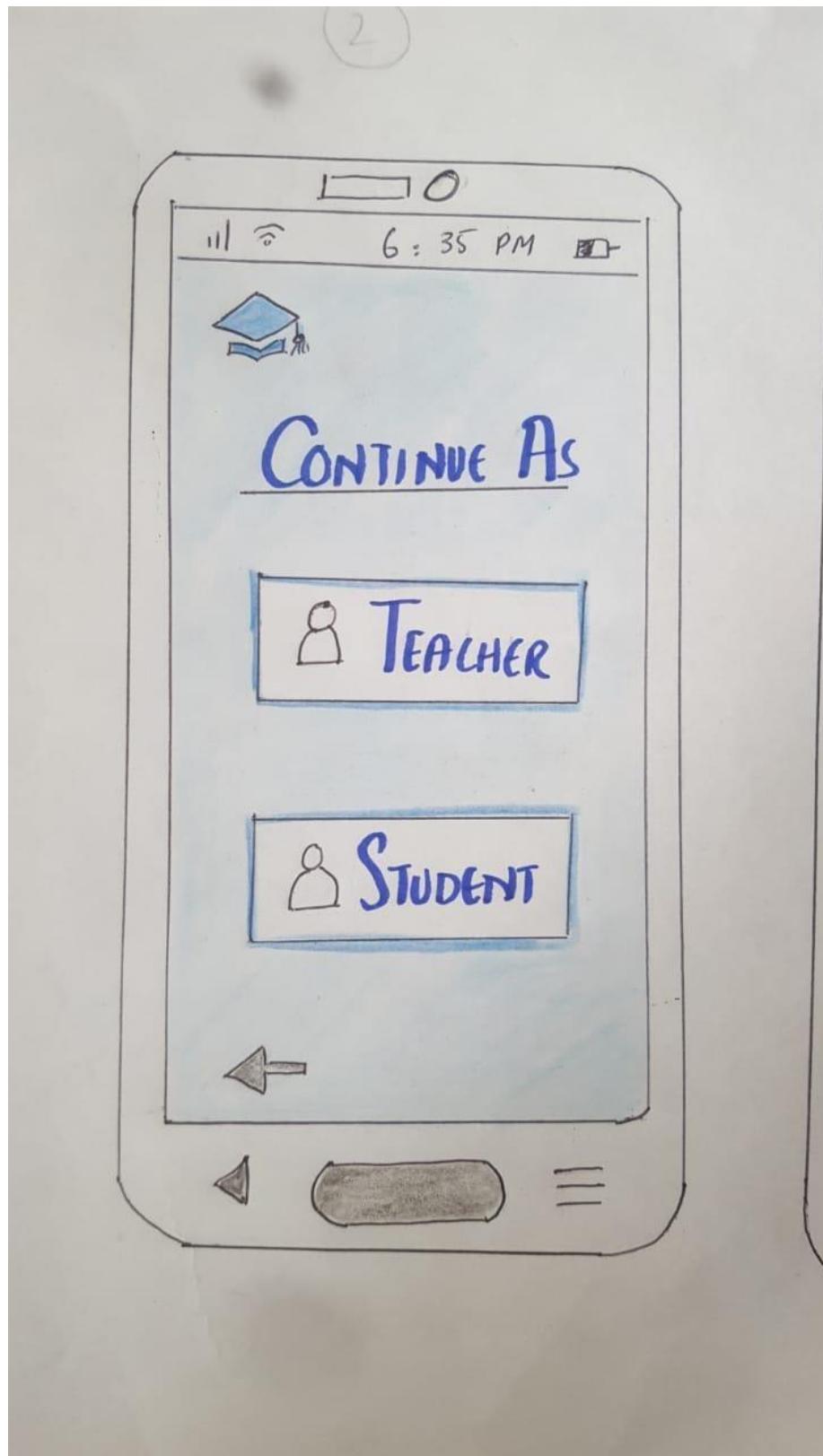


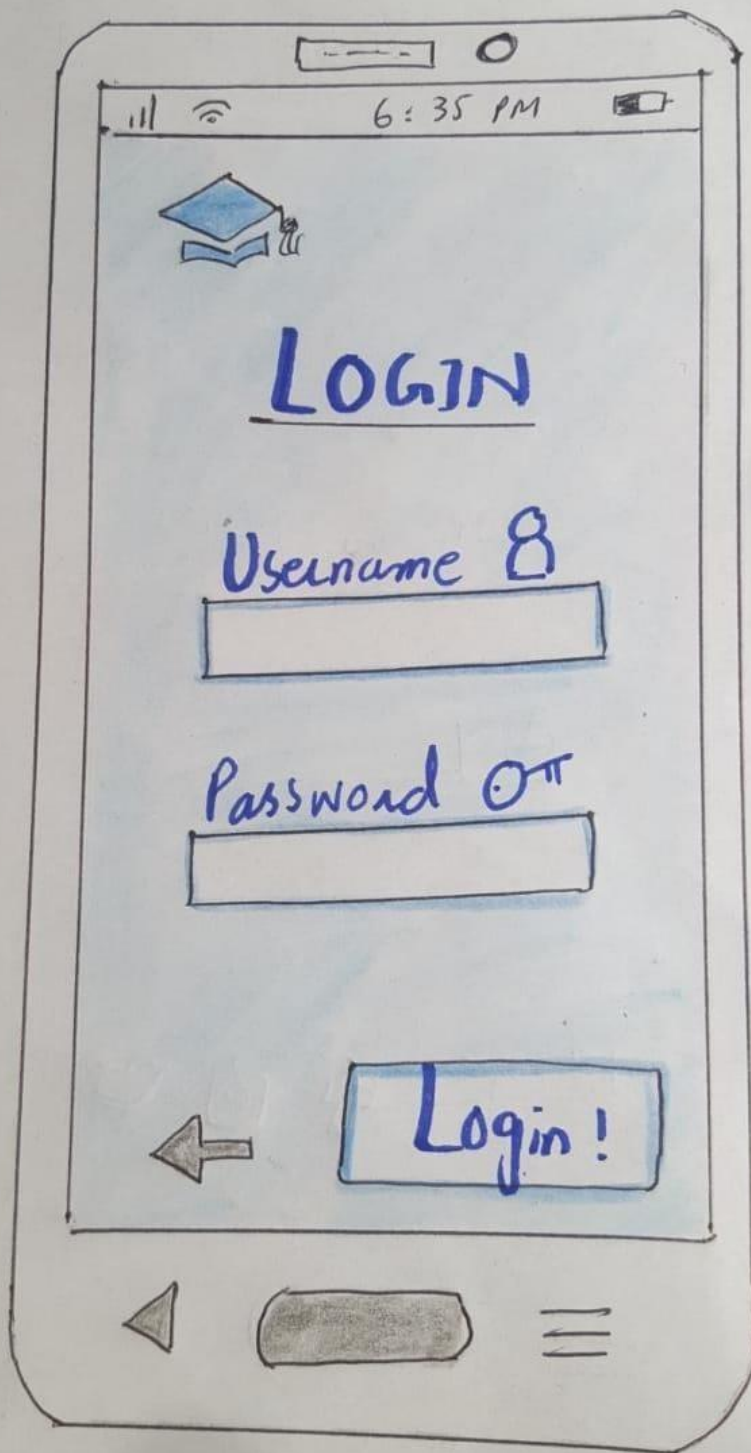


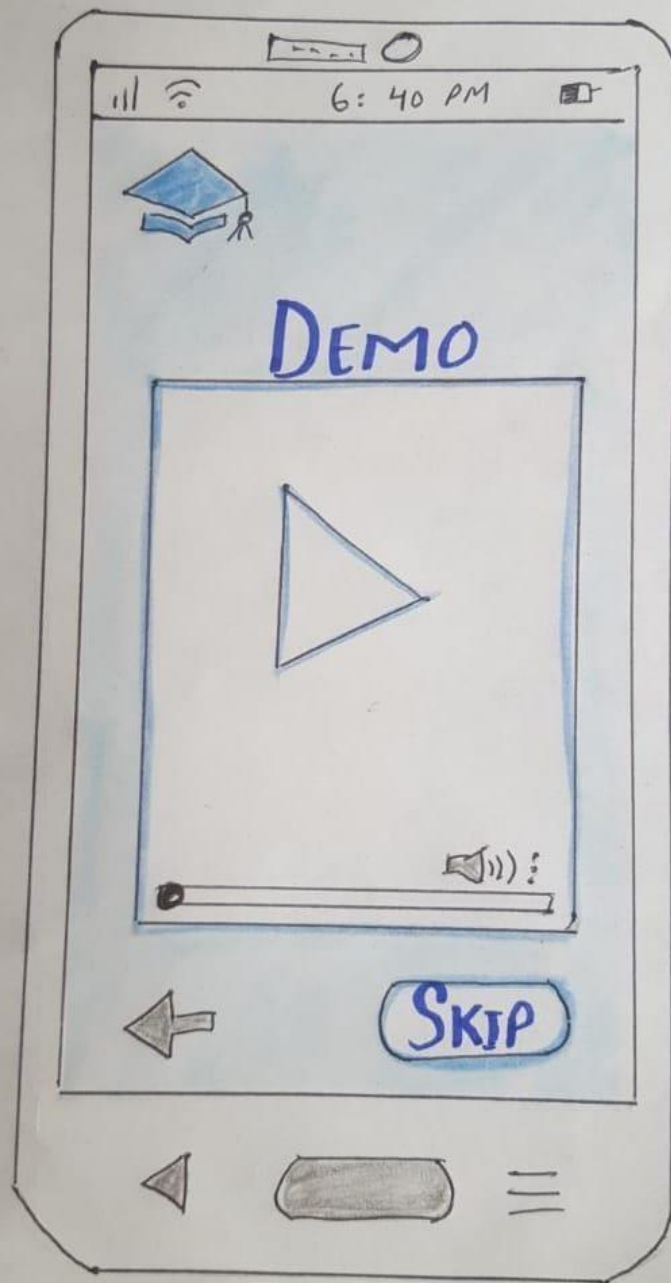
On create account button:

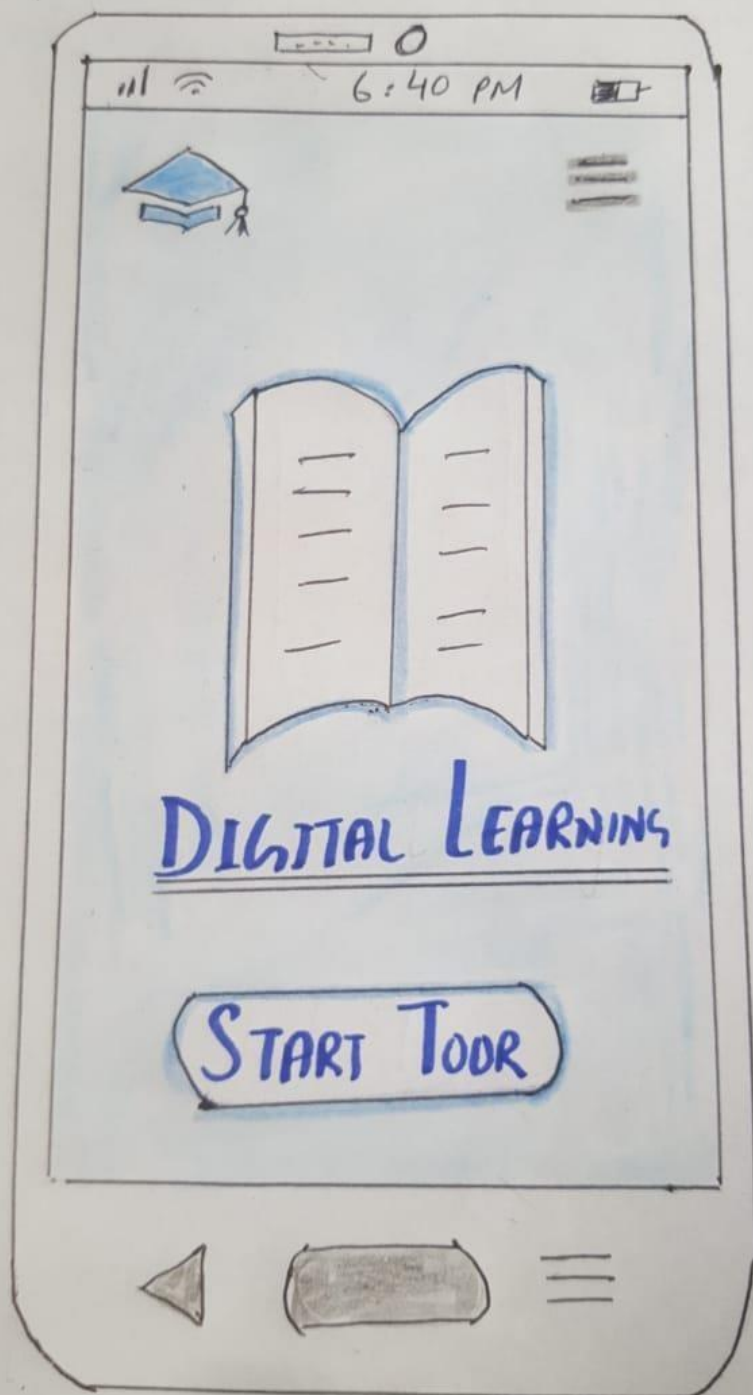


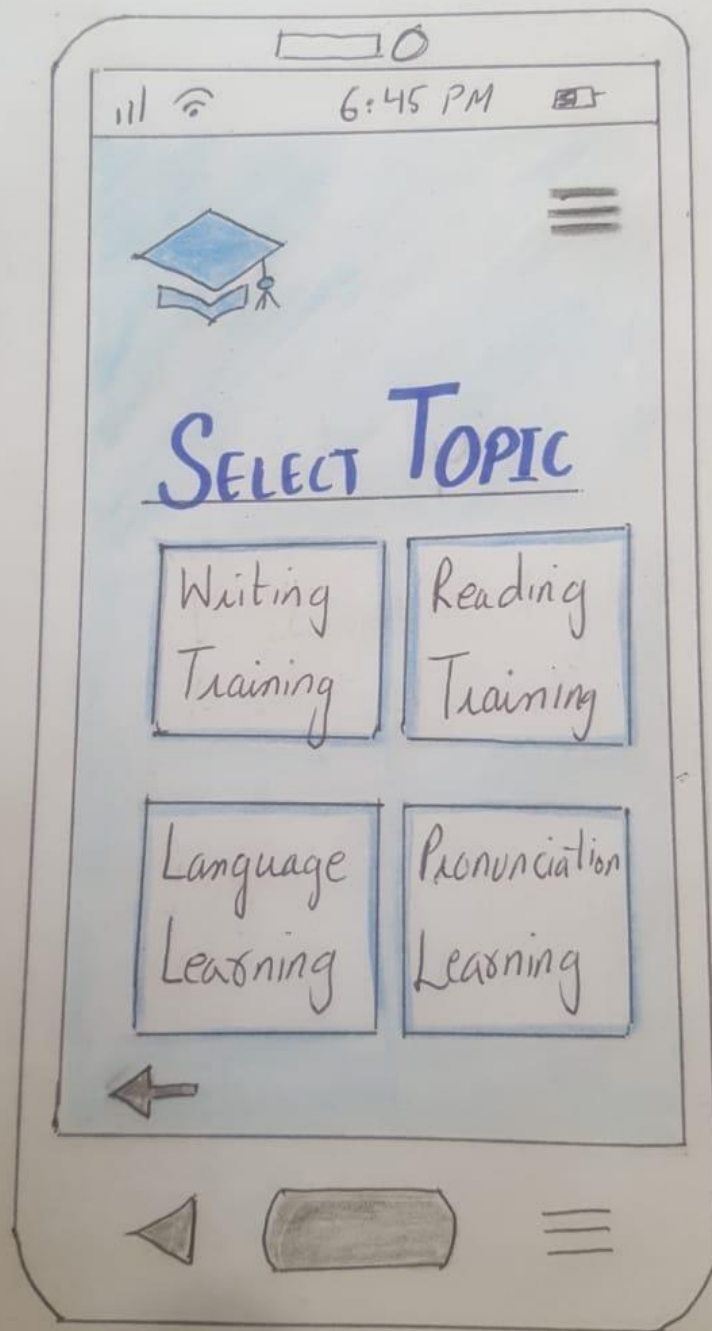
On login button:



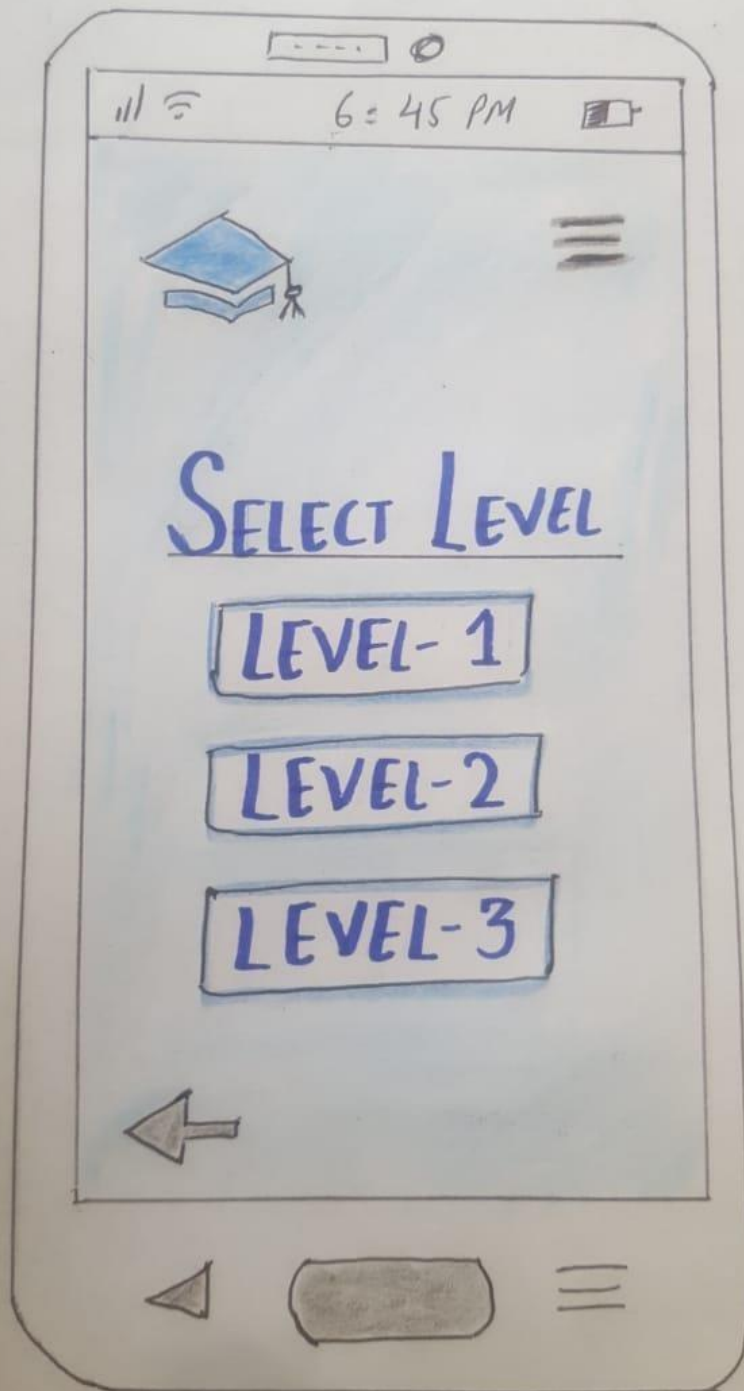


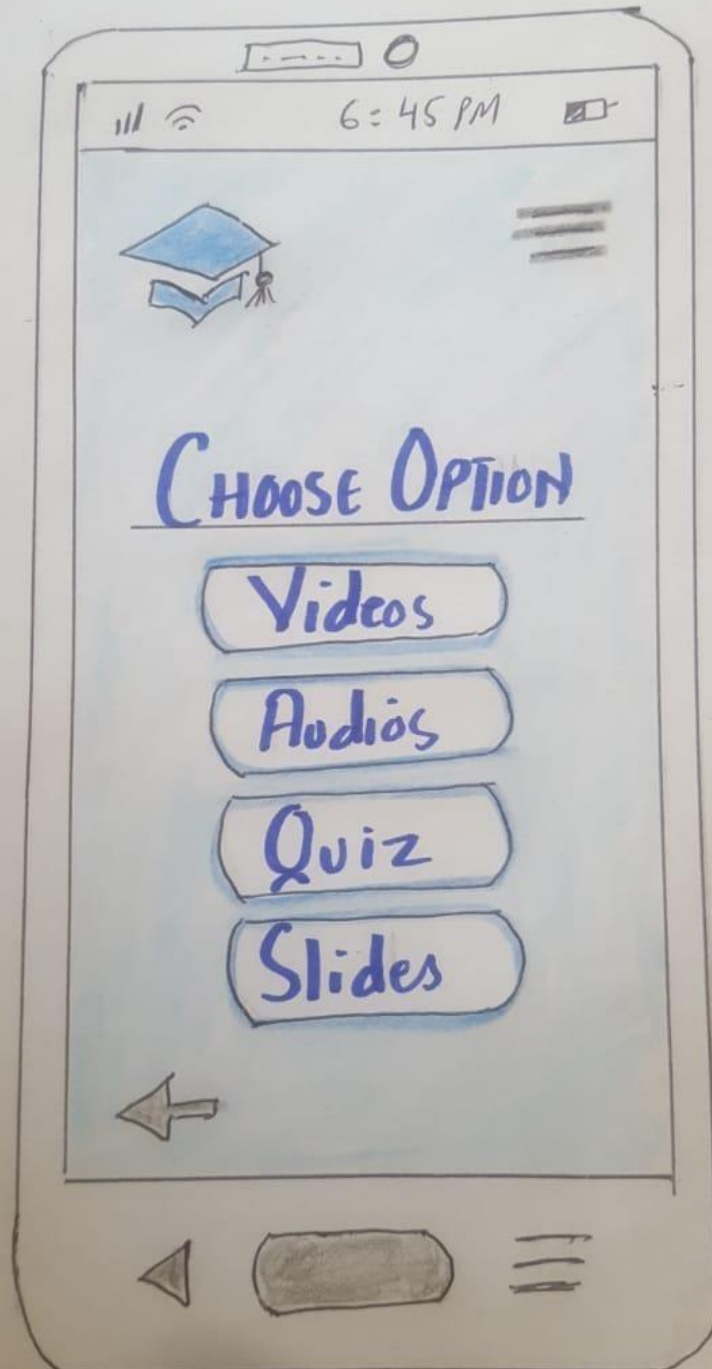




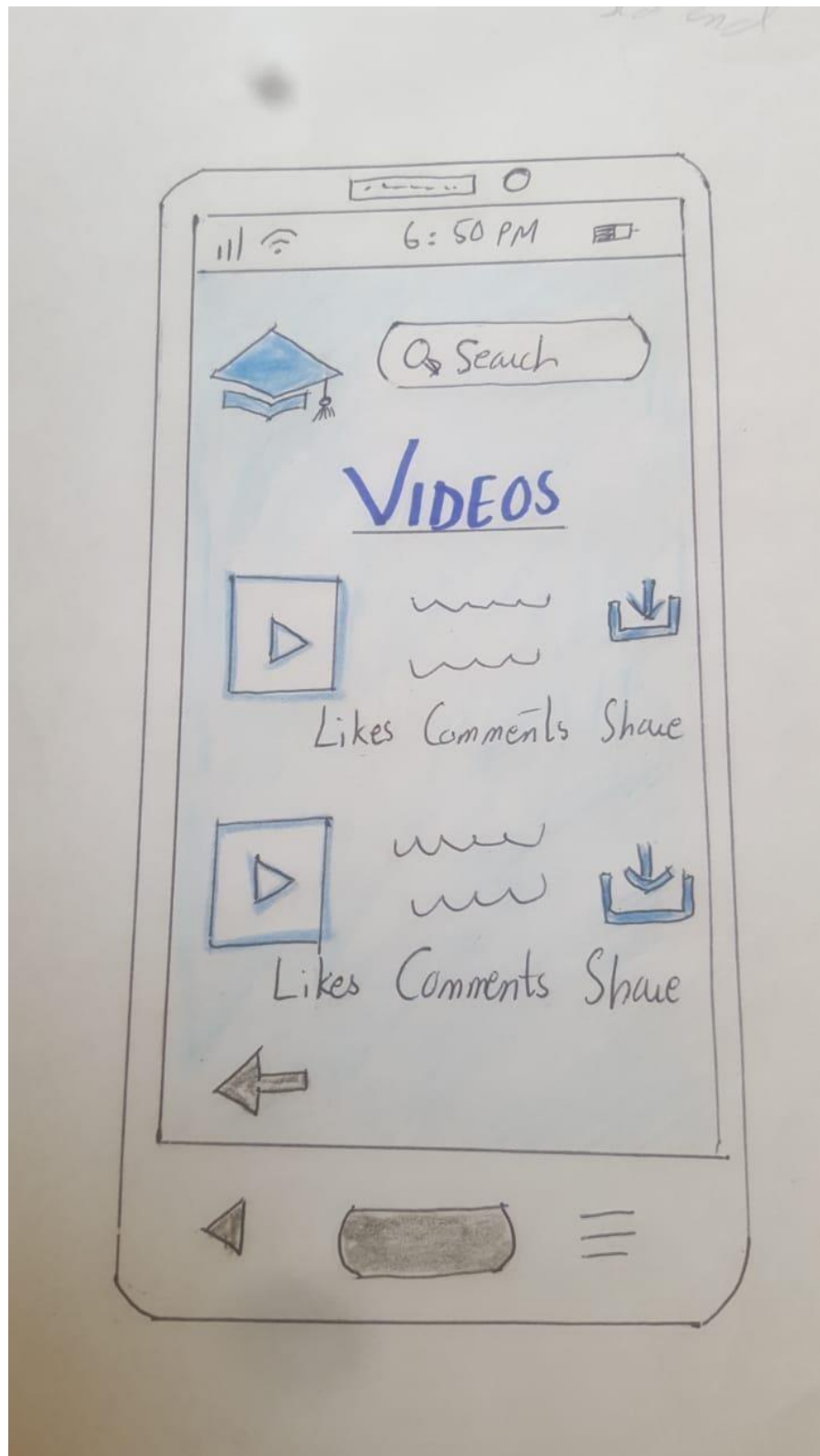


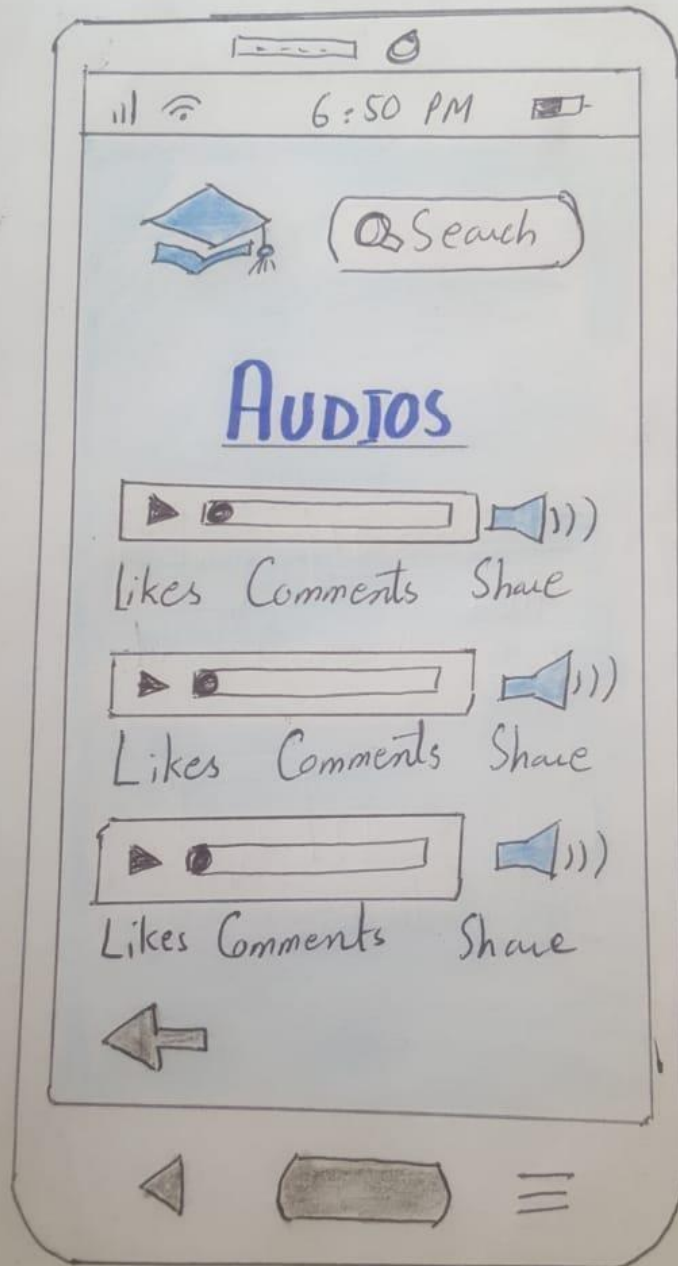
4





Student options view:







6:50 PM



Quiz

1- _____?

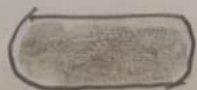
- a) _____ b) _____
c) _____ d) _____

2- _____?

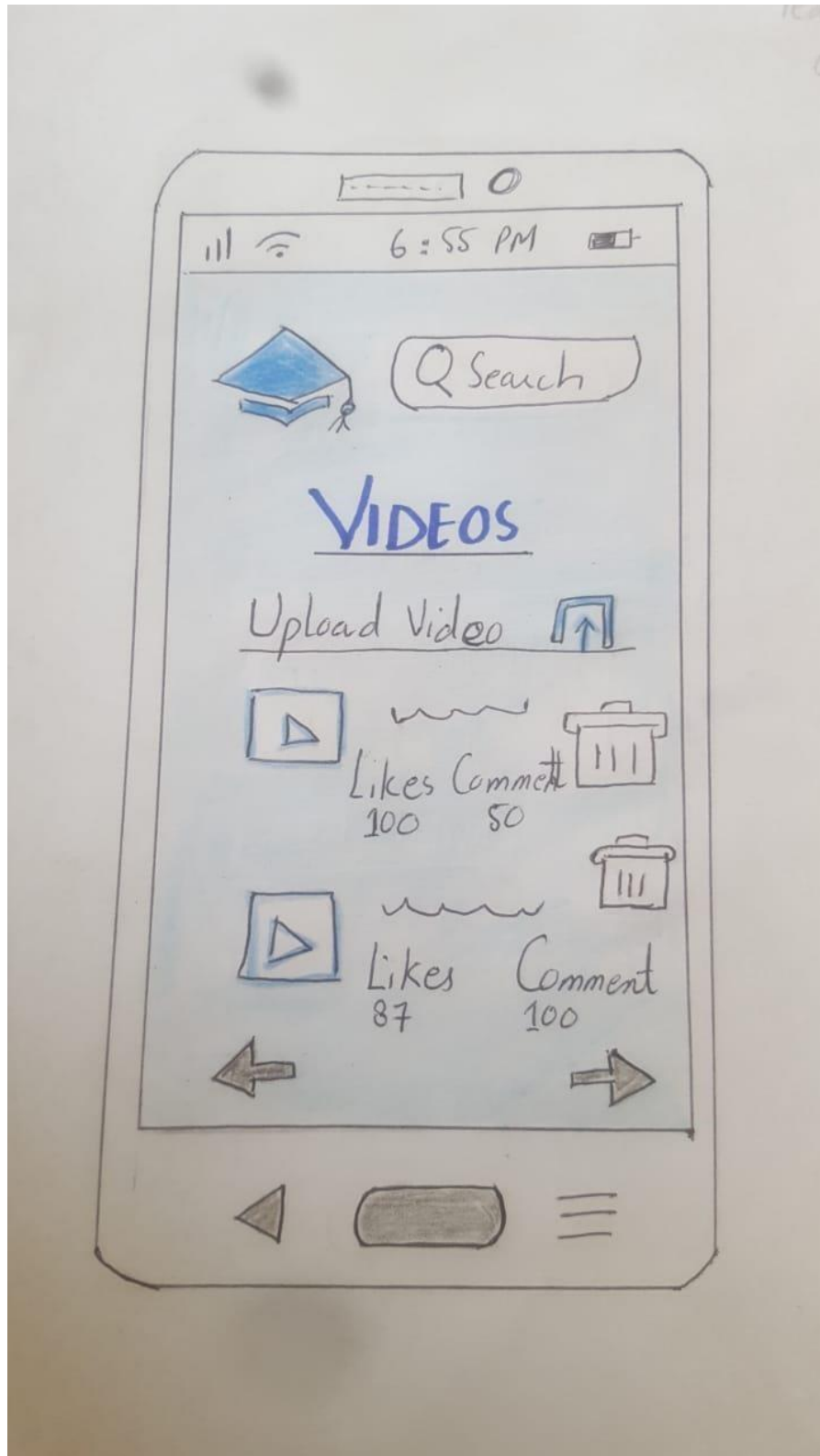
- a) _____ b) _____
c) _____ d) _____



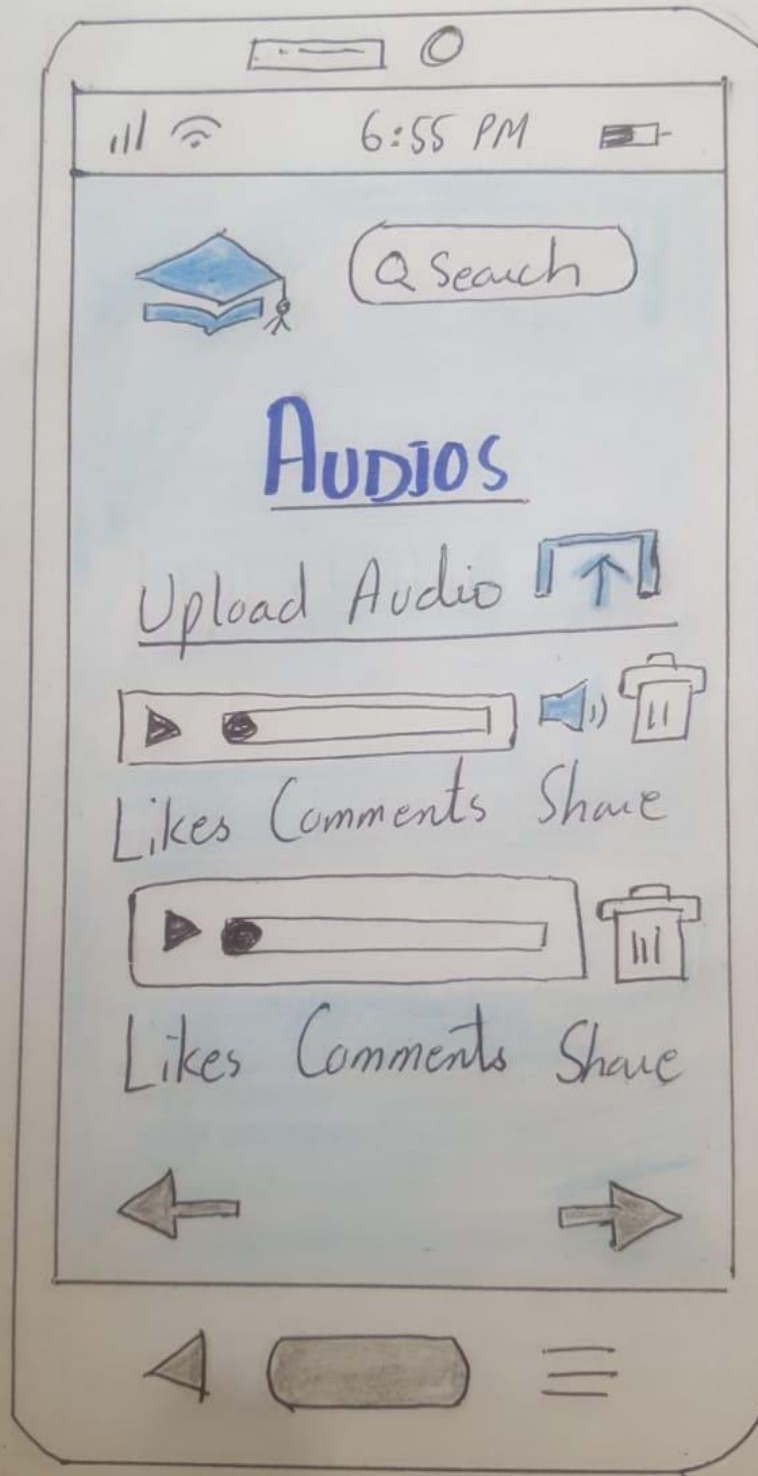
Submit Quiz

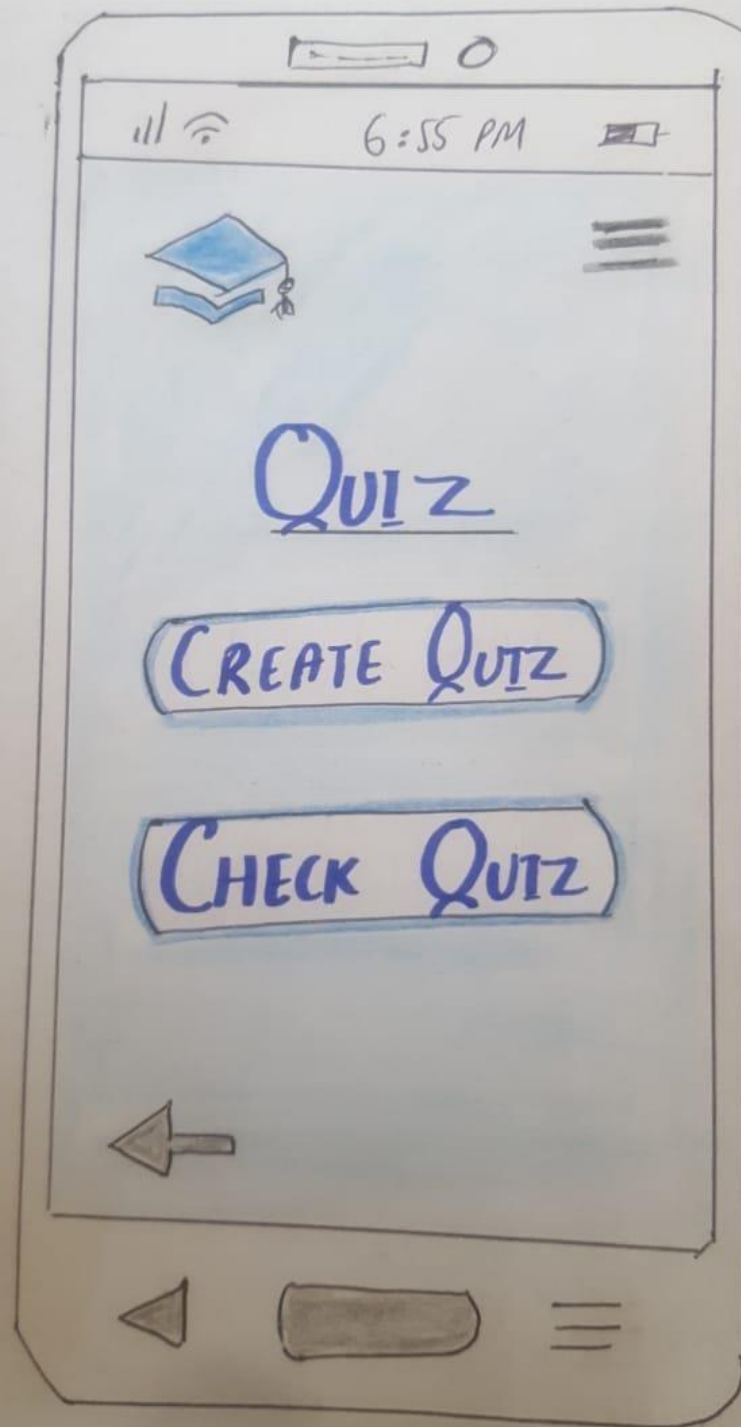


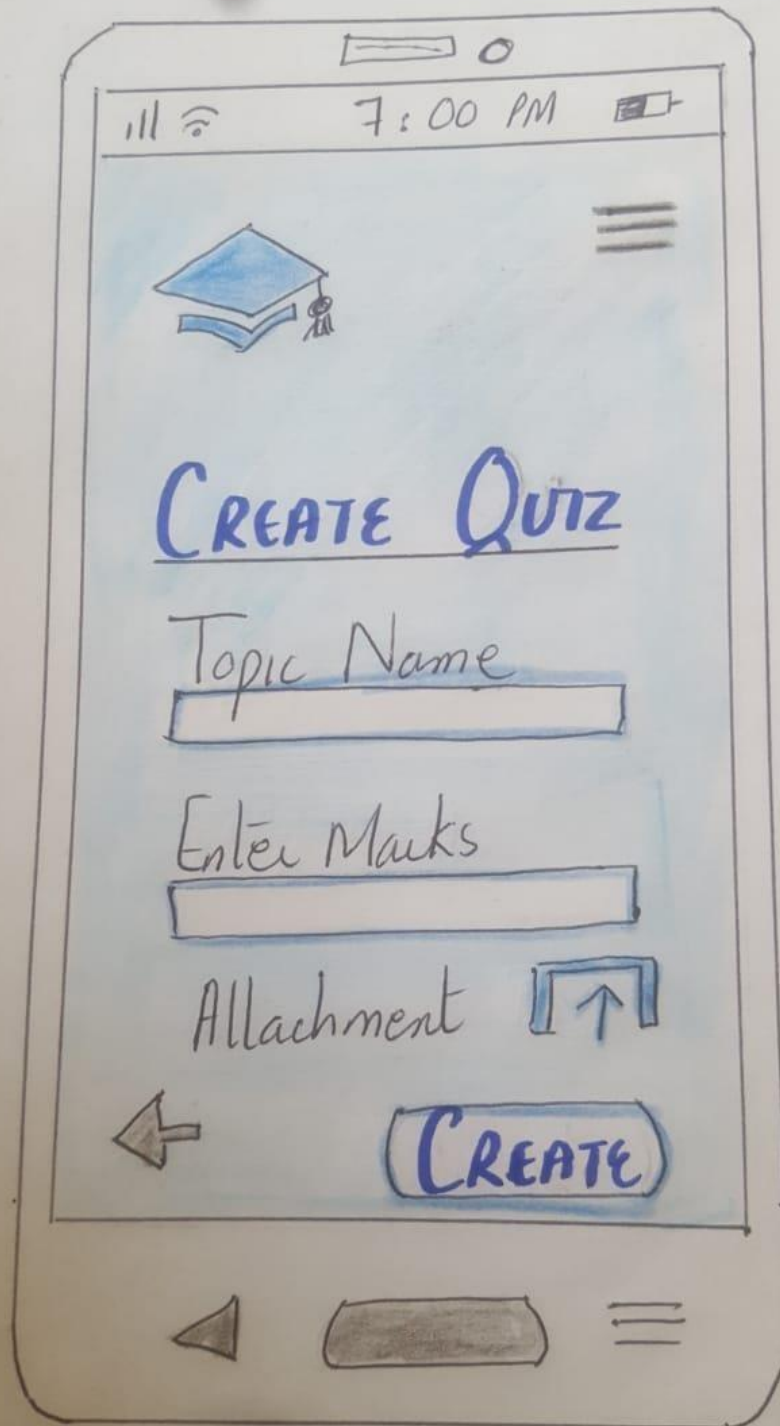
Teacher options view:

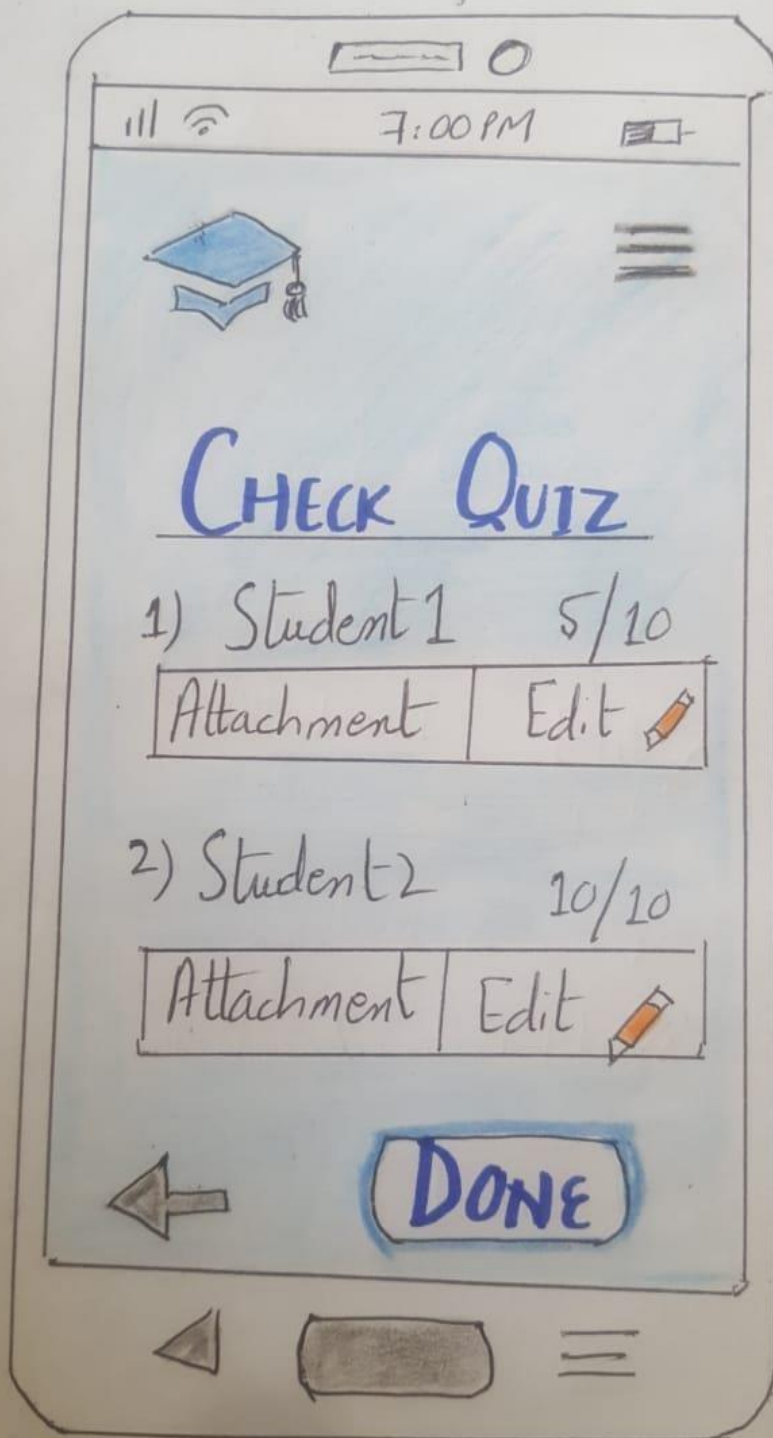


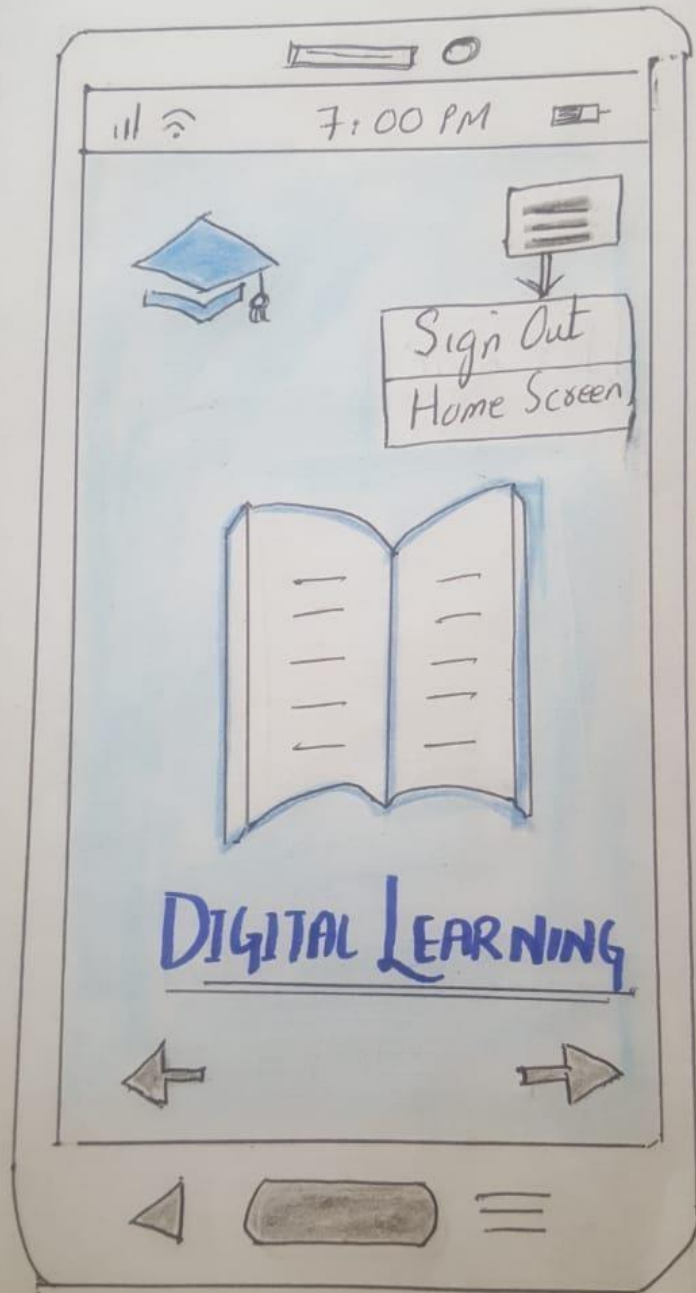
Options











PERSONAS (DIGITAL LEARNING) IMAGINARY



BIOGRAPHY

This is Ali .he is 10 years old. He lives in interior Sindh. He realizes how to utilize mobile phone. He doesn't have the foggiest idea how to talk or read and write Urdu. He faces a few challenges in speaking with others

REQUIREMENTS:

He needs to think about the Urdu language which can assist him with conveying without any problem

GOAL:

He will likely achieve his fantasy to concentrate regardless of whether he don't go to any school and to communicate in Urdu fluidly in Pakistan with the goal that he won't be think about outsider.

PROBLEM:

Issue is that he don't have the foggiest idea how to utilize that application since he isn't comfortable to such interface. So he need something that explore itself how to utilize it .so he won't get confounded while utilizing it.

DESIGN:

First he should think about Urdu letters in order .He should realize how to keep in touch with them. He should think about the way to express these letter sets .Then a test will be made at various steps which tells about his advancement for his further instructing.

IMPROVMENT:

Improvement can be done by using friendly environmental interface and some few instruction guideline so that the newbie don't get confused.

FEEDBACK

In few months Ali has the ability to understand Urdu and he can even write and read Urdu he is very happy as his goal of learning Urdu is achieved successfully now he not only use this application for himself but also tell his friends about this app who are facing same difficulties

In scarcely any months Ali can get Urdu and he can even read and write Urdu he is glad as his objective of learning Urdu is accomplished effectively now he utilize this application for himself as well as tell his friends regarding this application who are confronting same challenges

GROUP PARTNER PERSONA

BIOGRAPHY:

This is Ilsa she is 20 years old. She lives in Karachi. She has a Boutique store although she is good in communication .But he doesn't about the reading and writing, so due to this reason he has faced many losses

REQUIREMENTS:

She wants to know about the basics of reading and writing.

GOAL:

Her goal is to understand language learning because of her business requirements. So that she won't make fool of herself in front of her clients.

PROBLEM:

Her problem is that she does not know any language other than Urdu so she required interface in Urdu language and to understand the interface. Pop up must be there to guide her.

DESIGN:

First she should know about the aliphatic sequence. She should know how boutique article name read and write. She should know about the standard of outlet. Then a quiz will be taken at different steps which tells about her progress for her further teaching.

IMPROVMENT:

One thing she want is that there must be a step to step listen progress check so that she can know how she is performing in the class.

FEEDBACK:

In few months Ilsa has improvement in her reading or writing skills and now her shop is in profits she is very happy by her progress she also recommended this app to her fellows so they can improve their skills too.



BIOGRAPHY:

This is Zahra. She is 15 years old. She resides in Swat, Khyber Pakhtunkhwa. Her family recently moved to Karachi .She got enrollment in an English medium high. She understands how to speak Urdu. She doesn't learn how to speak, interpret and write English. She experiences several problems in hearing her lectures. Though she is a good student and a fast learner.

REQUIREMENTS:

She needs to learn about the English language which can support her under lectures quickly.

GOAL:

Her ambition is to talk English and make a reputation for herself in her village. she like to read books that are written in English.

PROBLEM:

Her problem is that she can't understand the platform because its in english. and it will be good for her if the device would change the language for her.

DESIGN:

First she will learn about English alphabets. She would learn how to compose them. she should know about the pronunciation of these alphabets. She should learn about the English grammar.

Then a quiz will be taken at different steps which tells about his progress for teaching more teaching

IMPROVEMENT:

If there was a simple pop up in that start that would ask the user to change its language into language in which user want to use in it.

FEEDBACK:

In few months Zehra has the ability to understand English and she can also write and read English .she is really pleased as her aim of learning English is accomplished successfully now she not only using this application for herself but also inform her friends about this app who are facing same difficulties

GROUP PARTNER PERSONA

BIOGRAPHY:

His name is Muhammad Ahmed. He is 23 years old. He lives in a standard society in which people have life discipline. He enrolled in university. He understand how to read and write English but he doesn't know well that how to speak or how to talk in English like frequently. He faces so many problems in his life style.

REQUIREMENTS:

He needs to learn about the English grammar which can support him for learning proper English language.

GOAL:

His goal is to understand English language because this is very important requirement for to maintain his life style, for job interviews and also for communicate with people. So that he won't get nervous in front of everyone.

PROBLEM:

Her issue is that he doesn't well in speaking English so he required platform which teach about how speak English and to understand that platform easily.

DESIGN:

He should know about the reading and writing which supports him to learn English. First of all, he know about the grammar and then start from short sentences then move towards the upper level according to his level and also give quizzes of different levels to check itself.

IMPROVMENT:

He wants that there must be a presentation type activity which activity helps him to speak more frequently.

FEEDBACK:

In a short period of time he able to understand how to speak English. He is really pleased as her aim of learning English is accomplished successfully. Now he is fine in English speaking and easily communicate with others. Also this is very helpful for job interviews. Now he easily explain his point and deliver his idea in English.

**BIOGRAPHY:**

This is rukhsar she is 9 years old. She lives in small village .Her family recently more to Karachi .She got admission in an English medium school. She knows how to speak Urdu. She doesn't know how to speak or read and write English. Although she is a bright student and a quick learner.

REQUIREMENTS:

She wants to know about the English language.

GOAL:

Her goal is to speak and understand English and to forfeit in her schools won't get embarrassed in front of her friends.

PROBLEM:

Her problem is that she does not understand English very well so she may not understand the language used in the interface. There must be a guide for her to tell what she need to do so she can understand how the app works.

DESIGN:

First she should know about English alphabets .she should know how to write them. She should know about the pronunciation of these alphabets. Then a quiz will be taken at different steps which tells about his progress for teaching further teaching.

IMPROVMENT:

She wants that if there by chance any leveled quiz and assignment must be conducted so that she will learn how good she is understanding things.

FEEDBACK:

In few months Rukhsar has the ability to understand English and she can even write and read English she is very happy as her goal of learning English is achieved successfully now she not only use this application for herself but also tell her friends about this app who are facing same difficulties.

COGNITIVE WALKTHROUGH

Yes, we tested the app by simply taking survey how much a person can understand the purpose of the app without having any background knowledge. We even tested ourselves by using the app and see what can be possibly added into the app to make it useful and more understandable. We add basic button if any user stuck or forget how to use it. We add demo for both the teacher and student. We create a lighter screen for the teacher to use. We check every possibility that a student won't mess up the real data on the page.

FINAL UI SCREEN SHOTS





Terms and Policy

AGREEMENT

This is to inform you that
you are to install this
applicatin on your mobile
and we have its copyrights

☐ Accept ☐ Decline

CONTINUE



WELCOME

**CREATE
ACCOUNT**

LOGIN

Sign in with:



© 2020 All Rights Reserved

- On create account button





REGISTRATION

 _____

 _____

 _____

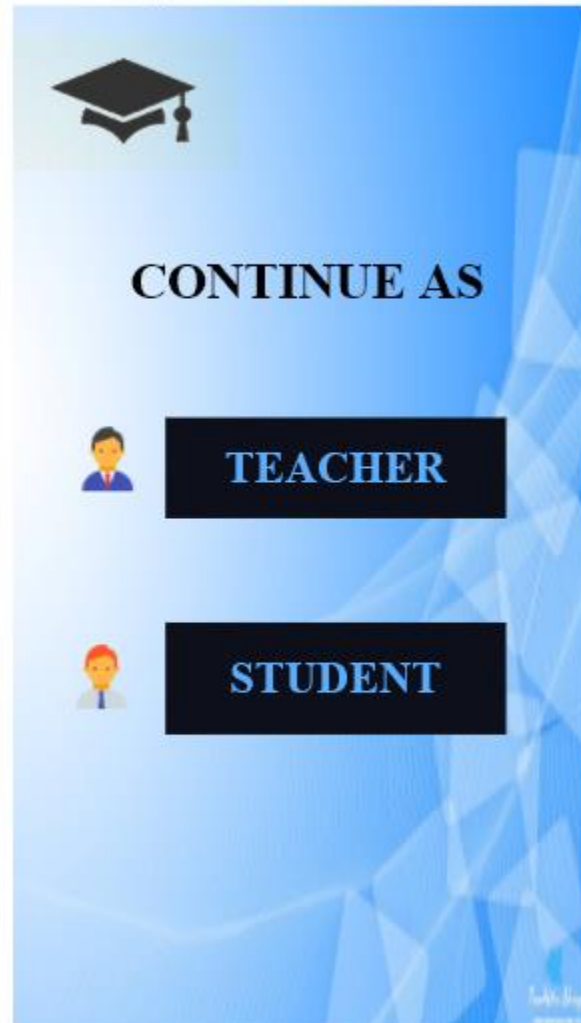
 _____

☐ Student ☐ Teacher

Register

Public Page

- On login button





LOGIN

User Name



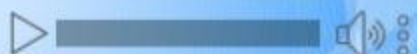
Password



Login



DEMO



Skip

Continue

EdTech
Solutions



Digital Learning

Start Tour



SELECT TOPIC

Reading Training

Writing Training

Language Learning

Pronunciation Learning



SELECT LEVEL

LEVEL 1

LEVEL 2

LEVEL 3



CHOOSE OPTION

VIDEO

AUDIO

QUIZZES

- Options (videos, audios and quiz) view for students



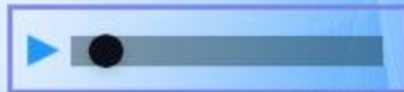


Q SEARCH

AUDIOS



[Like](#) [Comment](#) [Share](#)



[Like](#) [Comment](#) [Share](#)



Full Story
Full Story



QUIZ

Choose the correct form of verb:

1) The clerks _____ on strike since Monday

☐ are

☐ will be

2) She _____ question by her teacher

☐ was asked

☐ ask

Submit

- Options (videos, audios and quiz) view for teachers

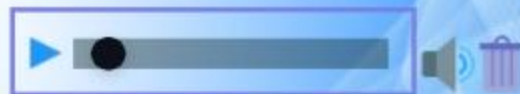




Q SEARCH

AUDIOS

Upload Video



Like

Comment

Share



Like

Comment

Share



Like
@username



QUIZ

CREATE QUIZ

CHECK QUIZ



CREATE QUIZ

Topic Name

Enter Marks

Upload Attachment



CREATE



CHECK QUIZ

- Muhammad Ahmed

9/10



Submitted
Attachmet



Edit

- Ilsa Khan

8/10



Submitted
Attachmet



Edit

DONE

- On the click of toggle button these two options visible here



- On the click of home screen button user move towards the home page



- On the click of sign out button user move towards the welcome page

