



Project Documentation

Project Title

GLSICT MCA (Chatbot)

Preference

As per schedule of the course of MCA (Master of computer application) the project work is necessary for all the students with different-different stream.

We are basically create the android application, so manly purpose of who's students, parents, and others can all know about GLS University Department of MCA.

Here We Main part of the, our mobile application is download the syllabus, brochure, and get information of about campus through the, our best learning model (Chatbot) of MCA.

We have used for the Android as front-end tool & Firebase as database back-end tool to develop the android mobile application and another we have used to Dialog Flow Framework for the develop Chatbot.

We feel definitely that our application will be helpful for everyone. Clients can use this application well and can get the information.

So I would like to say thank you very much to our college's MCA Department that we have taken this topic and we have learned a lot with the help of the project.

Acknowledgement:

Finally, our project has completed and we together and our class mentor Dr. Zakiya Malek, also gave us Suggestions from, with the help of which we developed a good and best application.

We appreciate every bit of encouragement you all gave us to make this project a success.

Thank you.

- **Subhash Labana**
- **Navajish Kadri**
- **Raviraj Koshti**
- **Ankit Dhamsaniya**

Project Profile

| | |
|------------------|--|
| Developed At | GLSICT (S R Parekh), Ahmedabad |
| Front-End | Android UI, UX, Java |
| Language | Java |
| Back-End | Firebase Real-time Cloud |
| Main Wire-Frames | Dashboard, Chatbot, User profile |
| Editor | Android Studio |
| Guided By | Dr. Zakiya Malek |
| Developed By | Subhash Labana Navajish Kadri Raviraj Koshti Ankit Dhamsaniya |

Group Members Details with work distribution:

| | |
|------------------|---------------------------------------|
| Subhash Labana | Back-End, Development, Testing |
| Navajish Kadri | Design, Analysis |
| Raviraj Koshti | Front-End Design, Analysis |
| Ankit Dhamsaniya | Design, Analysis |

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1. PROJECT DEFINATION

Introduction:

- Client can get information about GLICT-MCA
- Client can download Syllabus as well as our Brochure.
- Client can touch with great UI and UX Design.
- Client can see own profile which contain only Client's information

Features:

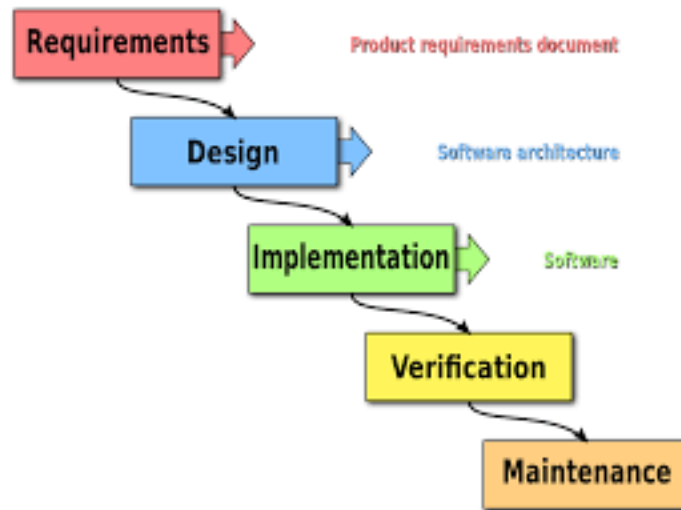
- Fast performance
- Easy login and signup
- Chat with out bot
- Well-Designed
- Highly Verification & Validation
- Authentication

Platform Requirement (Software & Development):

- 40 MB Storage
- Android API level 21 (Minimum)
- Explorer with internet(1.0 MBPS)
- Android studio(4.0) required 4GB Minimum RAM
- Dialog Flow (Chat-bot Development Framework)

2. PROJECT LIFECYCLE

MSDLC (Mobile Software Development Life Cycle):



5 Phases of Mobile App Development Lifecycle

Mobile app development is a step-by-step approach. Following are the steps involved in the life cycle of mobile app development.

1. Initiation and Requirement Analysis:

- a. First thing first, an idea of the GLS ICT MCA to find the information of about them. We are analysis the, our app is different from the others app. So our class mentor had discussions about Chatbot so we developed this application based on the requirement to the download the syllabus, brochure, and get the information about our GLS campus.

2. Designing the App(UI & UX):

- a. UI/UX plays a vital role in designing in our app. Let's discuss them one by one.
 - i. UX: UX or User Experience determines the accessibility, functionality, and usability of in our app. UX design mainly purpose of which better

performance with operating system like touch, etc. and another is considered as an enhanced form of a wireframe including color and fonts.

- ii. UI: User Interface includes all the features through which a user interact with the, our mobile app. It helps to client can touch with easily screen, keyboard or buttons accessible. And we are designed our application based on target audience using the functionality that suits them better. we have to used Google material design which we have create better UI and UX Design to the client can get better satisfy .

3. Implementation:

- a. In the Implementation part we have to use to java language with editor android studio which is latest platform of to develop the mobile application.
- b. We are dividing the three parts of application so we target on particular parts to improve the best mobile application, which is the first Analysis, Design, and coding.

4. Verification:

- a. Implementation after the part of the Verification it means testing the our app. So we are testing with different API level support mobile and also testing with multi-screen mobile like we have testing with mhdpi, hdpi, xhdpi, xxhdpi, xxxhdpi so this types of screen in android phones which is all supports to our mobile application.

5. Maintenance:

- a. Maintenance is the part of the Debugging, monitor our application and launch with deploying app on web server on Google Play Store. So we done part the our application fully testing and support the all android mobile phones with using of latest technology.

3. SYSTEM DESIGN

Language:

- Java is created by James Gosling in 1995.
- Java is popular for develop the android application.
- We have also used java to build mobile application.

Database:

- We have to use the Firebase Real-time database.
- Authentication.
- Secure.
- Analytics purpose (Machine Learning Task).
- Verification.
- Large-amount of data.
- JSON format Data with hierarchical.

Tools and Technology:

- We have to use the Android studio
 - Open-source
 - Platform independent
 - Support various technologies
 - Highly optimized virtual machine(DVM)
 - Flexible & high performance
- Dialog Flow Framework
 - Develop the Chatbot
 - Action to frequently
 - Connected with Google Service Account

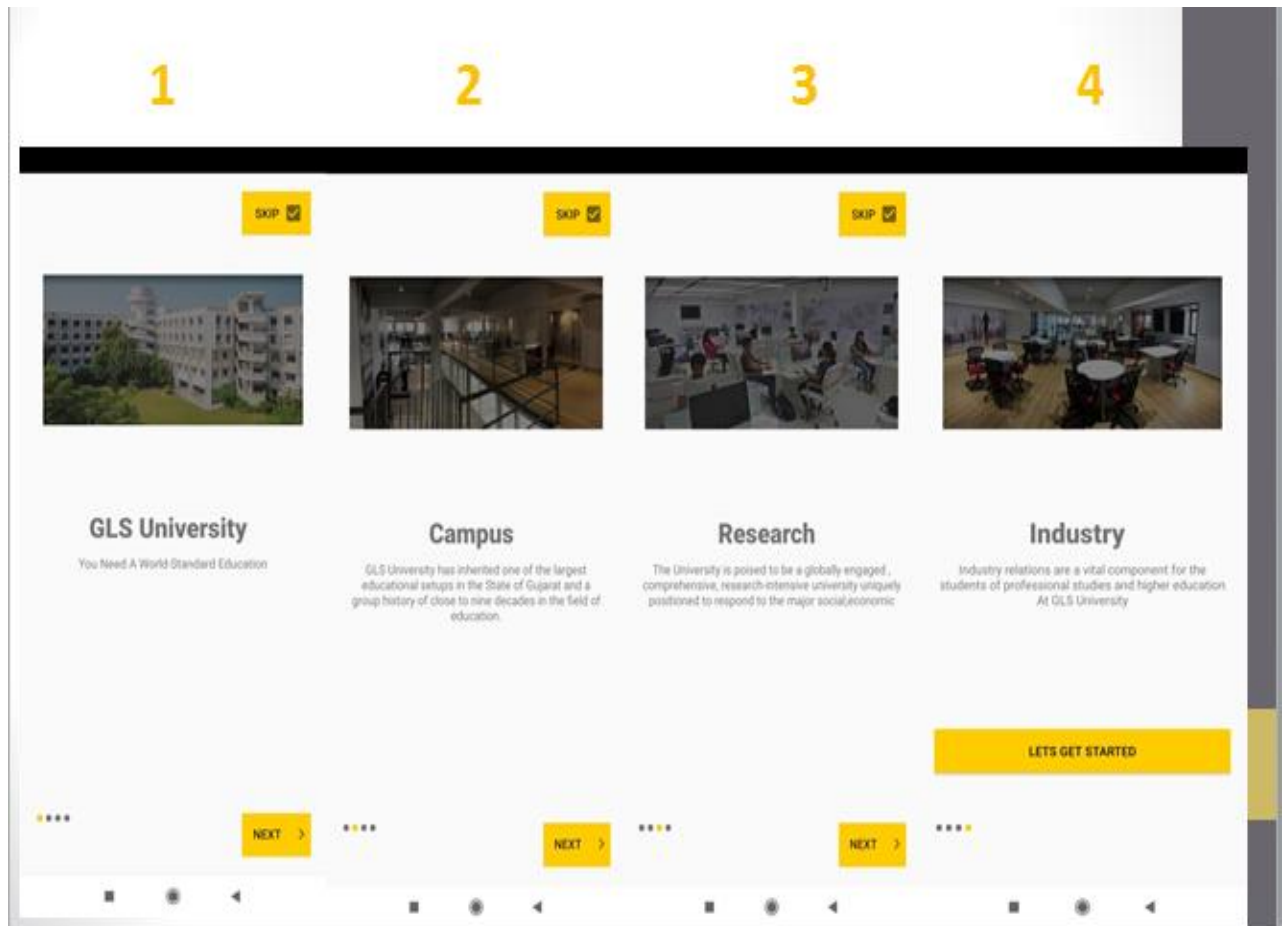
4. WIRE-FRAMES LAYOUTS

Client View:

Splash Screen



ONBOARDING SCREEN



STUDENT STARTUP SCREEN



WELCOME TO GLSICT

*You Need A World-Standard Education At GLS
University*

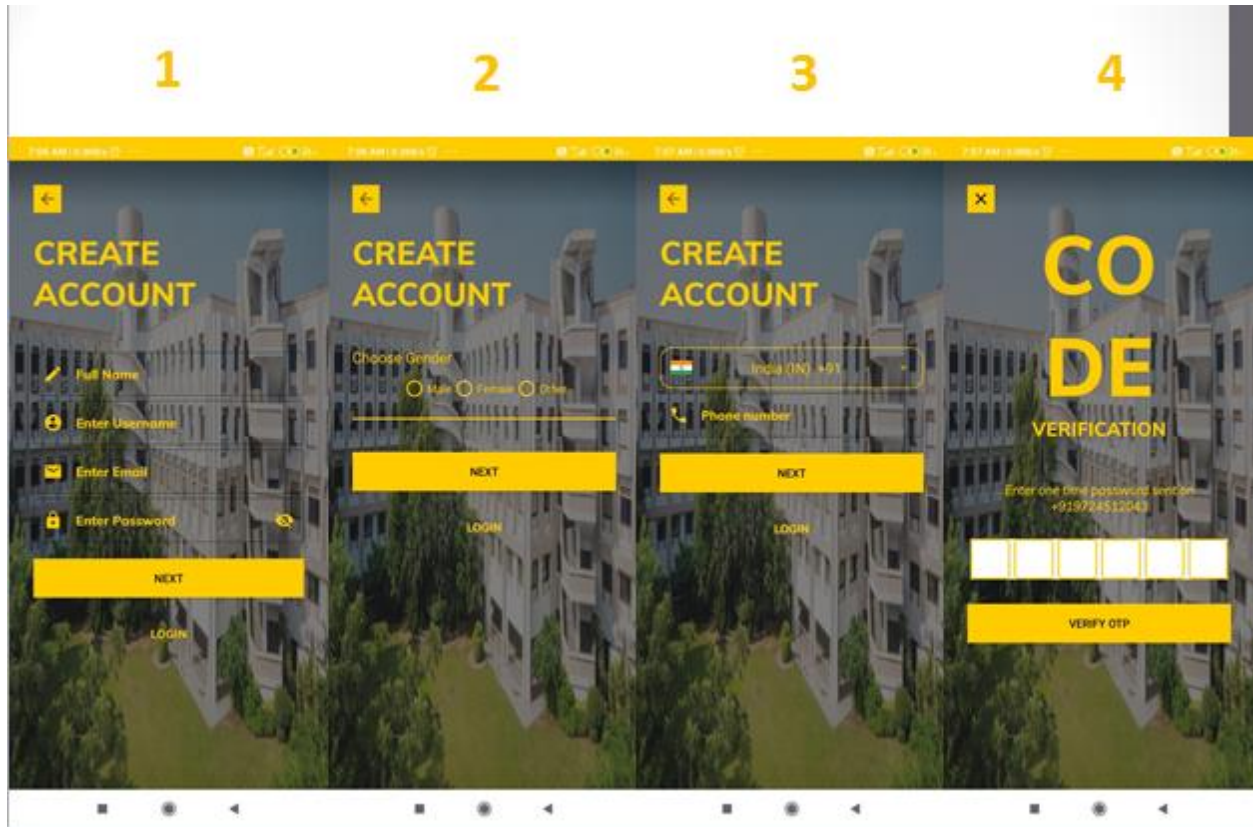
LOGIN

SIGNUP

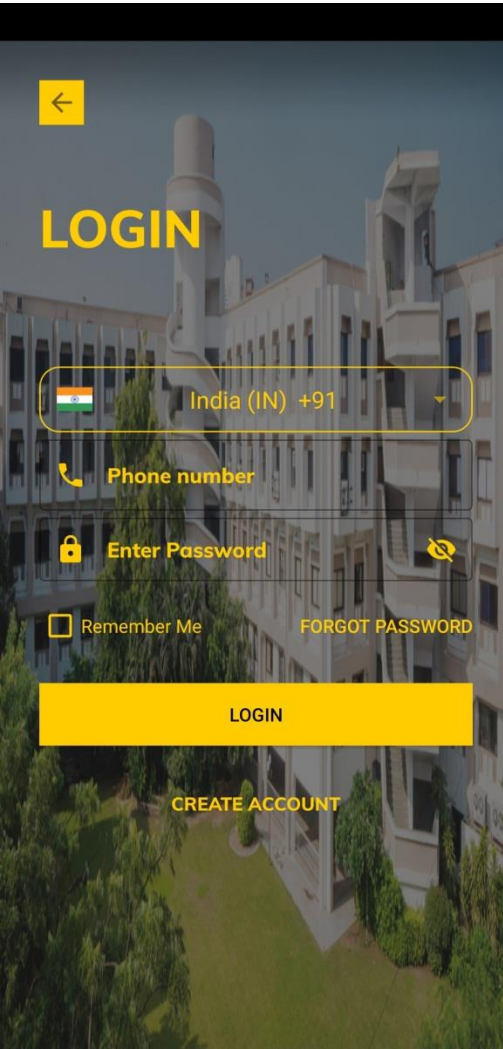
HOW WE WORK?



SIGNUP SCREEN




LOGIN SCREEN






A login screen UI mockup with a background image of a modern building. The screen features a yellow back arrow in the top left corner. The word "LOGIN" is displayed in large yellow letters. Below it is a dropdown menu for country codes, currently showing "India (IN) +91". There are two input fields: "Phone number" with a phone icon and "Enter Password" with a lock icon and a toggle for visibility. Below the password field is a "Remember Me" checkbox and a "FORGOT PASSWORD" link. A large yellow "LOGIN" button is centered below these elements. At the bottom, there is a "CREATE ACCOUNT" link. The Android navigation bar is visible at the very bottom.

←

LOGIN

 India (IN) +91

 Phone number

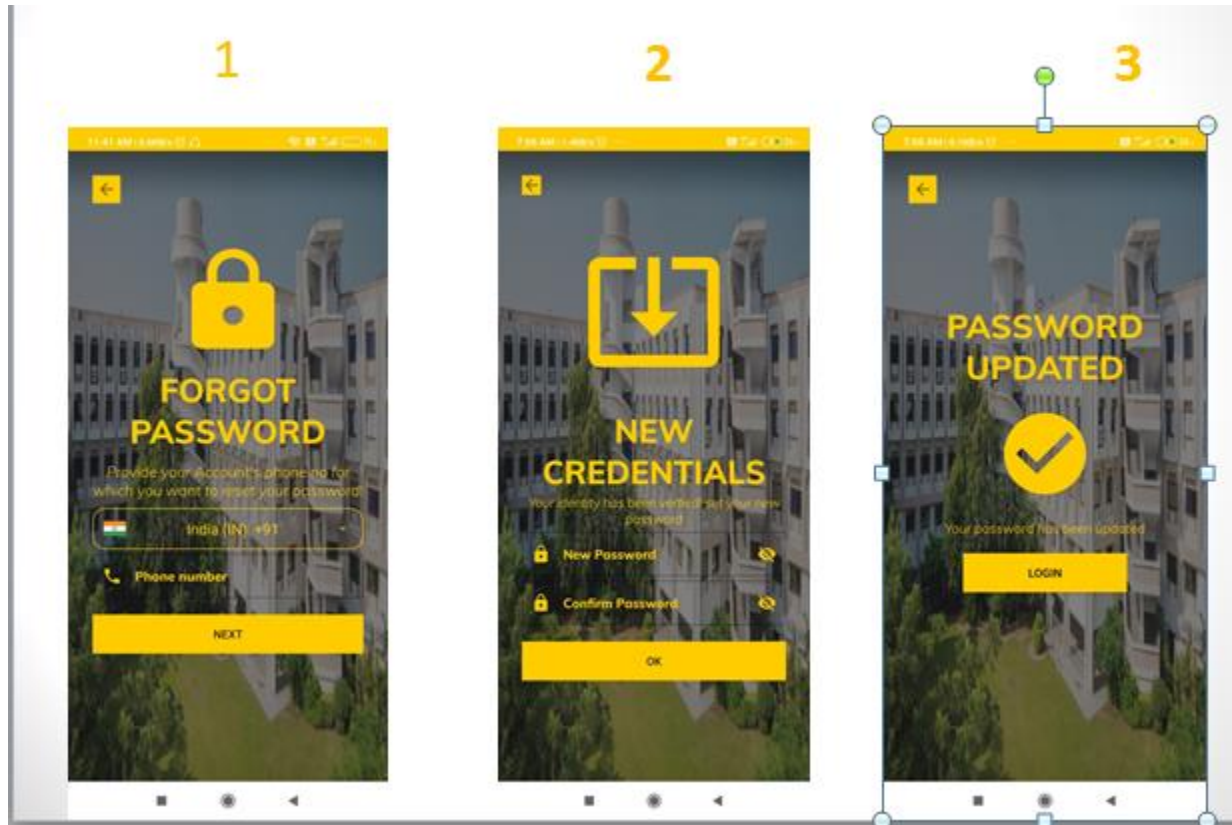
 Enter Password 

☐ Remember Me [FORGOT PASSWORD](#)

LOGIN

[CREATE ACCOUNT](#)

FORGET SCREEN



SIGNUP VALIDATION

9:43 PM • 100% • 5G

←

CREATE ACCOUNT

Full Name *

✎ Subhash Labana ✖

Enter Username *

👤 subhashlabana ✖

Enter Email *

✉ subhash0808@gmail.com ✖

Enter Password *

🔒 ••••• ✖

✎ Password can not be empty ✖

✎ Password can not be empty ✖

NEXT

LOGIN

9:42 PM • 100% • 5G

←

CREATE ACCOUNT

Full Name *

✎ Subhash Labana ✕

Enter Username *

👤 subhashlabana ✕

Enter Email *

✉ subhash0808@gmail.com ✕

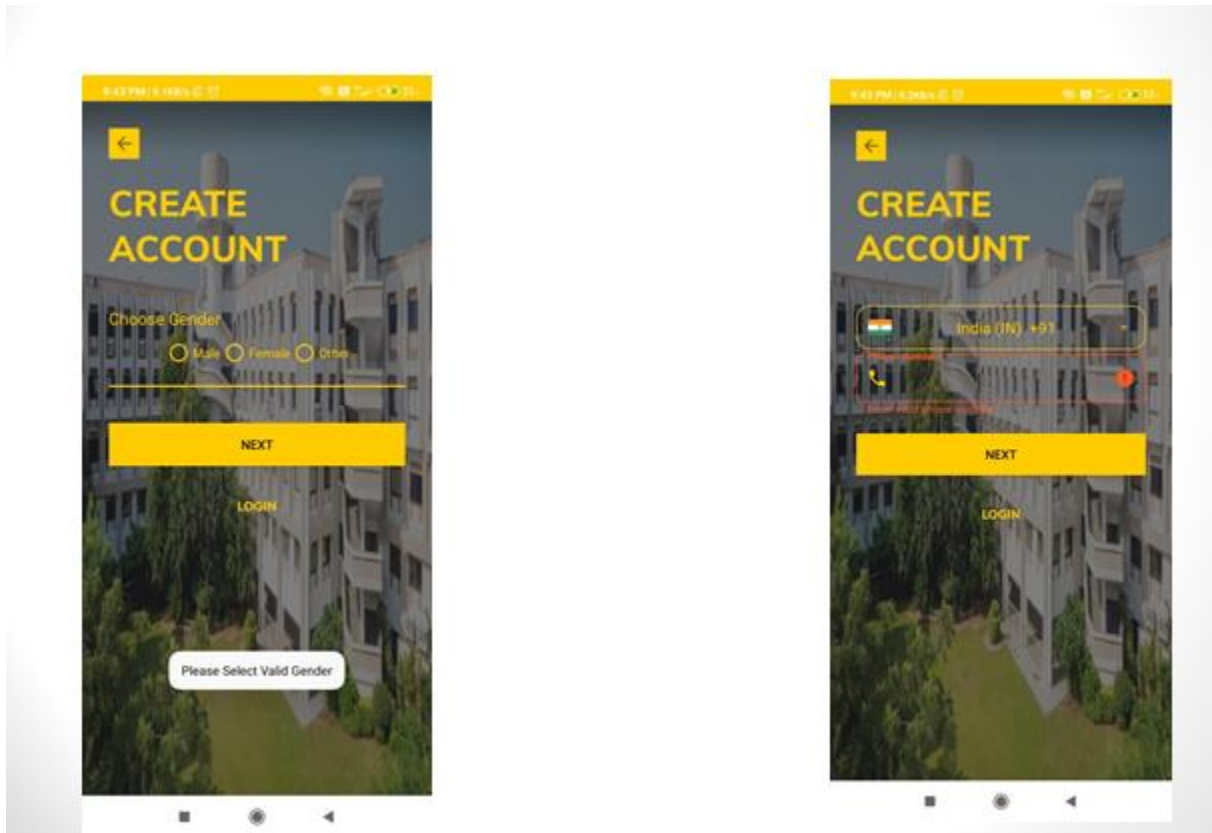
Enter Password *

🔒 ••••• ✕

NEXT

LOGIN

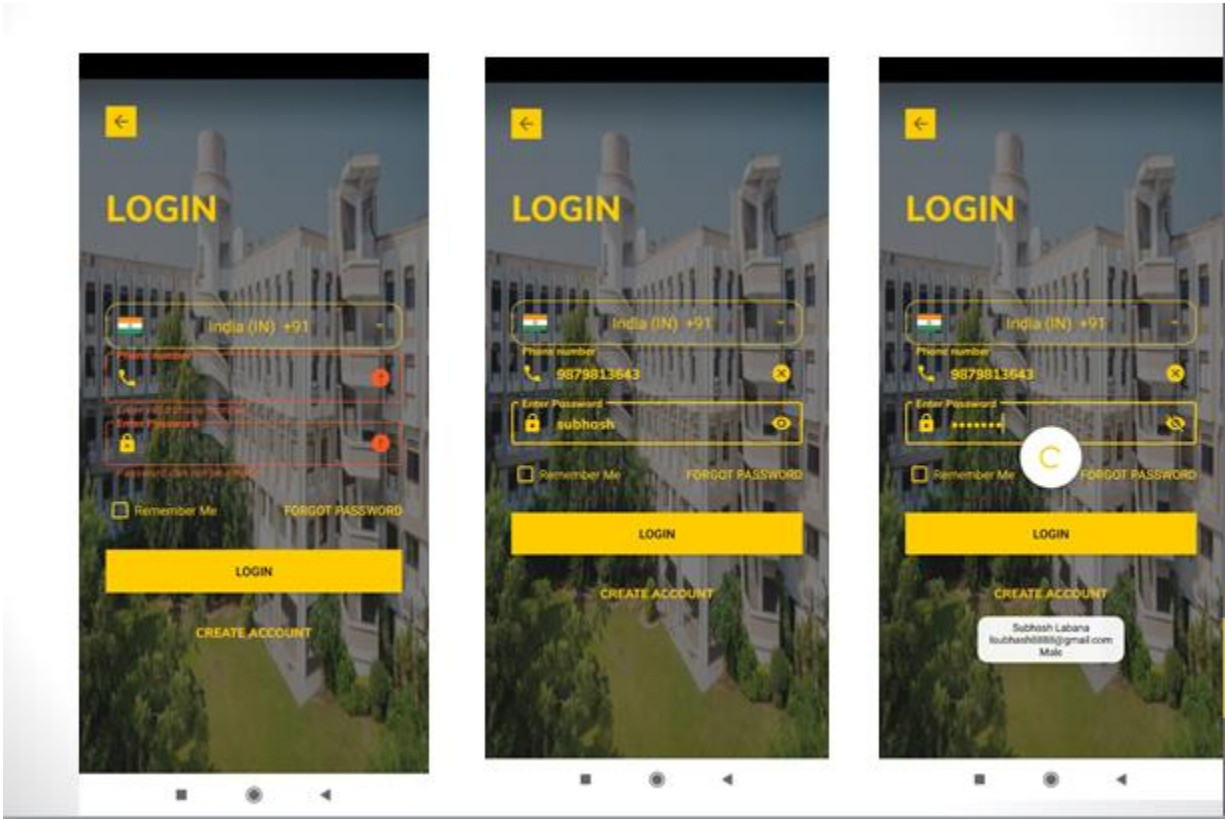
NEXT SCREEN



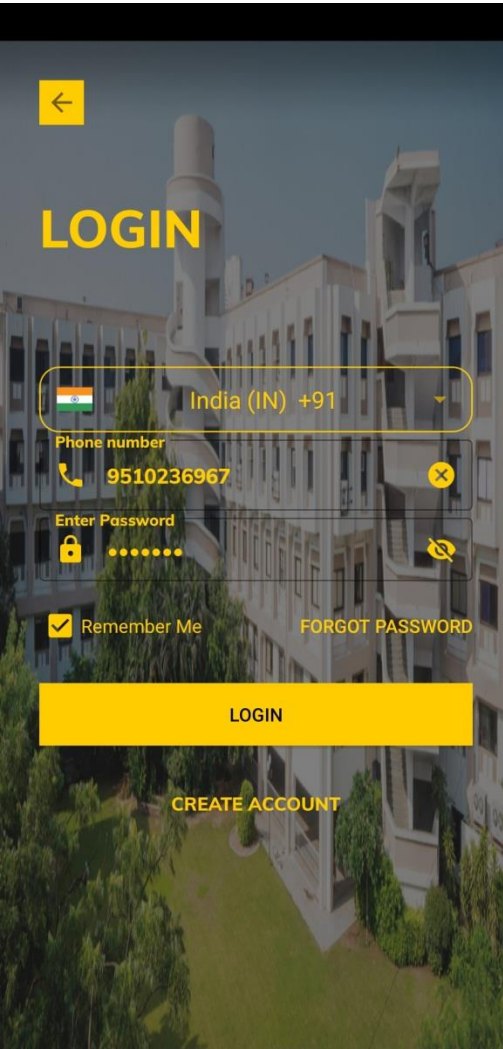
OTP SCREEN



LOGIN VALIDATION




REMEMBER ME





←



LOGIN

 India (IN) +91

Phone number

 9510236967 

Enter Password

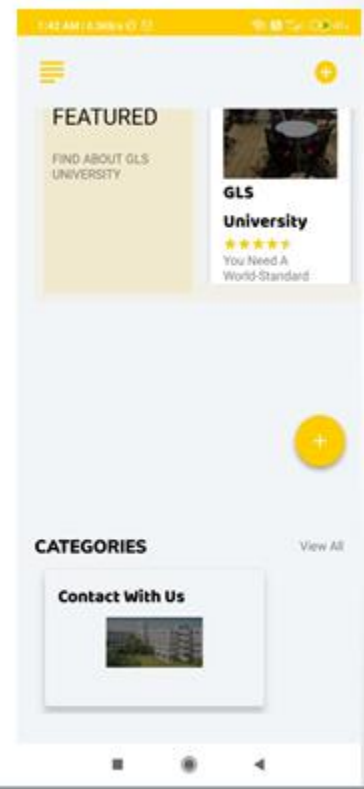
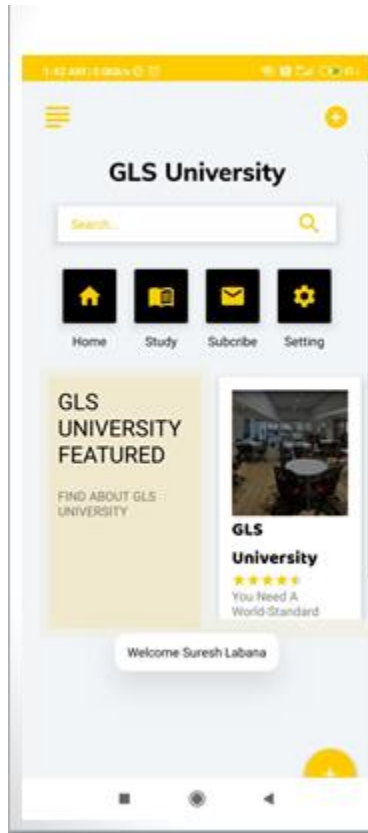
 

☒ Remember Me [FORGOT PASSWORD](#)

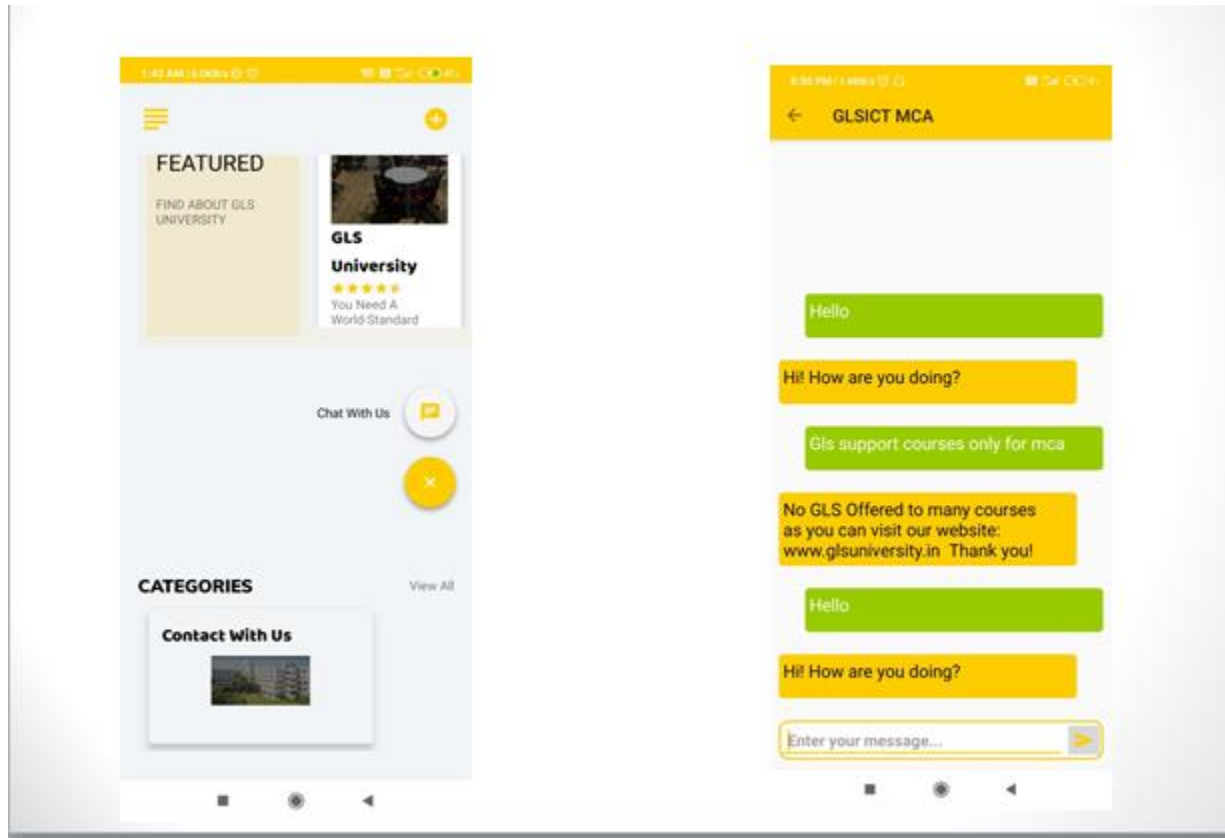
LOGIN

CREATE ACCOUNT

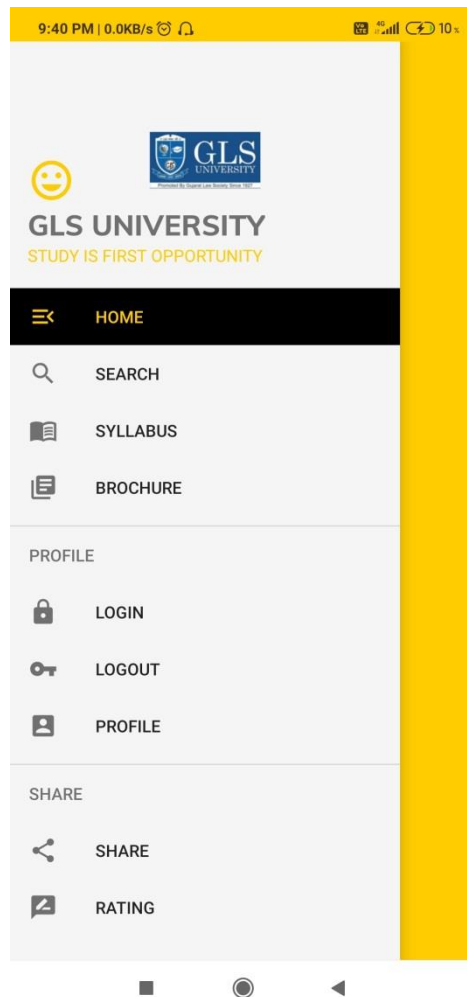
USER DASHBOARD



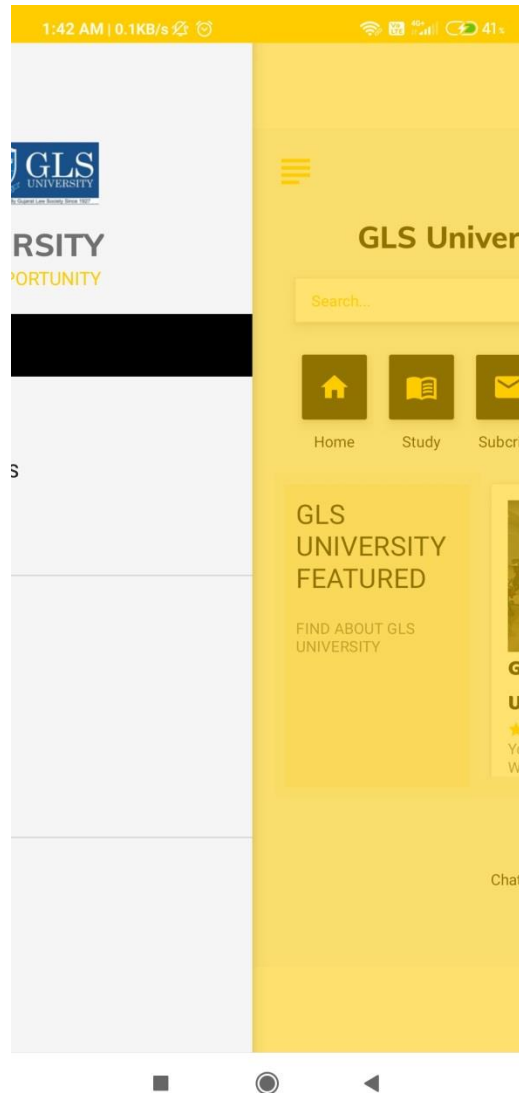
FLOATING ACTION BUTTON



NAVIGATION DRAWER



TRANSITION EFFECT



WEBVIEW

1:43 AM | 33.9KB/s

41%



GLS University



– Master of Computer Applications (M.C.A.) –



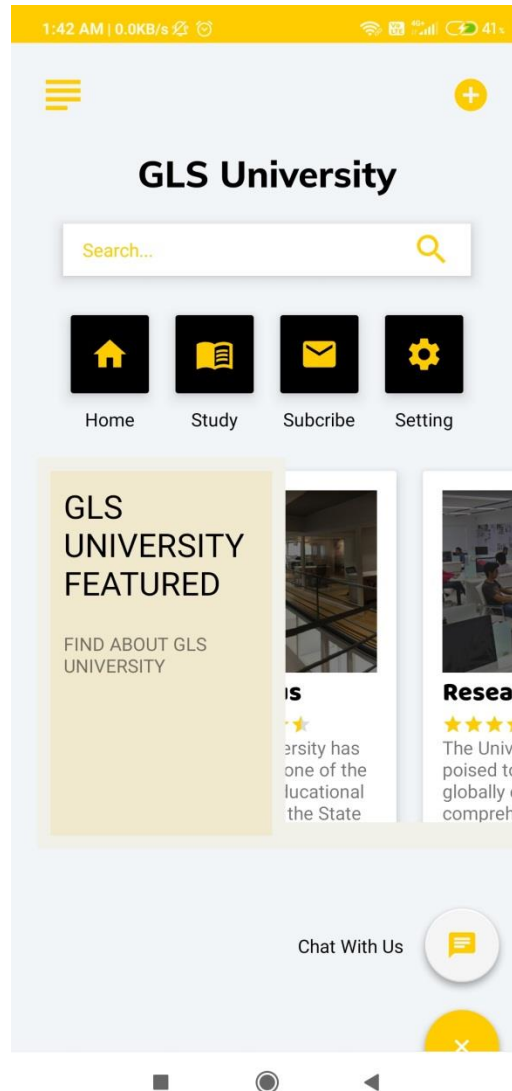
To satisfy the growing needs of domestic market for the continued demand of trained manpower in the field of Information Technology, Master of Computer Application course was introduced in the year 1999 and GLS (S. R. Parikh) Institute of Computer Technology was established.

The glorious journey of 21 years is going on strongly with huge alumni base and strong corporate relationship. The institute is continuously adopting the changing market requirements to cope up with the dynamic nature of IT industry. The student centric best practices and activities are the key highlights of this NAAC accredited institute. The institute has been able to create a vast base of industries where students can seek academic and placement opportunities in diverse areas.

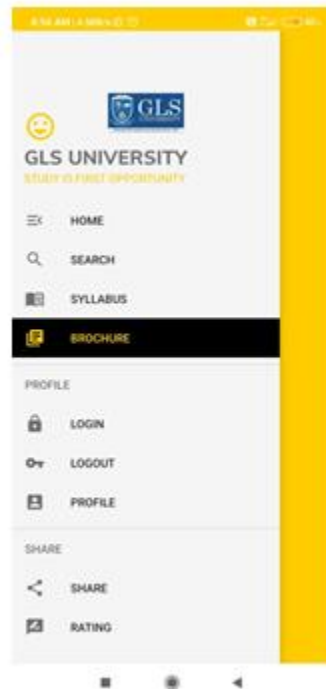
The institute has well equipped computer laboratories with high end computer systems



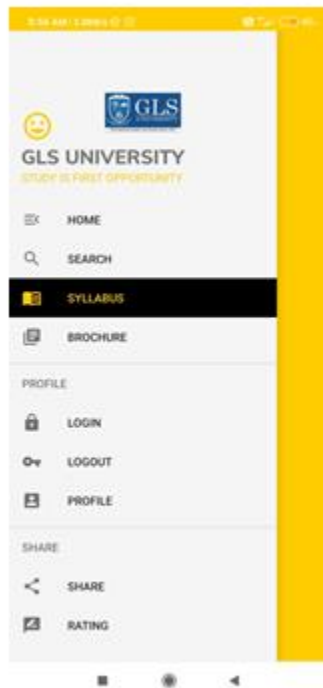
CUSTOM ADAPTERVIEW



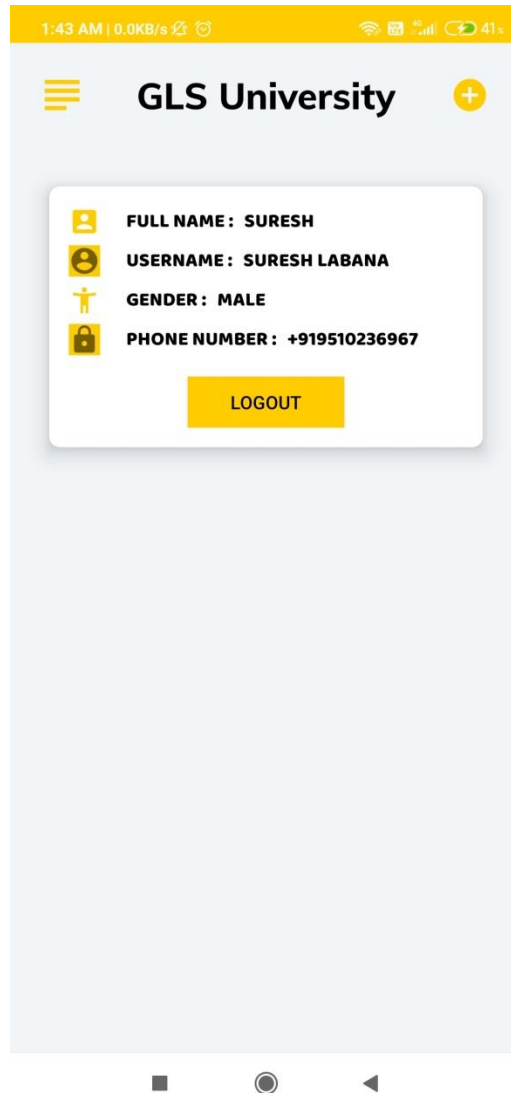
BROCHURE DOWNLOAD



SYLLABUS



PROFILE VIEW



Back-end View:



REALTIME DATABASE

PHONE NUMBER VERIFIED

GLSICT MCA - Authentication

https://console.firebase.google.com/project/glsict-mca/authentication/users

Go to docs

Authentication

Users Sign-in method Templates Usage

Search by email address, phone number or user UID

Add user

| Identifier | Providers | Created | Signed In | User UID ↑ |
|---------------|-----------|-------------|-------------|------------------------------|
| +919879813643 | 📞 | 13 Aug 2020 | 13 Aug 2020 | 5yILP6cjAvx0yJKH70tWRkW7CGu2 |
| +919724512043 | 📞 | 13 Aug 2020 | 13 Aug 2020 | LvrKZHT7lmVN15fLG9w5VaSC2Is2 |
| +919510236967 | 📞 | 13 Aug 2020 | 13 Aug 2020 | QyHQ0LovedelcmjGagalN4iY7Eq1 |

Rows per page: 50 1-3 of 3

https://console.firebase.google.com/project/glsict-mca/firestore

USER DETAILS STORE

The screenshot shows the Firebase Realtime Database console for the project 'GLSICT MCA'. The left sidebar contains the Firebase navigation menu with options like Project Overview, Authentication, Cloud Firestore, Realtime Database (selected), Storage, Hosting, Functions, Machine Learning, Quality, Extensions, and Spark. The main content area displays the 'Realtime Database' interface with tabs for Data, Rules, Backups, and Usage. The 'Data' tab is active, showing a tree view of the database structure. The root node is 'glsict-mca', which has a child node 'Users'. The 'Users' node has two children: '+919510236967' and '+919879813643'. The second user node contains a JSON object with the following details:

```
{  "email": "lsubhash888@gmail.com",  "fullName": "Subhash Labana",  "gender": "Male",  "password": "subhash",  "phoneNo": "+919879813643",  "username": "subhashlabana"}
```

5. TESTING AND DEBUGGING

Test Cases:

User-Signup test cases:

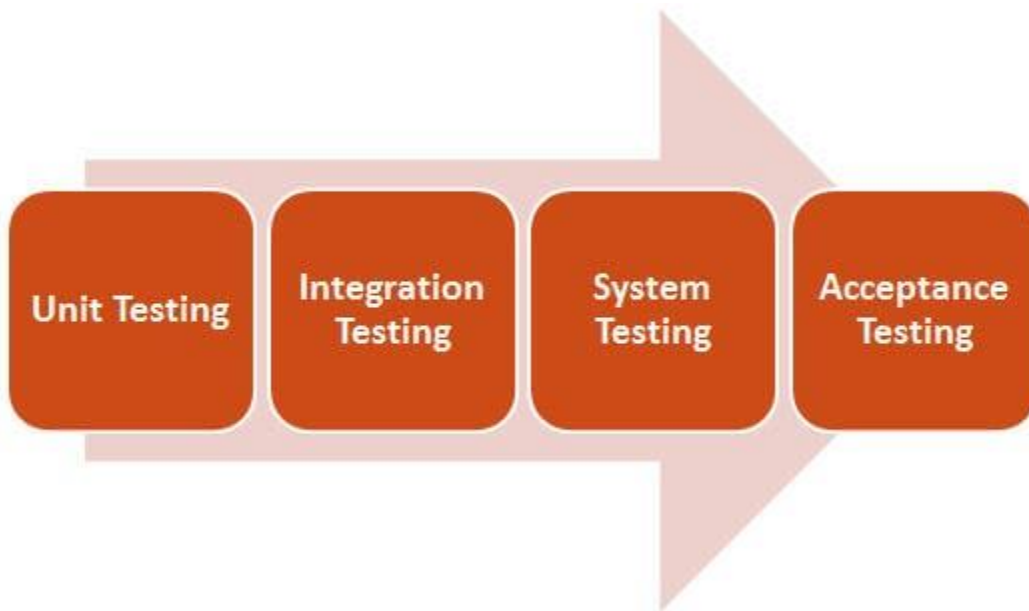
| <u>Field Name</u> | <u>Value</u> | <u>Action</u> |
|-------------------|------------------------|---|
| Full name | Subhash Labana | Normal, Required |
| Username | lsubhash | Small character, Don't use space |
| Email | lsubhash8888@gmail.com | Special character @, numbers |
| Password | labana12 | Between 5 to 15 |
| Gender | Male | Required |
| Phone Number | 9724512043 | If Number verified then store whole information into database |

User-Login test cases:

| <u>Field Name</u> | <u>Value</u> | <u>Action</u> |
|-------------------|--------------|--|
| Phone Number | 9724512043 | If exists then accept(no in match record) |
| Password | labana12 | If mobile number correct but doesn't match password so action is password wrong! If verified successfully then forward to User Dashboard screen with Toast the User Full name (Welcome Subhash Labana). |

System Testing:

- ✓ We have to testing each every part like testing purpose of login, register, and downloading, intent 1. Explicit intent 2. Implicit intent.
- ✓ Now, when each part is assembled with another part, that assembled combination is checked if assembling has not produced any side effect to the functionality of each component and whether both components are working together as expected so we can also the integration testing.
- ✓ We followed the our test
- ✓ It is performed when Integration Testing is completed.



- ✓
- ✓ It is mainly a Black-box type testing. This testing evaluates the working of the system from a user point of view, with the help of a specification document. It does not require any internal knowledge of systems like the design or structure of the code.

Chatbot Questions:

Hello(Client)

- How can I assist you?(Bot)
- How can I help you?(Bot)

What about placement?

- Yes you go through our website
<https://www.glsuniversity.ac.in/placements.html>

Which companies come into gls mca?

- Yes few list of companies,-Gateway Technologies, Streebo Technologies, Yudiz, The one technologies.
- You can find more about of our placement to go through the, our Facebook page GL-SRP-ICT-Faculty-of-computer-technology.

How to do I contact through the campus

- GLS University, GLS Campus, Opp. Law Garden, Ellis bridge, A'bad'-380006, 264668513
- This is our contact information

7. Conclusion

Future Enhancement:

- We including more categories.
- Search the particular category.
- Gallery to contain the photos of all campus.
- Adding the setting activity which is contains more interesting features with our app.

Work Experience:

- We have a lot of learn from the previous month as like Chatbot was our main aim who we have succeeded.
- We have do worked each every functionality like remember me, forget, dynamically updating.
- Google Material Design
- We understood the each and every concept to develop the mobile application and learn to a lot.

Bibliography:

- www.stackoverflow.com
- www.firebase.google.com
- www.developer.android.com
- www.dialogflow.google.com

Thank you