

**FINAL INTERNSHIP REPORT**

**EDUCATIONAL ANDROID APPLICATION**

Submitted By

---

**191081908 Manjushree Ghadge msghadge\_b19@it.vjti.ac.in**

---

**Fourth Year B.Tech IT**  
**Academic Year 2021-2022**

Under The Guidance Of

**Prof. V.K Sambhe**



**Department Of Information Technology**

**Veermata Jijabai Technological Institute (Vjti, Mumbai)**

**(An Autonomous Institute Affiliated To University Of Mumbai)**

## CERTIFICATE

This is to certify that **Manjushree Ghadge (191081908)** student of Veermata Jijabai Technological Institute, Mumbai have successfully completed the Internship, on 'EDUCATIONAL ANDROID APPLICATION' under internship mentor Ms. Priti Belsare. at **Globular Tech Services, Pvt. Ltd.**



---

**Internship Mentor Faculty**

**Prof. V. K. Sambhe**

---

**Internship Mentor**

**Globular Tech Service, Pvt. Ltd**

**Date:** 17/05/2021

**Place:** Virtual Internship

# APPROVAL SHEET

This Internship entitled “Educational Android Application” by  
Manjushree Ghadge (191081908) , is found to be satisfactory and approved  
by the Globular Tech Services Pvt. Ltd.



---

Head of Company



---

Internship Mentor

---

Internship Guide Faculty

Prof. V.K. Sambhe

# INTERNSHIP CERTIFICATE XEROX COPY

RefNo: GTIC00021



**GLOBULAR**  
Tech Services Pvt.Ltd

Website: [www.globulartech.com](http://www.globulartech.com)

**Corporate Address:**  
1<sup>st</sup> Floor, Mamarde Complex,  
Jairam Nagar, Shankar Nagar Road,  
Amravati-444602.  
Maharashtra – INDIA  
**Contact:** +91-721-2568190  
+91-9423981532  
**E-mail:** [info@globulartech.com](mailto:info@globulartech.com)

Date:- 17<sup>th</sup> July 2021

## To whomsoever it may concern

This is to certify that **Ms. Manjushree Sumitra Ghadge** has worked as 'Intern' with our organization from 17<sup>th</sup> May 2021 till 17<sup>th</sup> July 2021.

Thanking you.

Sincerely,



For

Globular Tech Services Pvt. Ltd.

Copyrights reserved @ Globular Tech Services Pvt. Ltd.

## STATEMENT OF CANDIDATE

I, Manjushree Ghadge, hereby declare that the presented report of internship titled “**EDUCATIONAL ANDRIOD APPLICATION**” is uniquely prepared by me after the completion of two months’ work at Globular Tech Services Pvt. Ltd.

I also confirm that the report is only prepared for my academic requirement, not for any other purpose. It might not be used with the interest of the opposite party of the corporation.



**Manjushree Ghadge**

ID-191081908

B.TECH IT

VJTI, Mumbai

## ACKNOWLEDGEMENT

The internship opportunity I had with **Globular Tech Services Pvt. Ltd.** was a great chance for learning and professional development. Therefore, I consider myself as a very lucky individual as I was provided with an opportunity to be a part of it. I am also grateful for having a chance to meet so many wonderful people and professionals who led me through this internship period.

Bearing in mind previous I am using this opportunity to express my deepest gratitude and special thanks to the MD of Globular Tech Service Pvt. Ltd. who in spite of being extraordinarily busy with her/his duties, took time out to hear, guide and keep me on the correct path and allowing me to carry out my project at their esteemed organization and extending during the training.

I express my deepest thanks to **Mr. Priti Belsare**, for taking part in useful decision & giving necessary advices and guidance and arranged all facilities to make life easier. I choose this moment to acknowledge his contribution gratefully.

I perceive as this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives. Hope to continue cooperation with all of you in the future.

Sincerely,

**Manjushree Ghadge**

**Date: 17/5/2021**

**Place: Mumbai**

# **COMPANY BACKGROUND INFORMATION**

Globular Tech Services Pvt. Ltd. is formed with belief that technology is a very powerful tool for bringing positive change in society and world around us. At Globular Tech Services Pvt. Ltd. we are passionate towards developing products with mass appeal and delivering services which can add value to our client's profile.

We strongly believe in satisfying our clients with the pioneering solutions so as to strengthen our bond with them. Our reliance to deliver commitments with class leading quality is and will always be our prime focus, whether it is service or product.

## **Vision**

To be a problem solver for our clients with industry leading standards.

## **Mission**

Be a pioneer in adopting and inventing technology applications in cross functional domains.

## **Value**

Standing on high moral ground will give us edge over competition.

Globular Tech Services Pvt. Ltd is involved in providing cloud based digital services namely business & technology consultation, website and mobile application design and development, digital marketing and support services.

## **ROLES AND RESPONSIBILITY**

During the internship period knowledge of android platforms are gained. The target was to deliver a fully-fledged Android system by using android studio.

Hence, to meet that objective, this internship required the extensive preliminary studies about the core understanding of software before actually analyzing the actual requirement of the system.

The study was required not only to understand the subject under study but also to realize the solutions to the existing problems and implementing the findings from the study was another bigger challenge.

The meetings with the mentor and discussion helped me to wide my horizon of knowledge of the existing system and problem background.



## **ABSTARCT**

In today's rapidly changing world, your Android smart phone gives you access to the online resources you need to educate yourself and make self-directed learning a daily habit that fits into your busy routine.

Smart phones today have become full-fledged guides to the world of knowledge. And not only Internet and access to an unlimited supply of facts and dates, but educational apps that consistently occupy the top lines in the lists of popular App Store and Google Play applications.

As, there are a lot of apps available already but most of them are for particular subjects, courses etc so as far as engineering students concern , for each subject they have either download different apps for different subjects or search on Google, YouTube ,blogs.

This may become hectic, as it will require large phone storage also students might not found proper content, or every time they have to change platforms, render here and there and there is not any space to save all this sources together.

So, to overcome this situation, we develop EDUCATIONAL ANDROID APPLICATION. This content all the documents (Pdfs), YouTube videos and website/blog links all from popular and well known educational sources.

So, this all references students can see at one place for core engineering branches (like Computer Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, Electronics Engineering & Agriculture Engineering).

# **TABLE OF CONTENT**

## **1 Introduction**

## **2 Objective of Work**

## **3 Work Details**

### **1. Review and Literature**

- Background (Current Scenario)
- Existing System

### **2. Requirement Analysis**

- Hardware Requirement
- Software Requirement

### **3. Architecture & System Design**

- Modelling Diagram
- Algorithm
- Flowchart

### **4. Theory, Methodology & Implementations**

- Day-To-day Activates

## **4 Results**

## **5 Conclusion**

## **6 Internship Experience /Future Scope**

## **7 References**

# **1. Introduction**

Android apps for educational purpose have done a great thing for the students, making the learning process fun and easy. Also, the app features boost engagement through knowledge-oriented activities.

In these changing times, students are more driven towards using a mobile phone for every purpose. This reduces the chance of visiting a library and searching for the data.

Learning is a continuous process and the focus has now completely shifted to eLearning. Due to the mobile phones and the various feature-oriented applications, students can learn at their place and take their time at understanding things, as everything is just a click away.

As far as traditional methods are considered, it is expected to carry a satchel of books and copies it is found that not every student can absorb knowledge while he is busy in writing it notes. Hence, we need to make sure that a student's focus is only on one thing at a time: This makes learning fun and more engaging.

Here is main goal of developing this educational app:

1. Easy access of all engineering departments' educational material by providing references.
2. Education should not be boring & stressful, but a happy learning process
3. Student should get highest quality of educational material

## **2. Objective of work**

Nowadays there are many sources that provide materials for each and every topic of engineering education like, YouTube, Online Reference book pdf, notes, courses also, educational website.

But for students, to get book or notes of any particular topic they have to visit various sites on google, search for relevant topic and understand the concept becomes hectic task and time consuming.

Also, visualization makes easy to understand the concept therefore many students refer YouTube videos, for that also they have to jump from one platform to another and again searching for good channel become difficult.

Hence, we are developing an android application for students to efficiently search for particular topic of core engineering branches (like Computer Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, Electronics Engineering & Agriculture Engineering) with their study material references all at one place.

### **The application should consist of following things:**

1. Consist of all above mention engineering branches.
2. Core subjects of each branch.
3. Within each subject, there should be main topics of those subjects.
4. Provide reference of Notes, Reference books, YouTube Videos links, courses (if any which are free on Coursera, Udemy etc.).
5. Important topic from selected subject should recommend to student.
6. Easy login & logout access.
7. Maintain security of credentials.
8. Make effective UI design.

### **3. Work Details**

#### **1. Literature Review**

##### **1.1 Background**

##### **Current Scenario:**

Smart phones have become an integral part of our lives. Unlike in the past where phones were only intended for making calls and sending text messages, today's Smartphone have become more versatile and capable of doing a lot more. One of great use is in education system.

When it comes to Engineering education, smart phones have become very popular to most students. Instead of having to carry bulky books, with just a app in phone can make their life easier, students will only need to have a stable internet connection to gain access to useful information that will help them in their learning.

But the apps which are already in market about engineering apps, they only provide content about some particular engineering department, or particular topic and that too with very limited information.

And, nowadays due to online education system, to understand the whole concept of subject student have to refer various materials, and for that they have to search here and there for proper reference, that leads to time consuming, irrelevant references, changing platform etc.

So, to overcome this hectic task, we develop an application where we will provide references of an engineering department with their core subjects, topics along with documents (pdf /ppt), videos and links of popular websites.

Hence no need to do extra activity for searching study materials, and student can easily access study materials and focus on their study.

## **2.2 Existing System**

- **Problem with current scenario**

1. There is not proper content available in application.
2. Changing platform for every topic, leads to hectic task sometimes.
3. Time consuming.

- **Drawbacks of the existing system**

1. There is not a common platform to store all study refer material.
2. There is possibility of running out off content from popular websites.
3. It consumes more time for searching proper references, so focus on study becomes difficult.

## **2. Requirement Analysis**

### **Application Implementation Technology**

An application is loaded in Android Studio. We used Android Studio for Design and coding of application. Maintain all databases into Google Firebase Console, for fetching images, links and user data.

#### **2.1 Hardware Requirement:**

- **Laptop or PC**
  1. i3 Processor Based Computer
  2. 1GB RAM
  3. 5 GB Hard Disk
- **Android Phone or Tablet**
  1. 1.2 Quad core Processor or higher.
  2. 1 GB RAM

#### **2.2 Software Requirement**

- **Laptop or PC**
  1. Windows 7 or higher.
  2. Java
  3. Android Studio
- **Android Phone or Tablet**
  1. Android v8.0 or Higher

### **3. Architecture & System Design**

#### **3.1 Modelling Diagrams**

##### **Waterfall Model**

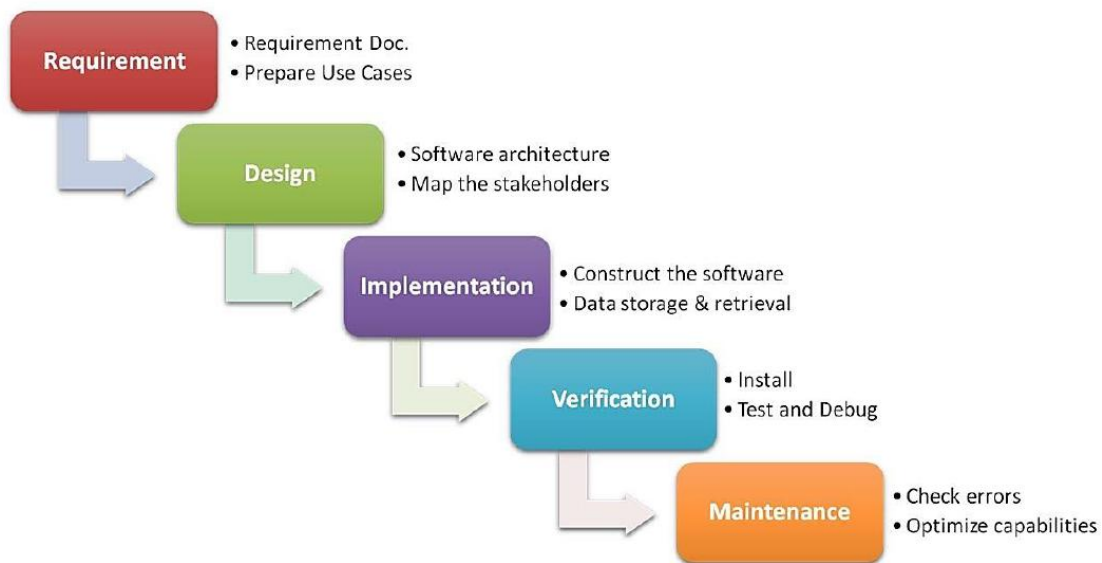


Fig: Waterfall Model

##### **Description**

The waterfall Model is a linear sequential flow. In which progress is seen as flowing steadily downwards (like a waterfall) through the phases of software implementation. This means that any phase in the development process begins only if the previous phase is complete. The waterfall approach does not define the process to go back to the previous phase to handle changes in requirement. The waterfall approach is the earliest approach that was used for software development.



## **3.2 Algorithm**

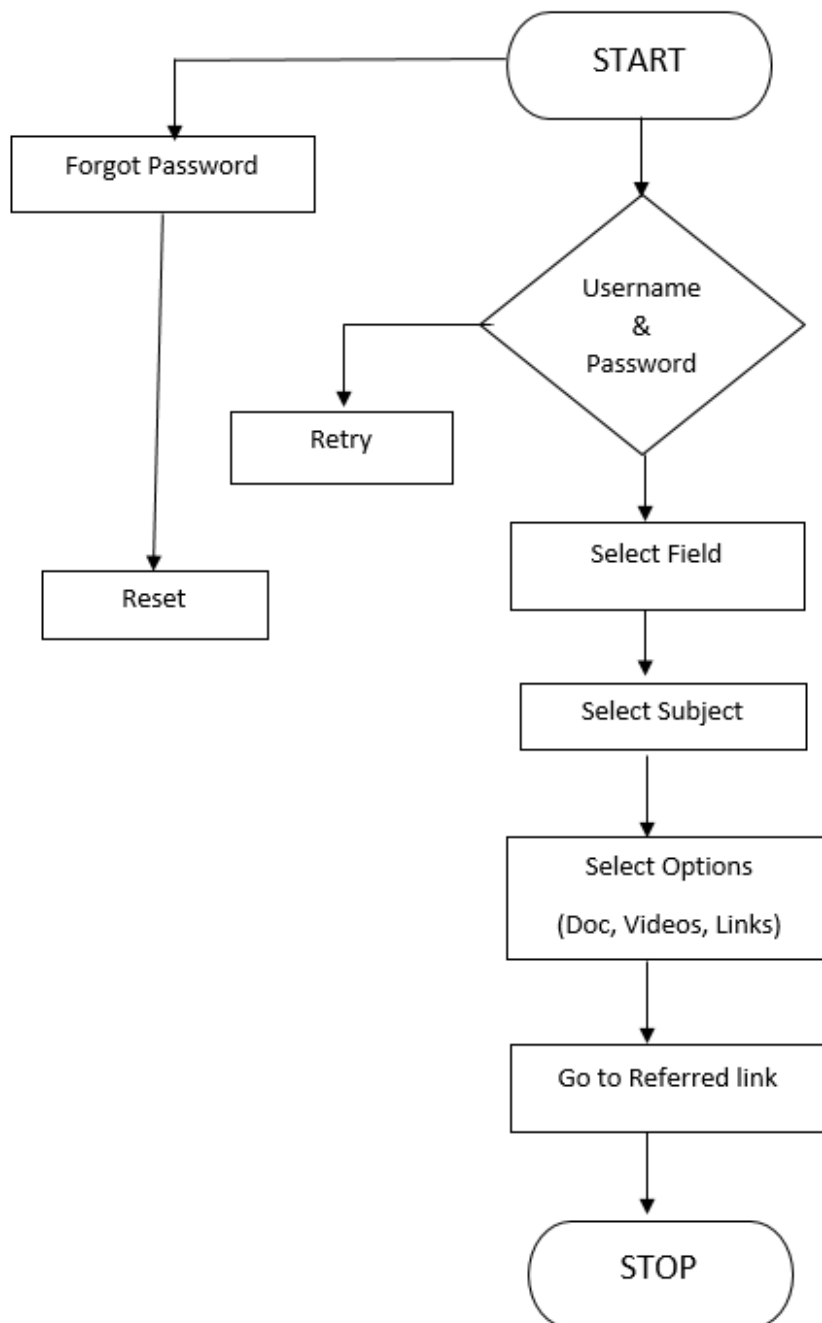
Below are steps given to describe how the blink application processes in form of algorithm does.

### **Steps:**

1. Login
2. User Login (Username and Password) through application
3. If password is not remembered then Forgot Password
4. Search Field (Engineering field)
5. Select Field
6. Select Subject
7. Select among documents, videos and links options
8. Go to referred link
9. Successful

### 3.3 Flowchart

In the given flowchart it is shown that how a user can login into the process and then processes are how done. User first login into app by username and password. Then select the field where require to submit documents then select documents then verification is done and process is done.



## **4. Methodology & Implementations**

### **4.1 Day-to-day activities:**

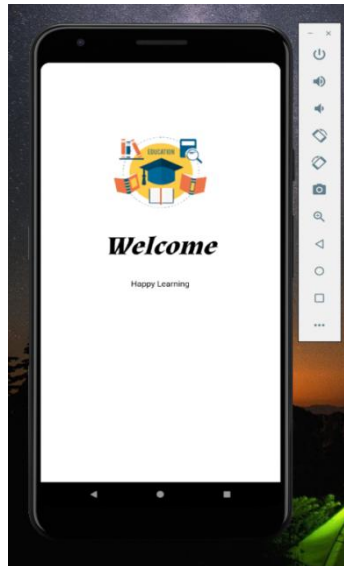
Analysed the work objective and understand the concept

1. Made the design of each activity and planned according.
2. According to planning activity, created splash screen, login & register activity page.
3. Firebase Connectivity.
4. Connected android project with firebase for checking credentials.
5. Added Remember Me option to save credentials.
6. Created Navigation drawer and various menus.
7. Created home page with various different engineering field.
8. Created various subject for each engineering field.
9. Created Option (Button Activity) Activity with Documents (pdf/ppt), Videos, Link button.
10. Gathered content for each field and subject.
11. Added content according to subject and field.
12. Joined all content with firebase.
13. Test all modules/functionality of an application
14. App work done successfully.

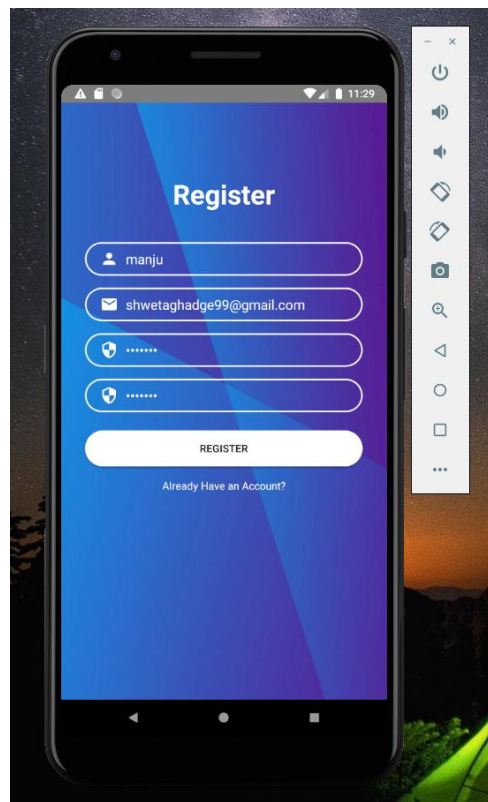
## **5. Results**

The objectives of the project are implemented and the screenshots are attached as follows-

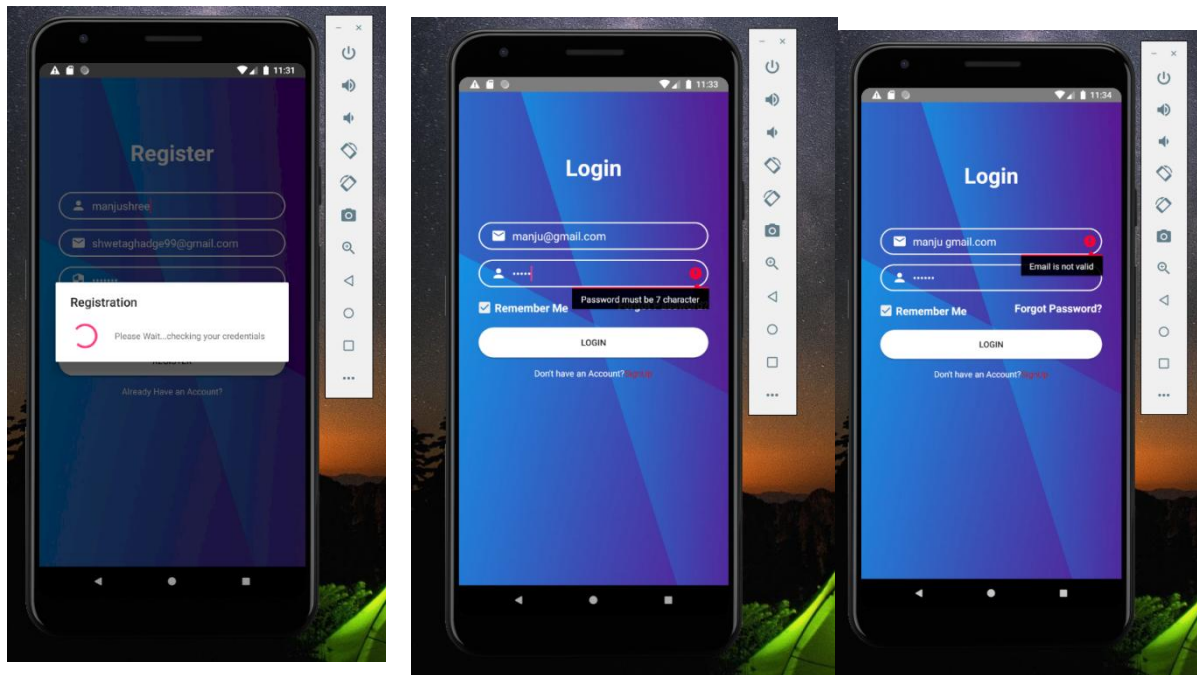
### **1. Splash Screen**



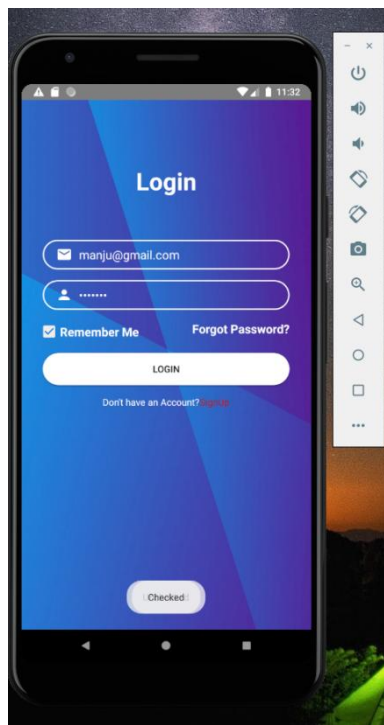
### **2. Register Activity**



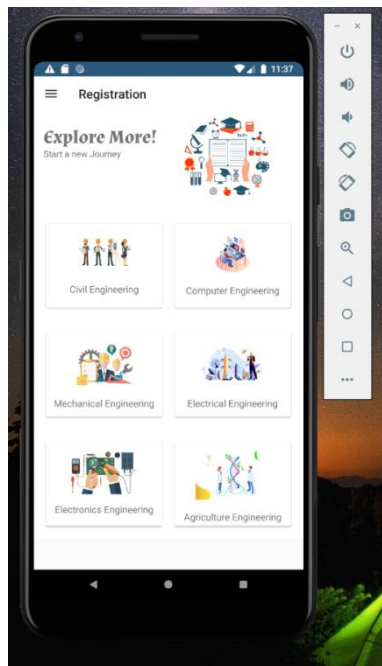
### 3. Checking Credentials



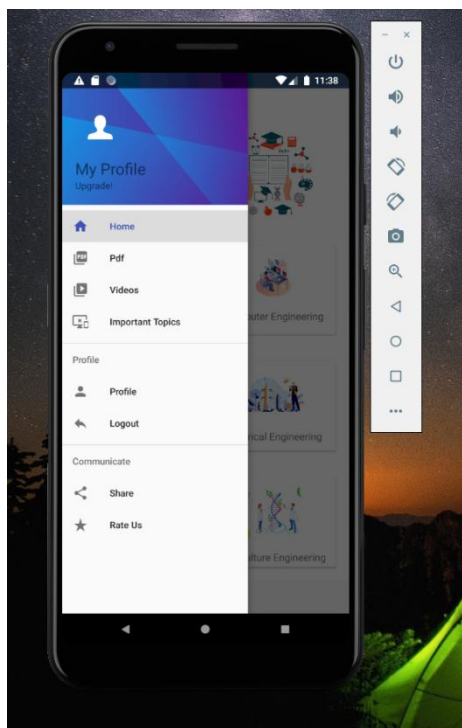
### 4. Remember Me



## 5. Home Activity



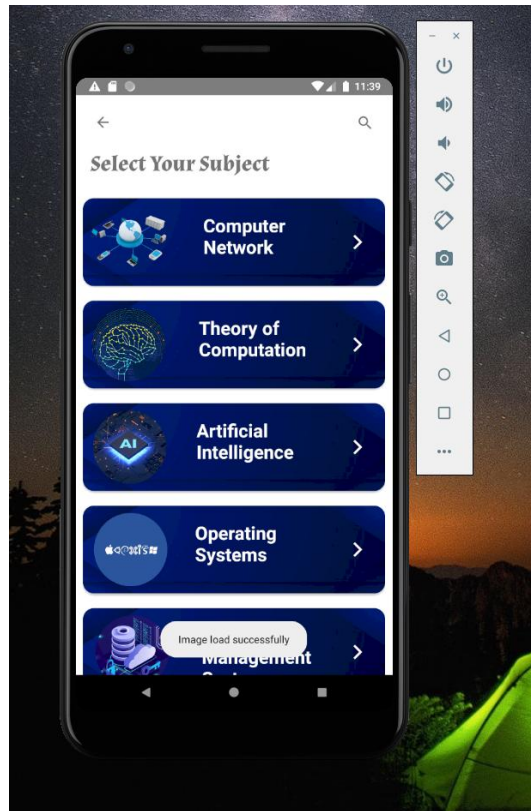
## 6. Navigation Drawer



## 7. Select Subject Activity

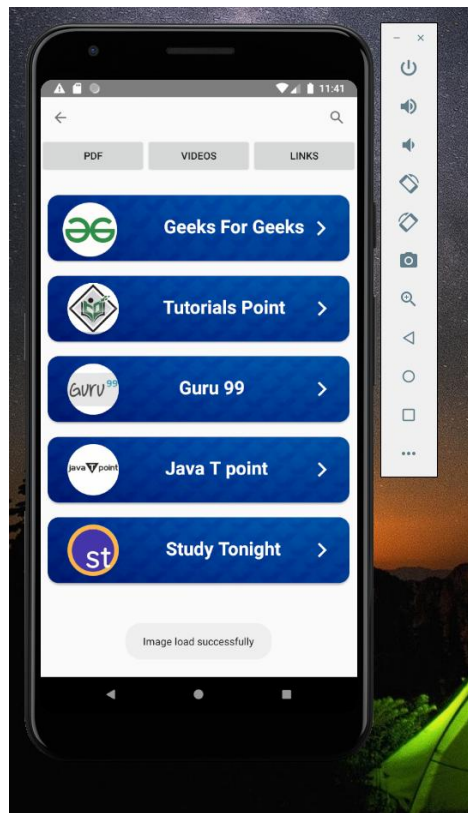
### Computer Engineering Subjects

Here images are fetched from firebase, showing with toast message “Images Load Successfully”

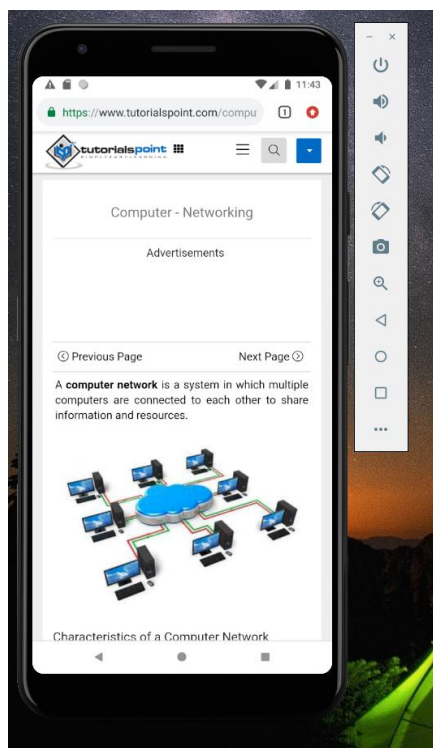


## 8. Option Activity Page (Doc, Videos, Links)

### 8.1 Links Activity



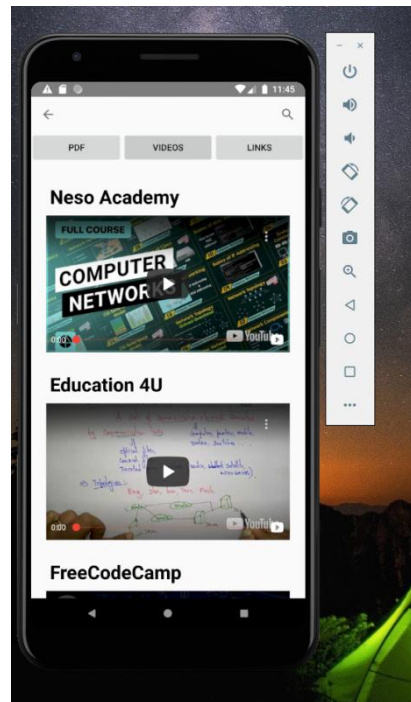
Suppose, if user click on Tutorials Point, then it will redirect to their website.



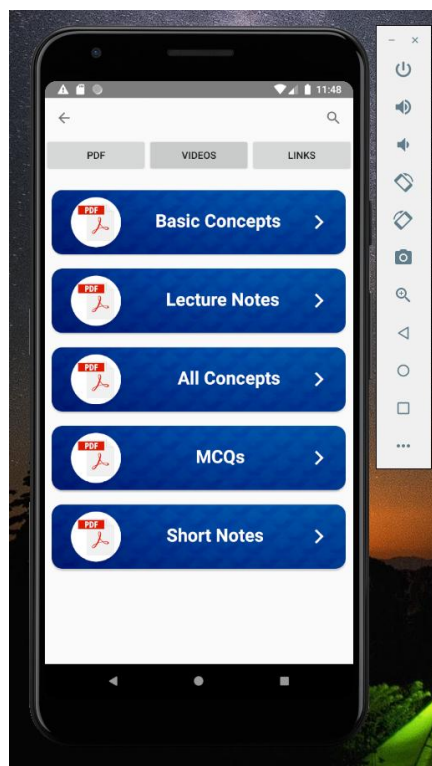


## 8.2 Videos Activity

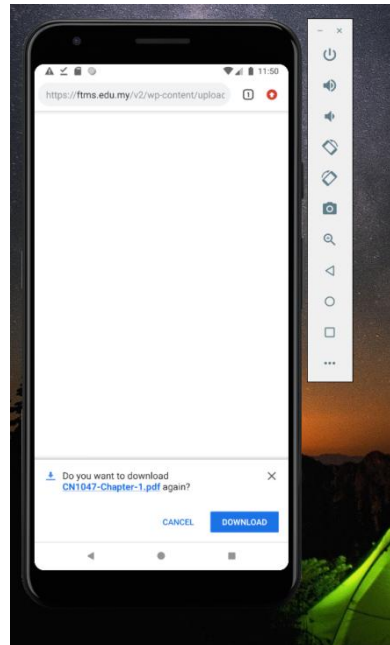
Videos content are from Top YouTube Channels, user can watch either in app, or in YouTube player.



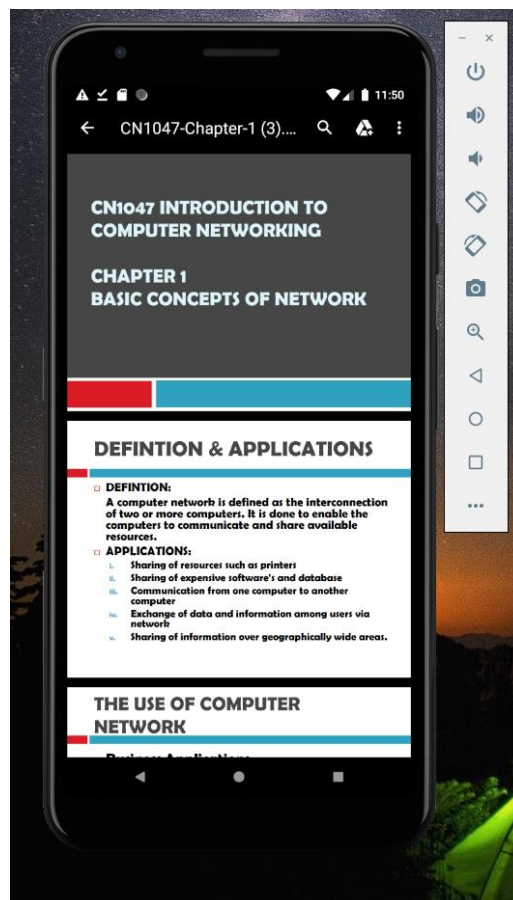
## 8.3 Document (pdf/ppt) Activity



If user click on Basic Notes, it will redirect to download that pdf

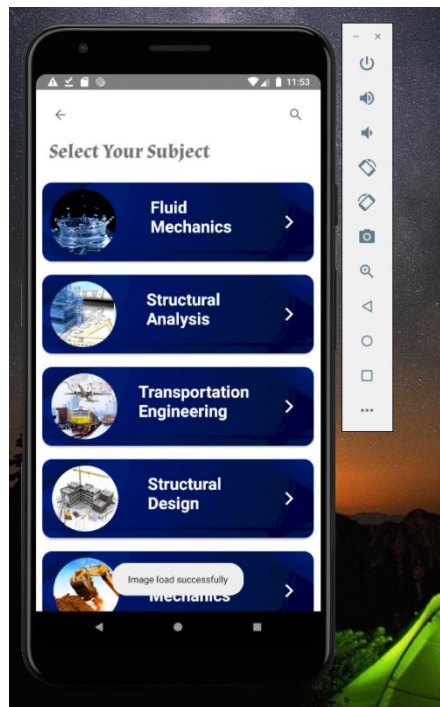


Once, download is completed, user can view pdf.

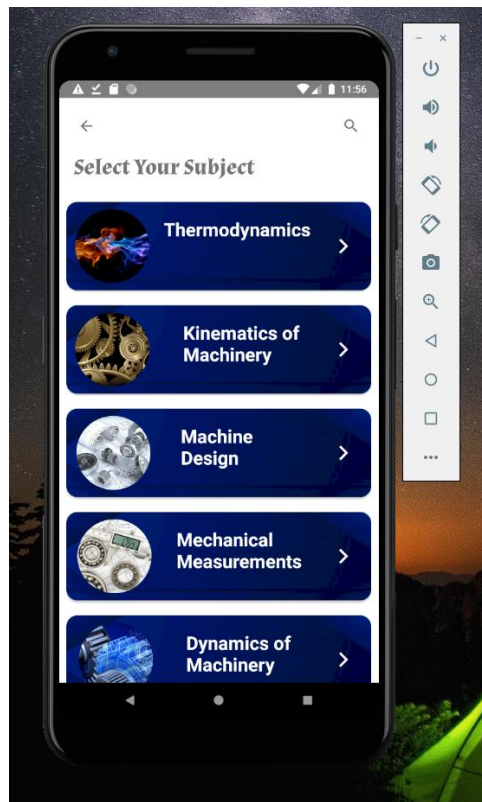


(Same process is applied to all fields)

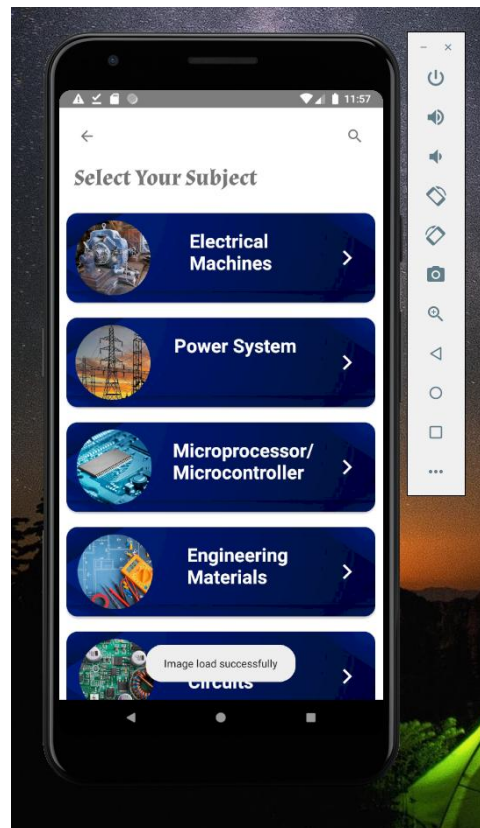
## 9. Civil Engineering



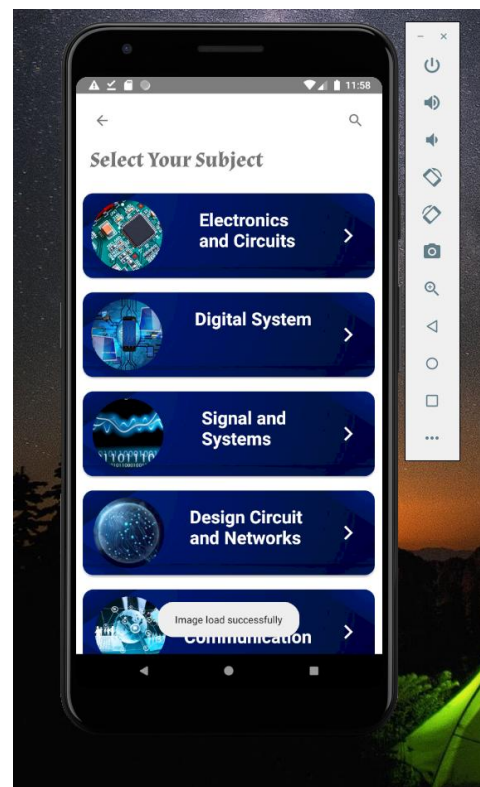
## 10. Mechanical Engineering



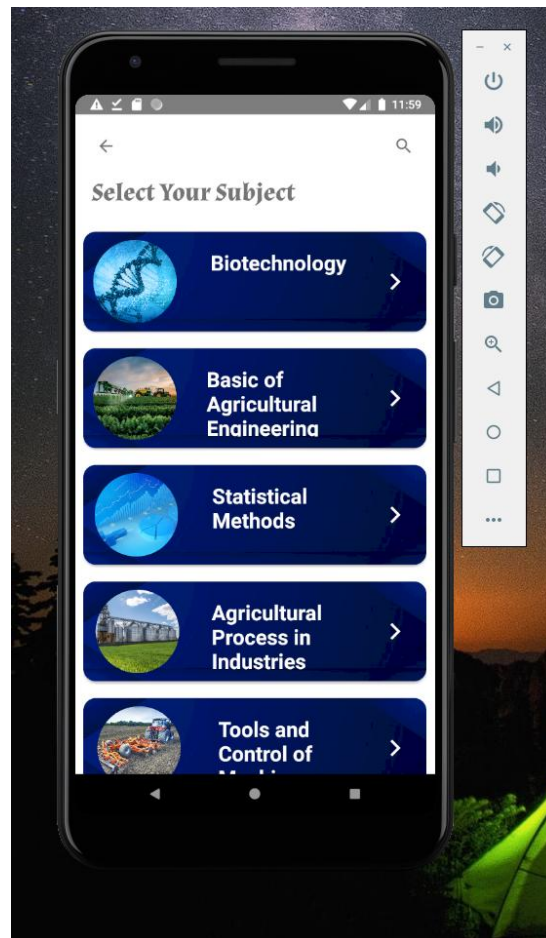
## 11. Electrical Engineering



## 12. Electronics Engineering



## 13. Agriculture Engineering



## 5. Conclusion

After completing this project, I concluded that this project was the good opportunity to implement my information that I have learnt during my internship program. This project is more informative and more helpful for understanding the concept of the android app development.

On the whole, this internship was a useful experience. I have gained new knowledge, skills and met many new people. I achieved several of my learning goals. I got insight into professional practice. I learned the different facets of working within this company. There is still a lot to discover and to improve.

Thus, throughout this internship period, I have completed the main goal of project,

1. Login & registration page with their credentials security connected with firebase
2. Easy accessible navigation drawer.
3. Grid dashboard for different sub categories of engineering branches
4. Card view for core subject topics.
5. Easy accessible content activity with pdf, videos and links button in one layout
6. Content is collected from most popular sites
7. Completed with added all content for each engineering field and subject
8. Logout Activity.



Signature of Student



## **6. Internship Experience /Future Scope**

During the internship period knowledge of android platforms are gained. The target was to deliver a fully-fledged Android system by using android studio. Hence, to meet that objective, this internship required the extensive preliminary studies about the core understanding of software before actually analyzing the actual requirement of the system. The study was required not only to understand the subject under study but also to realize the solutions to the existing problems and implementing the findings from the study was another bigger challenge. The meetings with the mentor and discussion helped me to wide my horizon of knowledge of the existing system and problem background.

My role was of an android application developer. Under this role, I was to work in a group of two for developing applications which could be run on an android phone.

For the first weeks, we were made to learn analysed the requirements, techniques of android application development relevant to our assigned work. During this period, we were assisted a lot by our mentor. After that, we were assigned the actual application to be developed.

The projects that I worked is certainly helped me by increasing my practical knowledge in-depth. The research and development projects were particularly helpful in widening my views regarding different android/web application development frameworks.

The reason for choosing android application development is that the field provides a lot of scope to grow. Android Development tools are open source and hence an individual can flourish as an android programmer up to full extent. Another reason is that the field is relatively new in the industry and the trends show that there is a heavy need of android programmers in the market. Yet, another reason is that the programmer can easily put up his/her product in the android app market and can earn a good deal of supportive income.

## 7. References

1. <https://developer.android.com/>
2. <https://stackoverflow.com/>
3. <https://www.quora.com/>
4. <https://www.youtube.com/>