

Automatic Social Media App Creation

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Guide

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Department Mission & Vision

Vision

- **Creating eminent and ethical leaders in the domain of computational sciences through quality professional education with a focus on holistic learning and excellence.**

Mission

- **To create technically competent and ethically conscious graduates in the field of Computer Science & Engineering by encouraging holistic learning and excellence.**
- **To prepare students for careers in Industry, Academia and the Government.**
- **To instill Entrepreneurial Orientation and research motivation among the students of the department**
- **To emerge as a leader in education in the region by encouraging teaching, learning, industry and societal connect.**

INTRODUCTION

- 1 In the early 2000s, the primary purpose of mobile phones was to communicate by calling or texting an interlocutor**
- 2 Mobile phones have become tools that have changed our world, allowing users to entertain themselves learn, and search for information faster and more efficiently**
- 3 Our project is a platform for generating social media applications for educational institutions.**

- 1 **Application of Low-Cost Methodologies for Mobile Phone App Development**
- 2 **Simulating User Interactions: A Model and Tool for Semi-realistic Load Testing of Social App Backend Web Services**
- 3 **Efficient Way Of Web Development Using Python And Flask**
- 4 **An Empirical Evaluation of the User Interface Energy Consumption of React Native and Flutter**

MOTIVATION

- 1 To provide a social media application easily for every institutions
- 2 To reduce the time taken and the cost needed for creating a social media application
- 3 Limited expense is needed for its maintenance
- 4 To provide better security

The proposed system uses mainly four types of methodologies:-

- 1 Web Development - HTML,CSS,PHP,Xampp
- 2 Database - Firebase
- 3 Automation - Python
- 4 App Development - Flutter

WEBSITE MODULE

- 1 Anyone can create a college social media application from the website.
- 2 The client will have to provide the necessary data such as
 - College name, about description
 - Image and logo of the college
 - An Excel spreadsheet containing users data
- 3 The data will be passed to the next module in a text file

COLLEGE SOCIAL MEDIA

Enter The Name Of Your Institution

Enter The Name Of Your App

Enter Some Basic Details of Your Institution

Reason for creating this application

Link for your college digital library

Link for your college website

Give a password for admin

PROCEED

- **Page to enter the college details for social media application**

COLLEGE SOCIAL MEDIA

Upload Your College LOGO

No file chosen

Upload a Photo of Your College


No file chosen

PROCEED

- **Upload college logo and image**

COLLEGE SOCIAL MEDIA

Download this file and upload after filling it.
Click on the image to Download



Upload Here after filling

Choose file

 No file chosen

PROCEED

	A	B	C	D	E
1	regno	branch	email	fullname	rollno
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

- **Download the excel file, fill it and upload here**

COLLEGE SOCIAL MEDIA

Your data has been recieved.The App will be created using this data.

Please click the button below to start the process.

GENERATE APPLICATION

- Click Generate Application for creating Apk

COLLEGE SOCIAL MEDIA

Download Now! ↓

- For downloading the Apk file

PYTHON AUTOMATION MODULE

- 1 A python script is called from the website via PHP
- 2 The script will do necessary actions such as:
 - Remove the previous generated files
 - Replace application variables
 - Creates a firebase database according to the data given by the client
 - Generates application icon images
 - Calls “Flutter build” command for generating the app

```
def firebase_function(firebase,college_appname,key):

    df2 = pd.read_excel(r'C:\xampp\htdocs\exceluploads\data.xlsx')
    firebase = firebase.FirebaseApplication('https://collegeapp-e02e4-default-rtdb.firebaseio.com', None)
    for i in df2.index:
        a1=str(df2['regno'][i])
        a2=str(df2['branch'][i])
        a3=str(df2['email'][i])
        a4=str(df2['fullname'][i])
        a6=str(df2['rollno'][i])
        result = firebase.patch(str(college_appname)+'/'+a1,
                                {'branch': a2, 'email':a3 , 'fullName':a4,
                                'rollNo':a6,'signedin':'F'})
        result2 = firebase.patch(str(college_appname)+'/'+'validation',
                                {'key': key})
```

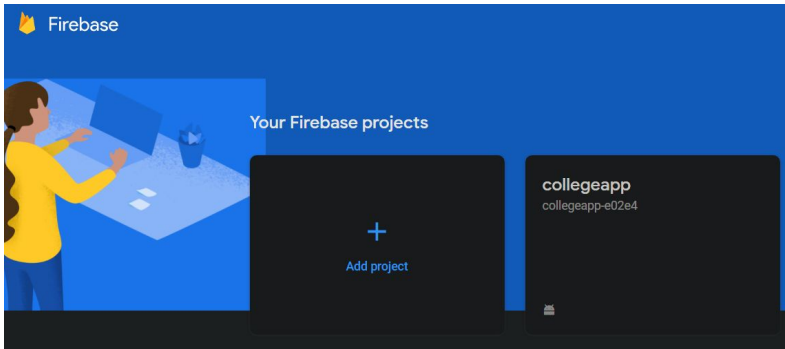
- Function for creating firebase database

```
process1 = subprocess.Popen(["powershell","flutter pub run flutter_launcher_icons:main"]
                             ,stdout=subprocess.PIPE);
result1= process1.communicate()[0]
print (result1)
process2=subprocess.Popen(["powershell","flutter build apk --debug"],stdout=subprocess.PIPE);
result2=process2.communicate()[0]
print (result2)
```

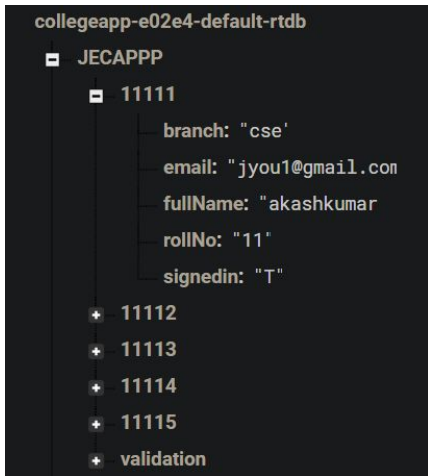
- App generation

Firebase

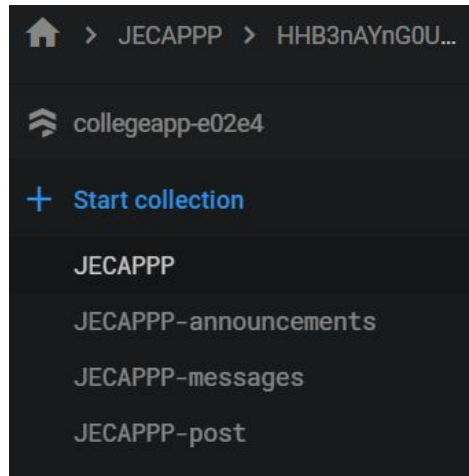
- 1 **Firebase server is used for developing the mobile application. It is a Google's platform that helps to quickly develop high-quality apps.**
- 2 **Only the website maintainer will have to create the firebase server.**
- 3 **All generated applications will be connected in one server. Firebase configuration is done in python script**



Real-time database



Firestore database



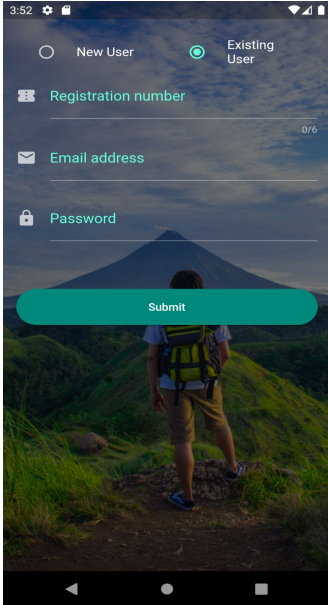


- **Application is created using flutter**
- **Flutter is an open-source UI software development kit created by Google.**
- **Flutter apps are written in the Dart language**

APPLICATION MODULE

- 1 The mobile application will be connected to the database.
- 2 Only the users in the database will be able to enter into the app by registering their password.
- 3 Users can post images, read announcements , message to friends etc.
- 4 A page for college website and college library will be present in the app.

Login Page

A mobile application login screen with a background image of a person hiking up a grassy hill towards a large mountain. The screen features a status bar at the top with the time 3:52 and various icons. Below the status bar, there are two radio buttons: 'New User' (unselected) and 'Existing User' (selected). Below these are three input fields: 'Registration number' (with a character count of 0/6), 'Email address', and 'Password'. A large green 'Submit' button is positioned below the input fields. The bottom of the screen shows a standard Android navigation bar with back, home, and recent apps buttons.

3:52

☐ New User ☒ Existing User

Registration number 0/6

Email address

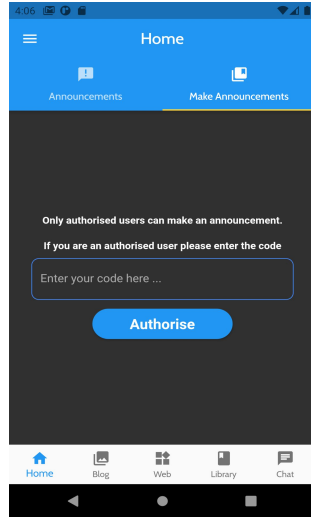
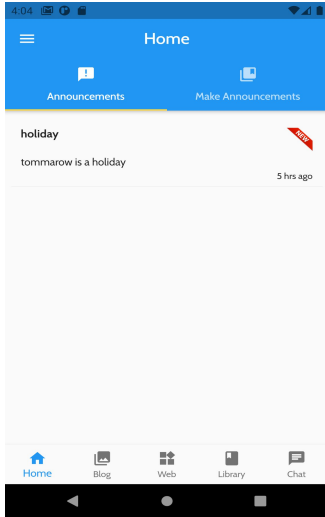
Password

Submit

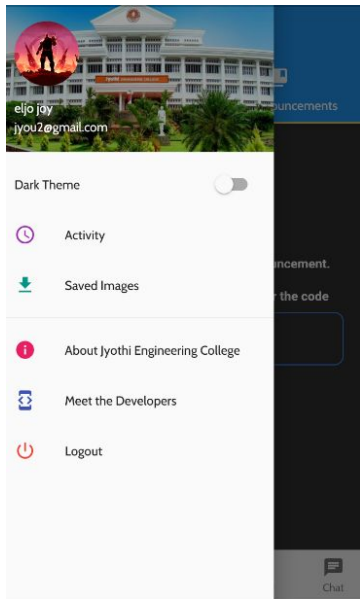
- This is the login page where we can log in using the username and password.
- New user has to be register before logging in

Home Page

- Home page will be shown after login.
- Announcements can be read and made from home page.



Sidebar contents

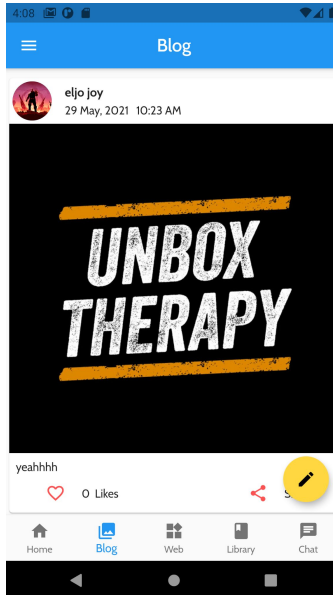


Sidebar includes

- **User activities**
- **Details of institution**
- **Developer details**

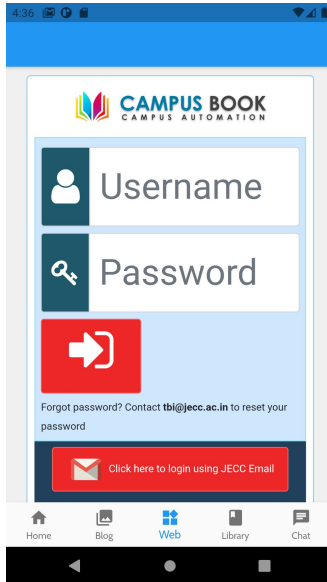
Blog

- **Blog:**users can post images with caption in this page



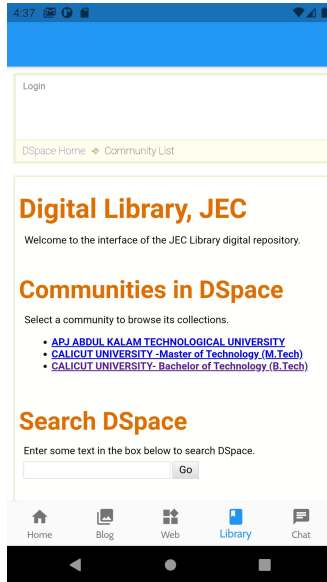
College Web Page

- User can access college web page directly

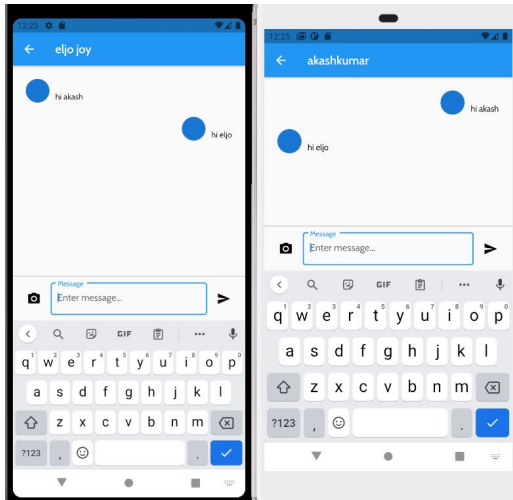


College Library Page

- Users can access college digital library directly

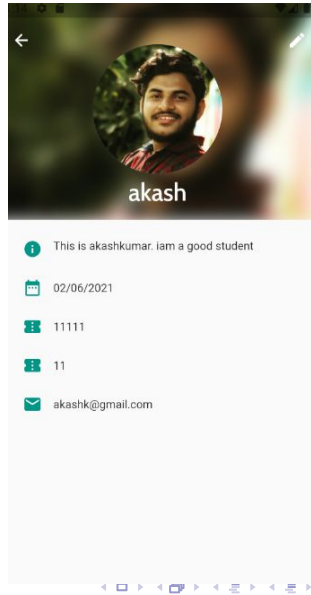
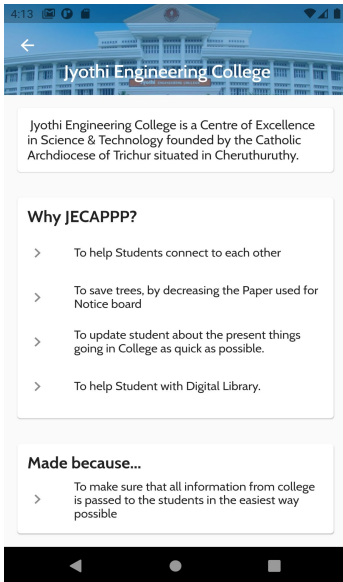


Chat Page

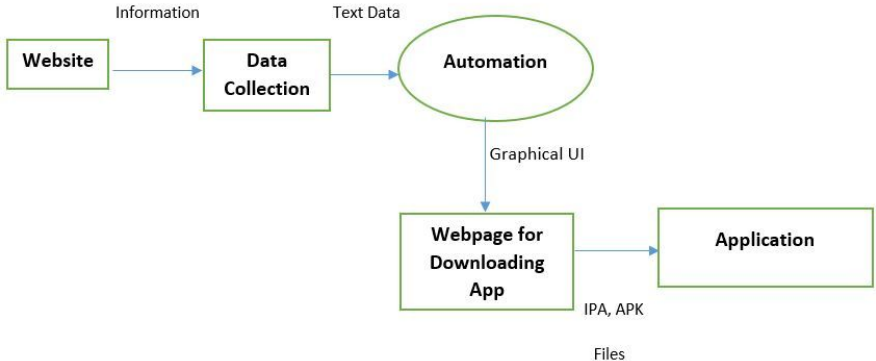


About & Profile Page

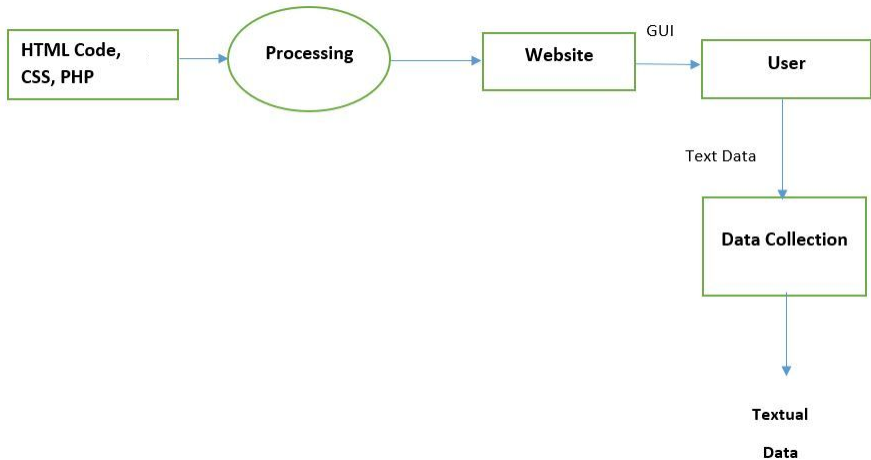
• Description about the app



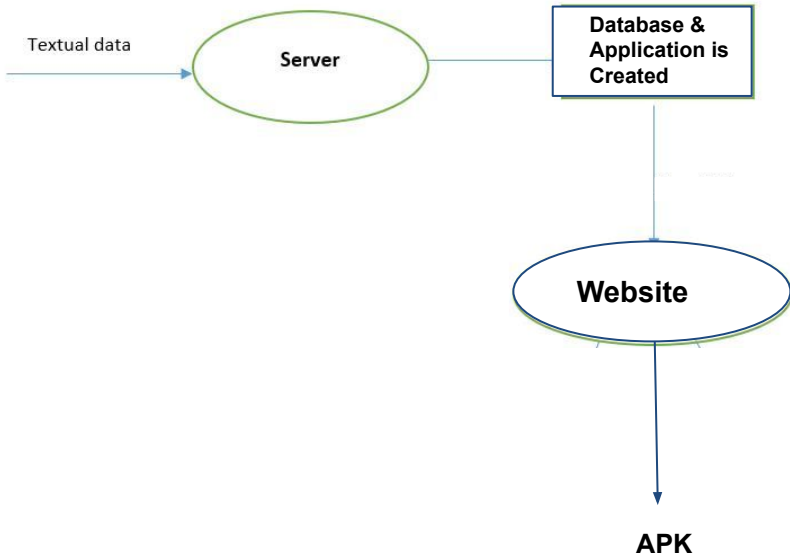
Level 1



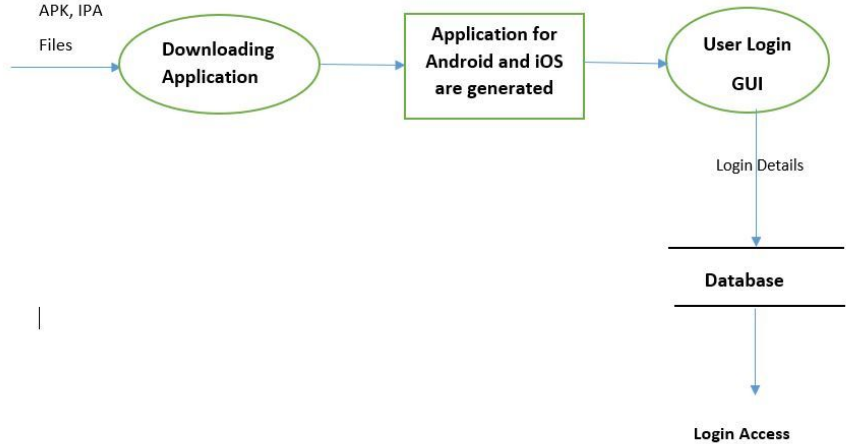
Level 2.1



Level 2.2



Level 2.3



- 1 **Developed an automated flutter application building environment**
- 2 **An independent social media application for institutions created.**
- 3 **Application contains features like posting, chat, announcements etc.**

ADVANTAGES

- 1 **Reduced cost and time required for app development**
- 2 **App can be developed by people with less technical know how and poor resources**
- 3 **Only permitted users by the authority is able to access this application, so it provides better security**

CONCLUSION

- 1 We aimed at developing a platform for creating an instantaneous closed social media application.**
- 2 We developed this service with features such as posting, chat,college web,etc.**
- 3 Service can be used for other institutions apart from educational by slight modifications**
- 4 In real-time it is preferable to host the service in cloud like AWS, GCP etc**

FUTURE WORKS

- 1 **Separate the faculty and student login page**
- 2 **Additional feature like story, comment, like etc.**
- 3 **Separate announcement page for admins**
- 4 **Separate module in website for users to update database**
- 5 **Configure iOS**

- 1 Philipp Brune. Simulating user interactions: A model and tool for semi-realistic load testing of social app backend web services. In WEBIST, pages 235–242, 2017
- 2 Erik Blokland. An empirical evaluation of the user interface energy consumption of react native and flutter 2019
- 3 Er diagram for college management system.
<https://www.google.com/url?sa=iurl=https>
- 4 Melvyn Zhang, Enquan Cheow, Cyrus SH Ho, Beng Yeong Ng, Roger Ho, and Christopher Cheng Soon Cheok. Application of low-cost methodologies for mobile phone app Development. JMIR mHealth and uHealth 2(4):e55, 2014

Thank You

Any Query