ASE Project Increment4

Group# 12: Project "Ask UMKC"

Group Members:

- Sravan Kumar Appana
- Vikesh Padarthi
- Architha Mukka
- Manikanta Maddula

Introduction:

Name of the application "Ask UMKC".

The App is about questionnaires which can be posted by any user and any registered user can answer the question. The questions need not to be in specific area like finance, course and sports etc., it can be of any topic related to university activities like events, career, etc. Student who wants to join UMKC will have many doubts like 'last date for paying fee!', 'where is a particular event?', 'Student associations 'etc. It is easy to drop a mail to the authorities asking for details but if answer is needed on weekends and on holidays, it's difficult. But with this application answer can be found at any time.

Objective:

An android application which help students of UMKC in clearing their doubts in all domains like fees, course, sports etc. Answers can be replied by other students or any other registered user.

Features:

Users can login to app using their Google account or they can sign up for the account. After successful login, user navigates to a page with ask button and when slided left in home page, app displays various fields like 'Academic', 'Nonacademic ', 'Admissions', 'Career', 'update profile', 'My questions' and FAQ. User can select a particular field to question and answer. When a particular field is selected, questions are displayed as a list in reverse chronological order. User can scroll for different questions. Clicking on a question will display question and multiple answers for it. User has a feasibility to answer in the same page or the user can use the ask button in home page for posting a question and answer. Home page consists of questions as a

list view, when clicked on a specific question where it navigates to a page with multiple answers for that question and a button where user can post a answer. There is a vote up option to decide appropriate answers for every question in the form of like and dislike buttons. Moreover, users can follow questions using follow button if needed.

Existing Services or API:

User can sign up in to the application using their Google account. Mash up of Google sign in with the application is achieved with the following API:

https://www.googleapis.com/auth/userinfo.profile

Mongo Db is a service used for retrieving and updating data.

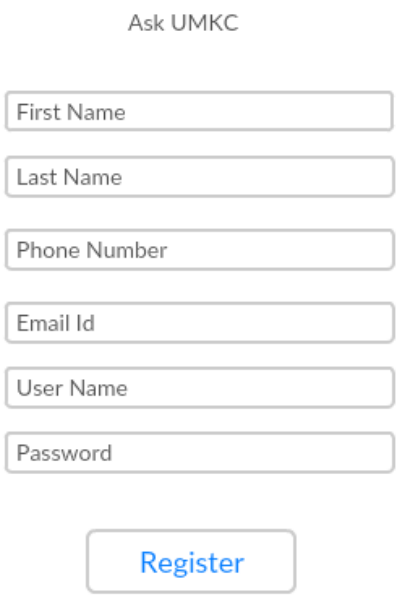
https://mlab.com

Design of features:

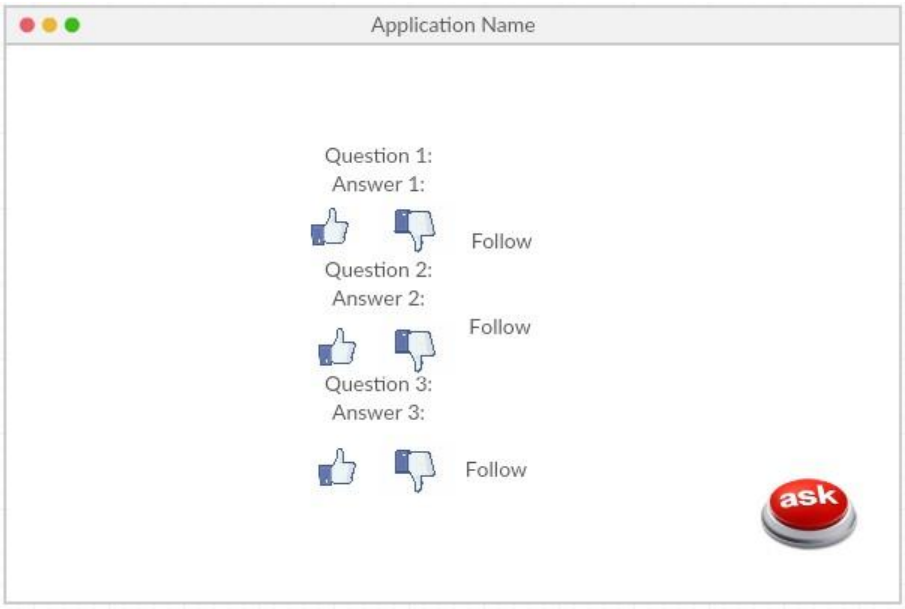
Wireframes:-

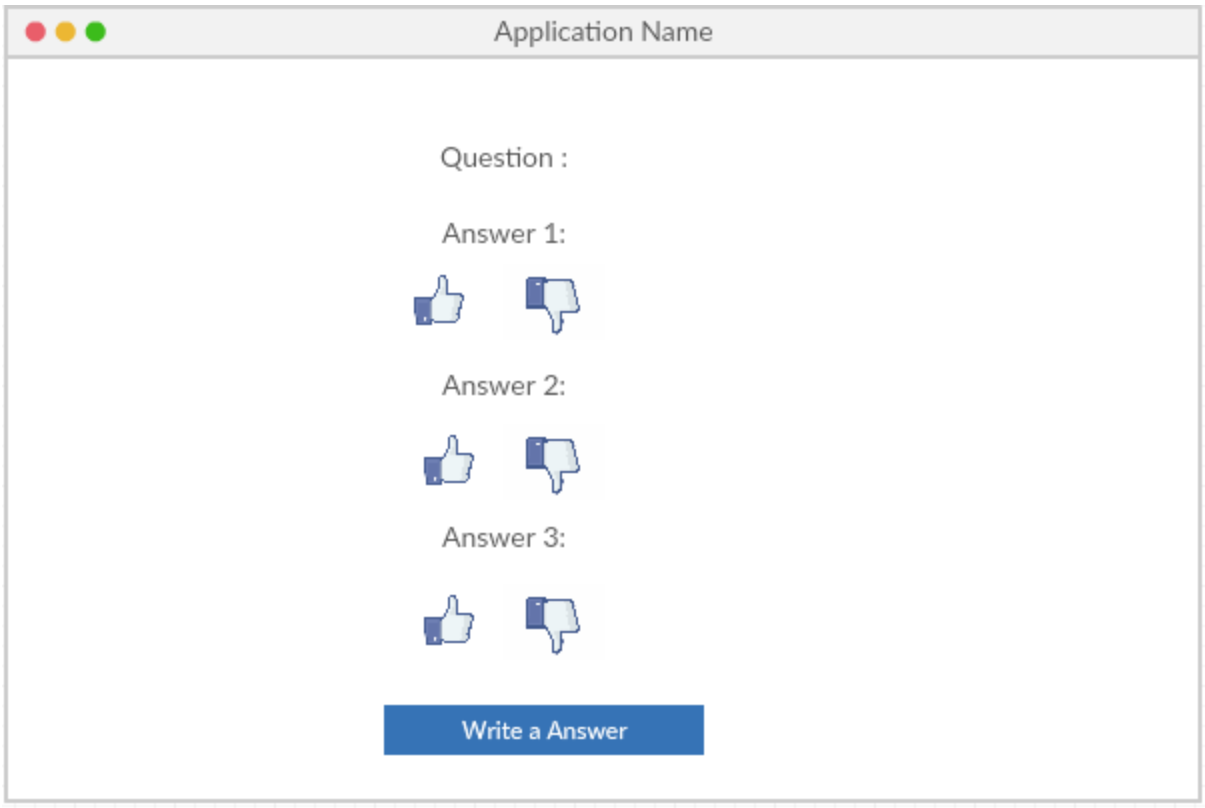
Login Screen:

Register:

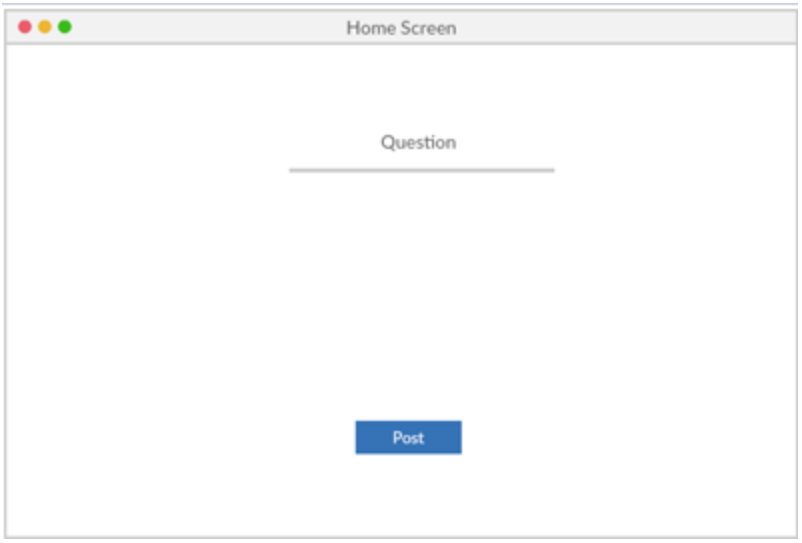


Homepage:

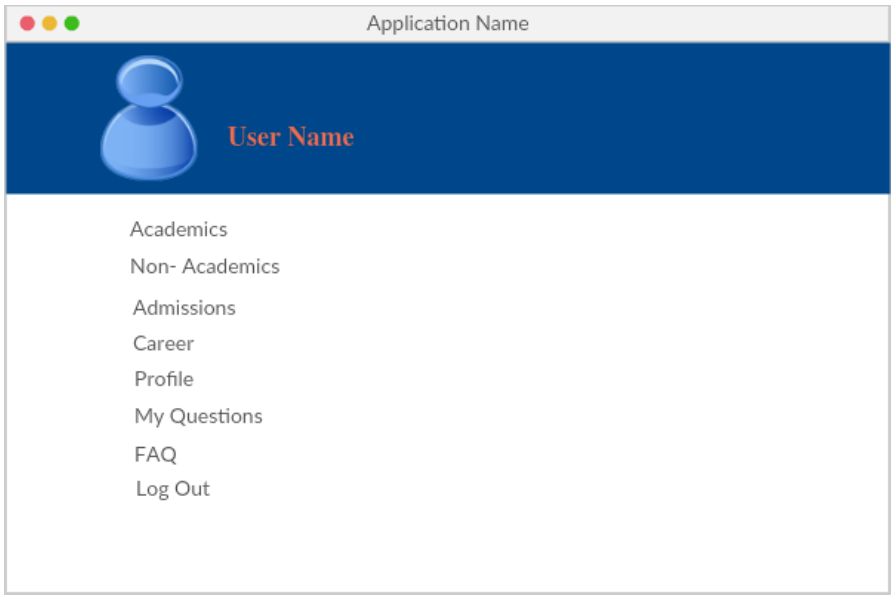




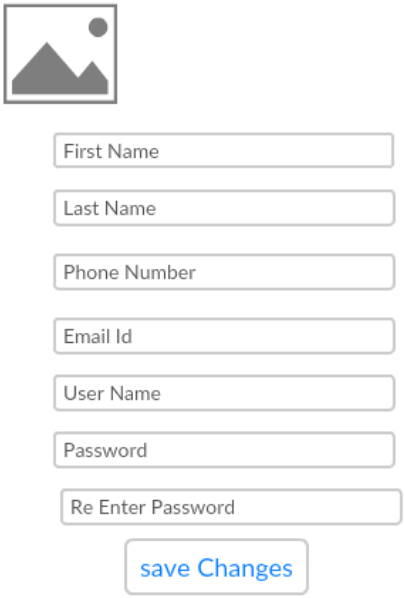
Ask question:



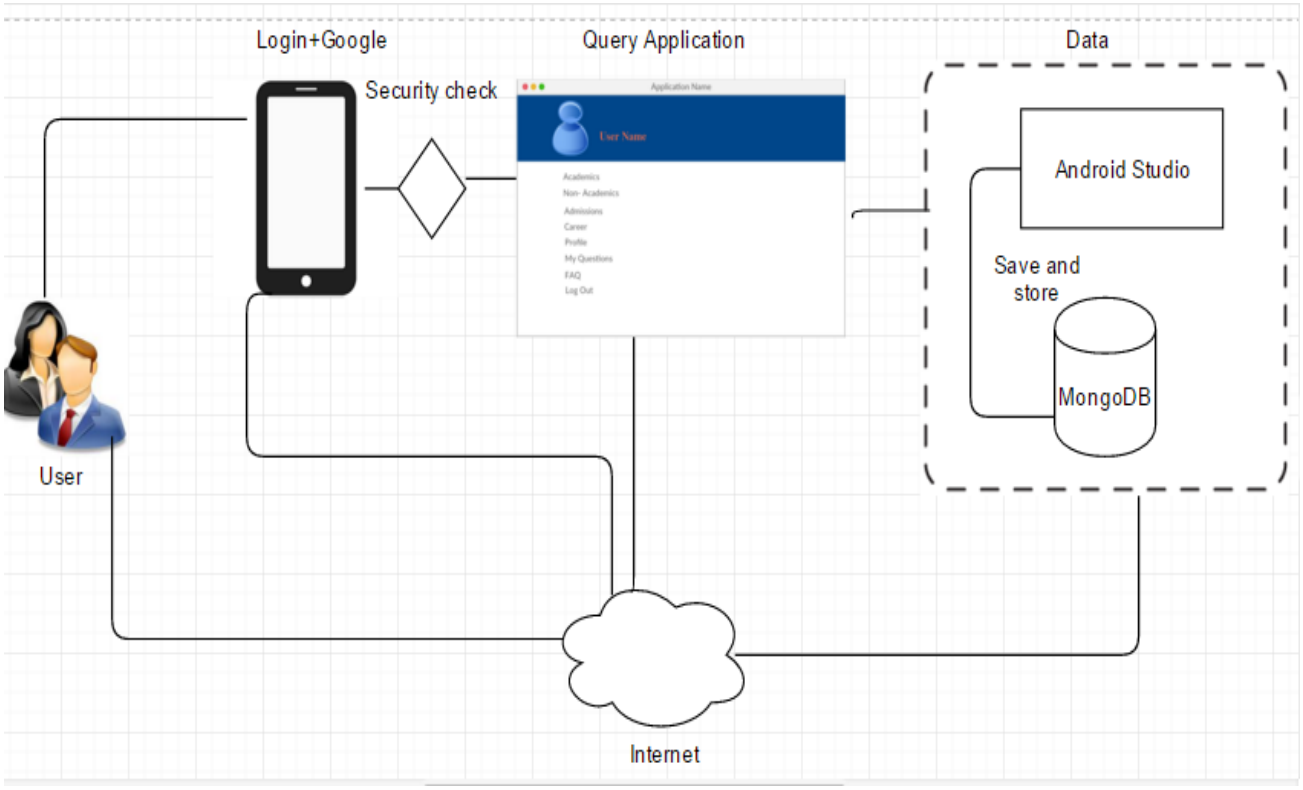
Categories:



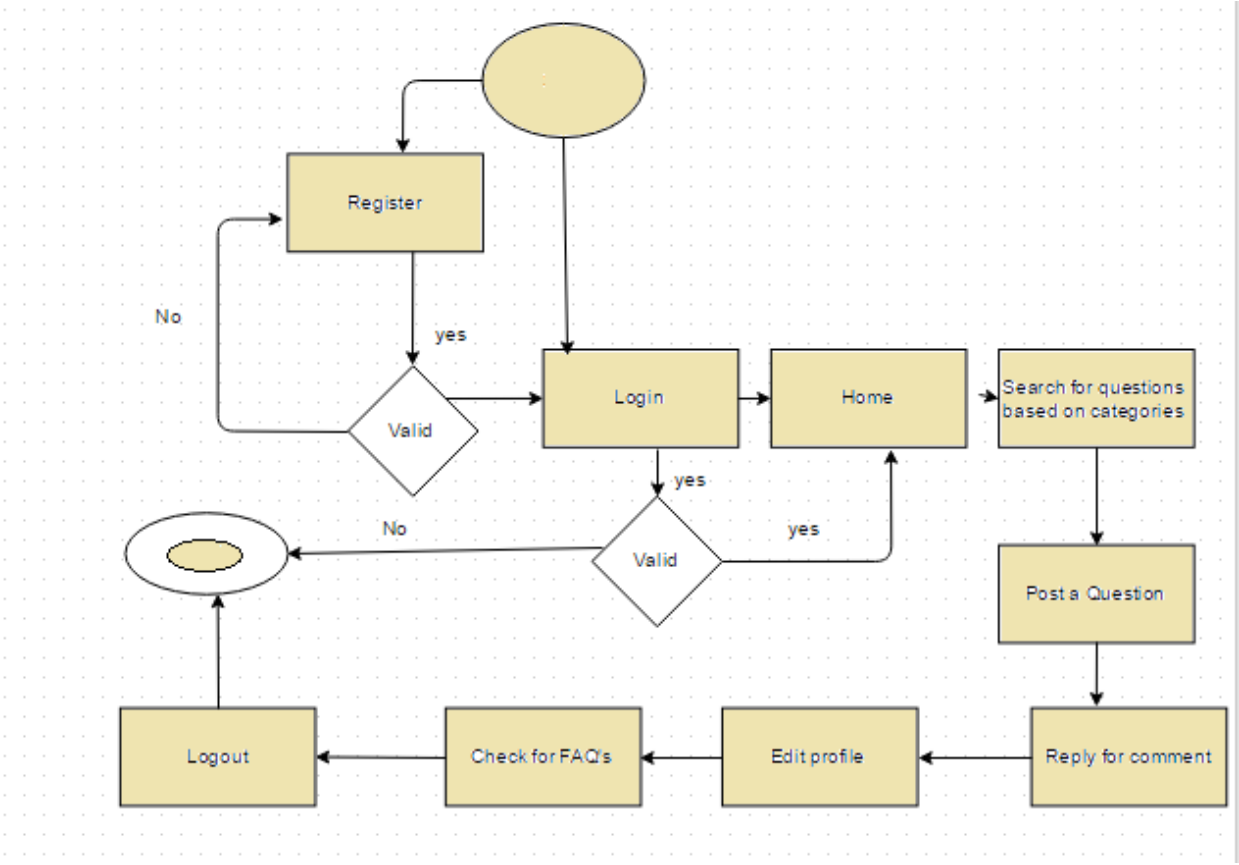
Profile update:



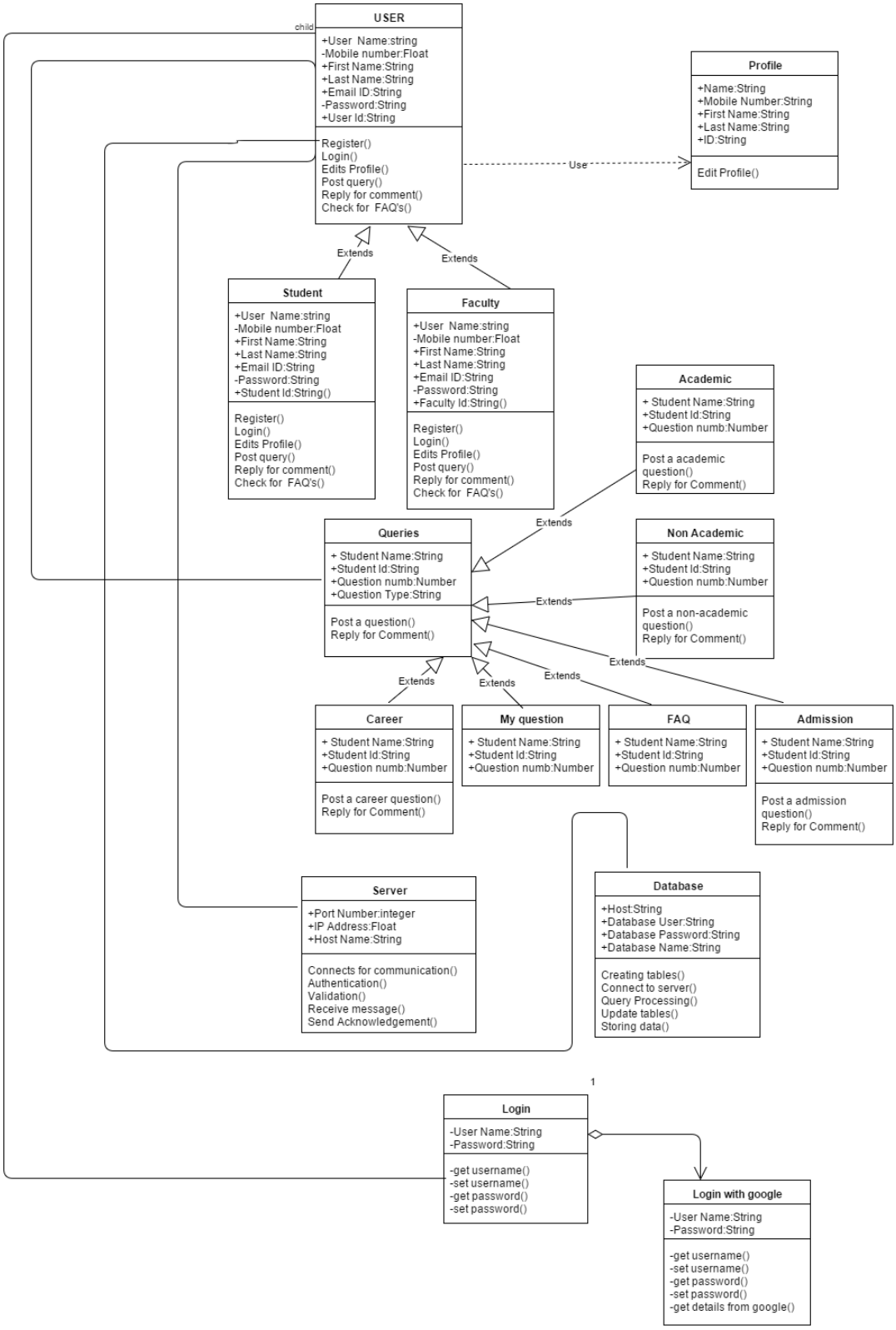
Architecture Diagram:



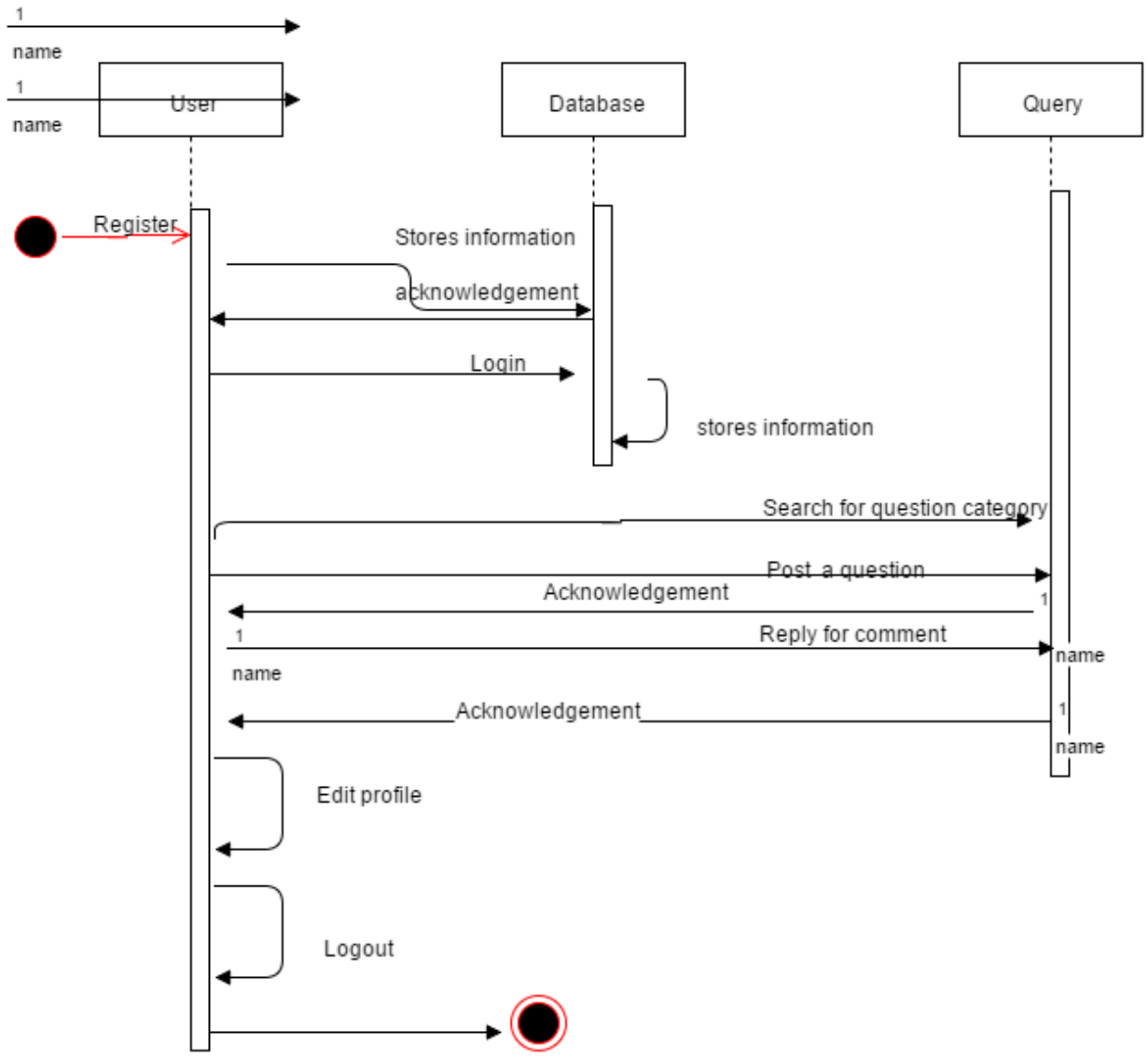
Activity Diagram:



Class Diagram:



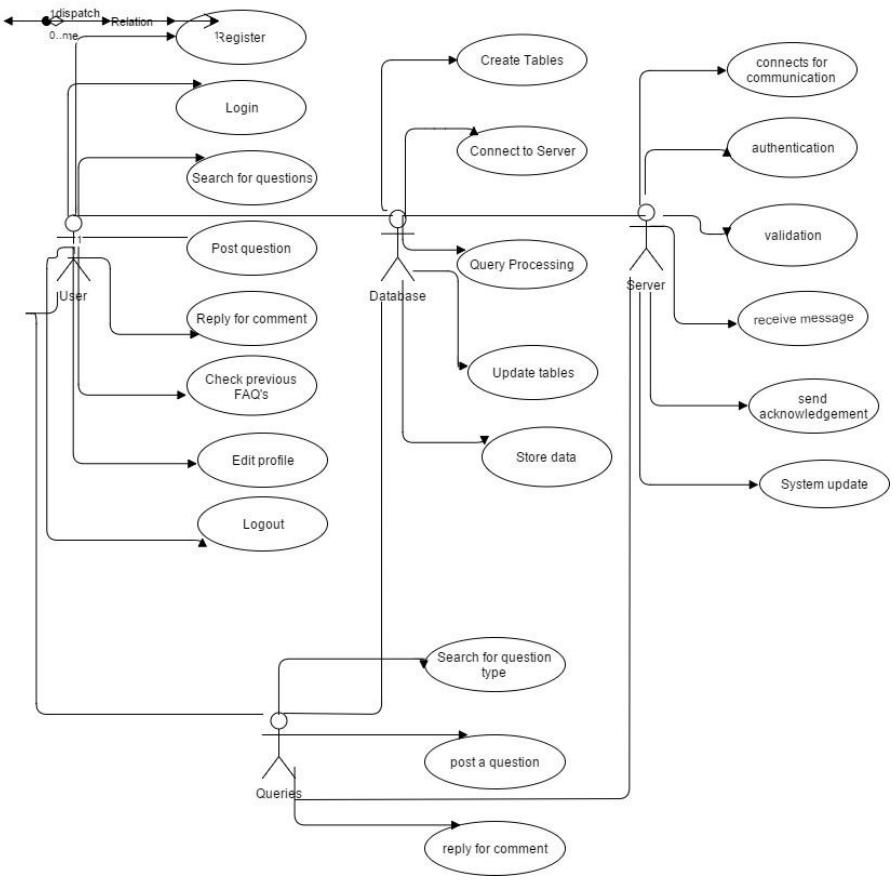
Sequence Diagram:



User Stories:

- As a user, I must login in to the account to access the application.
- As a user, I must register in to the account to access the application.
- As a user, I must sign up through Google account.
- As a user, I must post a question and answer and like, unlike and follow a answer specified to that question.
- As a user, I can select categories in the menu.
- As a user, I can search for questions required.
- As a user, I can update my profile.
- As a system, I must allow the user to register, login, sign up only if the credentials are correct.
- As a system, I must be able to access the database which shows the details of questions, answers and saves user profile.
- As a system, I must display question and answer in home screen page.
- As a system, I must allow to like, unlike and follow a answer.
- As a system, I must analyze the question and display multiple answers for that question.
- As a system, I must allow to select categories in the menu.
- As a system, I must allow the user to select categories in the menu.
- As a system, I must display search results.
- As a system, I must convert speech to text.

Use Case :


1dispatch
Relation
0..me
1
Register
Login
Search for questions
Post question
Reply for comment
Check previous FAQ's
Edit profile
Logout
User
Create Tables
Connect to Server
Query Processing
Update tables
Store data
Database
connects for communication
authentication
validation
receive message
send acknowledgement
System update
Server
Search for question type
post a question
reply for comment
Queries

Testing:

1. Login/register:

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	User should be able to login/New-user should be able to register	User would be able to enter the E-mail and password and click login to enter to application	User should be able to login	User is logged-in.
2.	User should be able to login/New-user should be able to register	New-User should click the Sing-up button to register, to navigate to registration page	New-users are directed to register page.	New-Users are able to view the registration page.
3.	User should be able to login/New-user should be able to register	User should enter E-Mail and Password and are validated for the users.	User details are authenticated.	User is able to login only when accurate details are submitted
4.	User should be able to login/New-user should be able to register	When user enters wrong details an error would pop up.	User credential are to be validated and if wrong a pop-up would be display	User would be able to view a message if incorrect details are entered.

2. Home Screen:

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	Registered User should be able to ask a question or search for answers	User enters question and answer to post.	Users should be able to enter question and answer for posting	Users should be able to enter question and answer for posting.
2.	Registered User should be able to ask a question or search for answers	Users can select categories based on the doubt.	Users can view the categories	Users are able to view categories.
3.	Registered User should be able to ask a question or search for answers	User can navigate to the respective category page and check for question or post.	Users can view multiple answers for a question.	Users can view multiple answers for a question.
4.	Registered User should be able to ask a question or search for answers	User enters information	User should search using search bar	User should search using search bar
5.	Registered User should be able to ask a question or search for answers	User should navigate to ask a question page	Users when uses speech to text ,user speech words should be converted to text	Users when uses speech to text ,user speech words should be converted to text

Implementation:

Server side Implementation:-

We implemented the whole application in android studio.

The source code is written in java and used bootstrap to implement GUI of our application. The database is maintained by Mongo DB.

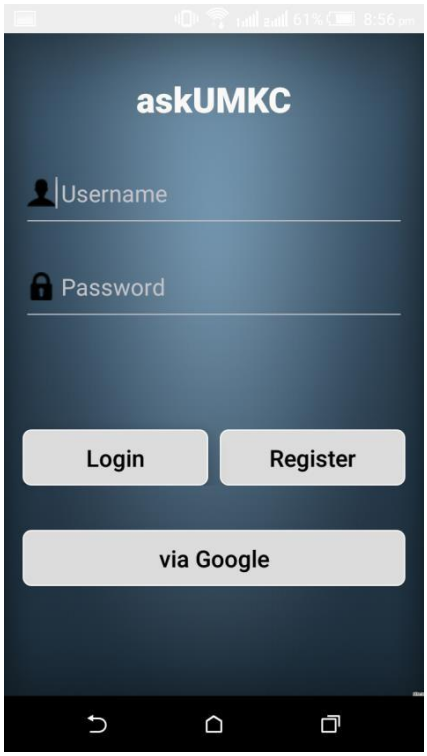
Mobile client Implementation:-

Mobile client application enable users to access the applications on their smart phones unlike web applications which need PC to access the application.

We are implementing our project in mobile client using android studio.

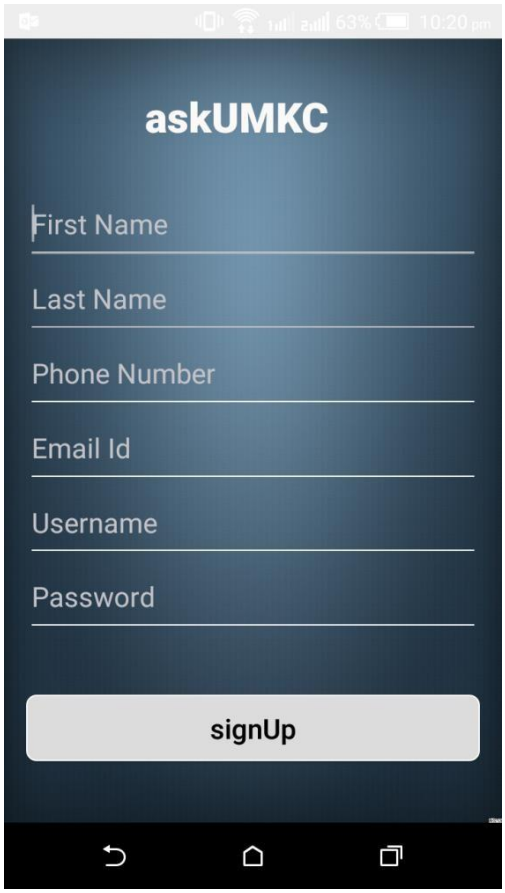
Deployment:

Login Screen:



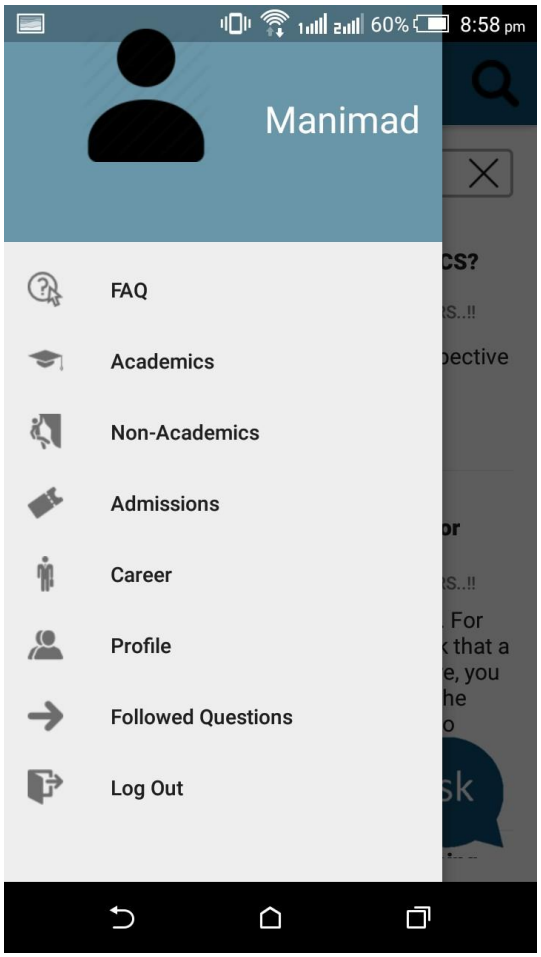
User can login using Google account or with the credentials of registered app account. New users can register for the app using register button.

Register:



In order to register, user should fill a form containing basic information like First Name, Last Name, Phone Number, Email Id, User Name, and Password. All the fields are mandatory to become a registered user. After successful registration, user will be redirected to login page and user have to login in order to view home page.

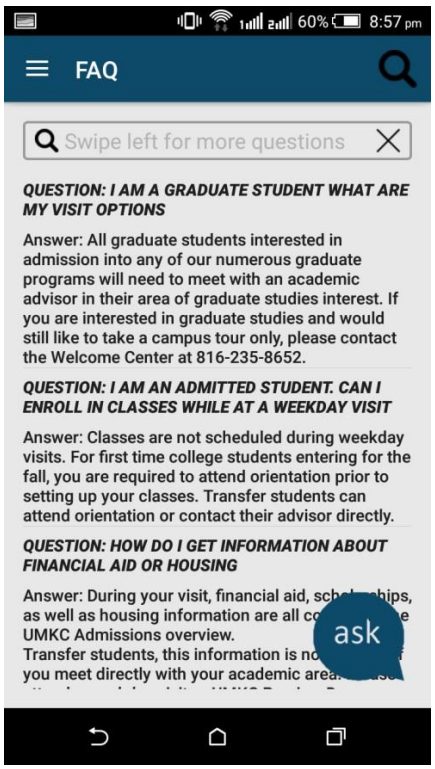
Categories (Menu)

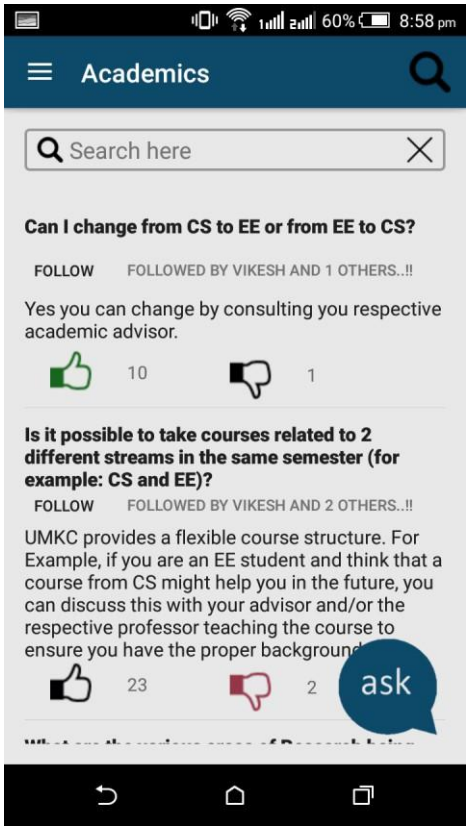


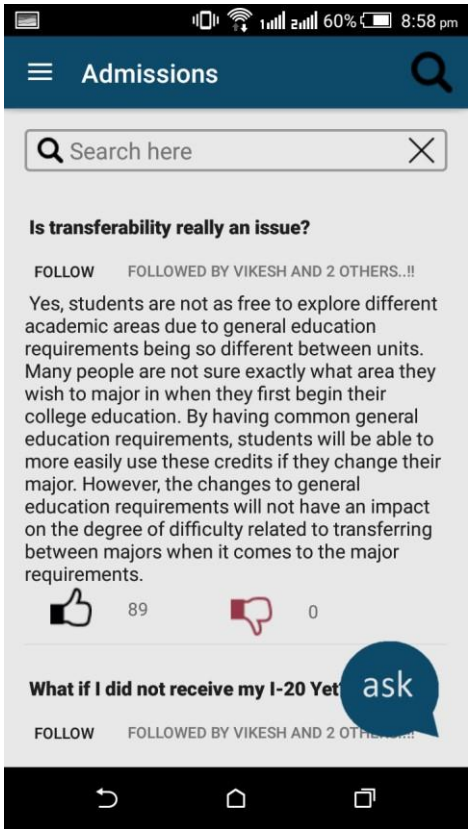
After successful login user navigates to home page where user can view all questions in a list view. User can scroll down to several questions. Questions are presented in reverse chronological order. Home will have menu option as shown in below image. Questions are divided into several categories and presented in menu. Menu will have options to 'update profile', 'My questions', 'FAQ'. Selecting a question launches a screen where user can see

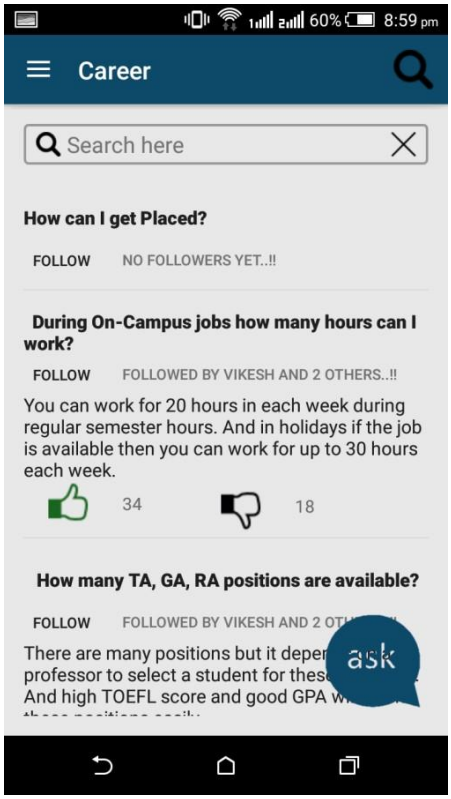
question and answers given to them. User can add an answer here in same page. Here user will have option to up vote an answer.

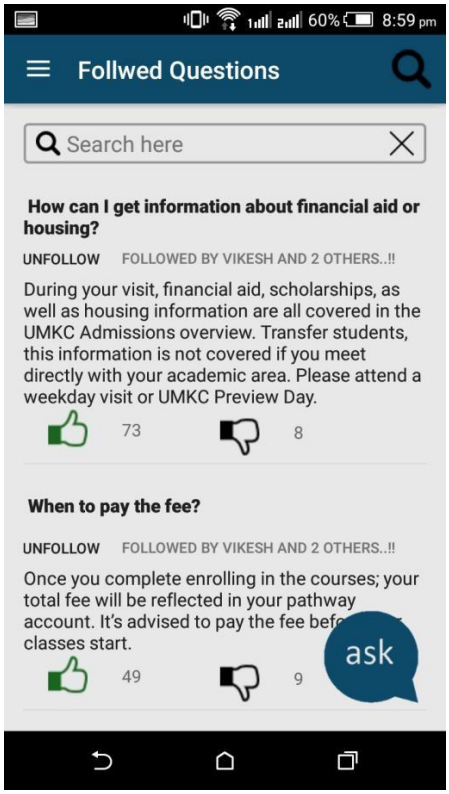
Home Page:

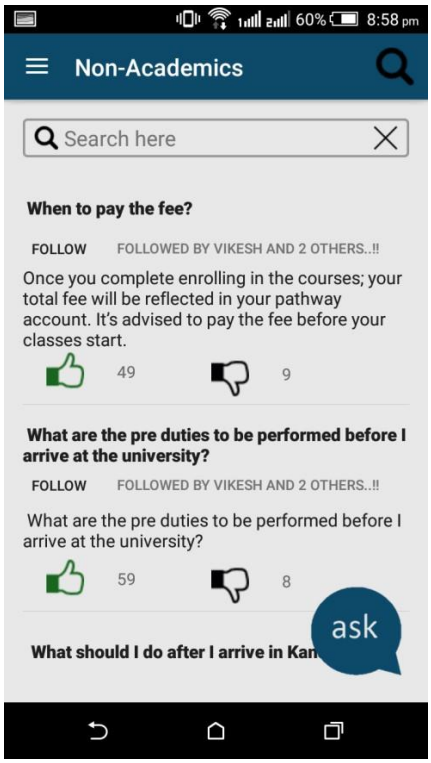


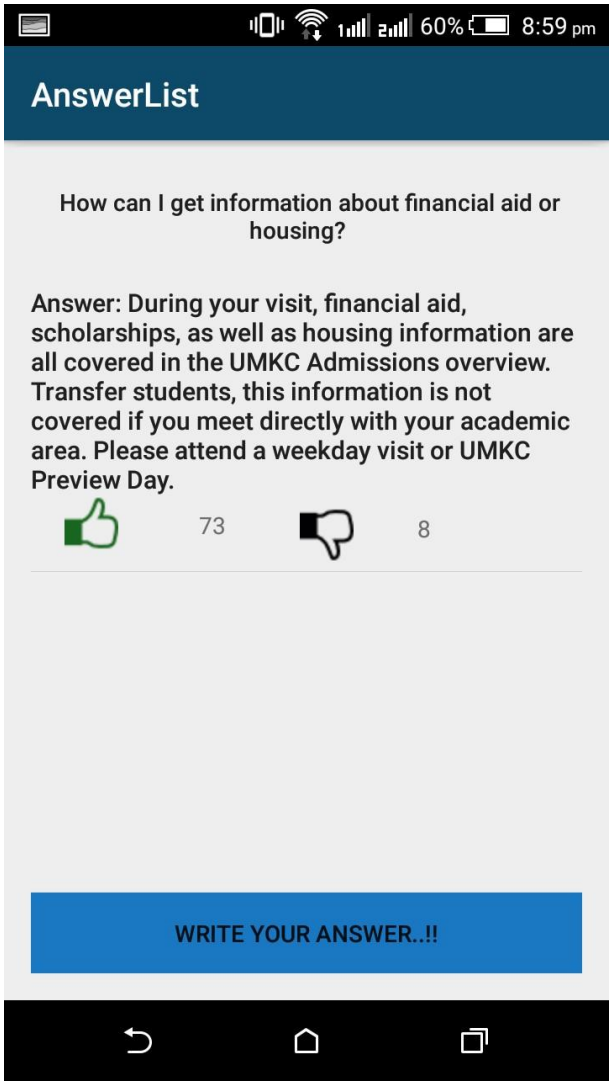

60% 8:58 pm
Academics
Search here
Can I change from CS to EE or from EE to CS?
FOLLOW
FOLLOWED BY VIKESH AND 1 OTHERS..!!
Yes you can change by consulting you respective academic advisor.
10
1
Is it possible to take courses related to 2 different streams in the same semester (for example: CS and EE)?
FOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
UMKC provides a flexible course structure. For Example, if you are an EE student and think that a course from CS might help you in the future, you can discuss this with your advisor and/or the respective professor teaching the course to ensure you have the proper background
23
2
ask


60% 8:58 pm
Admissions
Search here
Is transferability really an issue?
FOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
Yes, students are not as free to explore different academic areas due to general education requirements being so different between units. Many people are not sure exactly what area they wish to major in when they first begin their college education. By having common general education requirements, students will be able to more easily use these credits if they change their major. However, the changes to general education requirements will not have an impact on the degree of difficulty related to transferring between majors when it comes to the major requirements.
89
0
What if I did not receive my I-20 Yet
ask
FOLLOW
FOLLOWED BY VIKESH AND 2 OTH


8:59 pm
Career
Search here
How can I get Placed?
FOLLOW
NO FOLLOWERS YET..!!
During On-Campus jobs how many hours can I work?
FOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
You can work for 20 hours in each week during regular semester hours. And in holidays if the job is available then you can work for up to 30 hours each week.
34
18
How many TA, GA, RA positions are available?
FOLLOW
There are many positions but it deper
professor to select a student for thes
And high TOEFL score and good GPA w
ask

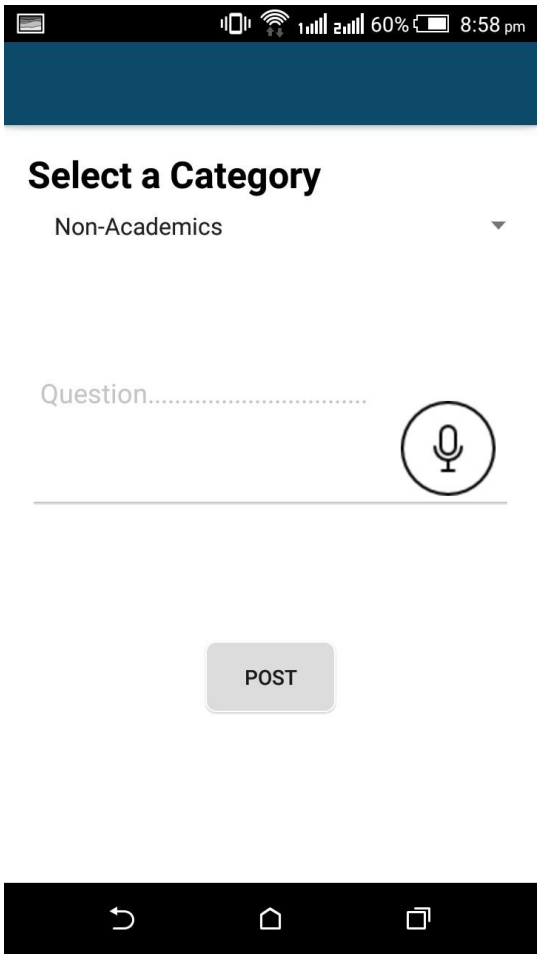

8:59 pm
Follwed Questions
Search here
How can I get information about financial aid or housing?
UNFOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
During your visit, financial aid, scholarships, as well as housing information are all covered in the UMKC Admissions overview. Transfer students, this information is not covered if you meet directly with your academic area. Please attend a weekday visit or UMKC Preview Day.
73
8
When to pay the fee?
UNFOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
Once you complete enrolling in the courses; your total fee will be reflected in your pathway account. It's advised to pay the fee bef
classes start.
49
9
ask


60% 8:58 pm
Non-Academics
Search here
When to pay the fee?
FOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
Once you complete enrolling in the courses; your total fee will be reflected in your pathway account. It's advised to pay the fee before your classes start.
49
9
What are the pre duties to be performed before I arrive at the university?
FOLLOW
FOLLOWED BY VIKESH AND 2 OTHERS..!!
What are the pre duties to be performed before I arrive at the university?
59
8
ask
What should I do after I arrive in Kan



Home page consists of FAQ questions as a list view, when clicked on a specific question it navigates to a page with multiple answers for that question and a button where user can post a answer. There is a vote up option to decide appropriate answers for every question in the form of like and dislike buttons. Moreover, users can follow questions using follow button if needed. Users can search for questions using search bar in the home screen.

Ask question:

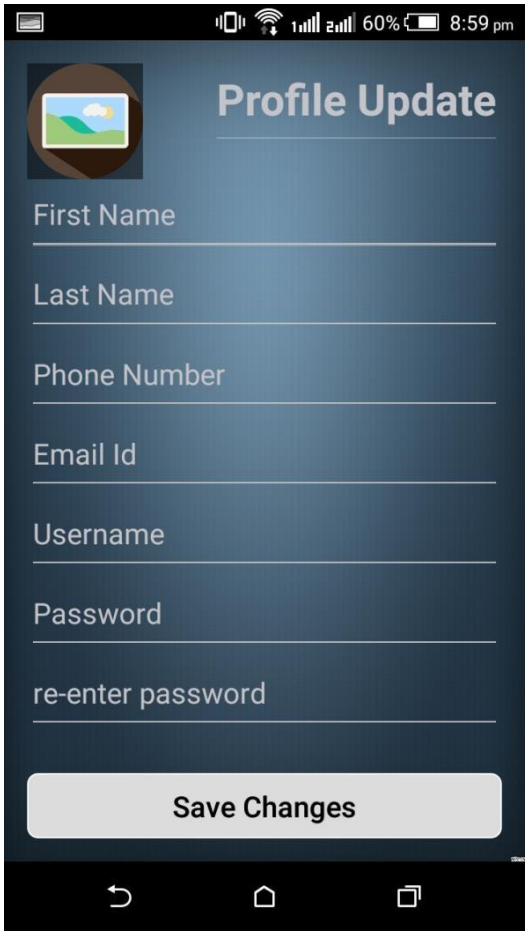


User can ask a question by touching ‘Ask’ button on home page.

After touching ‘Ask’ button in home page, user will be redirected to ask question screen. Here user will have different views to add question, add category.

In ask question page user have a facility to convert text to speech.

Profile Update:



User can update various details of his profile like photo, password etc as shown in below screens.

System requirements:

Operating System: Windows /Linux/Mac OS X

RAM: 2 GB RAM (takes lot of time to run, so 4 GB recommended)

Hard Disk: 400 MB hard disk

Data Base: Mongo DB (can alter depending upon future enhancements

Servers: Amazon Server (can alter depending upon availability of free online sources)

Software's: Java Development kit (JDK) and Android SDK

Screen resolution: 1280px * 800px minimum

Additional: 1 GB space is required for android SDK, images and cache data

Project Management:

project timeline: 03-11-2016

members:

- Sravan Kumar Appana
- Vikesh Padarthi
- Architha Mukka
- Manikanta Maddula

Issue1: Sravan worked on implementing search bar in home screen. So, that users can search for any question. Sravan and Vikesh together worked in implementing email notification. He worked for about 50 hours.

Issue2: Architha worked on UI part and changes to before screens. Worked on auto incrementing question ids globally for adding new questions to Mongo DB and fixed bugs in the application. She worked for about 40 hours.

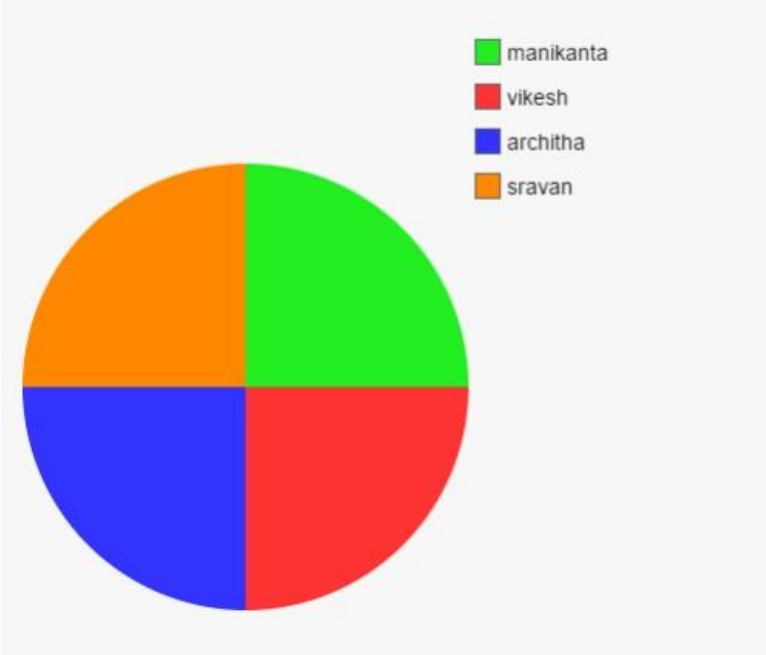
Issue3: Vikesh worked on implementing speech to text conversion. Vikesh and Sravan together implemented email notification. Vikesh worked to Delete/Update operations on documents present in Mongo lab. Vikesh worked for about 50 hours.

Issue 4: Login is one of the basic operations that will be performed by any user. Our app allows to login by creating a profile or using Gmail account. Manikanta worked on integrating Gmail login, normal login, and validating a user while logging in. Worked to present questions in reverse c hronological order from Mongo DB and fixed some bugs. He worked for about 45 hours.

Issues/Concerns:

1. Service Calls.

2. To improve performance degradation.



User Manual

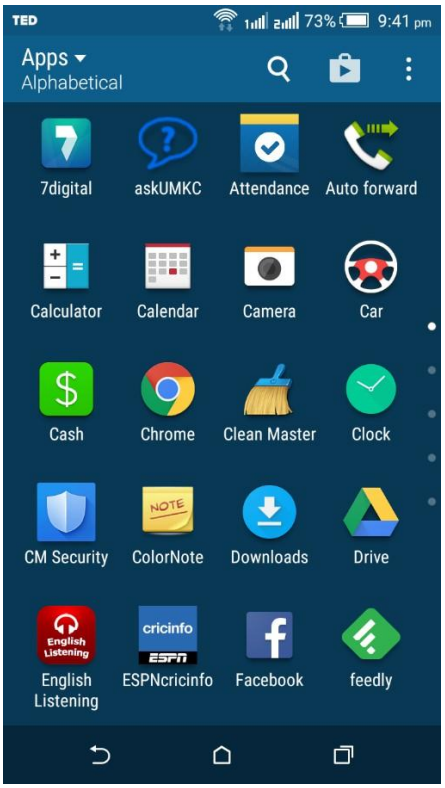
Introductio:

The main motto behind developing this project is to help the students who decided to know about the University of Missouri Kansas City(UMKC). When we decided to get into UMKC, we didn't know anything about the Kansas City place, about complete fee structure, accommodation, regarding subject enrollment etc. These are the few problems which we have faced when we came to Kansas City to join in UMKC.

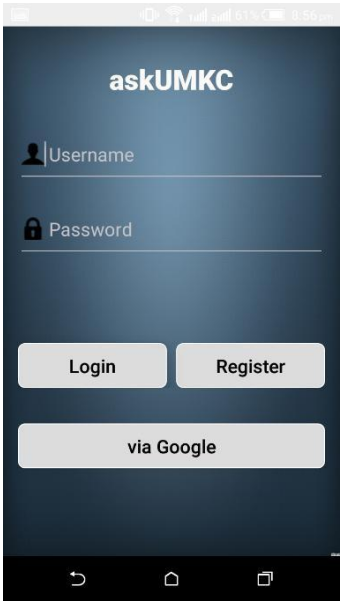
So to help the new joining students and to help the already existing students we have developed this App. Not only Academic and Non-Academic student can ask anything, he can post his question in this application. Once his question gets posted some of the already existing students or school staff can answer those answers.

How to Use the Application:

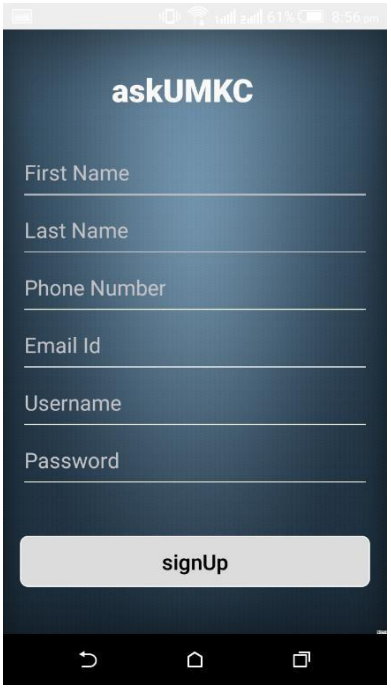
- **askUMKC** is our app name. on clicking on this app it will navigate to navigation page.



- on selecting the app, it will navigate to login page as shown below. Here user can choose either his Google account details to login into the application or he can login by entering the credentials which he has created while registration.

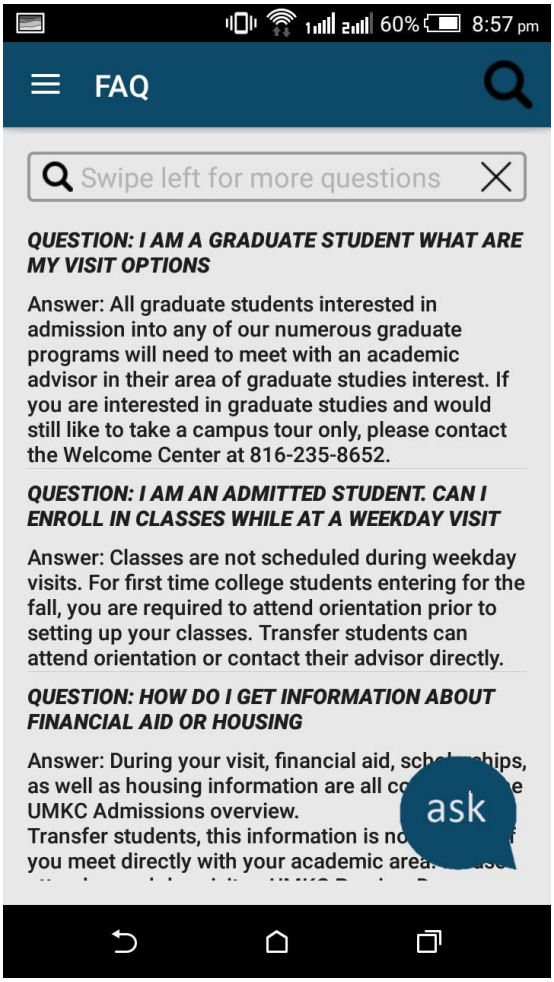


- For those people who have downloaded the app for the first time and who doesn't want to use their Google credentials, they have to register themselves. And the registration page looks as below.



Here all the fields are mandatory and he have to fill every detail. If he misses any field or if he doesn't want to give any one of the field also the application doesn't allow him to register.

- Once he registers in to the application, he has to enter his login credentials to login into the application. Validation is done on this login page and user with correct credentials only can enter into this application. Once he enters his details he will be directed to the FAQ page where he can find the frequently asked questions. The screen looks as shown below.

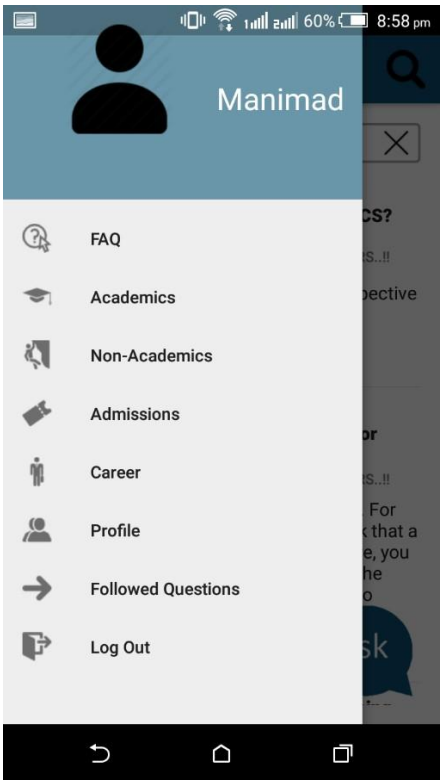


There are multiple things which user can perform from this page. He can ask his question or he can read all the existed questions from this page or he can search for a particular question in this page and there are multiple options if he swipes left in the screen.

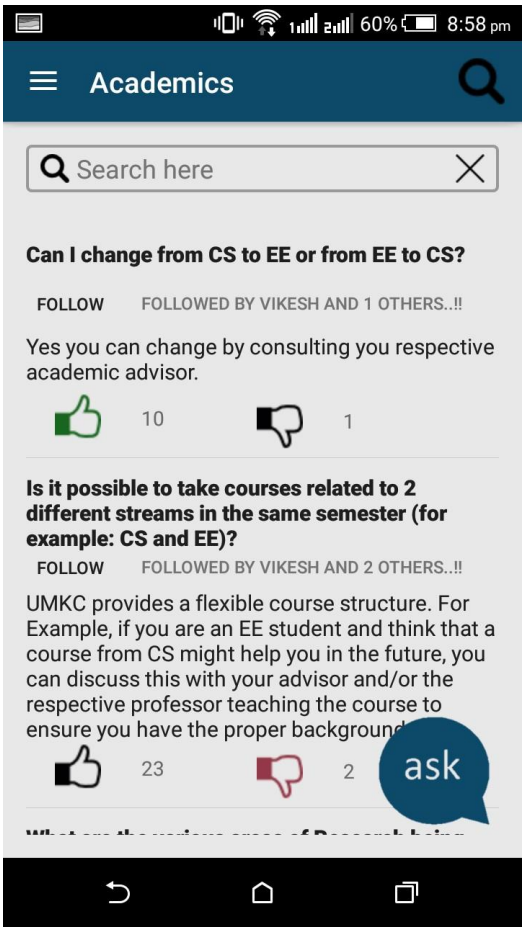
- If he wants to ask a question, the first thing he has to do is click on the ask symbol which is present at the bottom of the screen. He has to select one category from the categories present in this screen before he posts a question. And user can either enter the question on his own or he can say the question as we have included “speech to text”

feature in this screen which converts speech into text and on clicking the post button he can post his question.

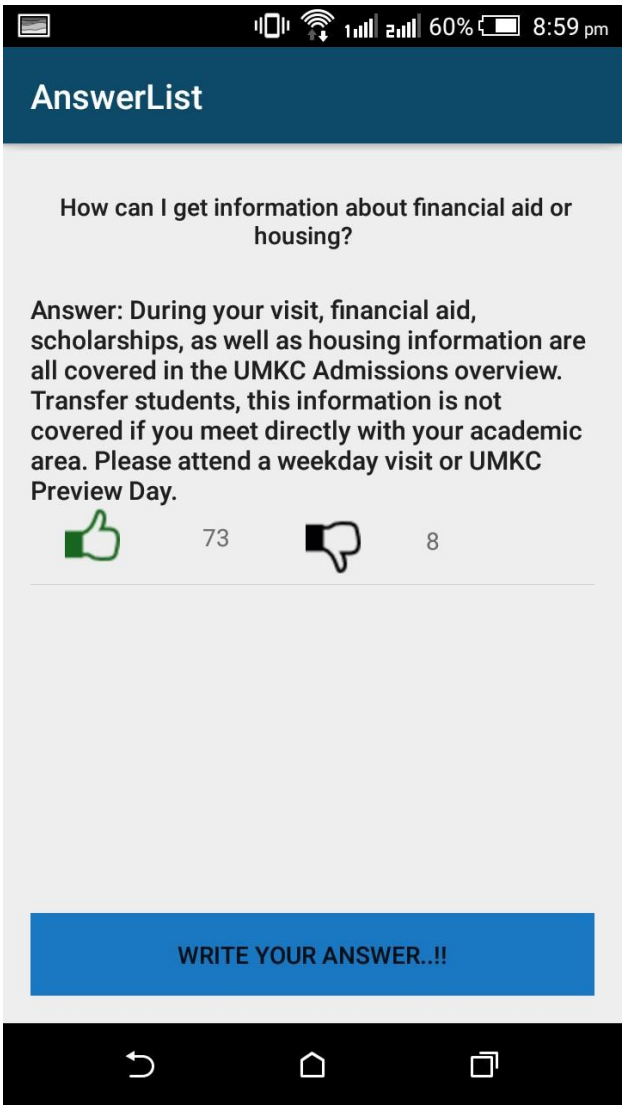
- If he wants to look for other questions, he can swipe left in the home screen page so that he will be shown below screen.



- He can select either Academics, Non-Academics, Admissions, Career, Profile, Followed Questions anyone from this page. For suppose if he selects the Academics section the app will navigate to the Academic screen which looks as below

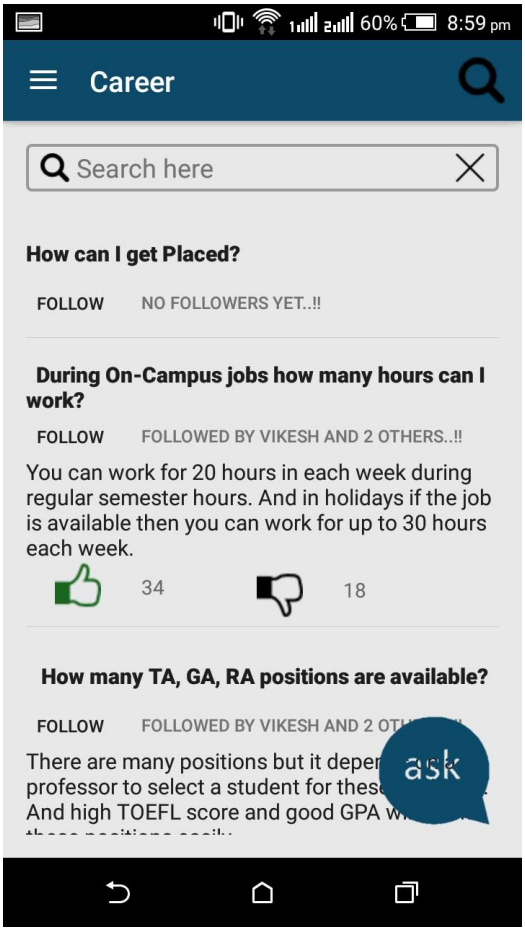


- Top of the screen we are showing in which screes he is. If he is in Career Screen, the heading will be “Career”. Here he can search for academics related questions or he can post a question or he can read the answers and write his own answers. If he wants to answer any question from this section, he has to click on the desired question. On clicking the question, he will be re-directed to a screen where he can answer and the screen looks as below.



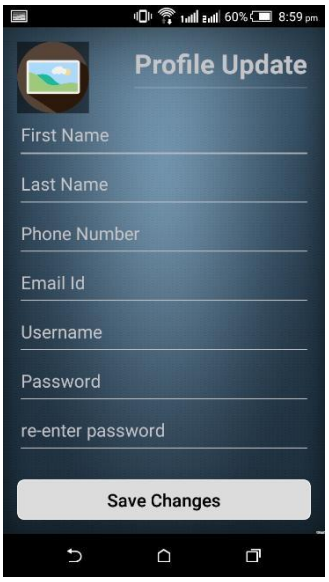
On clicking the Write Your Answer button, he can answer to this question. If there are multiple answers to a particular question, all the available answers will be displayed here. In the Academics screen we are displaying only one answer to any question. He has other options like up voting the answer or he can down vote the answer. User can perform only one thing among both.

- For suppose he wants to follow some of the questions which are related to career, he will be selecting the career screen and same as shown above for Academics screen, career screen will be displayed and he will have some more options to perform on this page like following and unfollow.

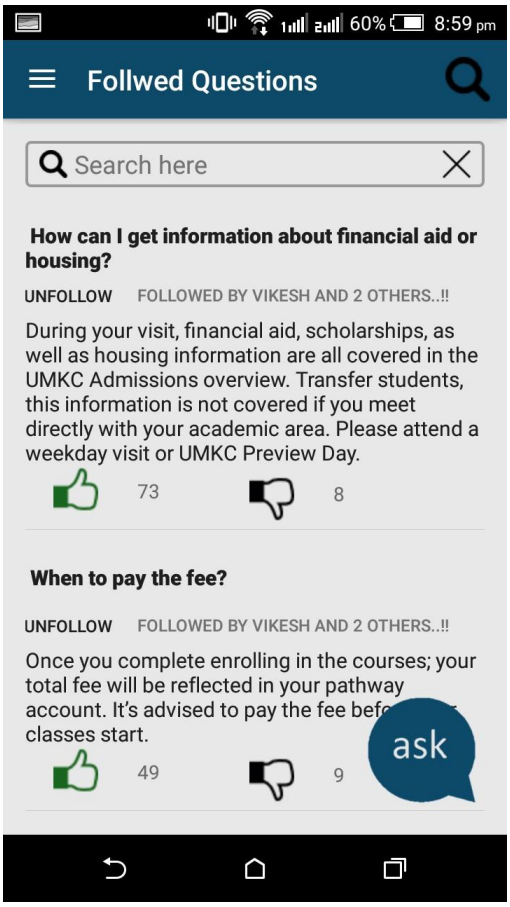


If he follows a question he will be sent a notification to his mail if someone answers the question which he followed. And if he wants to unfollow the question he can select unfollow option.

- Everybody wants to change some of the details in the application like his first name, last name, phone number etc. so we have provided a profile update page where he can update his details. From all the existed details he cannot update his username and Email id which are saved permanently once he creates his account. Other than that he can modify any of his details. He can also upload his picture in the application. Below image shows the screen of the profile update page.

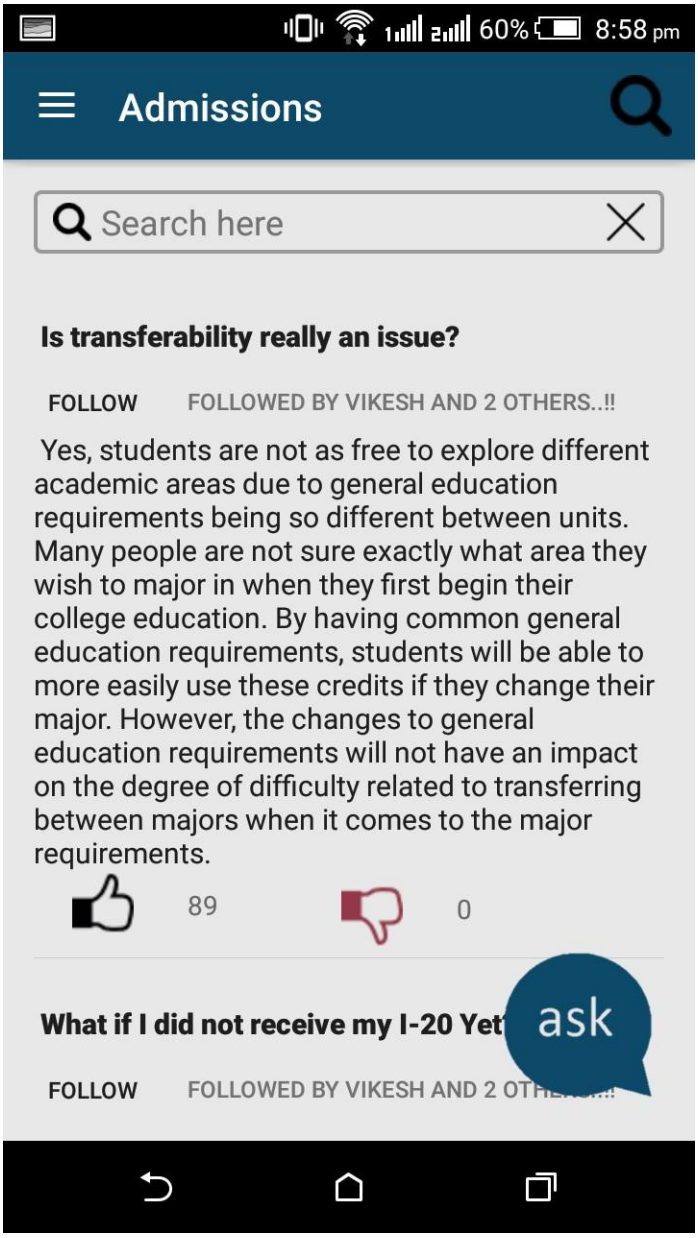


- If a user wants to see what are the list of questions he is following, he has to select the "Followed Questions" when he swipes the screen toward left. If a user selects that option below screen will be displayed where he can see list of questions he is following.

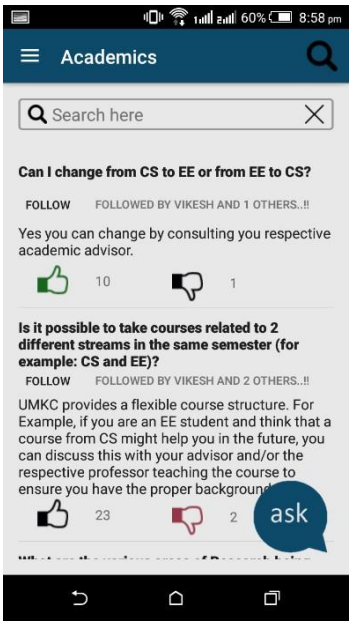


These are the questions where a particular user can see his followed questions.

- Below screen show Non-Academics, Academics and Admissions screen.

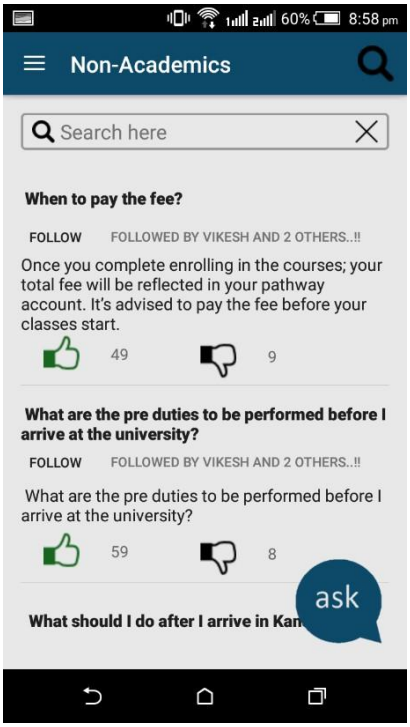


Above one is the Admissions page screen with list of questions which are related to Admission section.



This is the Academics screen.

- Below one is the Non-Academics screen.



These are the main steps or options which user can take to use this application efficiently.

There are no bugs from the features which we have developed in this application. We are Planning to improve some GUI part of the application. The application will be more useful and can be improved better if we have included message alert to the user along with the mail notification when someone answers the questions which user is following.

Team Collaboration

Use cases handled by Sravan:

Search operation. User should be able to search based on anything, question, answer, any category. As soon as "x" mark is touched, application will present a screen with some important questions from all the categories.

Parsing mongoDB data into list view in the home screen.

Each answer has some credibility. All users can update the correctness of an answer by selecting upvote or downvote. Based on the number of upvote's and downvote's user will be able to decide best answer in case of conflicting answers.

User can access side menu by swiping from left or by touching menu at top left corner. In the menu user can select different categories – Academics, Career, Financials, Non – academics and profile update, followed questions, logout.

Use cases handled by Vikesh:

User will have an option to follow questions. User should be able to see all the questions which he/she is following by pressing "followed questions" option in side menu.

User will get a gmail notification whenever an answer is given by others to the followed questions. Gmail notification will contain the question and all the answers given to that particular question.

By pressing a question on home screen detailed view of that question is presented in another screen where all the answers to a particular question can be seen. User should be able to add a new question and select 'upvote' or 'downvote' for answer.

Vikesh worked on updating and deleting documents in MongoDB.

Use cases handled by Architha:

Register page lets user create profile so that he/she can use application seamlessly. User needs to provide very basic details like name, emailed, phone number, username and password.

Creating a question, user should be able to create a question and user needs to select a category in which the question belongs to. User types a question and posts by clicking on "post" button.

Archita worked on creating data in mongoDB from android.

User will have an option to update his profile. Change name, phone number, password. User can update his/her profile image here.

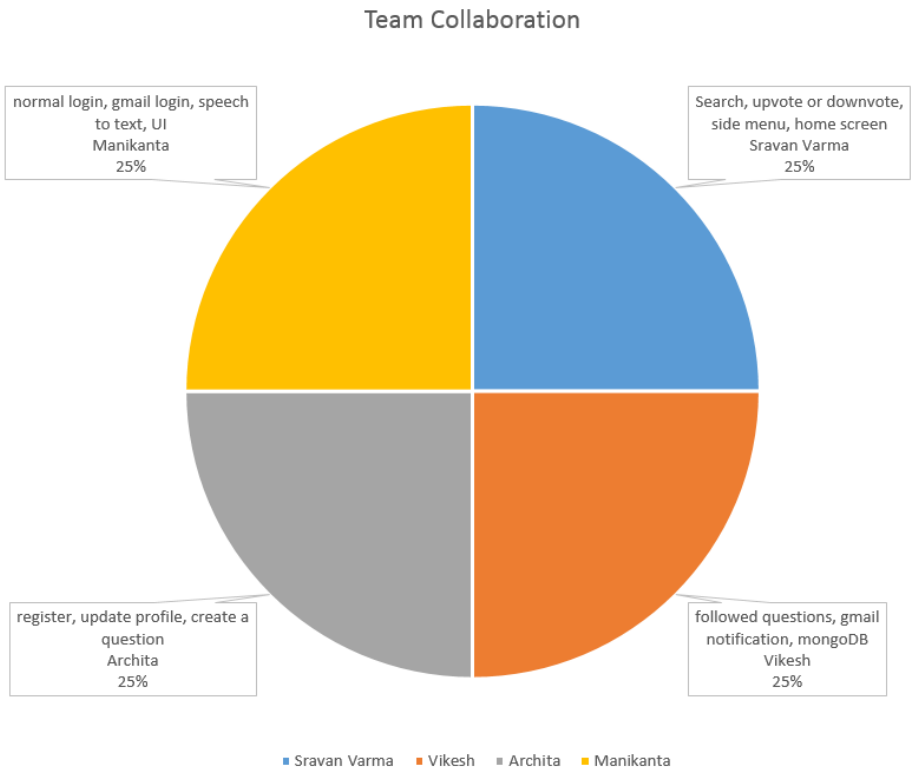
Use cases handled by Manikanta:

User will be able to login to application by providing username and password. Or user can login using gmail account. But profiles will be similar in both the type of login. User cannot create two profiles by using same gmail id.

User write a question by pressing ask question. User can use speech to text conversion option available to write a question. And can post it after checking it and editing it.

Manikanta worked on UI of the mobile application.

User will be able to select only one of the two options – ‘upvote’ and ‘downvote’. If user wishes to change his choice for a particular answer, then the count should be updated and choice needs to updated in mongoDB.



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1) https://www.quora.com

2) http://www.umkc.edu/