

Project Report:
Student Life Management App

Course No: CSE2200

Course Title: Software Development Lab III

Submitted To-

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Department: CSE

Session: Fall 2020

Year: 2nd

Semester: 2nd

Project Title:



Introduction:

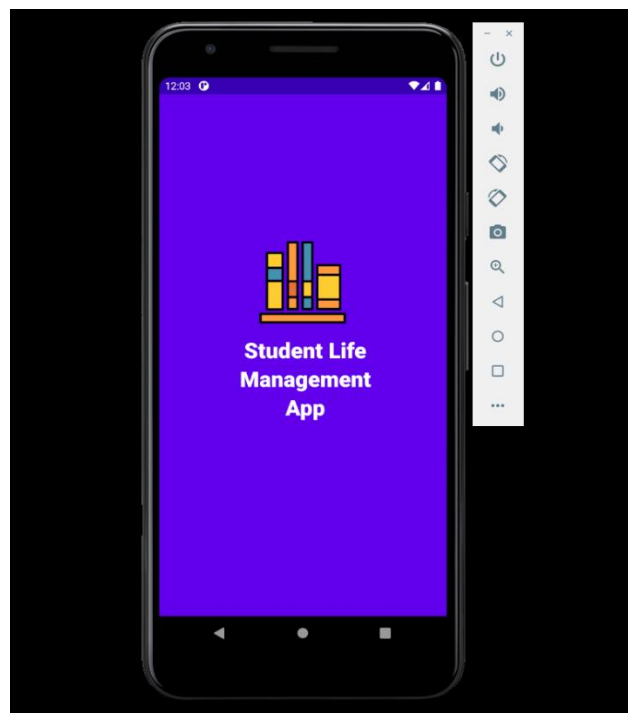
Student Life Management App is an android application which will allow users (students of Ahsanullah University of Science and Technology) to lead a punctual and productive student life.

The students will be able to easily access their class routines according to their semester and section. They will be able to keep their student related information's for their use. Also, this application will help the students to communicate with their subject teacher's according to their semester via email and phone number. They will be able to make a note of activities they want to do later. After completing a work, they will be able to delete that particular work. Also, the students will be able to calculate their semester results. Thus, this application will help a student in their day-to-day class activities.

Features:

1. Splash Screen:

- When the user will open the application an animated splash screen will appear at the beginning which will contain the name and logo of the app.

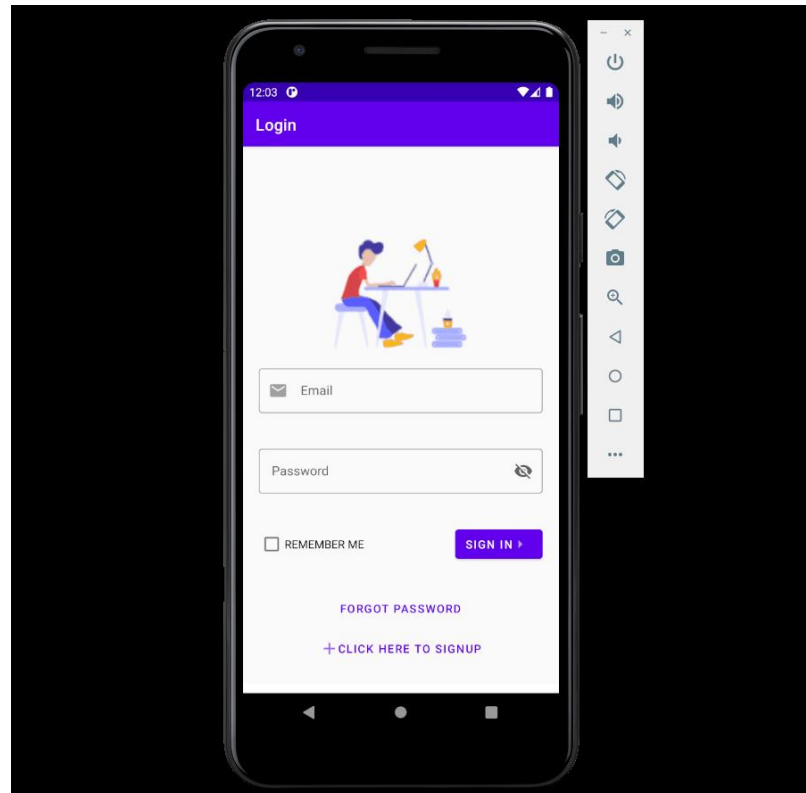


Splash Screen

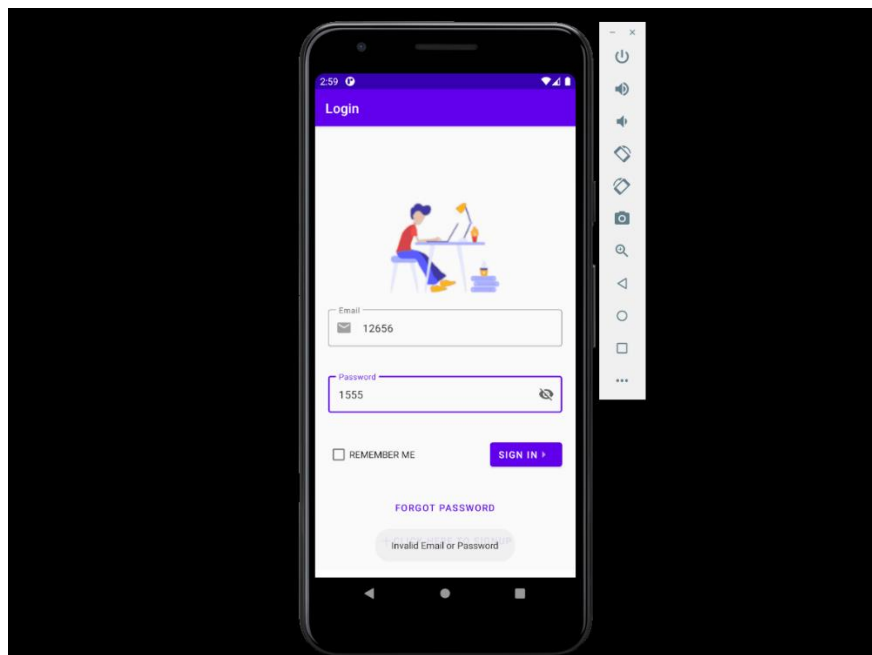
2. User Login:

- After the splash screen is loaded the users will be able to see the login page. From here, the users who are registered will

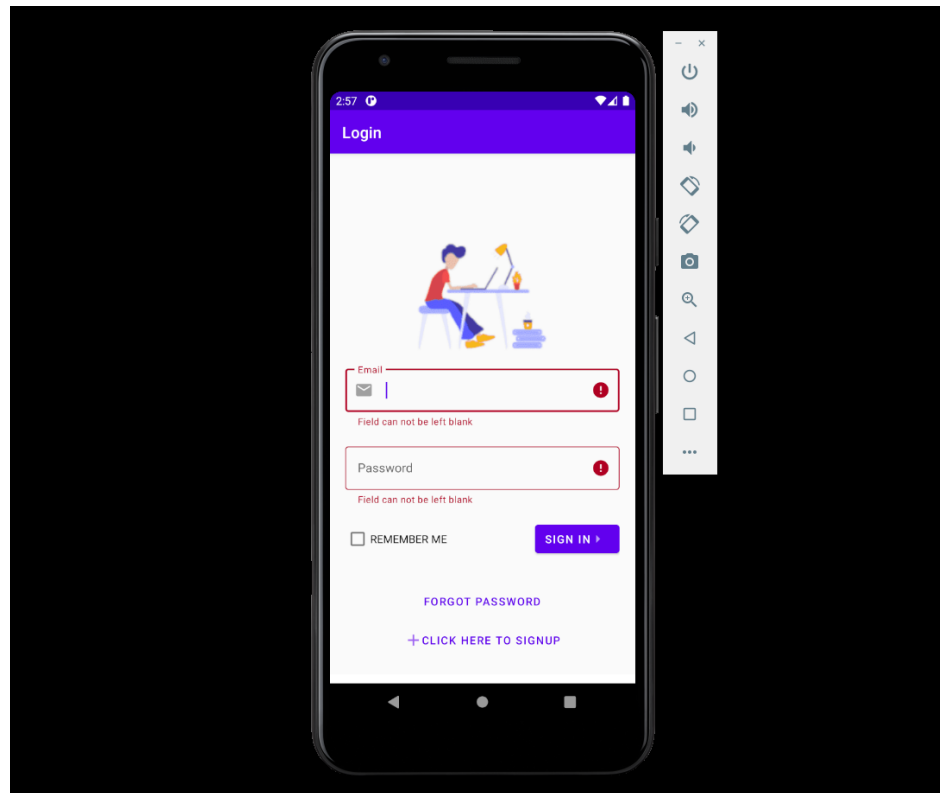
- need to enter their email address, password and click Sign in to access the app
- After the splash screen is loaded the users will be able to see the login page. From here, the users who are registered will need to enter their email address, password and click Sign in to access the app.
 - Users can decide to hide or show their password while typing by clicking the “Password show option” on/off.
 - Users can decide to automatically login next time they open the app by marking the checkbox “Remember Me”.
 - If the Password or Email is wrong and the user presses the “Sign In” button then it will show a toast message saying “Invalid Email or Password”.
 - If the user does not provide email and password in the respective fields and press Sign in then they will be given a message saying “Field cannot be left blank”.
 - The users who have forgotten their password can click “Forgot Password” option to reset password with their registered email address.
 - The users who have not registered to our app yet can Sign Up by clicking the option “Click here to Sign Up”



User Login Page.



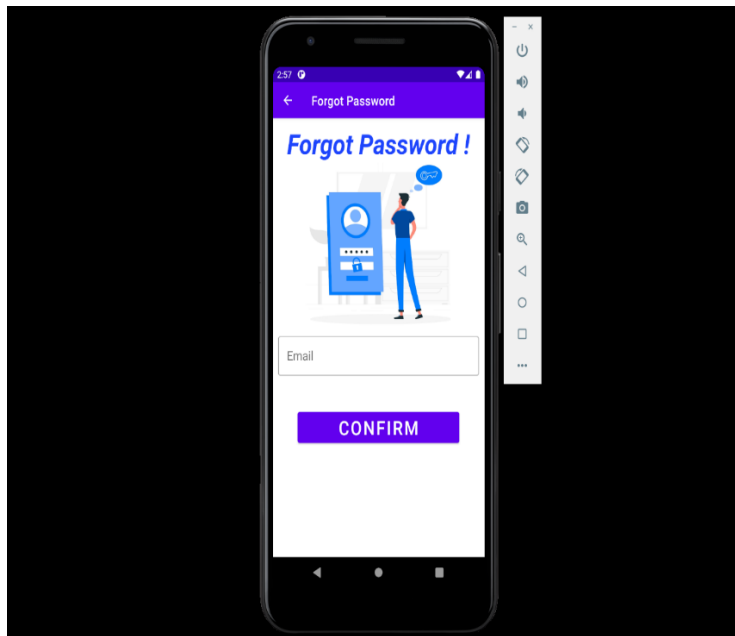
Invalid Email or Password message.



Field cannot be left blank message

3. Forgot Password:

- In this page the users who have forgotten their password can reset password with their registered email address. They have to type their email address and after clicking confirm button an email with password resent link will be sent to their registered email.
- After successfully resetting their password, they can login with their created new password.



Forgot Password Page

Reset your password

for 190104103@aust.edu

New password



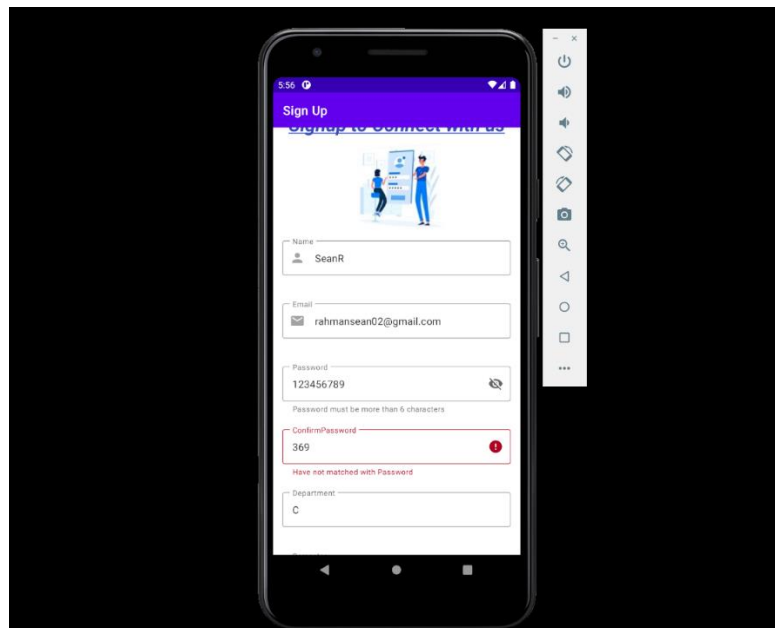
SAVE

Reset Password option

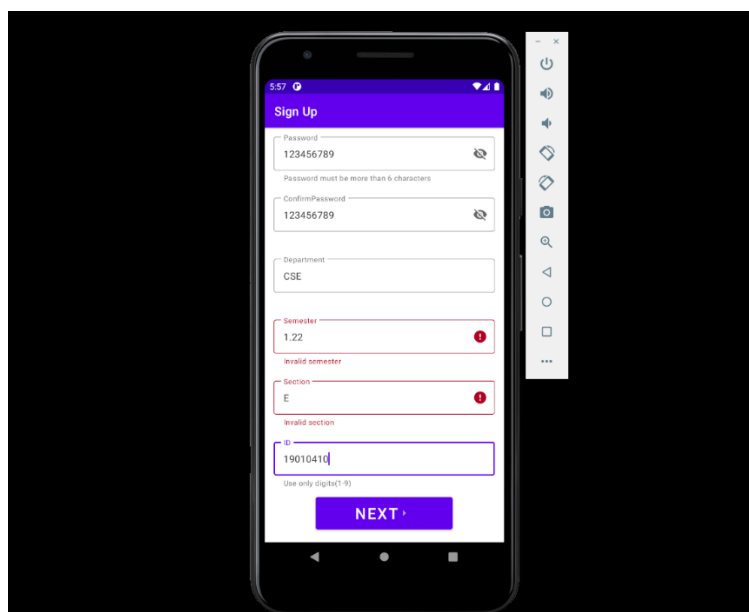
4. User Signup:

- In the “Sign Up” page, new users can complete the sign-up process by entering name, unique email address, password, department, semester, section and roll/id. If the email address is already taken or email has been used before, the app will show an error and tell the user to enter new email address.
- The password must be more than 6 characters.
- Password Field and Confirm Password Field must match. Otherwise. It will show “Have not matched with Password” below Confirm Password Text Field.
- Users must enter a valid email and the format should be valid also.
- Format of the semester, section must be valid according to Ahsanullah University of Science and Technology.

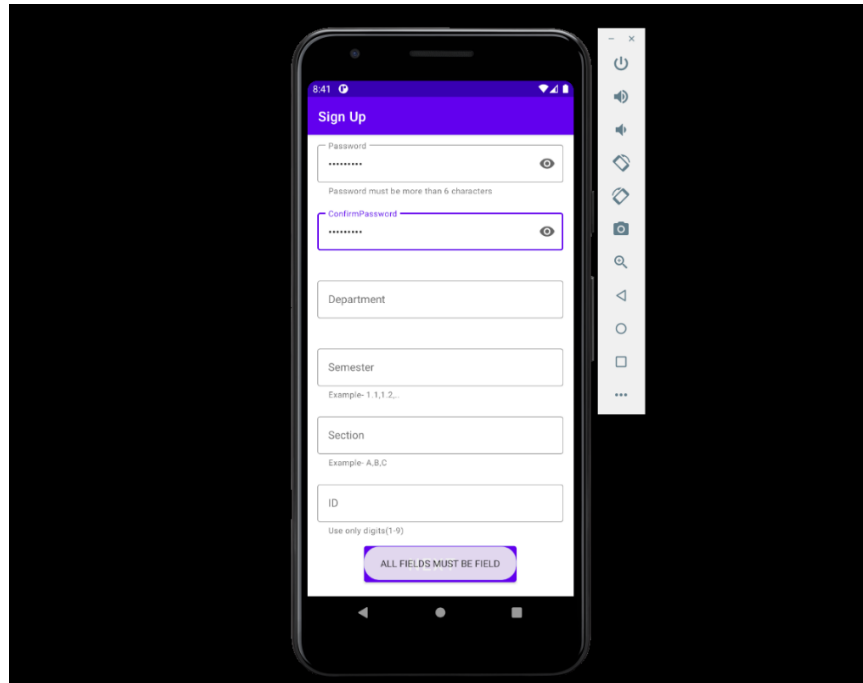
- Roll/ID number must be 9 characters long.
- All fields must be filled for successful Sign-Up. If a single field is left out then a toast message is given which tells the user to fill all the fields.



Password does not match.

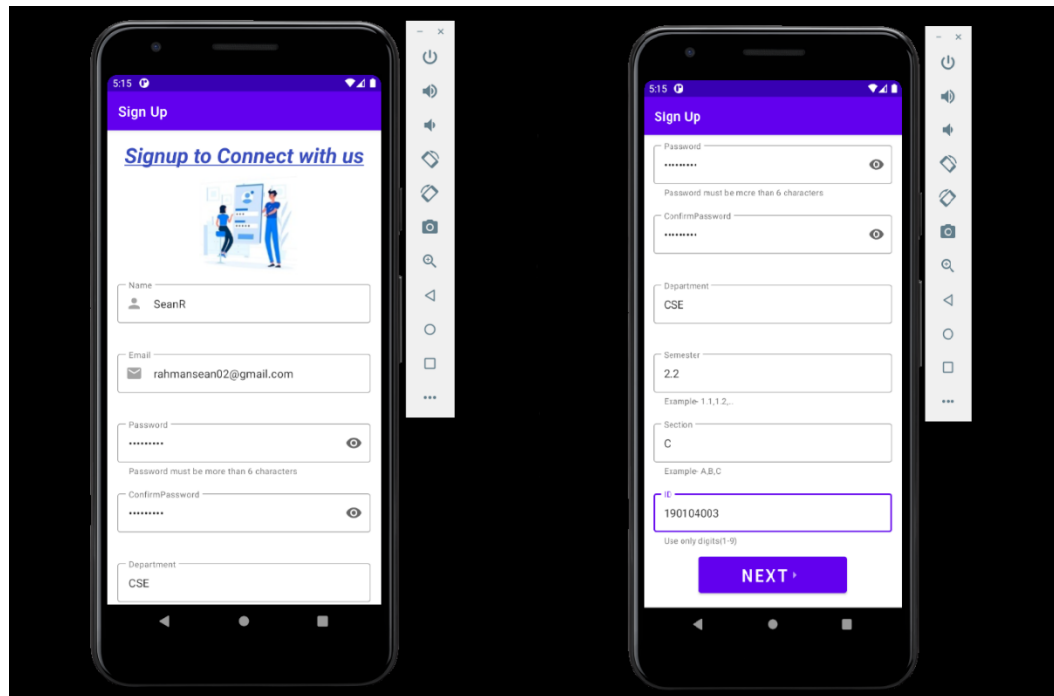


Invalid Semester, Section.

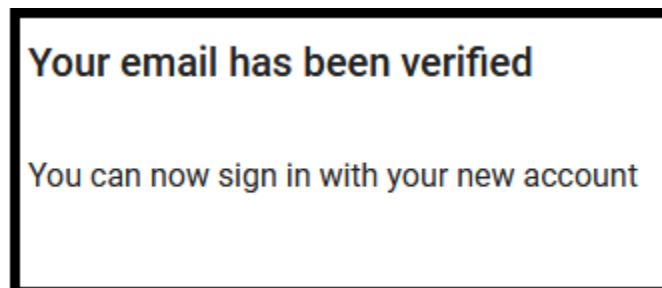


All fields must be filled.

- After filling up all the information the user can click the next button which will send them an authentication email to their email address they have provided. From there, they can verify their email address. A message will be shown to them after successful verification and by this they have registered their email. Now, they will be able to Login to the app with their newly created email and password.



Sign Up Page

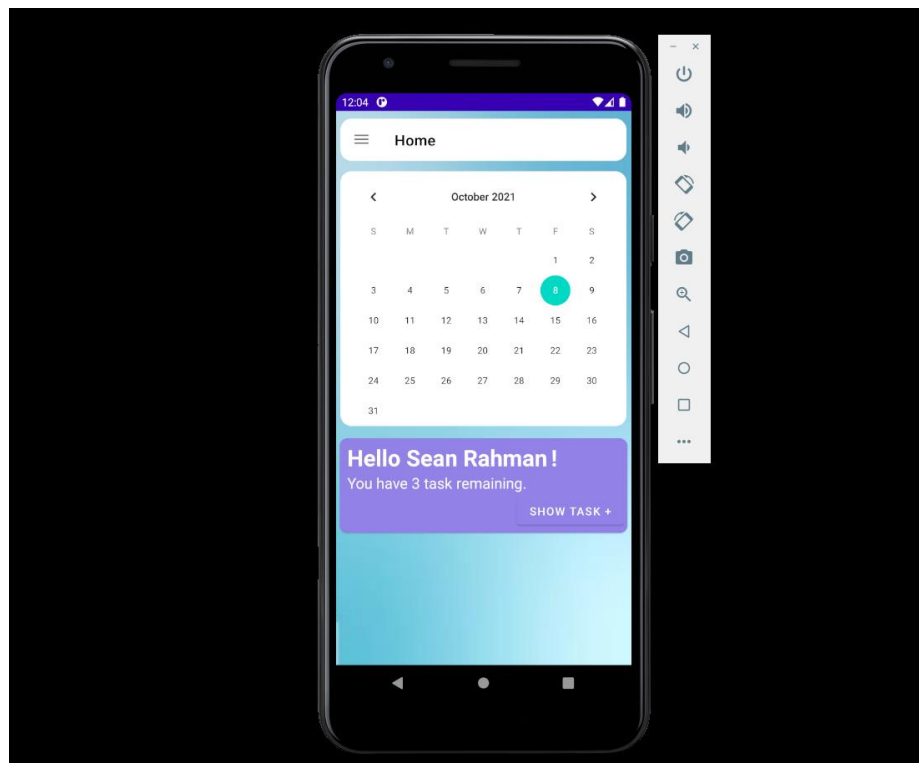


Verification message sent to user.

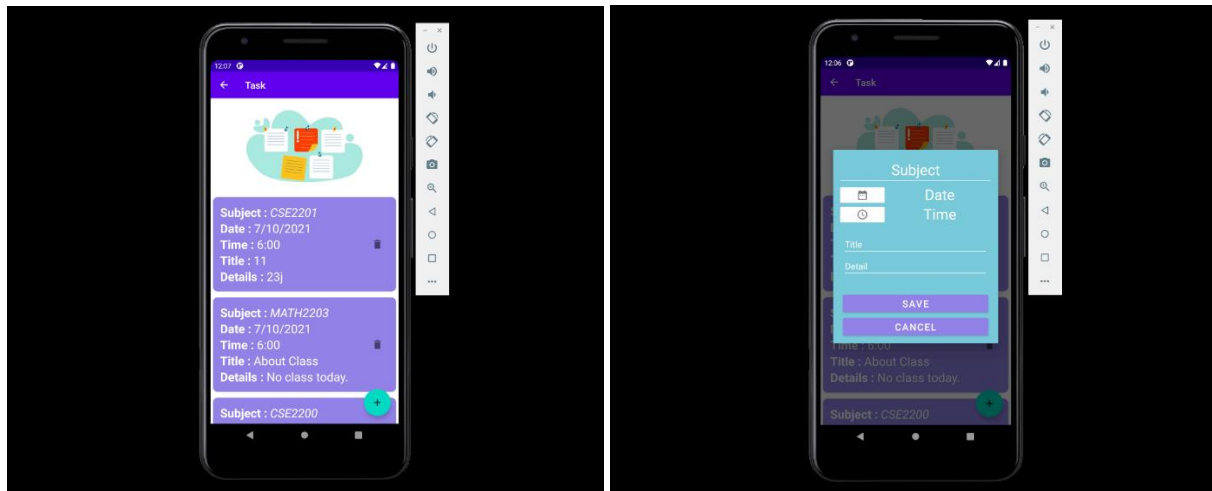
5. Home Page:

- When the user is successfully logged in, they will be directed to the Home Page. From here they can interact with the features we have built in our application.
- First of all, the user will be able to see a calendar which will help them to know about dates and days according to months. We

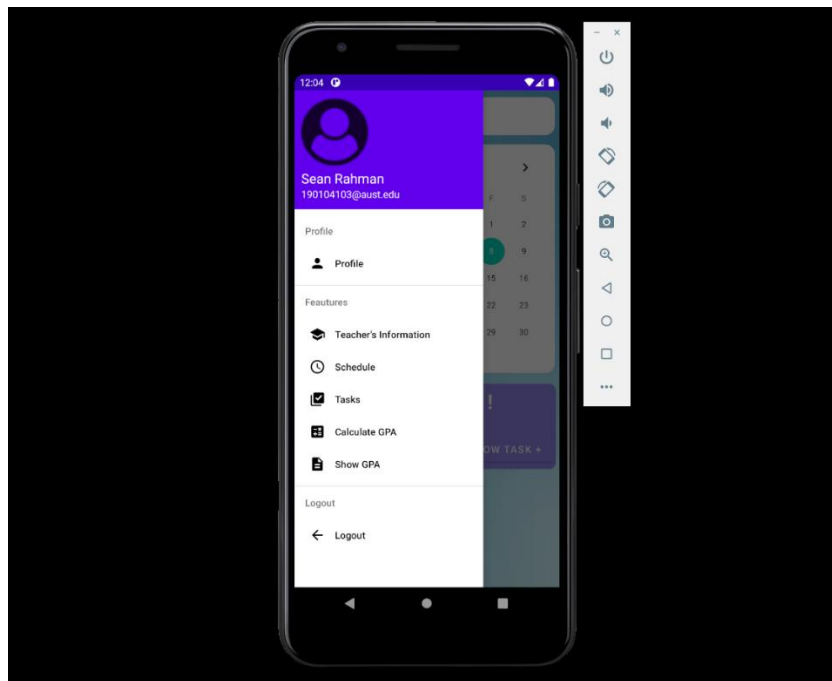
- have kept the calendar so that the users are aware of present and future dates and can plan their routines and tasks easily.
- Below the calendar there is a panel that will welcome the user with the name they have provided when they have Signed Up. Also, it will tell them about how many tasks they have left to complete. From here they can directly go to “Show Task” page where they will be able to see detailed information about the tasks they have created. Also, they will be able to delete the completed tasks. If they want, they can create task from here also.
 - At the top of the screen there is a toolbar which contains a navigation bar. Here, the main features of our application are displayed.



Home Page



Task page shown after clicking Show Task and Creating new task from Show Task option.



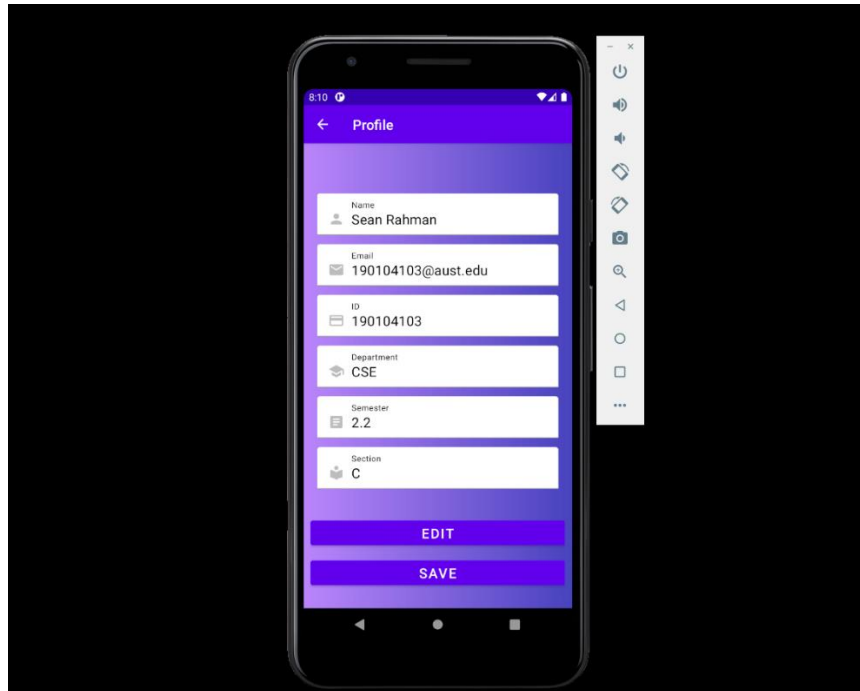
Features in Navigation Bar.

6. Navigation Bar:

- First of all, at the top of the navigation page Name and Email Address of the user is displayed.
- Secondly, there is a Profile option. Here, complete information's of the user is displayed which they have provided during Sign-Up.
- Thirdly, the user can see the features list. The features list contains: Teacher's Information, Schedule, Tasks, Calculate Gpa, Show Gpa options. User can interact and use the functionalities by clicking each option.
- Lastly, there is a Logout option which will help the user to log out from the app. This will take the user to the Login Page.

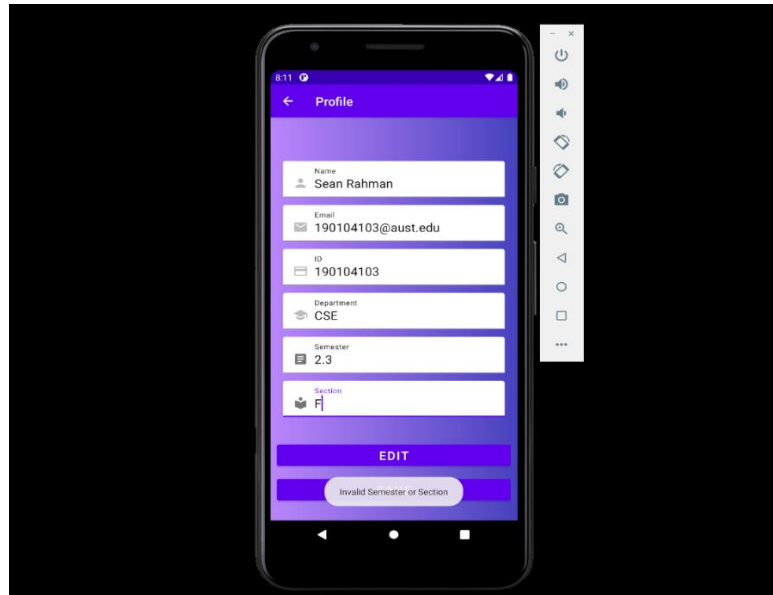
7. Profile:

- In Profile page, the information of the users will be displayed from database. These information's are provided by the user at the time of Sign-Up and were saved on database.
- The users will be able to edit the semester and section options only.
- When the user will click the "Edit" Button then the edit option will be activated and when "Save" Button is clicked the information will be saved. These information's will be changed in database also.



Profile Page

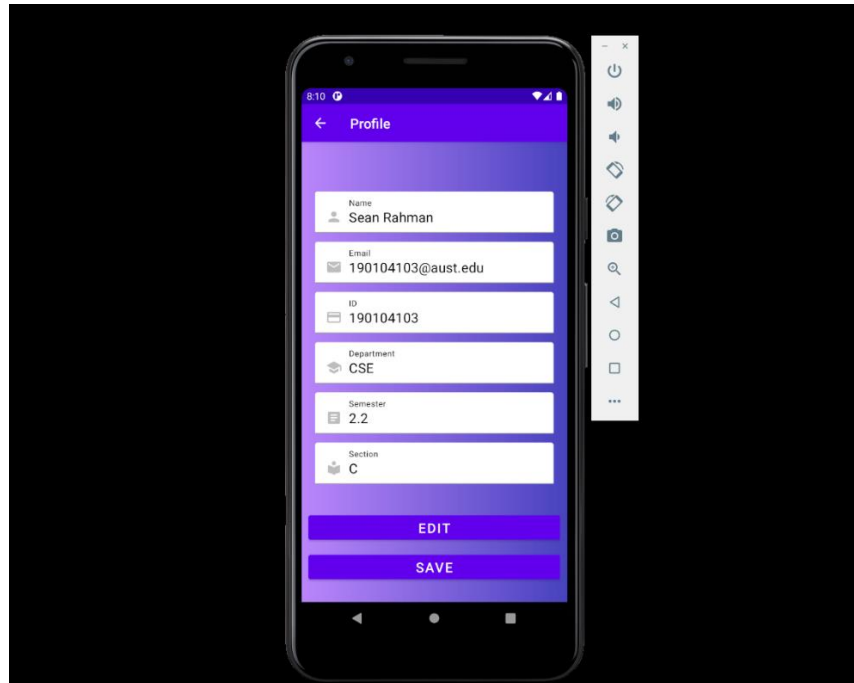
- Invalid semester and section are not saved. When user will provide invalid data, then a toast message saying “Invalid semester or section” will be shown.
- The option of editing semester and section are provided because when the semester will end and the user will go to new semester, then they can update their information.



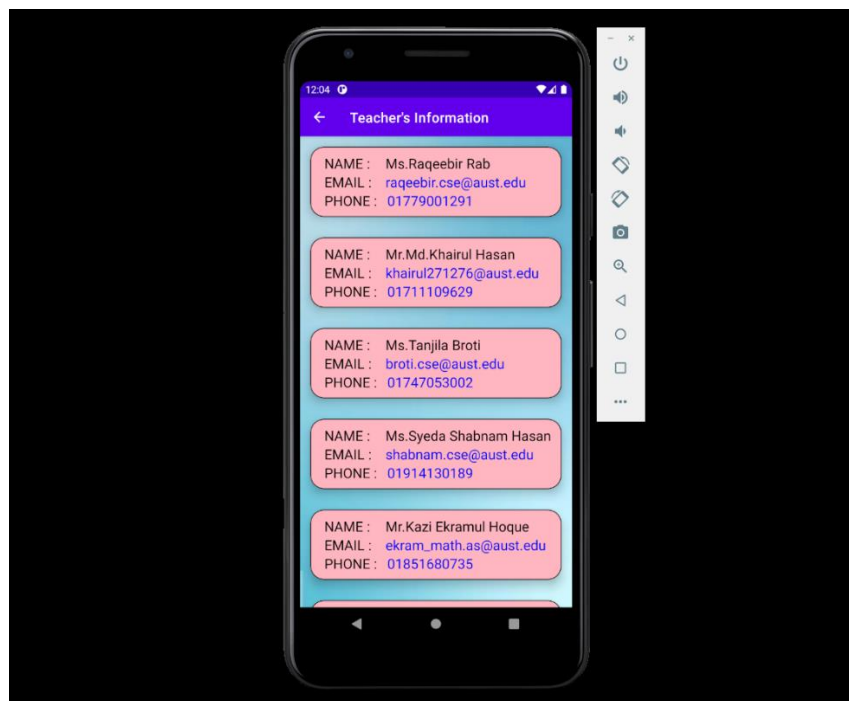
Invalid Semester, Section message.

8. Teacher's Information:

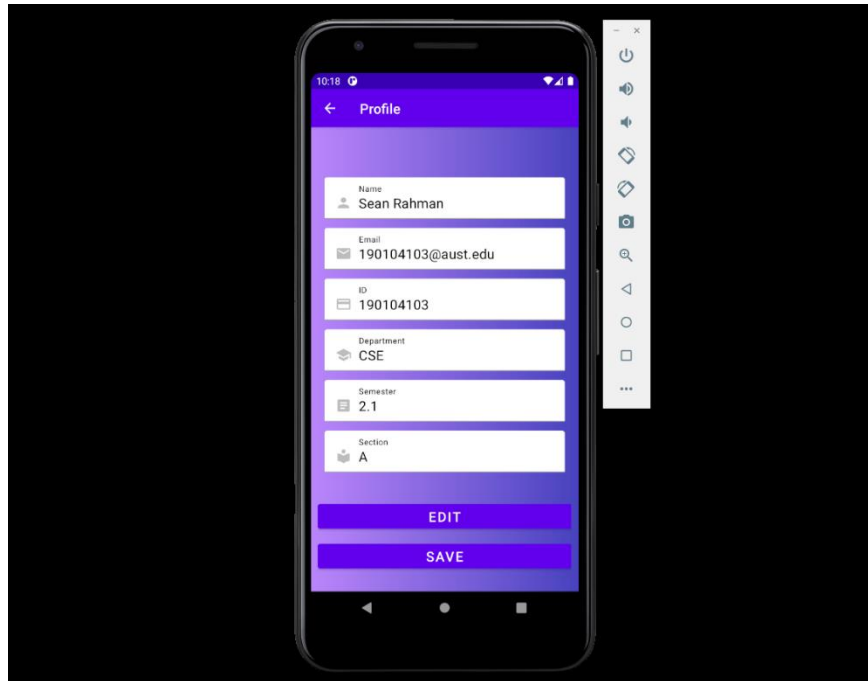
- In Teacher's Information Page, Subject teacher's name, email address and phone number are shown according to users' semester and section.
- These information's are stored in database according to semester and section.
- When the user enters their semester and section information at the time of Sign-Up or When the user updates these particular information's from Profile page the teacher's information list page gets updated too according to the new entered information.



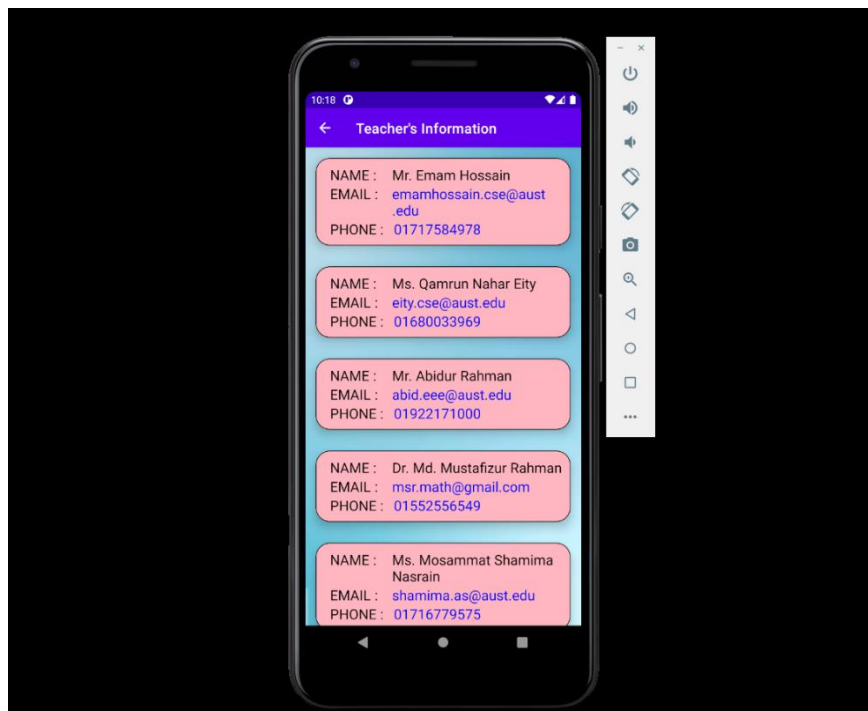
Profile page has semester 2.2 and section C



Teacher's Information when semester is 2.2 and section is C.

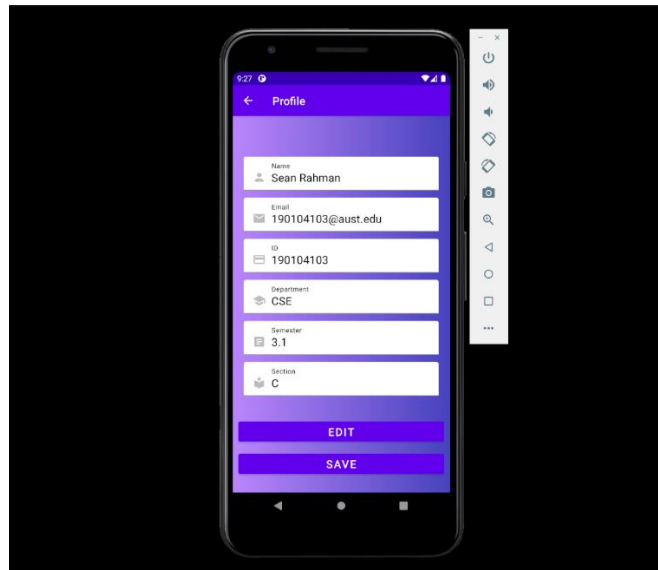


Profile page has semester 2.1 and section A.

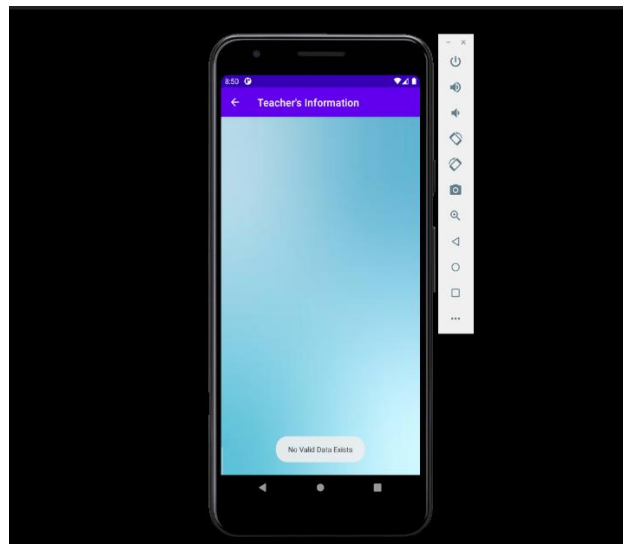


Teacher's Information is updated with semester is 2.1 and section A.

- If there is no valid list yet according to user entered information in database, then a toast message is shown which lets the user to know that “Valid data does not exist.”

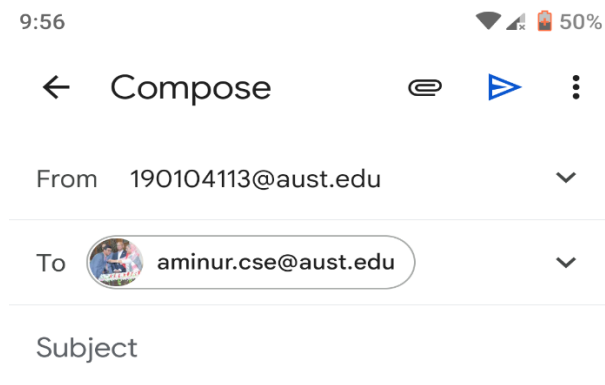


User has changed semester to 3.1

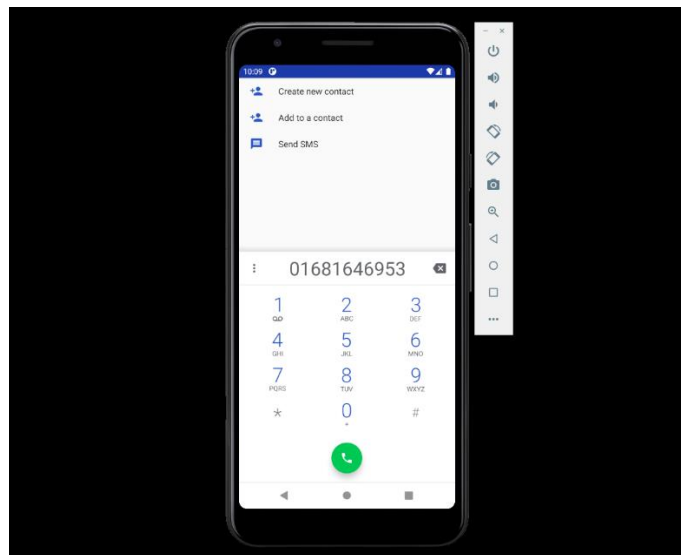


No valid data in database of 3.1 till now, so Teacher's Information page gives the message that “No valid data exists.”

- The user can click on the email address and it will direct the user to Email app. Also, when the user will click on the phone number it will direct them to Phones dial pad in mobile. This feature has been added to our app for easy communication between teachers and students.



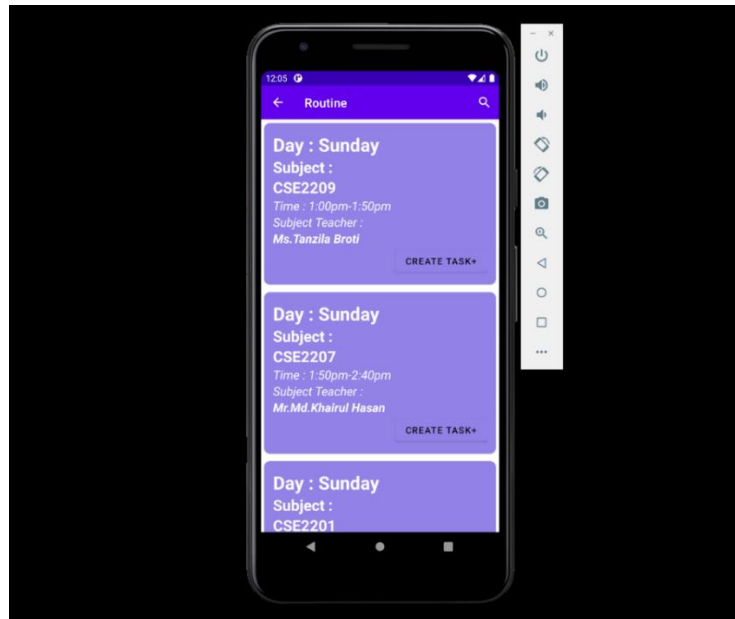
Directing to Email from our app.



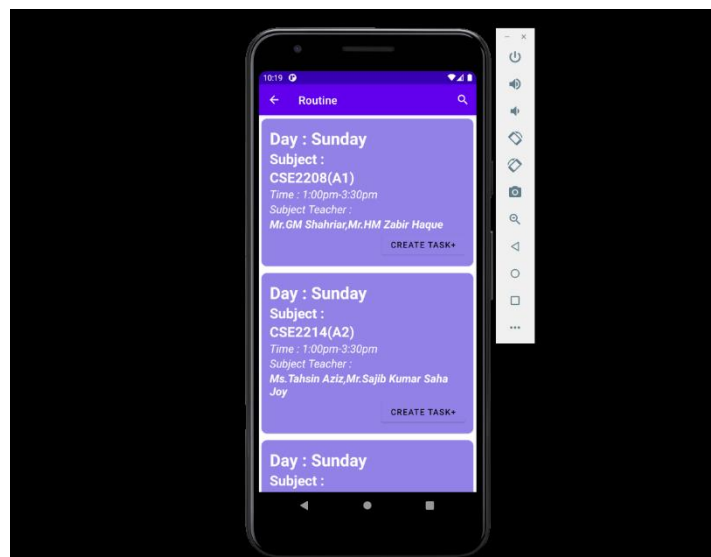
Directing to Phones dial pad from our app.

9. Schedule:

- The users will be able to see their class routine/schedule here.
- The routine is generated according to user entered semester and section.

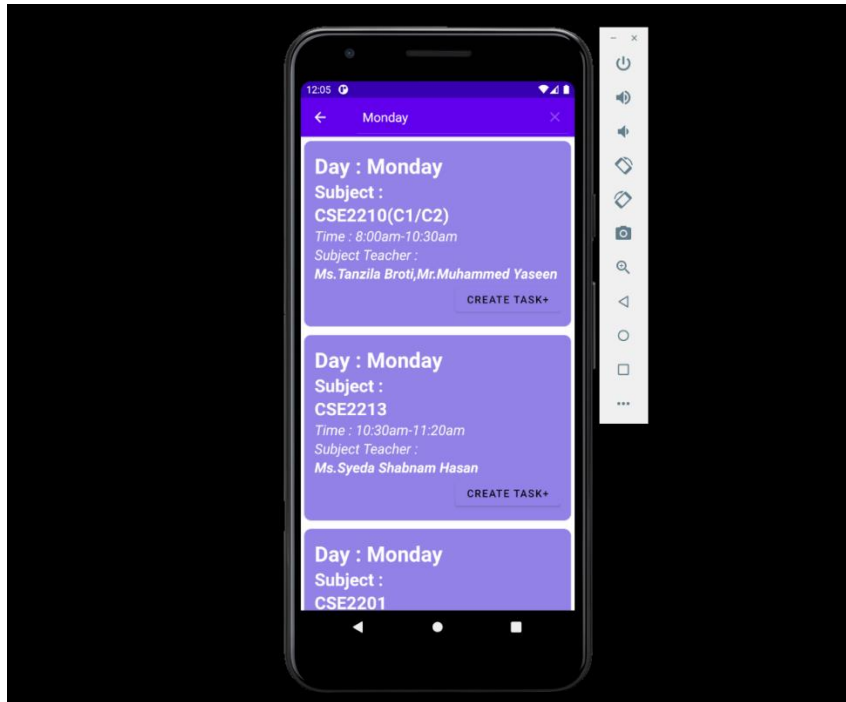


Schedule when semester is 2.2 and section is C.



Schedule when semester is 2.2 and section is A.

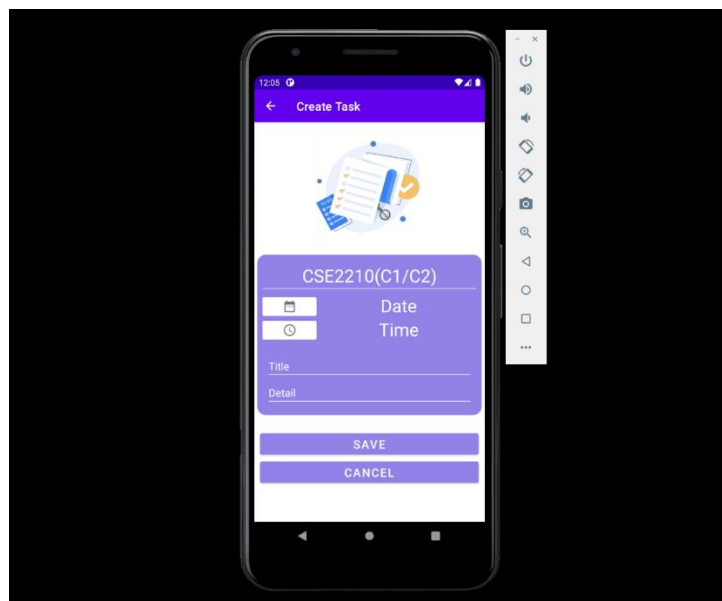
- Routines are stored in database according to semester and section respectively.
- Users can search in the routine page using “Day” also. This searching will help the users to access their routine of the day faster.



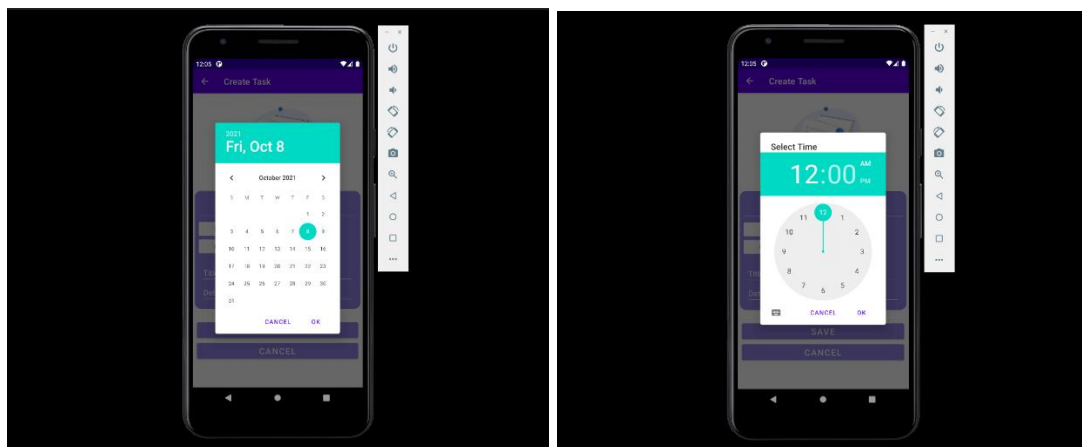
Monday's Routine is shown as the user has searched using keyword Monday.

- When the user enters their semester and section information at the time of Sign-Up or When the user updates these particular information's from Profile page then schedule gets updated too according to the user entered information.
- From Schedule page, users can create tasks also according to subject. If they click on “Create Task”, they will be taken to a new page.

- From this “Create Task” page, they can create their own tasks according to subjects by giving date, time, title, details.
- This created tasks will be saved in database according to user roll when the user will click the “Save” button. And the created tasks will be shown in “Task page”, users can access this page by clicking the “Task” option in navigation bar.
 - If the user does not want to create a task, then they can click the “Cancel” button.

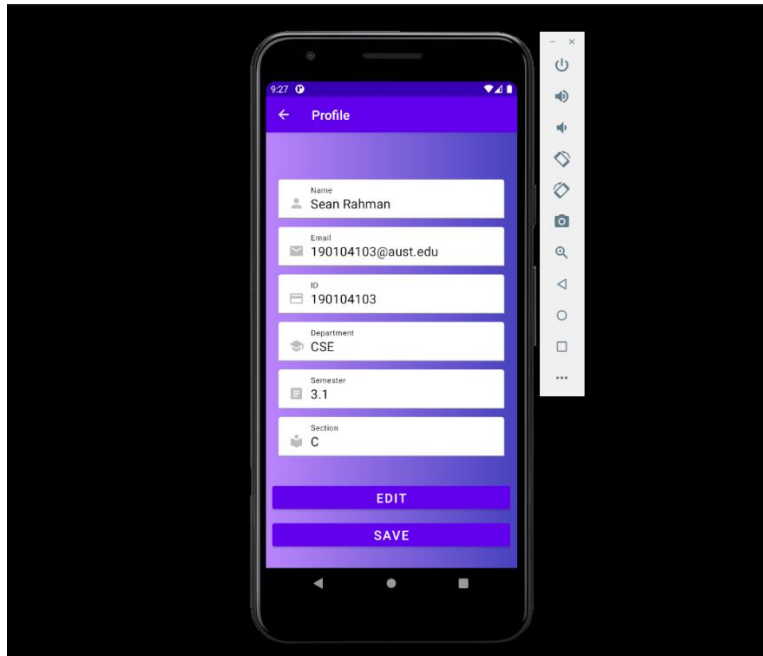


Task Create

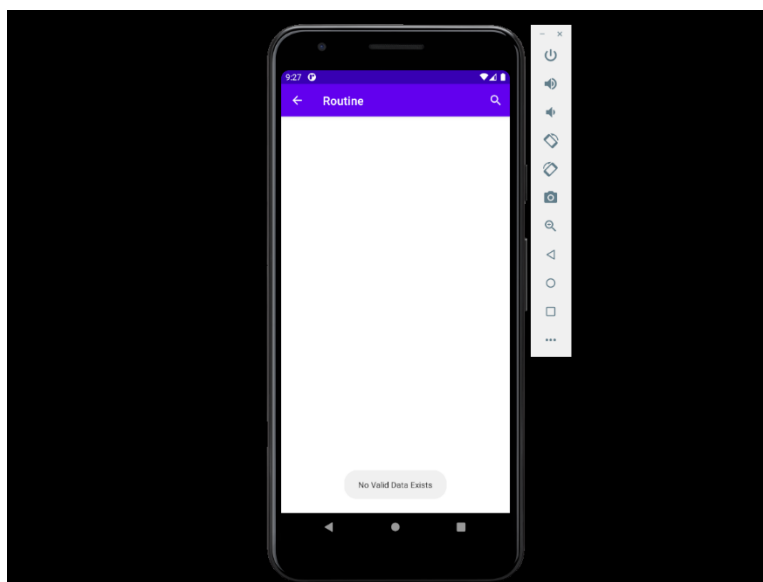


Choosing date and time.

- If there is no valid list yet according to user entered information in database, then a toast message is shown which lets the user know that “Valid data does not exist.”

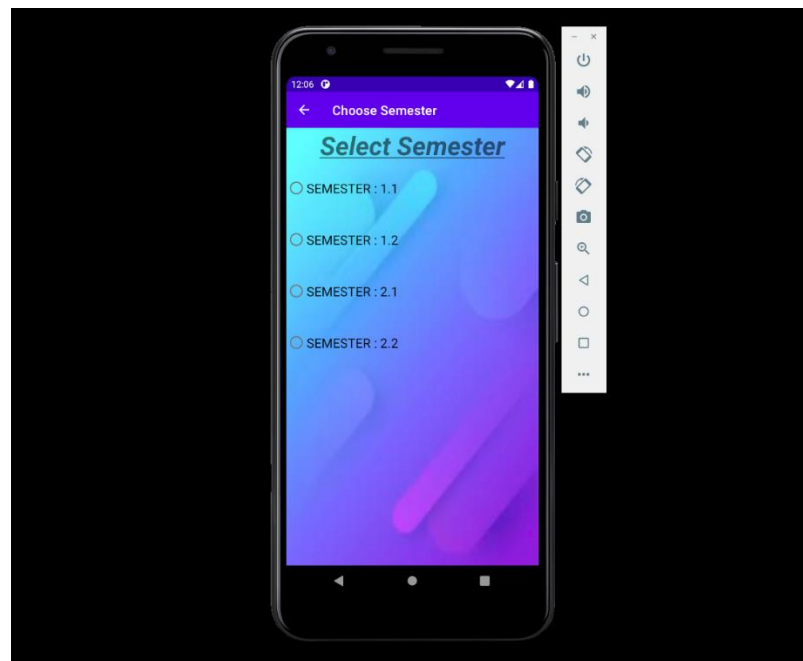


User has changed semester to 3.1. As there is no valid data in database of 3.1 till now, so Schedule page gives the message that “No valid data exists.”

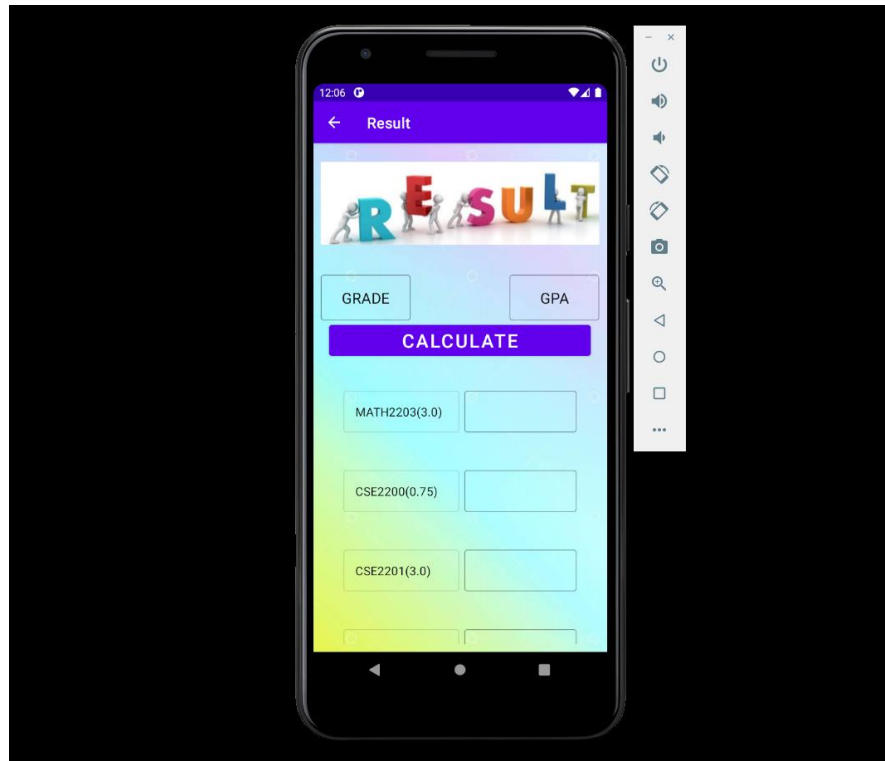


10. Calculate GPA:

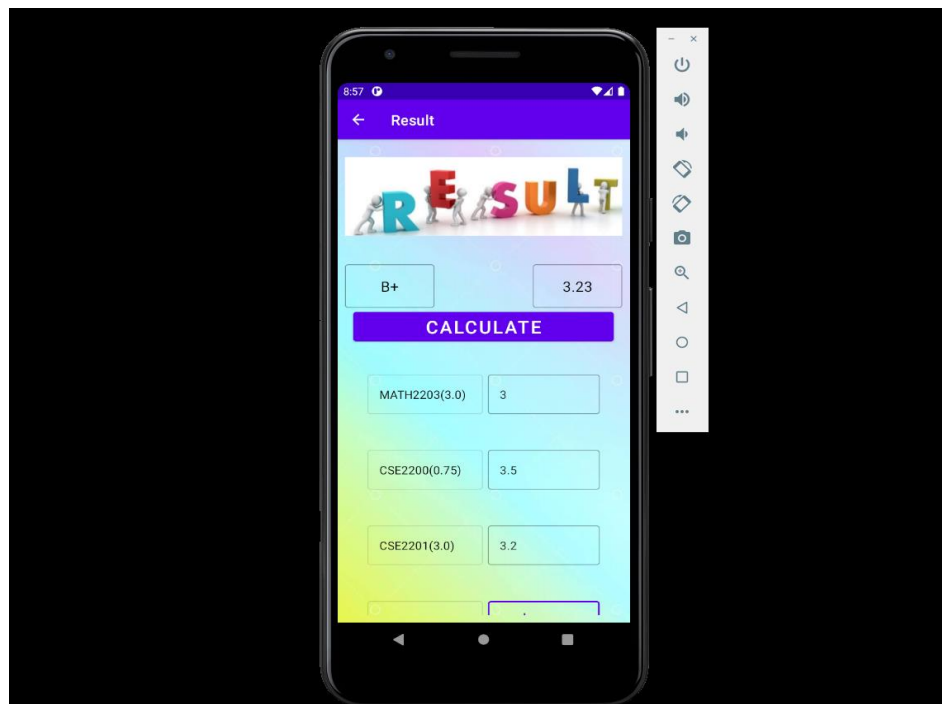
- In this page user can select semester of which he wants to calculate GPA. User can select from 1.1 to his current semester.
- By selecting semester, user will be directed to GPA calculation page, where Subject code and respective credit will be displayed according to the selected semester.
- Subject and respective credit are stored in database according to the semester.
- Pressing calculate after filling grade point of each subject of user in text fields will display user's grade and GPA.
- Calculated GPA will be stored in database.



As current semester is 2.2. Semester starting from 1.1 to 2.2 is showing only. So, when the user will select a semester then it will take them to result calculation page.

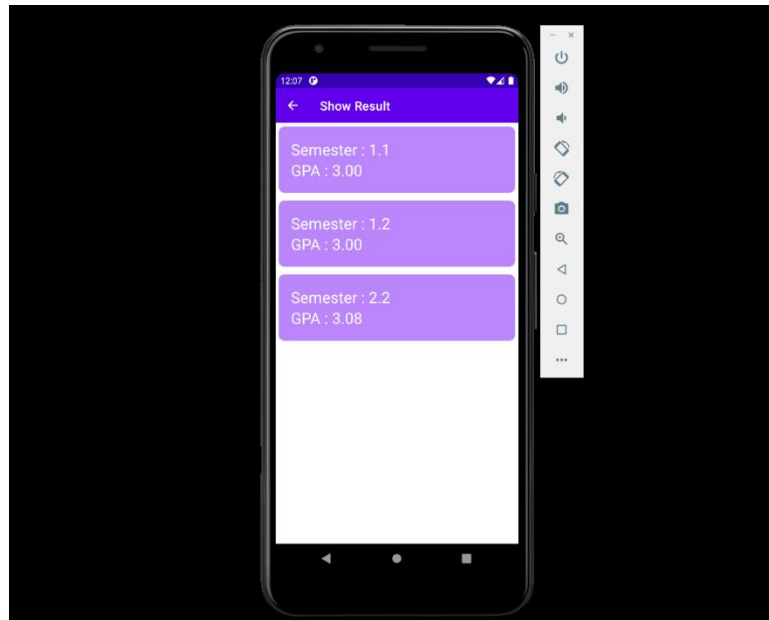


In this page, user can calculate result. After calculation of the result, it will be stored in database.



11. Show GPA:

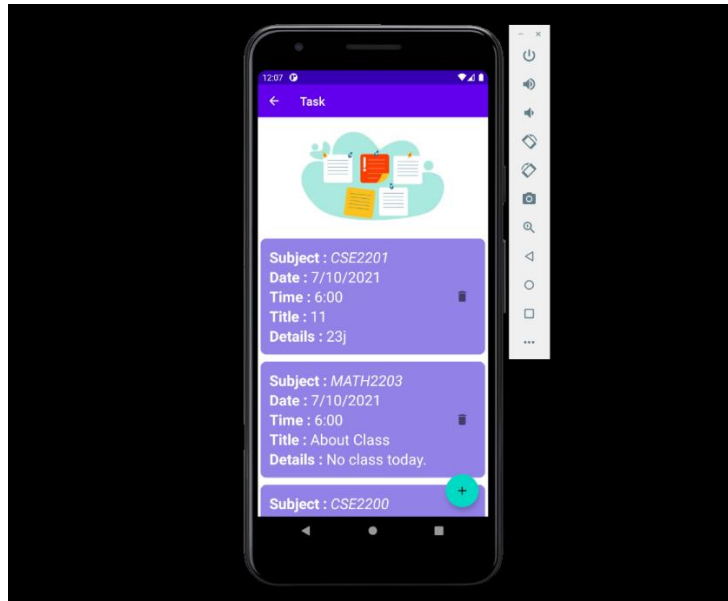
- In this page calculated GPA and grade will be displayed according to semester.



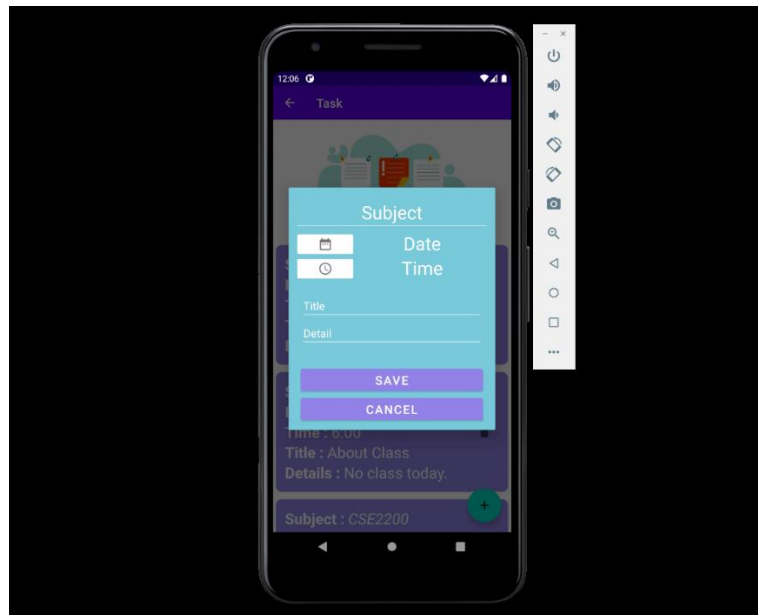
GPA is shown according to semester.

12. Tasks:

- In Task page, users will be able to see detailed information about the tasks they have created
- These information's were previously stored in database at the time user created them.
- Also, they will be able to delete a task after it is completed.
- If they want, they can create task from here also by clicking the floating button "Plus".
- They will choose date, time, subject, title, details and will be able to create task. Created task will be stored in database and also shown here.



Task page shown after clicking Task.



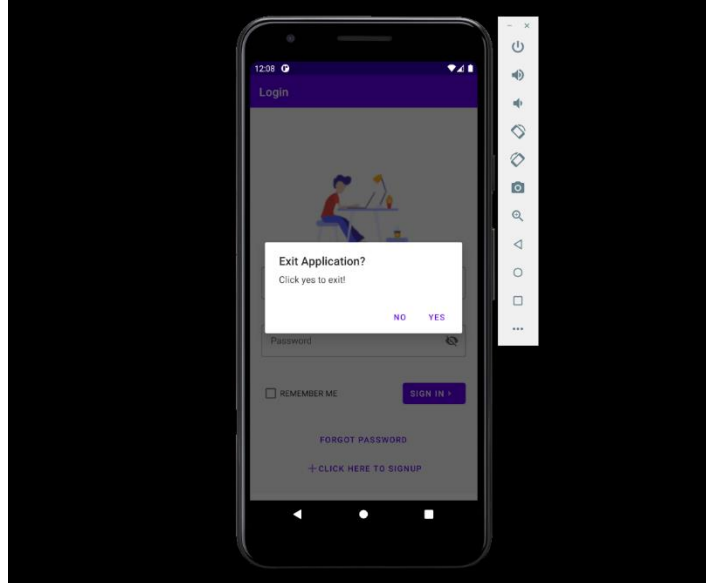
New task from Task Page.

13. Logout:

- When user will click Logout option it will help the user to log out from the app. And will take the user to the Login Page.

14. Logout from App:

- When the user will click the back button from Login Page, then an Alert Box will pop up and it will ask the user if they want to exit the app or not. If they click “Yes”, then it will make the user exit our application or if they click “No”, then they can stay in our app and do Login if they want.



Alert Box.

Software Requirements:

- Windows 7 or above operating system.
- Android Studio.
- Emulator.
- Language: Java
- Firebase (Database)

Hardware Requirements:

- Computer/Laptop, Android Smartphone etc.

Difficulties:

We have faced difficulties in database connection and authentication sometimes. But we have tried our best to overcome all the problems we have faced.

Future Plan:

- To make the app more responsive and user friendly.
- Improving the features and making it more accessible for the students.
- Making the schedule option more organized.
- Adding more functionalities to the task option.
- Making the calendar in the home page more usable.

Conclusion:

Student Life Management App is our first android project. We have tried to implement all the ideas we had thought for this project. It has helped us to gain many new information's about android application development, programming languages and its functionalities. We have tried our best to make this application helpful and user friendly for the students so that they can use this application to maintain a punctual and productive student life. We will try to add more functionalities in our application in the future by learning more about android development and java. This will benefit the users as well as help us to gain more experience.