

STUDENT MENTORING APP

DESCRIPTION

" Student Mentoring App" is a software tool which will provide a common platform for the students, parents, faculty members, Head of the Departments (HoD), Head of the Institution (HoI) and Deans to have a mode of communication and interaction, and provide a mechanism for transmission of information, facts, data, statistics about the students, which should be easily viewed and accessed by the students, faculty members, HoDs, HoI, Deans, as well as the respective parent.

In the institution, there will be the following departments and programmes:

(A) ENGINEERING DEPARTMENTS:

There are five Engineering B.Tech programmes. Each B.Tech programme is of Four (4) years, consisting of a total Eight (8) Semesters, with Two (2) Semesters each year. Following are the five Engineering Departments:-

1. *Civil Engineering*
2. *Computer Science and Engineering*
3. *Electrical Engineering*
4. *Electronics and Communications Engineering*
5. *Mechanical Engineering*

(B) DEPARTMENT: BUSINESS ADMINISTRATION

1. *Bachelor of Business Administration:- 3 years (6 Semesters)*
2. *Master of Business Administration:- 2 years (4 Semesters)*

(C) DEPARTMENT: COMPUTER APPLICATION

1. *Bachelor of Computer Application:- 3 years (6 semesters)*
2. *Master of Computer Application:- 2 years (4 semesters)*

Each programme of the department will also have various subjects in each semester.

FEATURES OF THE MENTORING APP:-

(I) ATTENDANCE DETAIL:

Each faculty member is assigned to teach certain subjects. After some classes have been taken, the faculty will enter the attendance detail in the system. The entry should be the number of classes taken by the teacher and the number of classes attended by the student.

Attendance is not a daily entry system, the faculty can enter and update the attendance detail whenever they want. They will simply update the numbers of classes taken and the numbers of classes attended by each student. This attendance information should be visible to students, parents, HoDs, etc. **Remember, parent should be able to view the detail of their child only!** Also, there should be a chat box where the teacher and the students of the class should also be able to interact, ask some doubts or queries.

(II) ASSIGNMENTS AND CLASS TESTS DETAILS:

Faculty members will give assignments and take class tests. Here the faculty will enter and update the numbers of assignments given and the numbers of assignments submitted by the student. Whenever a class test is taken, the faculty will enter the percentage of marks obtained by the students. If more than one class test is taken, then the percentage of each test should be included separately and also the total percentage obtained should also be displayed. The information about class tests and assignments should also be seen by all. **Parent should be able to view the detail of their child only!**

Note: The teacher of a class should be able to generate & download a summarized report of the class details, like attendance, assignments submissions, and class tests percentages. The teacher should also be able to upload a file, or a class note, which the students should be able to download.

(III) PEER-LEARNING

It will be a live group discussion kind of platform hosted by a faculty member or a mentor. Groups can be created by a faculty member or a mentor. One topic can be posted for discussion among the students related to any innovative idea or solutions for any kind engineering problem. Students can put their views and opinion in the group and other students can also give opinion against or in favor of any other student. Mentor can involve in the discussion for expert opinion and corrections.

(IV) MENTORING

Each faculty member is assigned some numbers of students as mentees. The mentees (students) belonging to a mentor (faculty) may or may not be of the same class or same semester that the faculty teaches. Infact, faculty of another department, say Electronics & Communications Engg. can even be a mentor of Computer Science & Engg. department. For example, say, a faculty 'A' is a mentor for 15 students (mentees) of 5th Sem CSE Dept., but faculty 'A' takes classes of 3rd Sem and 7th Sem. Another faculty, say, 'B' takes the classes for 5th Sem but mentors 12 students of 7th Sem. Now, both faculty 'A' as well as faculty 'B' will be taking the classes of their respective semesters and will be entering their respective class details, like attendance, assignments, and class tests information. Now, here each faculty member should be able to view the details of their respective classes as well we the class details of the mentees assigned to them. Remember, class

details, like attendance, assignment submission and test percentages, are entered by the respective faculty who takes the class, and not by the mentors. And mentors can view the class details of their mentees only!

Mentor Duties:

- Interact with the mentees through chat messaging. Here, mentees can ask or discuss their problems or issues with the mentor and the mentor will provide suggestions. Mentors can also ask their mentees about their performance in class or any other issues.
- View class details of each mentee, like attendance, assignment submission and test percentages.
- The mentor will enter the extra-curricular activities of the mentees.
- The mentor will enter the End-Semester Final Examination Grades / Percentage of each subject of each mentee.
- Generate a summarized report of all the class detail as well as the interaction held with each individual mentee.
- Send the summarized report to the parent of each individual mentee as well as the HoDs of the respective departments.
(Note: The reports should also be downloadable)
- Parent can also interact separately with the mentor of their child through a separate chat box. They can ask any query regarding their child.
- Send sms to the student, parents for any kind of intimation or message.

(Note: The reports should be in downloadable format)

(V) ROLE OF HODs, PRINCIPAL, DEAN

1) Head of the Departments (HoDs):

Each department has an HoD. For example, there will be five HoDs for the five Engineering Departments, one HoD for the Department of Business Administration and one HoD for the Department of Computer Application. (Total seven HoDs will be there in the institution)

Roles:

- a) Each HoD should be able to view the activities of each faculty member as well as the activities of each mentor. The HoDs can even view the interaction between the teacher and the students as well as the mentor and the mentees.
- b) The HoD should also be able to generate and download a summarized report of each faculty and mentor. The HoD will be able to send this report to the Dean (Academics).
- c) The HoD should also be able to post any message, circular, notice, etc., to the faculty members, which the faculty members can, in turn, send to the students. Say, the CSE

Dept has 12 Faculty members. So, when the HoD of the CSE Dept. has an important message, or a notice or circular, he / she can send it to the 12 faculty members and the 12 faculty members can, in turn, share it among the students of the class that they teach.

- d) The Parent should also be able to directly interact with the HoDs of the respective departments, and ask any queries that they have about the department through chat messaging.

2) Deans:

There are three Deans in the institution:

(a) Dean (Academic): Dean (Academic) will be able to view the summarized report generated by all the HoDs. He / She should also be able to interact with all the HoDs through chat messaging. Dean (Academic) should also be able to post any circular, notice, etc., to the seven HoDs, and the HoDs can, in turn, post it to the faculty members.

(b) Dean(Student Affairs): Dean(Student Affairs) can directly interact with all the students of the institution. He / She should be able to post any circular, notice, etc., directly to the students. All the students of the institution should also be able to interact directly with the Dean (Students Affairs).

(c) Dean(Administration): Dean(Administration) can directly interact with all the students of the institution. He / She should be able to post any circular, notice, etc., directly to the students. All the students of the institution should also be able to interact directly with the Dean (Administration).

3) Principal (or Head of the Institution):

The Principal mainly interacts with the HoDs and Deans and should be able to view all the activities of all the HoDs and Deans. The Principal should be able to interact with all the HoDs and Deans through chat messaging and should be able to post any important notice or circular to the HoDs and Deans.

(VI) ROLE OF ALUMNI

Passout students of the institute can also mentor the present batches.

Roles:

- Help alumni connect to each other for career advice and professional development
- Connect alumni to students for career and life counselling with photos and videos and presentations.
- Connect all generations of alumni and students for networking and topical discussions

(VII) ROLE OF SYSTEM ADMINISTRATOR

The system administrator will be able to add, update and delete all the necessary information about the students, subjects, semesters, departments, programmes, faculty members, HoDs, parent, etc. The system administrator will assign, update or delete the mapping of faculty members with the appropriate department, semester, students & subjects they will teach, mentees they will guide, parents, etc. They will also map the HoDs with the department, faculty members, parents. The HoDs, the three Deans and the Principal mapping will also be handled by the Admin.

The students who are in the current semester will be automatically upgraded to the next semester after the end of the current semester. The App should handle this seamlessly. The information from the previous semester should not be lost. Each semester, each faculty will be assigned new subjects/ students etc. to teach, but the mentees of a faculty will not change. Once the mentees are assigned to a faculty member, they will stay assigned to the respective faculty member, till the end of the complete programme (course). At the request of the HoD, the admin has the privilege to re-assign students (mentees) to new faculty members. On completion of the complete course, there should be provision / facility to save all the information of the outgoing students.

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IMPORTANT:

- The APP should be completely, easily, seamlessly, flawlessly deployable, and used by GIMT-Guwahati.
- There should not have any functional, performance, or any types of errors, bugs, or security flaws.(Testing Reports can be submitted if possible)
- We expect that the App will be user-friendly for the students and parents alike.
- UI design should attract and motivate the users to use the app.
- A user guidelines should be submitted for using the app. Developer team can handover a flowchart describing how the app functions.
- The App should be robust and highly scalable. It should be able to handle about 5000 students and their information, at a time.
- For best performance, reliable tools and software (like Firebase) should be used. The Participants/ Group members have to mandatorily disclose all the tools and software used for the development of the App.
- If there are any dependencies or any sort of technical issues, they should be mandatorily disclosed. Failure to do so will result in disqualification.
- It is mandatory for the Participants/ Group members, to submit the complete code, Apk and all other tools related to the "GIMT Student Mentoring App".