

Engineering Admission Assistance System Using GPS and GMAP.

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Abstract: Application Development in Android is growing era now-a-days. Application presented here is based on the Android platform. The engineering admission assistance system provides a platform for the students to help them for admission process. The system is implemented in four modules. Admin: of the system has full access and rights to manage the system. Admin module handles all the accounts of students, Mess and Hostel. Students: Unlike the admin module, the access to students is restricted to only some sub-modules and functions. Users can see the college list, hostel/mess information and area. Also the alert system is presents and if necessary then students can activate it. College Suggestions: Data mining Naïve Baye's algorithm is used for college suggestions. The system applies naïve baye's on parameters such as Marks and caste of students. Depending on the high to low probability list of colleges will be suggested. Location Tracking (GPS): According to the suggested result the location tracking of particular college, hostel and mess is done.

Keywords: Android, Naïve Baye's, GPS, Data Mining, Probability, G-MAP.

1. Introduction :

Android is currently the most widely used mobile operating system in the industry, across the world. It came into existence 2007 and ever since, there has been boom in Android based smart phones. Engineering Admission Assistance is an android app for those students who want to seek the admission in engineering field. The system help students to overcome their problem and provide suitable and appropriate guidance to them according to their eligibility in short time period.

2. Literature survey :

In previous systems most of admission assistance Systems was desktop based. Some Student takes guidance from seniors to take admission in engineering college, both process was time consuming. Some time it creates malfunctioning

about admission processes. The system which we are introducing is mobile base. It is android application for student to solve their admission related quires. Application will help student to select colleges as per marks and cast. At backend Naive Baye's prediction algorithm is apply on marks and cast, Depending on high to low probability list of colleges given to student. Student also search for hostels and mess by area and Track location of College, Mess and Hostels using GPS and G-MAP.

Block Diagram:

The following figure 3.1 shows the block diagram of system. It mainly contains following blocks:

- 1) **Admin:** Admin is authenticated person to add and manage database. All College, Hostel and mess related data is stored on database by admin. So only valid data will present in database.
- 2) **Student:** -Student is end user. Users will interact with system using android application. For searching colleges, hostels and mess according marks and area respectively. Student will get alert for every CAP round day's.
- 3) **Database Server:** - All data is store on MySql Database by admin and student. Admin directly connected to Database and store and manage all data. Student requests for data using application. All requests and response between Application and Database is handled by Glass fish Server.

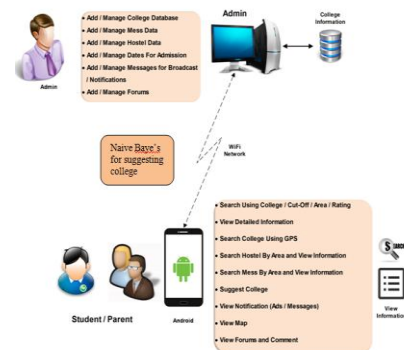


Figure: Block Diagram.

• **Mathematical Model:**

Let S be the Engineering Assistance System

$$S = \{ A, S, C, M, H, F, N \}$$

• **Input:** Identify the inputs as

$$A = \{ A | A \text{ is a set of finite Admin} \}$$

$$S = \{ s | s \text{ is a set of finite server} \}$$

$$C = \{ C1, C2, C3, \dots, Cn | C \text{ is set of infinite client} \}$$

$$M = \{ M1, M2, M3, \dots, Mn | M \text{ is infinite set of mess} \}$$

$$H = \{ H1, H2, H3, \dots, Hn | H \text{ is set of infinite Hostel} \}$$

$$F = \{ F1, F2, F3, \dots, Fn | F \text{ is set of infinite Forums} \}$$

$$N = \{ N1, N2, N3, \dots, Nn | N \text{ is set of infinite Notification} \}$$

• **Output:** Identify the outputs as O

$$O = \{ O1, O2, O3, O4 \}$$

$$O1 = \{ G1, G2, G3 | G \text{ Suggested colleges} \}$$

$$O2 = \{ D1, D2, D3, Dn | D \text{ List of Hostel} \}$$

$$O3 = \{ T1, T2, T3, T4 | T \text{ List of Mess} \}$$

$$O4 = \{ R1, R2, R3 | R \text{ Notifications/Forums} \}$$

• **Function:** Identify the functions as F

$$F = \{ F1, F2, F3, F4 \}$$

$$F1 = \text{Search}() \quad O = \{ O | \text{Search successful} \}$$

$$F2 = \text{Add/Manage}() \quad D = \{ D | D \text{ Add and Manage the data} \}$$

$$F3 = \text{Delete}() \quad U = \{ U | U \text{ delete data} \}$$

$$F4 = \text{Modify}() \quad T = \{ T | T \text{ update the data} \}$$

– Input:

Personal and Academic details of Student

– Output:

Suggested College, Hostel and Mess details

– Identify data structures:

In this project we are using MySQL so Data structure used is Table.

– Classes:

Mobile User Android Application Server Admin Application Admin

– Success Conditions:

Application install on all smart phones successfully.

System provides correct and accurate result to user.

Data base server handles multiple requests at same time.

– Failure Conditions:

If Application installation error.

Data base server unable to handle multiple requests.

3. Conclusion:

There are number of admission assistance systems present in market. Which are Desktop base and web base, these sites and applications help student in Admission process, College selection by counseling via Skype, phone, email, and some provide college details. Both the systems help student to take decision of academic (Like college selection), also user has to pay for it. Engineering assistance system is Android application with some advanced features like system will assist student for college selection by using prediction algorithm. It gives more accurate output (College List) Starting from high to low probability. Combine to this system will provide location tracking feature to find location of colleges which near to the user location. Some additional features are provided by system which makes system different from other Existing system like, Hostels and Mess's detail information and Location Tracking of Hostels and Mess. Alert system feature add to help student for admission process so the deadline will not be missed.

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