G. H. Raisoni College of Engineering

Nagpur

Smart India Hackathon 2018

Ministry/state

Government of Chandigarh

Sector : Education & Skills

Software

Student Mobile App

Problem Code: #GCH2   College Code:

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The problem statement: Student Mobile App

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Mobile application app at Directorate of Higher Education level, which will not only provide information/data regarding the particular college in which admission is taken but also all the State/Centrally sponsored schemes and events. Problem statement: Create a mobile application that will server various needs as follows a. Track attendance (by students, teachers and parents) b. Provide important information and updates to students e.g. circulars, results, exam dates, timings etc c. Library book return reminder etc When a student takes admission into any college, he/she gets a roll number/ id number. When student download this app and adds his/her roll number, he/she should get all updates for his/her college as they are circulated. This application can become a one stop shop for all the information need. A parents version of this application can enable parents to track academic performance and attendance of their children. (Cont.)

It will also enable parents to discuss child's academic performance with his/her teachers through app. Colleges can even share the results, marksheets, necessary certificates such as domicile certificates etc through this app which currently takes lot of bandwidth from college administration to complete these tasks physically. Questions: 1. Is there any central database that can provide information about which student belongs to which college? Is Aadhaar ID mandatory now for college admission? Can it be used to link student records? Answer : Central data based information is available in the office of the Director, Higher Education, Chandigarh Administration, Chandigarh as admission in higher education institutions for the session 2017-18 were made on-line through central portal. Every student is asked to provide his/her Aadhaar number during the admission process. It can be used to link student's records. 2. Can we get a hierarchy of state -> university -> affiliated colleges -> Enrolled students Aademic performance attendance etc from somewhere? Or this needs to be created? Answer : As on date no such hierarchy is in place it has to be created.

Problem abstract

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- Provide **information/data** regarding the **particular college.**
- State/Centrally **sponsored schemes and events**.
- **Track attendance** (by students, teachers and parents).
- Provide important **information and updates** e.g. circulars, results, exam dates, timings, etc.
- Library **book return reminder**.
- Login with roll number/id number.
- Allow parents to **track their ward's attendance, performance** as well as location.
- **Share documents** like domicile and bonafide.
- Connected to Central Governmental database.
- **Connected with AADHAR** to enable verification of documents.
- **Get data of any student anywhere** like:
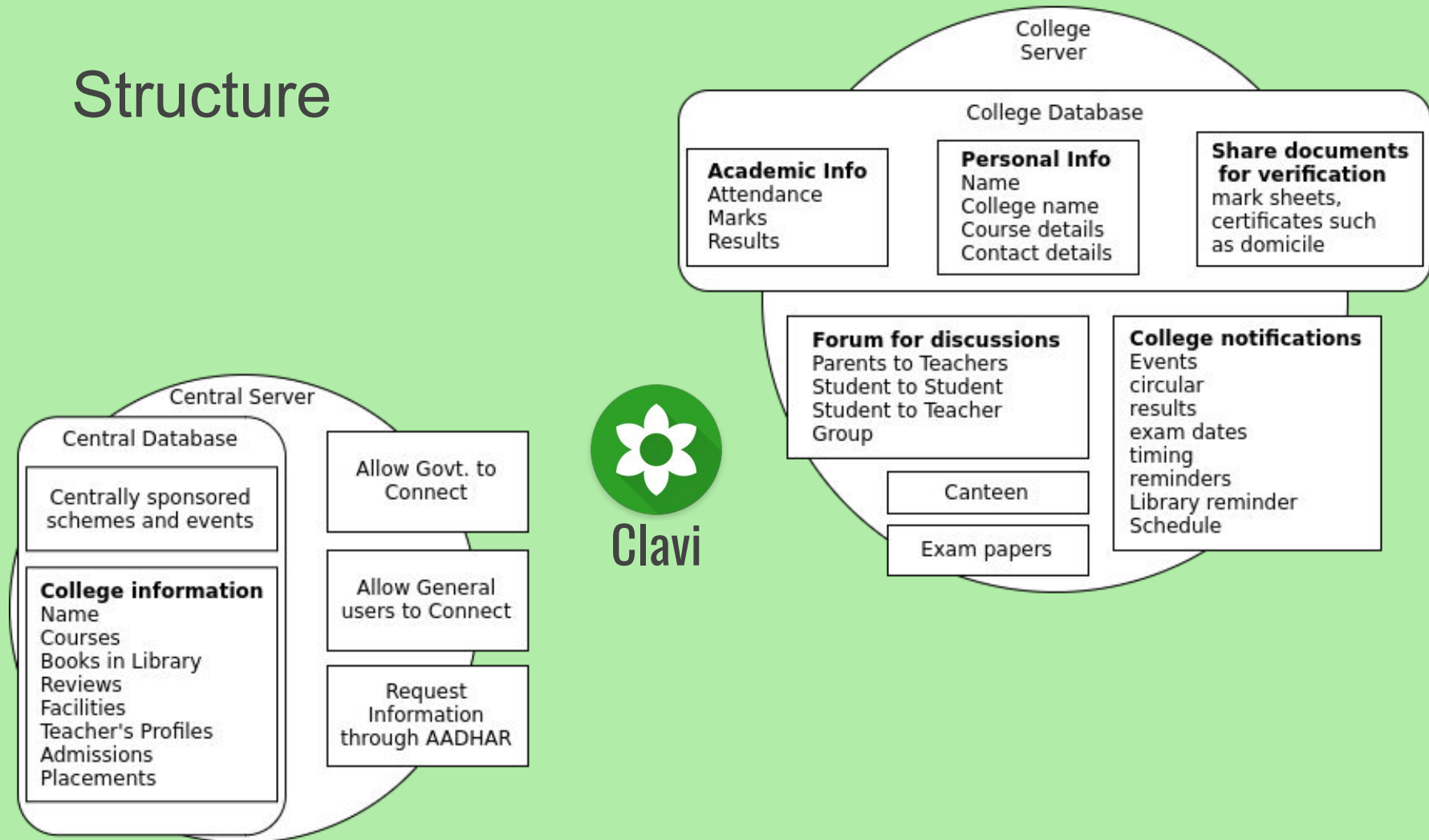 State -> University -> College -> Student

Clavi

This is an all-in-one college management app.

Features

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User	College information	Personal Info	Academic info	Forum	College notifications	Documents	Canteen	Govt. Sponsored Schemes	Request Info. from other college
Parents/ Students	View	View	View	Yes	View	View	Yes	View	No
Teachers	View	View and Edit	View and Edit	Yes	View and Edit	View	Yes	View	Yes
College Admins	View and Edit	View and Edit	View and Edit	Yes	View and Edit	View	Yes	View	Yes
University Admins	View and Edit	View	View on Request	No	No	View on Request	No	View	Yes
Govt. Admin	View and Edit	View	View on Request	No	No	View on Request	No	View and Edit	Yes

Structure

College Server

College Database

Academic Info
Attendance
Marks
Results

Personal Info
Name
College name
Course details
Contact details

Share documents for verification
mark sheets,
certificates such
as domicile

Forum for discussions
Parents to Teachers
Student to Student
Student to Teacher
Group

Canteen

Exam papers

College notifications
Events
circular
results
exam dates
timing
reminders
Library reminder
Schedule

Clavi

Central Server

Central Database

Centrally sponsored
schemes and events

College information
Name
Courses
Books in Library
Reviews
Facilities
Teacher's Profiles
Admissions
Placements

Allow Govt. to
Connect

Allow General
users to Connect

Request
Information
through AADHAR

Technical Specifications and Requirements

Application

- Cross platform hybrid application
- Based on web technologies
  - Login from any device
- Native wrapper provided by Phonegap
- Design framework provided by Materialize

Other Requirements

- Internet Connection

Devices

- Central server
- Institutional server
- Mobile devices as clients
- Desktop computers as clients
- Desktop computers for special tasks like canteen

Server

- Nodejs Runtime
- Linux based operating system (Recommended)
- SQL DB or MongoDB (MongoDB is preferred)