**JPD A.M.S.**

* CORE PURPOSES / REQUIREMENT:-

1) Taking the Attendance of students in [Mass]

2) easier to maintain System(hardware + software)

3) robust system with smooth working

4) low cost (needy cost should be bearable)

5) efficient to handle simultaneous user

6) high/medium flexibility Level

7) useful and interactive G.U.I. for both side [Admin + Student]

8) web application with IoT integration for fast process(not necessary)

9) Easier Database for less complexity such as ,

MYSQL with PHP server system

10) In case of network failure system should be capable of handling such cases

11) medium scale system design with low level complexity(data hiding for preventing unauthorised changes)

12)Faster response [large scale of users]

13) Based on Requirement [Custom reports-Manual report-Searching Through database] should be possible for admin profiles(faculty)

14)Secure and reliable system with least failure ratio

[] = very important Thing to remember

() = optional things that we can select

* Key features :-

1) custom report facility

2) month auto report

3) Searching functionality through database with minimal student details

Such as….. student SPID/sem+rollno, course , date wise , subject wise total attendance…. , other functionalities based on requirement….

4 ) Admin login+ home Page to modify database at upper level

5) Master Admin( Developer level ) to modify system database and

design…

6) Student login page + home page just read only

( if lecture wise module is selected then lecture wise attendance in

%)

* Key information : -

1)Date-Time Stamp of Attendance

2) SPID (or something unique that identify each student) ,

Extra details can be…. Name , email , number , cur-Sem , course , roll no….etc

3) Lecture wise / Day wise [based on requirement]

4) Faculty Name and Subject [If Lecture wise]

5) Student availability (absent/present)

6) Photo capture and its validation [if IoT integration is there]

7) for which subject and in which classroom attendance is taken

[If Lecture wise is selected]

* SYSTEM DESIGN OPTION: -

1) AMS SOFTWARE FOR LECTURE WISE MODULE

Pros :- 99.99% accurate and fastest attendance system with 0.01% failure rate that ever designed and secure system up to 98%

All requirement is covered with all functionalities needed ever

Cons : - not mass attendance fully but it can take in less with minimal options…

Modification : - we can modify this system design but if IoT integration Is there then it is very hard development of system and complex design… follows the software...

2) NFC SYSTEM :-

Arduino + NFC reading sensors with NFC card or mobile that support NFC communication/ NFC cards...

3) RFID readers system... with active/passive card :-

But in this case only day wise is good and possible if we do classwise then system maintenance and development hardware cost will be at it peaks and it is not Easy to use system bcz everytime we need to scan if we want lecture wise this is good for day wise Attendance system...

4) A complete JPD AMS web application :-

that allows lecture wise attendance only for students (we can develop for faculty’s also)

that includes –

Faculty login panel and dashboard

Admin control for database modification

Student read only login

Functionality that counts total days present absent at the end of semester with automatic report generation which decides that can eligible to give exam or not.