DIGITAL ATTENDANCE USING IBEACON AND FINGERPRINT

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Abstract-Attendance is a should for college students. Without the attendance technique, the lecturer or instructor can't determine the participation of a pupil. But with inside the technique now, attendance remains achieved manually in the usage of paper. Where later the paper can be signed via way of means of college students. But this can motivate issues. The first trouble is the usage of extra paper, and the second trouble is the issue for the management to recapitulate pupil attendance results. This is due to the fact such a lot of attendance papers should be analyzed via way of means of the management. Therefore, a pupil attendance gadget is wanted which can accumulate facts quickly, efficiently, and accurately. This pupil attendance gadget is achieved via way of means of accomplishing facts collection, gadget analysis, gadget design, and gadget implementation. This gadget is created in the usage of the PHP and Java Android programming languages. The System is likewise the usage of Beacon as a lecture room identifier. The motive of this examination is to make attendance gadget programs of college students and sophistication agenda notifications primarily based totally on IBEACON, it is miles predicted that the attendance technique can be extra green and maybe effortlessly monitored via way of means of teachers and via way of means the significant management.

Keywords—Cloud Database, JDK 1.7, Android studio, Android device.

1. INTRODUCTION

iBeacon is a call for Apple era standards, which permits Mobile Apps (going for walks on each iOS and Android device) to pay attention to indicators from beacons inside the bodily world. iBeacon era permits Mobile Apps to apprehend their role at the micro-nearby scale, and supply hyper-contextual content material to customers primarily based totally on location. The underlying conversation era is Bluetooth Low Energy, typically known as Bluetooth beacon. Attendance is a pastime of facts retrieval to discover the quantity of attendance in a route. Every pastime that calls for facts approximately college students will attend attendance. This additionally takes place inside the mastering technique. The usefulness of this attendance takes place to college students and events to the coaching and mastering technique. One of the makes use of this attendance gadget to college students is, amongst different things, in

calculating the chance that scholars will take assessments and one of them makes use of this attendance facts to people who are coaching and mastering activities, amongst others, to assess college students' delight with a topic and create benchmarks for the destiny. Giving higher knowledge. Retrieval of attendance facts itself is achieved manually has many shortcomings, Another drawback of manually retrieving facts is the loss or harm of current facts. Another drawback is the dearth of performance and effectiveness in facts processing. In addition, with the addition of the iBeacon era that has location-primarily based features, we can base the attendance technique on schoolrooms and challenge schedules at the elegance, so the facts submitted aren't the simplest constrained to attendance however additionally facts approximately elegance schedules and teachers who train the route.

2. OBJECTIVE

The primary goal of this task is to broaden an android software, so one can assist to take attendance via an iBeacon device. The motive of this task is to make attendance gadget programs for college students and sophistication agenda notifications One the makes use of this attendance gadget to college students is, amongst different things, in calculating the chance that scholars will take assessments and one of them makes use of this attendance facts to people who are coaching and mastering activities, amongst others, to assess college students' delight with a topic and create benchmarks for the destiny giving higher knowledge.

3. LITERATURE SURVEY

Md. Milan Islam, Karol Hasan, Md Masum Bill ah, and Md. Manic U dine [1] proposed "Student attendance monitoring "in 2017. Student attendance monitoring is an essential problem to display college students' overall performance inside the lecture room in addition to their studies. It will become a key difficulty due to the fact the college authority keeps a rule that one pupil can simplest attend the examination if his/her attendance is better or identical to numerous percentages (60%,70%, or 80%, etc.) in any other case not. The conventional attendance gadget wishes college students to bodily signal the attendance sheet whenever for the attendance of every elegance. This is unnecessarily time-eating to observe

and mark a pupil's call on the attendance sheet. This additionally takes place that a few college students may also buy accident or willingly mark the pupil's call as a proxy. The difficult replica of the attendance sheet may also get lost. Using clever telephones like Android Technology, the route instructor can be capable of taking attendance effortlessly via way of means of our designed cell software and store the attendance with inside the telecast smartphone in addition to in server and may take a look at percent and can also print an as difficult Using the saved facts, this gadget can mark attendance, mark intruders' entries, attendance percent calculations, ship emails, and ship SMS to the father or mother to maintain them up to date approximately their kid's attendance on the Institute. The designed gadget has online got entry to from any region and any second, which may also pretty help the route instructor with preserving tune in their pupil's attendance.
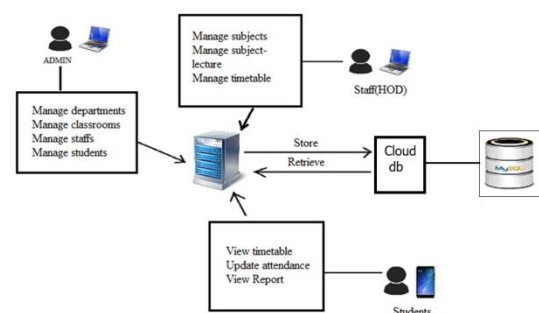
ASHISH MAHALLE, SO MIT MESH RAM, PRATHEESH WAKODIKAR, KHAKI KHANATE [2] proposed an "Online Attendance System" in 2018. Online Attendance System is an internet portal designed for taking and coping with pupil attendance in establishments in the usage of clever telephones in addition to desktops. Till now, the university makes use of paper records. The task use database to maintain the tune of attendance and is used to generate a record for the person pupil. The entire gadget is dealt with via way of means of the admin approximately the faculty's profile and pupil facts. The elegance in fees can upload new college students. The head of a branch can upload new staff, view staff, and college students, and look at the pupil attendance record. The fundamental motive of growing this net portal is to conquer the conventional manner of taking and coping with attendance. Another intention is to automate the assignment of record technology at the quit of the session.

Srinivasan Kendra, Samadhi Marked, Mrs. S.S. Jordan [3] proposed "Android Based Attendance Management System" in 2018. Over the years, guide attendance control has been achieved throughout maximum academic establishments. To conquer the issues of guide attendance, we've evolved an "Android Based Attendance Management System". Android Based Attendance Management System is primarily based totally on Android, which may be carried out on any Android Phone. In This software, PHP is a server-aspect language, MySQL and PHP are used as a back-quit design, and HTML, CSS, and JavaScript are used as front-quit tools. The gadget communicates with the database dwelling on a faraway server. It calculates, automatically, the attendance percentage of college students with none guide paper-primarily based work. Managing the attendance the usage of the conventional technique is a bulky technique. The character needs to be retaining the attendance file in registers and document the usage of

pen and paper. The difficulty with this technique is that it calls for masses of paper that are a part of our non-renewable herbal resources. We are inside the age, in which we need to consider sustainable development. Managing the attendance of the usage of cell telephones offers an opportunity in the manner on this direction. Communication amongst instructors and the figure is likewise a vital problem that needs to additionally be taken into consideration due to the fact the figure can the simplest get the facts approximately their ward after the interplay with instructors. So, we additionally attempted to carry the gadget which allows the figure to acquire the facts in their ward of regularity on day by day basis.

4. PROPOSED METHODOLOGY

We goal to expand a completely user-pleasant and easy-to-use android utility, the velocity of the utility may be very speedy too. The admin might be the usage of the net utility and the scholars might be the usage of the android a part of this gadget. Admin will upload topics for the respective semesters, upload academics for respective semesters and respective topics. Admin can even upload college students to the respective semesters and topics and timetables for the respective semesters.

For instance, on a selected day, how many classes are there, how many subjects and how many lecturers are allocated, etc. might be without difficulty found. Only the allocated admin can upload the timetable. Students can log in through their cellular phones. After logging in, the utility will ask the scholar to spark off Bluetooth. After Bluetooth is activated, the utility will test the life of iBeacon. Each present iBeacon represents records approximately the call of the room, the room code, and what publications are registered inside the room. If an iBeacon is detected, a notification will seem on the user's clever phone, the notification includes records approximately the call of the room in which the iBeacon is placed. Attendance information is up-to-date most effective if the scholar is a bodily gift inside the schoolroom in which iBeacon is placed and the attendance will take through a fingerprint scanner of clever phones.

4.1: Admin login Page

4.2: HOD Login Page

4.3: Lecture Login Page

4.4: Student Login Page

4.5: Time Table Page

4.6: Authentication

5. CONCLUSION

The proposed gadget is evolved in the usage of java programming language primarily based totally on android technology. This utility is an automatic gadget for taking attendance of the scholars via way of means of the workforce, so one can lessen guide paintings and time.

6. FUTURE ENHANCEMENT

The undertaking has a completely great scope inside the future. The undertaking may be carried out on the intranet in the future. The undertaking may be up-to-date rapidly as and while the requirement for the equal arises, as it's miles very bendy in phrases of expansion. With the proposed software program of database Space Manager prepared and functional, the consumer is now capable to manipulate and therefore run the whole painting in a mile better, accurate, and error-unfastened manner. In the future, this utility may be greater in the following ways: The attendance of the scholars may be taken via way of means of enforcing face reputation, i.e. via way of means of shooting face pics of college students. The utility may be made used to flow into the records or words to the scholars and workforce inside the colleges.

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