Digital Leave Application for Hostel

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Abstract: *The major goal of the proposed Leave Management system is to reduce paper work as much as possible and make record keeping easier by establishing a distinct system for leaves. This system is primarily concerned with keeping track of the number of leaves taken by students staying in an organization's hostels. This approach also aids in reducing the paperwork required to apply for leave and the time it takes for leave to be approved for students. The Hostel Leave Management Project is a web-based system that all students at a certain university can use. This is an automated system for managing student leave and approving leaves. For logging into the system and sending leave requests, each student is given a unique user id and password, whereas.*

Keywords: Irrigation System, IoT, Soil Moisture, Temperature, Humidity, Decision Tree Algorithm, Mail alert.

I. INTRODUCTION

Digital leave application format for hostel students and their parents/guardians, college students are available here. Students of the college write an application for leave letter to their HOD or class coordinator to get leave for a short period of time. In the same way, the students or professionals write the leave application to their HOD or class coordinator to get leave for a few days. At some point in time, we need to take leave from college or hostel. Leave management applications now function as a centralised client-server system. Approval takes a long time and a lot of human effort. Users must link their confidence to that server due to centralization. There's a danger that server data will be harmed or misused for personal gain. As a result, we require new technology, such as a smart contract decentralized application, to address all of the aforementioned issues. For the Leave Management System, we created a smart contract (LMS). Furthermore, because the Blockchain demands a lot of I/O operations and a lot of processing power, it's impractical to run a Blockchain node on mobile devices (IoT devices) that typically have less memory and computer capacity. However, one should be able to apply for leave using his phone; in addition, not everyone wants to operate a full Blockchain node on their laptops merely to apply for a leave. To address this issue, we propose a decentralised app architecture combined with a centralised smart contract architecture. applications (with with a working demo) that allow users to transact on a smart contract deployed in Blockchain regardless of whether or not they have a Blockchain node installed on their devices.

II. EXISTING SYSTEM

Students face numerous issues and procedures in the present Leave Management system while requesting leave during emergency situations or during weekend vacations. In the present Leave Management system, students, particularly hostelers, must keep a leave card for record-keeping purposes and must pay fees to obtain new cards if they are missed. All activities in this system are performed manually, putting students at a disadvantage. Because everything is done by hand, there is a considerable risk of error and data loss in the current system. Because humans undertake the majority of the job, the workload is higher. Students' safety does not meet the standards of today's modern environment. System is more time consuming both for checking and updating. In the current Leave Management System once a data entered incorrectly by human can end in overall confusion in the data. Maintaining data in the present Leave Management system necessitates physical space. In the present Leave Management System, the same data is written down and replicated multiple times at various levels of the system. The present Leave Management System's data response time is excessive. . In the existing Leave Management System, wardens are not accessible to respond 24 hours a day, seven days a week

since they may have other responsibilities, such as lunch, or they may only work part-time. It may take time for a new warden to adjust to the current Leave Management System, and training may be required in some circumstances. During a natural disaster, the existing Leave Management System may fail, causing data to be lost.

III. PROPOSED METHOD

The current Leave Management system tries to solve and minimise all of the present system's shortcomings while also digitising it. Because we have digitalized the Leave Management system and everything is a one-touch process, students will not face hassles or formalities in approving their leave during emergency situations or during their weekend holidays. Every paper work done in the present Leave Management system is done as an Intranet-based service. In the current Leave Management system, students, particularly hostelers, will not keep a leave card as a record of their absences, and they will not be required to pay fines to obtain new cards if they are missed. In the proposed system, all activities are carried out automatically, so there will be no need to pay fines. any physical space. In the current Leave Management System the same data is not written down and copied more than once in We've implemented the same system throughout the process, therefore several layers of the existing system exist. With a good data service, the present Leave Management System's data response time is too short. The current Leave Management System makes wardens available 24 hours a day, seven days a week because they can answer with a single click. A new warden does not need to adapt to the present Leave Management System at any point, and no training is required; only basic computer experience is required. During a natural disaster, the present Leave Management System will not fail, and any data that is lost can be recovered. Paperwork is used in the existing Leave Management System.
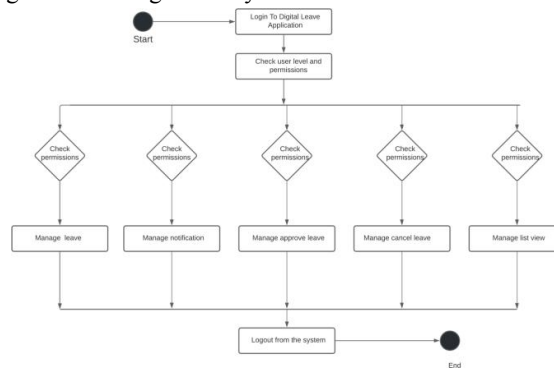

Figure 1: Data Flow Diagram

The above figure shows the flow of data in lesson plan module. Here the planning and execution is done. The planning part is done The architectural design gives the description of how the overall architecture is designed.
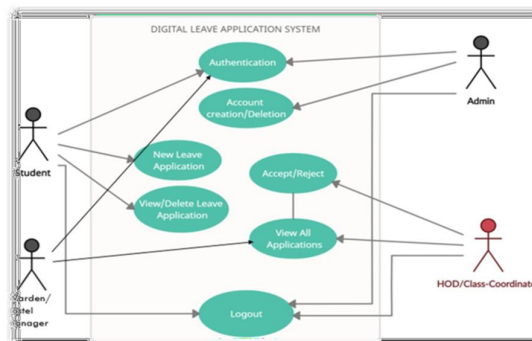

Figure 2: Use Case Diagram

There is no unique design for any software system. Studies of different options maybe necessary. The choice depends on the type of the system. The architectural design is specified by identifying the components, defining the control and data flow and stating for each of them the functions to be performed, data input, data output and resource utilization of

execution and topics covered. The execution part can be opened at any time and set the values based on the topics covered on each day.
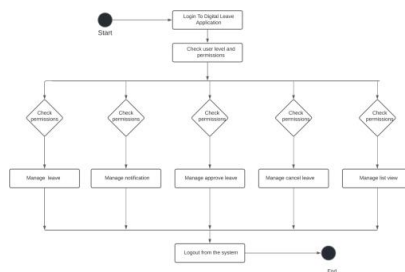

Figure 3: Digital Leave Application

The above figure shows the flow of data in lesson plan module. Here the planning and execution is done. The planning part is done once at the beginning of each semester. Here, each faculty has to chose the subject and set the total number of contact hours along with the total hours of each module of the subject. This will take the faculty to a page that will display input fields to enter details regarding the topics to be covered, date of planning, CO, BT Level as per the split in hours for each module Datasets containing values of temperature, humidity and soil moisture are loaded into the decision tree algorithm. These datasets contain values of different scenarios in the fields in order to train the model accurately. The temperature is in Celsius, humidity and soil moisture are represented in percentages. Sample datasets are as show in fig 2
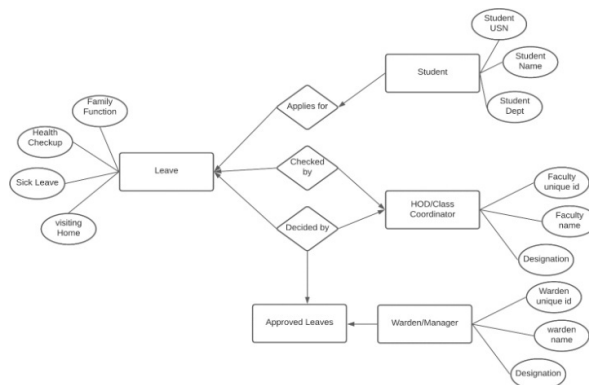

Figure 4: ER-Diagram

IV. RESULTS

The sample output as shown in figure 4 contains the values of temperature in both Centigrade and Fahrenheit, humidity, water presence, and prints as well as sends an e- mail alert to farmer.
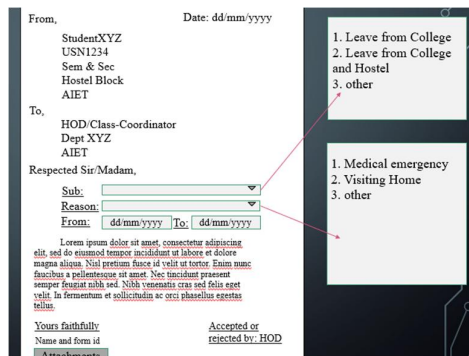

Figure 5: Sample Output

V. CONCLUSION

The Leave Management System is particularly useful for colleges to keep track of their students' and employees' leave records. This system not only keeps track of staff leave, but it also keeps track of leave applications from both staff and students. The higher authorities have the authority to accept or reject the leave requests made by the employees. As a result, this approach keeps the extra work done by college to keep the leaves in good shape. Emergencies are frequently the catalyst for the creation of a communication network to reach vulnerable communities. The suggested solution will eliminate all security weaknesses and human errors to the greatest extent possible. It also aids in the management of leave records and the tracking of student absences. And it primarily attempts to reduce tension among students and the warden community.

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