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ADVANCED WEB DEVELOPMENT
PROJECT UNIT 1

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IDEA: Management System for a daycare center

PROBLEM

We need a system that manages and analyzes the daily operations of a daycare center in order to automate processes, improve communication between teachers, parents, and management, and provide transparent access to information regarding children's activities, attendance, and payments.

Currently, many daycare centers face challenges due to manual record-keeping and lack of coordination among staff, such as inconsistent attendance control, inefficient communication with parents, delayed payment tracking, and difficulty in scheduling weekly activities. This situation often causes confusion, errors, and a lack of control over essential operations like attendance reports, activity scheduling, and student data management.

The proposed system aims to digitize and centralize these processes through a web-based platform where different user roles (Director, Teacher, and Parent) can interact in real time. The system will allow parents to monitor their children's attendance, activities, and performance, while teachers and directors can manage operational tasks and communication efficiently.

This project is based on the goal of automating daycare management to ensure better organization, enhanced communication, and responsible engagement from both children and staff.

OVERVIEW

In the context of early childhood education, organization and communication are essential for ensuring effective care and learning. The proposed system will serve as an integrated tool designed to simplify daily administrative tasks while fostering active participation

among all stakeholders. The platform will allow teachers to record attendance digitally and include the exact time of each child's arrival, encouraging children to develop punctuality and time awareness from an early age. When a child arrives late, the system will automatically generate a report that can be sent to the parents.

Additionally, the system will include a scheduling section for planning and editing weekly activities, from Monday to Friday, so that parents can view what their children will be doing throughout the week. Directors will be able to supervise all activities and manage both staff and student payments from their dashboard. Each child's user account will be linked to a representative, allowing parents to log in and view daily updates on attendance, activities, and teacher observations. By providing this structured flow of information, the system will enhance transparency, facilitate communication, and allow for efficient management of the nursery's operations.

BACKGROUND

Daycare centers play a vital role in shaping early childhood habits such as discipline, punctuality, and responsibility. However, traditional management methods based on manual data entry are prone to errors, data loss, and inefficiency. The introduction of an automated system will improve accuracy, data storage, and communication among users. Each user role within the system will have specific permissions that ensure secure and appropriate access to information.

The director will have full authority to oversee payments, staff management, and parent communication, while teachers will focus on attendance, activities, and student progress. Parents, on the other hand, will be able to view essential information such as entry and exit times, activities carried out during the day, and personalized comments about their child's development. This structured access model ensures accountability and allows for a better relationship between families and the educational institution. By automating record-keeping and communication, the daycare can focus more on educational quality and less on administrative complexity.

DAYCARE CENTER SYSTEM

To develop the nursery's internal management system, various existing solutions and technological approaches used in similar systems were analyzed. The purpose of this comparison was to identify the strengths, weaknesses, and opportunities for improvement in current systems in order to design a more efficient proposal tailored to the real needs of a nursery. Administrative systems generally integrate finance, personnel, and attendance control modules, but they are not specifically designed for early childhood education. They

often lack detailed monitoring of daily activities, child development, and communication with parents. Traditional manual methods, while having a low initial cost and requiring no technological expertise, present a high probability of errors, information loss, and delays in data access.

The proposed system combines the ease of use of traditional methods with the analytical capabilities and automation of modern digital platforms. It will enable the registration of students, teachers, and representatives, along with the management of attendance, activities, and payments, in a secure and centralized environment. In addition to the basic create, read, update, and delete operations, the system will incorporate advanced functions such as automatic attendance time logging, alerts for late arrivals, video demonstrations of daycare activities for parents, payment management, report generation, and internal communication among users. These additional features go beyond the standard CRUD structure, offering intelligent monitoring, communication, and reporting tools.

By implementing this digital platform, the nursery will improve its communication processes, reduce administrative errors, and strengthen the connection between educators and families. The system's automation will lead to greater efficiency, faster data processing, and more informed decision-making. Ultimately, it will create a transparent and organized environment where both staff and parents can work together to support children's growth and learning.