TFB1033: OBJECT ORIENTED PROGRAMMING

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PROJECT   PROPOSAL:
WORK SHIFT SCHEDULER

PREPARED BY:

CodeForBiz

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1.0   INTRODUCTION

Our staff scheduling and shift management application is designed to simplify shift planning for small businesses. With an easy-to-use interface, managers can effortlessly organize employee shift timings, assign tasks, and manage schedules with just a few clicks, while employees can view their shifts, request time off, or swap shifts in real-time, improving communication and flexibility. This application is especially useful for small businesses as it reduces the time spent on manual scheduling, prevents shift conflicts, and ensures proper staffing levels, helping managers focus more on growing their business instead of administrative tasks. Best of all, the application is completely free with no subscription fees, offering small businesses a valuable tool for managing their workforce without any financial burden.

2.0   PROJECT DESCRIPTION
2.1   BACKGROUND OF STUDY

In today's fast-paced business environment, effective workforce management is essential for the success of small businesses. Traditionally, many small businesses rely on manual processes like spreadsheets or paper-based methods to manage employee schedules, leading to inefficiencies such as double-booking, understaffing, and poor task allocation. While larger enterprises benefit from sophisticated scheduling systems, small businesses often lack access to these expensive and complex solutions, leaving them with inadequate tools to manage their workforce. Research shows that automated scheduling systems can reduce scheduling time by up to 80%, minimize errors, and improve employee satisfaction through flexible shift management. The purpose of this application is to provide small businesses with an accessible, free, and user-friendly tool that simplifies employee scheduling, enhances communication, and optimizes task allocation, helping managers to focus on core business activities without the burden of costly subscriptions or complex systems.

2.2 PROBLEM STATEMENT

Small business managers often face significant challenges in managing employee schedules manually, leading to frequent issues such as overlapping shifts, inadequate staffing, and inefficient task allocation. These scheduling conflicts not only disrupt daily operations but also increase administrative workload, diverting focus from core business functions. Without an affordable, easy-to-use solution, small businesses struggle to maintain an organized and efficient workforce management system, hindering their overall productivity and growth.

2.3 OBJECTIVES

The goal of this staff scheduling, and shift management program is to improve and simplify workforce management for small organisations. The software seeks to increase operational efficiency, promote communication between managers and staff, and minimise administrative duties by providing an intuitive platform for scheduling, task assignments, and shift adjustments at no cost to the user. This enables small firms to focus on growth and core activities while maintaining appropriate personnel levels and employee satisfaction.

3.0 PROJECT DETAILS

This staff scheduling and shift management program has a few key features that it will have to simplify shift planning for small businesses;

1. It will have a simple and easy to understand UI design to ensure usability and easy access to cater all types of users.

2. We would use a block-based system where users can simply drag and drop the shift and staff designation with just a few clicks.

3. It will also automatically calculate the hours worked to salary.

4. Users can easily assign details such as staff names and task needed to be done in a block and can be done many times to easily change any schedules around in the system.
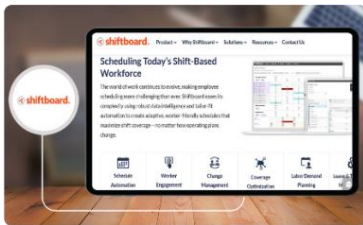
4.0 RESEARCH ON SIMILAR TOOLS

Several scheduling tools already exist, each with its own set of features. By analyzing these, we can determine the most essential features for Work Shift Scheduler by CodeForBiz:
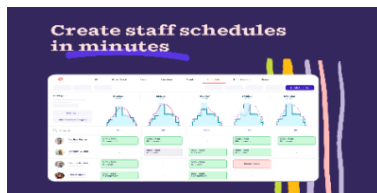
1. When I Work:

A scheduling tool that allows businesses to create and manage employee shifts. Its features include shift swapping, notifications, and calendar syncing. However, the pricing might be excessively high for small businesses.

2. Shiftboard:

Offers powerfully build scheduling options but focuses more on large enterprises. The complexity of the tool can be overwhelming for smaller businesses.

3. Deputy:

A well-rounded shift scheduling app that integrates payroll and HR features, offering a comprehensive solution for managing employee work hours.

Proposed   features:

Based on similar tools that are available in the market. We aim to make ours tool different from the rest by making it easy to use with a clear user interface. Other than that, we will make it suit small scale

Features for employers:

Shift Scheduling and Management:

- **Shift Creation:**
    - Allow employers to create shifts with specific start and end times, locations, and job titles.
    - Enable the creation of recurring shifts (e.g., daily, weekly, monthly).
    - Provide options to set minimum and maximum staffing requirements for each shift.

- **Shift Assignment:**
    - Automatically assign shifts based on employee availability, preferences, and skills.
    - Allow manual assignment of shifts by employers.
    - Provide a drag-and-drop interface for easy shift rearrangement and reassignment.

Task Assignment and Management:

- **Task Creation:**
    - Allow employers to create tasks associated with specific shifts.
    - Assign tasks to individual employees or teams.
    - Set deadlines and priorities for tasks.

- **Task Allocation:**
    - Automatically allocate tasks to employees based on their skills, availability, and workload.
    - Allow manual assignment of tasks by employers.

Schedule Management:

- **Time Off Requests:**
    - Enable employees to submit time off requests and allow employers to approve or deny them.
    - Track employee leave balances and ensure adequate staffing coverage.
- **Shift Swapping:**
    - Allow employees to request shift swaps and provide a system for employers to approve or deny them.
    - Ensure that shift swaps do not compromise staffing requirements.

Features for employees:

Real-Time Shift Viewing:

- **Personalized dashboard:**
    - Provide employees with a personalized dashboard that displays their upcoming shifts, past shifts, and any relevant shift information.
- **Calendar integration:**
    - Integrate the scheduling system with a calendar app (e.g., Google Calendar, Outlook) to allow employees to view their shifts directly within their preferred calendar.

Real-Time Time Off Requests:

- **Online request form:**
    - Provide an online form for employees to submit time off requests.
- **Instant notifications:**
    - Notify employers immediately when a time off request is submitted.
- **Real-time status updates:**
    - Keep employees informed about the status of their time off requests.

5.0 CONCLUSION

Thus, in today's fast-paced business environment, effective workforce management is essential for the success of small businesses. Through our proposal our project is very valuable for business owners to have for managing their staff and tasks necessary for ensuring a smooth running and efficient business.