

24 X 7 Services

Karnnan S¹, Saranya R B², Harikrishnan S R³

Student, MCA, CHMM College for Advanced Studies, Trivandrum, India¹

Assistant Professor, MCA, CHMM College for Advanced Studies, Trivandrum, India²

Associate Professor, MCA, CHMM College for Advanced Studies, Trivandrum, India³

Abstract: *24x7 Service is a web portal used for essential needs of an individual in a locality. It may be a panchayat or any local body. The main concept of this portal is to provide a platform for any individual to fulfill their daily needs. This includes all emergency contacts like ambulance, fire force, taxi, police etc. and other contacts. This project also includes household workers like plumber, carpenter, electrician, coconut plucker etc. The project entitled "24x7 Service" is a website use full for common people. The common people can easily get the Labors for different works and information from this system. This system is mainly focused on the labor service for different works. The website provides different types of Labors for different works in the daily life of common people for their household needs. The service provider can register in the site and add their labor details. The user can easily access the site and booking Labors for their work. User can also request to the site admin to provide labors for a specific works. The user can send mail to the admin to the report of their work. Now a day the system is would be beneficial to the common people, because the common people cannot get Labors for their household works. This Website is being builds for avoiding the lack of Labors service to the society. So, the system would be beneficial to the common people and Labors.*

Keywords: Web application, User Friendly, Easy to find workers, Data mining, labour system, job scheduling, Labour booking

I. INTRODUCTION

The "24 X 7 Services" web portal is designed to meet essential needs within local communities, such as panchayats or other local bodies. Its primary goal is to provide a convenient platform for individuals to address their daily requirements. The portal includes a range of household services, including plumbing, carpentry, electrical work, general labor, caregiving, and coconut plucking. The website is structured into three main modules: the Administrator Module, the User Module, and the Service Provider (Contractor) Module. This system focuses on delivering labor services for various tasks, enabling users to easily find and hire workers for their specific needs. Service providers can register and list their services, while users can book labor and request assistance from the site administrator for particular tasks. They can also communicate via email to report on the progress of their requests. In today's context, this system is highly valuable as it addresses the challenge of accessing reliable labor for household tasks, thus bridging the gap in labor services. By facilitating better access to and availability of labor, the "24 X 7 Services" portal benefits both individuals and service providers, improving efficiency and satisfaction in the community.

II. LITERATURE SURVEY

The "24 x 7-Services" web portal is an innovative platform designed to connect individuals within a locality, such as a panchayat or other local bodies, with essential service providers like plumbers, carpenters, electricians, and daily workers. This platform primarily aims to simplify the process of accessing necessary household services, thereby improving the quality of life for the general population by making these services more accessible and convenient. The portal allows service providers to register and list their services, enabling users to easily find and book the labor they need for various tasks. This direct connection between service providers and users represents a significant step towards the digitalization of local labor markets. In recent years, similar platforms have gained prominence due to their ability to streamline service delivery and enhance user convenience. Studies on digital labor platforms, such as UrbanClap (Urban Company) and TaskRabbit, highlight their effectiveness in matching service providers with demand, which has resulted in increased efficiency and customer satisfaction. However, these platforms also pose challenges, particularly

in terms of ensuring fair wages, job security, and ethical data use. The involvement of local government bodies, like panchayats, in facilitating platforms like "24 x 7-Services" is crucial for ensuring inclusivity and accessibility. Literature on e-governance suggests that digital platforms can significantly enhance public service delivery, especially in underserved areas, by bridging gaps between service availability. Overall, the "24 x 7-Services" portal reflects broader trends in the digital economy, where technology is increasingly leveraged to meet every day needs, though it must navigate challenges related to fairness, accessibility, and security.

III. PROPOSED METHOD

The proposed system is a user-friendly website. In order to make the site dynamic and more interactive we have to include a database link to website. The proposed system includes details of contractors and their work experience in the working field. The contractors are registered in the website and give their details including license number, labour details and their experience in the working field. The administrator checks the details of contractors. The valid contractors are approved by the administrator. The user can register in the website and easily get labours for their works. The registered user can see the rating of contractors. Searching features are available in the system. Mail sending is also available for Administrator, users and contractors in the system. Hence the system would be beneficial to the common people and also labours. The website is designed to significantly reduce manual work by offering a user-friendly platform where users can easily find and hire laborers for household tasks. It ensures that only valid contractors are registered, providing a trustworthy and reliable service. Users can gain insight into the contractors' experience and expertise in their respective fields, allowing them to make informed decisions. The system also offers a time scheduling feature, enabling users to plan and coordinate labor tasks efficiently. Additionally, the platform provides transparency regarding labor wages, helping users to understand the costs involved. High user interaction is facilitated through the platform's intuitive design, making it both efficient and feasible for everyday use. Moreover, the system includes a rating mechanism, allowing users to evaluate and rate contractors based on their performance, further enhancing the reliability of the service.

IV. TECHNOLOGY USED

C#.Net

C# programs run on the .NET framework, leveraging the Common Language Runtime (CLR), a virtual execution environment created by Microsoft. The CLR implements the Common Language Infrastructure (CLI), an international standard that enables different programming languages and libraries to work together seamlessly. When a C# program is executed, its assembly is loaded into the CLR. The CLR then performs Just-In-Time (JIT) compilation, which converts Intermediate Language (IL) code into native machine instructions specific to the host system. This method optimizes performance by compiling code on-the-fly during execution. The CLR provides several services to boost application reliability and performance, including automatic garbage collection for managing memory by reclaiming unused objects and structured exception handling for effective error management. Additionally, the CLR manages system resources efficiently.

Visual Studio 2019

Visual Studio is used for developing a wide range of software, including computer programs, websites, web applications, web services, and mobile applications. It utilizes Microsoft development platforms such as the Windows API, Windows Forms, Windows Presentation Foundation, Windows Store, and Microsoft Silverlight to generate both native and managed code. As a comprehensive and extensible integrated development environment (IDE), Visual Studio is available for free and supports modern application development for Android, iOS, Windows, web applications, and cloud services.

Visual Studio does not natively support any particular programming language, solution, or tool. Instead, it allows for the integration of additional functionalities through VSPackages. Once installed, these packages become accessible as services within the IDE. Visual Studio offers three core services: SVsSolution, which manages projects and solutions; SVsUIShell, which provides windowing and UI features like tabs, toolbars, and tool windows; and SVsShell, which handles the registration of VSPackages. The IDE coordinates and facilitates communication between these services.

All editors, designers, project types, and other tools within Visual Studio are implemented as VSPackages, and the IDE uses the Component Object Model (COM) to interact with these packages. The Visual Studio SDK includes the Managed Package Framework (MPF), which provides managed wrappers around COM interfaces, allowing package creation in any CLI-compliant language. However, MPF does not encompass all functionalities available through Visual Studio's COM interfaces.

Microsoft SQL Server 2008

Organizations today face significant data challenges, such as managing the vast proliferation of data and systems, ensuring consistent access for employees, customers, and partners, and providing meaningful data to support informed decision-making. Additionally, there is a constant pressure to control costs while maintaining application availability, security, and reliability. SQL Server 2008, Microsoft's next-generation data management and analysis solution, is designed to address these issues effectively. Building on the strengths of SQL Server 2000, SQL Server 2008 offers improved security, scalability, and availability for enterprise data and analytical applications. It simplifies the creation, deployment, and management of these applications, thereby enhancing IT productivity. The release provides developers with a modern and flexible development environment, enabling the creation of more secure database applications. It also facilitates data sharing across various platforms, applications, and devices, improving connectivity between internal and external systems. SQL Server 2008 includes integrated business intelligence solutions that support informed business decisions and boost organizational productivity. It focuses on cost control without compromising performance, availability, or scalability. Users and IT professionals will benefit from reduced application downtime, increased scalability and performance, and enhanced security controls, ensuring a robust and reliable data infrastructure for organizational needs.

V. DATABASE DESIGN

Database design is essential in software systems, emphasizing the creation of an efficient and adaptable structure for storing and accessing data. The primary objective is to facilitate easy and cost-effective data retrieval. This process involves outlining the structure of business objects within a client/server system and applying normalization techniques to reduce redundancy and preserve data integrity. Additionally, the design process includes determining physical access paths to optimize system performance.

Login

Field name	Data type	size	Constraints	Table description
uid	Varchar2	6	Not Null	Uid
username	Varchar2	15	Primary key	User name
password	Varchar2	15	Not Null	Password
status	int	4	Not Null	Administrator /User/Contractor Status

Contractor Registration

Field name	Data type	size	Constraints	Table Description
uid	Varchar2	6	Primary key	Uid
company name	Varchar2	20	Not Null	Company Name
contractor	Varchar2	15	Foreign key	Contractor UserName
address	Varchar2	50	Not Null	Address
pin	int	6	Not Null	Pin Code
district	Varchar2	15	Not Null	District
state	Varchar2	15	Not Null	State
ph	Varchar2	15	Not Null	Phone Number
mob	Varchar2	15	Not Null	Mobile Number
email	Varchar2	50	Not Null	E-mail Id

website	Varchar2	30	Not Null	Website
license	Varchar2	15	Not Null	License Number
experience	int	2	Not Null	Experience
services	Varchar2	30	Not Null	Services
work	Varchar2	50	Not Null	Work
que	Varchar2	30	Not Null	Questions
ans	Varchar2	15	Not Null	Answers
rate	int	2	Not null	Rate

Booking

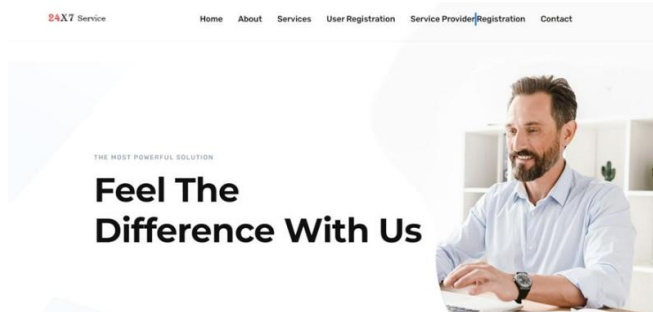
Field name	Data type	Size	Constraints	Table description
bid	Varchar2	8	Primary key	Book Id
cid	Varchar2	6	Foreign key	Cid
uid	Varchar2	6	Foreign key	User Id
workerno	int	3	Not Null	Worker Number
helperno	int	15	Not Null	Helper Number
schedule	Varchar2	10	Not Null	Work Schedule Time
datefrom	Varchar2	15	Not Null	Date From Work Begin
dateto	Varchar2	15	Not Null	Date To Work Ends
amount	int	4	Not Null	Amount Of Full Work
work	int	30	Not Null	Half Time Helper Fee
conf	int	3	Not Null	conf

VI. FUTURE SCOPE

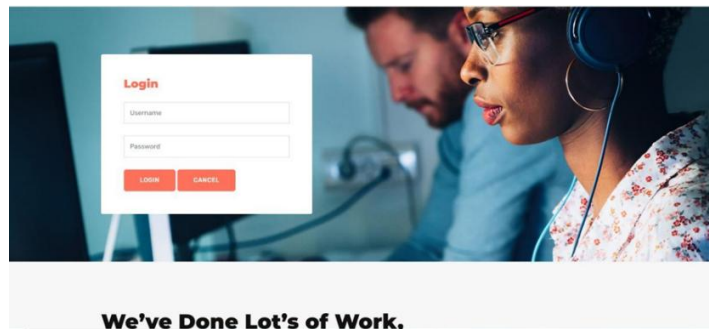
The application is designed to be easily implemented across various scenarios, with the capability to incorporate new features as needed. It supports reusability, allowing for future updates and enhancements, and provides flexibility throughout all modules. The website can be extended in ways that may not have been originally anticipated by its developers. Key principles that enhance its extensibility include hiding data structures, avoiding multiple link or method traversals, minimizing case statements based on object types, and clearly distinguishing between public and private operations. Reusability is a core feature of the application, enabling integration of new features and updates in future versions. This approach reduces design, coding, and testing costs by leveraging existing work, simplifying the code, and improving its understandability and accuracy. The application allows for the reuse of both newly written code within the same project and previously developed code in new projects. For code to be considered understandable, it must be comprehensible to individuals other than its original creator, even after some time has passed. Using small, coherent methods facilitates this clarity. The project aims to be cost-effective, remaining within budget and meeting deadlines. The objective is to develop a system that satisfies all requirements while minimizing costs. This document outlines the requirements, detailing the necessary information for users, its sources, and the expected outputs from the system. Additionally, laborers can add their details directly into the system. Booking users can view the details of the laborers they have booked. The system is intended for use only in specific areas. It also includes functionality for contractors to upload their images and offers location searching capabilities.

VII. RESULT

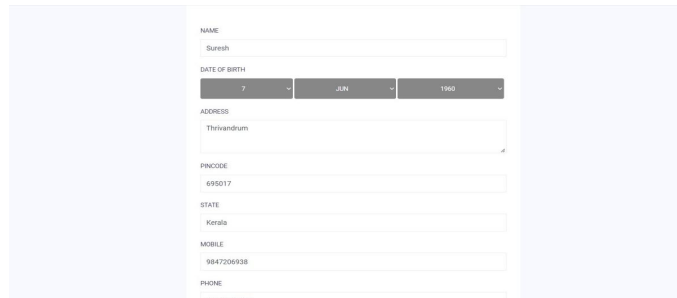
Home Page



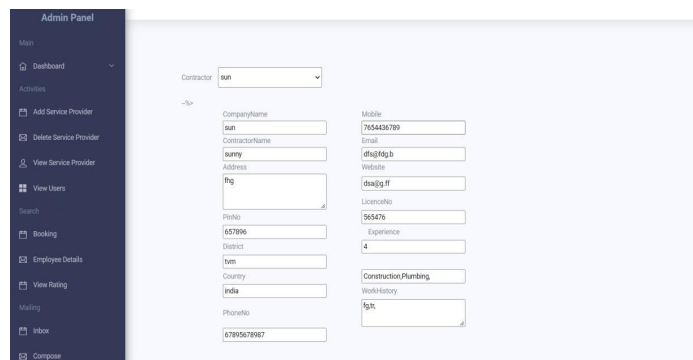
Login



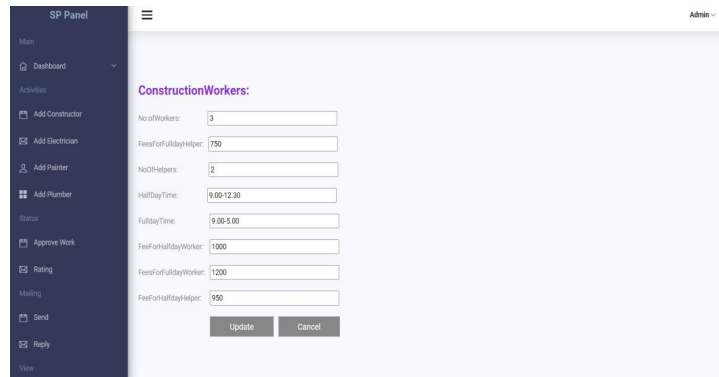
User Registration



View Service Provider



Service Provider Add Workers



VIII. CONCLUSION

The “24x7” system has been developed through a comprehensive development process, culminating in a successful, user-friendly solution. The design and coding of the interfaces were carefully crafted to minimize user input, thereby reducing the time and effort required for data entry. This approach ensures that the website remains accessible and efficient for users. The system has been developed with future enhancements in mind, allowing for modifications with minimal changes to the existing code. Thorough testing under various conditions has demonstrated the system's effectiveness and reliability. The project also specifies minimum system requirements to ensure optimal performance. After analyzing the system's strengths and limitations, it is evident that the product is a highly efficient, GUI-based component. The application functions well, meeting all user requirements, and can be easily integrated into other systems. The system has achieved its goal of providing an interface that allows users to store and retrieve data from the database server effectively. Despite most of the system's operations occurring in the background, efforts have been made to ensure that user interactions are as smooth and intuitive as possible. Performance optimization was a key focus, with bottleneck areas identified and alternative strategies evaluated to implement the most effective solutions. The user-friendly design has successfully passed rigorous validation checks using test data, yielding fully satisfactory results from the user perspective. The documentation of the website has been carefully crafted to be simple, precise, and self-explanatory, aiming for maximum clarity and ease of understanding. Overall, the “24x7” system stands as a well-developed, efficient tool that meets user needs while providing flexibility for future improvements.

REFERENCES

- [1]. Labour Management Using Android Application Reena Chaudhari¹, Ketan Gurav², Rajesh jaljal³, Akshay Kshirsagar⁴ | Prof. Reena Chaudhari, Dept of Computer Engineering, SSJCOE, Dombivli, India
- [2]. Shree. Raja .Gopal T. G, MuraliK, “Analysis of factors affecting labour productivity in construction”, International Journal of Recent Scientific Research Vol. 7, Issue, 6, pp. 11744-11747, June, 2016
- [3]. PrachiR.Ghate, Asok B. More ., Prof. PravinR.Minnde. , “Importance of measurement of labour productivity in construction” ., International Journal of Research in Engineering and Technology 5(7).july 2016
- [4]. Pratik Vaid, Prof., Dr. Sunil Pimplikar., “Labour Productivity of Precast Construction in Housing Projects”, International Journal of Current Trends in Engineering & Research (IJCTER), Volume 2, PP. 101 – 106, 2016
- [5]. Vivek Kumar Patel, Sohni Agrawal, Dr. Mukesh Pandey, “A review on critical factors affecting labour productivity in construction industry” International Journal of Innovative Research in Science, Engineering and Technology Vol. 6, Issue 8, August 2017
- [6]. Apiha R. Sonawane, Milind.M.Darade ., “Analysis of labor productivity in Indian building construction and methods to improve productivity”, International Journal for Research Trends and Innovation, Volume 3, Issue 7, 2018

- [7]. B.NirmalKumar,MR.U.Yoganandhan&DR.P.L.Meyyappan“Improve the factors affecting labour productivity in Indian construction industry” International Journal Of Engineering Sciences & Research technology, April, 2018
- [8]. Srilakshmi V. Annigeri, Prof. Amey A. Kelkar, Rajani V. Kulgude3,“A review of impact on labour management in construction industry”, International Research Journal of Engineering and Technology (IRJET), Volume: 05 Issue: 06 ,June-2018
- [9]. Maruthamuthu.P , KiranKumar.G , Karthi.S ,Velmurugan.P , Yuvaraj.D, “A study on the factors affecting onsite labour productivity in residential construction in Chennai”, International Journal of Pure and Applied Mathematics, Volume 119 No. 15, 13071314,2018