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WSMS - WATER SUPPLY MANAGEMENT SYSTEM (WEBSITE)

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ABSTRACT

It is an online Water Supply Management System (WSMS) website that enables users to order fresh water jars for their any event from an online platform. The project consists list of water jars according to their size i.e. in liters also different water bottles products displayed in website. Our web portal has 3 types of login accounts for Admin, Customers and Vendors. The admin account would manage whole portal by managing Customer and Vendors account. The customer account is for customers to purchase water jars for event. The vendor account is for vendors who will receive order of jars. Vendors will get the list of orders and vendors will have the privilege to approve the orders. If a vendor can fulfill the requirements, then vendor will approve the order otherwise other vendors will approve the pending orders. The user may browse through these items as per categories. Once user wishes to checkout he/she must register on the site first. He/she can then login using same id password next time. In this way, the online Water Jar Supply System brings a whole event related water need on the web and makes it simple for both purchaser and dealer to make water jar bargains.

Keywords: Website, Online Water Supply, Research, Analysis, and Development

1. INTRODUCTION

Welcome to the [WSMS] – a groundbreaking initiative dedicated to ensuring access to safe, reliable, and sustainable water for communities around the world. At the heart of our mission lies the belief that clean water is a fundamental human right, and we are committed to implementing innovative solutions to address water scarcity and promote responsible water management. The Water Supply Management System (WSMS) is a web based application that can be accessed over the web. This system can be used to automate the work flow of water supply and their invoices.

The project has been planned to be having the view of distributed architecture, with centralized storage of the database. The application for the storage of the data has been planned. Using the constructs of MySQL Server and all the user interfaces has been designed using the PHP technologies. The database connectivity is planned using the "MySQL Connection" methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff. Welcome to the [Your Water Supply Project Name] – a groundbreaking initiative dedicated to ensuring access to safe, reliable, and sustainable water for communities around the world. At the heart of our mission lies the belief that clean water is a fundamental human right, and we are committed to implementing innovative solutions to address water scarcity and promote responsible water management. Our project is steered by a vision of a future where every individual, regardless of their location or circumstances, enjoys access to an abundant and secure water supply. Through a combination of cutting-edge technologies, community engagement, and sustainable practices, we aim to bring this vision to life.

2. METHODOLOGY

Methodology for the Development of the Water Supply Management System (WSMS) Website:

- **Requirement Analysis:** Conduct thorough research to identify the specific needs and requirements of Water Supply Management System (WSMS). Engage with potential users, water supply companies and administrators to gather insights and preferences.
- **System Design:** Develop a comprehensive system architecture outlining the structure and functionality of the website. Design a user-centric interface, ensuring ease of use for user and providing robust tools for water supply companies and administrators.
- **Technology Stack:** Select and implement appropriate technologies for website development, ensuring compatibility with modern devices and browsers. Choose secure and scalable frameworks to support the anticipated user load.

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- **User-Friendly Features Implementation:** Integrate features such as real-time water suppl, seamless water supply and order process, and detailed information display for delivery and user. Implement tools for water supplier, including optimized water supply algorithms and usage pattern analysis.
- **Security Integration:** Implement encryption protocols to secure user data and financial transactions. Integrate secure authentication mechanisms to prevent unauthorized access. Regularly conduct security audits to identify and address potential vulnerabilities.
- **Communication System:** Develop a communication module to facilitate timely updates between water supply companies and users. Implement notification systems for informing users about availability, pricing changes, and other relevant information.
- **Testing:** Conduct thorough testing of the website, including functionality testing, user experience testing, and security testing. Gather feedback from potential users and stakeholders to make necessary refinements.
- **Deployment:** Deploy the website on secure and reliable hosting infrastructure. Ensure seamless integration with existing urban infrastructure and water supply facilities.
- **User Training and Support:** Provide user training materials and resources to ensure users and administrators can maximize the benefits of the website. Establish a support system to address user inquiries and technical issues promptly.
- **Continuous Improvement:** Establish a framework for continuous improvement, incorporating user feedback and evolving technology trends. Regularly update the website to address emerging cybersecurity threats and ensure optimal performance. By following this comprehensive methodology, the development of the Water Supply Management System Website can ensure a robust, user-friendly, and secure platform that addresses the challenges of water supply companies

3. MODELING AND ANALYSIS

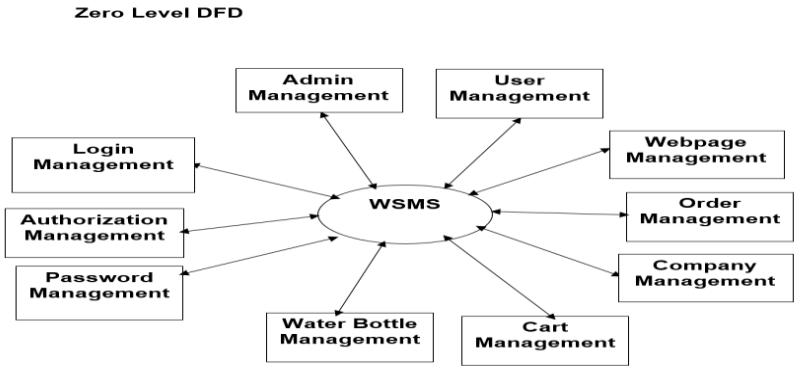

Figure 3: Level 0 Data Flow Diagram (DFD)

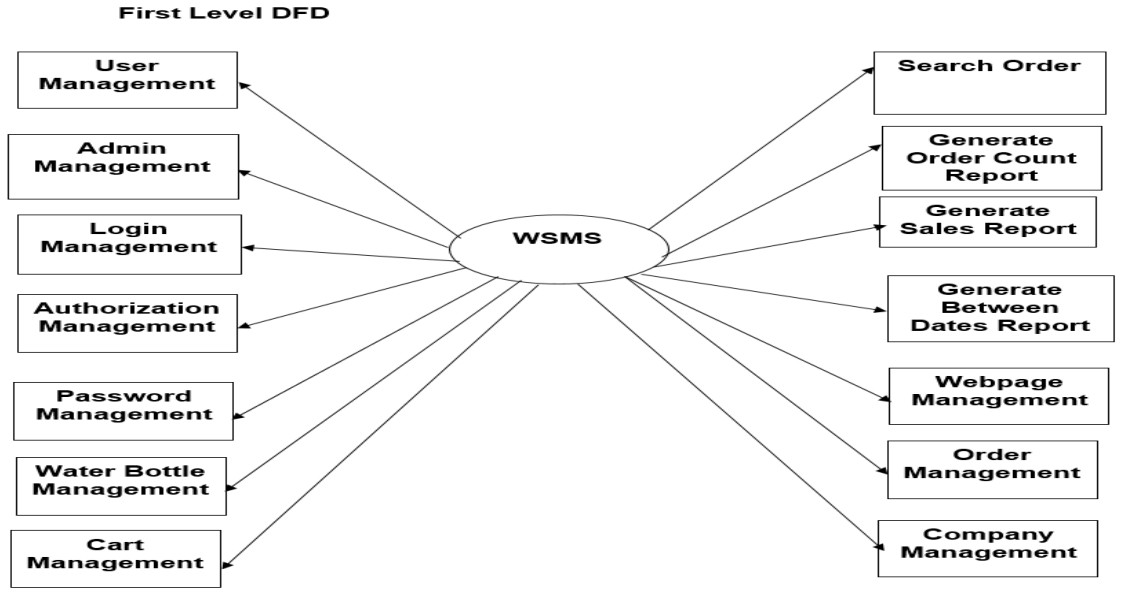

Figure 4: Level 1 Data Flow Diagram (DFD)

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DFD graphically representing the functions, or processes, which capture, manipulate, store, and distribute data between a system and its environment and between components of a system. The visual representation makes it a good communication tool between User and System designer. Structure of DFD allows starting from a broad overview and expand it to a hierarchy of detailed diagrams. DFD has often been used due to the following reasons:

- Logical information flow of the system
- Determination of physical system construction requirements
- Simplicity of notation

Establishment of manual and automated systems requirements

4. RESULTS AND DISCUSSION

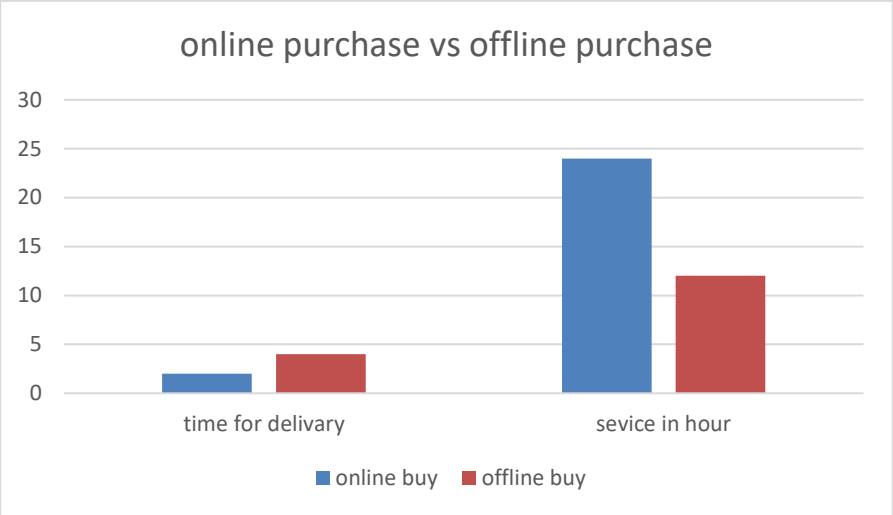

Fig 5:- online purchase vs offline purchase

- WSMS provide faster service then a offline service to order jar and bottles.
- WSMS can be accessed 24-7
- Easy to used and secure.

5. CONCLUSION

This system will reduce the human efforts in gardening and also make the gardening automated and tech friendly. It also make the appropriate use of water resource which will help us to fight with the water scarcity problem and it also improve the health and life of plants. It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in PHP and MySQL web based application. It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

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