Institute of Information Technology
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SPL_2 Proposal Form

Dhaka University Swimming Pool Management System

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Introduction:

In response to the growing need for efficient management of Dhaka University's swimming pools, we propose the development of a comprehensive Swimming Pool Management System. This system aims to streamline various administrative tasks, enhance user experience, and improve overall operational efficiency.

Scope:

The Swimming Pool Management System will be a web-based platform accessible to students, faculty, staff, administrators and other users of Dhaka University. Key features include:

❖ **Online Functionality:** The system will offer seamless online experiences, including admission processes, transaction capabilities, and user account management, to enhance accessibility and convenience.

❖ **Communication and Notification:** Administrators will have the ability to communicate with users via centralized notice systems, while users can provide feedback and reviews online, fostering engagement and transparency.

❖ **Database Management:** A robust database will securely store and manage user information, schedules, and financial data, facilitating efficient operation and decision-making.

❖ **Financial Insights:** Financial performance tracking features will provide administrators with insights into the swimming pool's profit and loss, enabling informed decision-making and resource allocation.

❖ **Operational Efficiency:** The system will streamline operations through comprehensive schedule management, staff coordination, and event planning capabilities, ensuring optimal utilization of resources and enhanced user experiences.

Motivation:

The motivation behind this project is to address the challenges faced by Dhaka University in managing its swimming pool facilities effectively. By implementing a centralized management system, we aim to improve accessibility, efficiency, and safety for all stakeholders involved.

Workplan:

- ❖ **Requirement Analysis:** Conduct stakeholder meetings and surveys to gather requirements and preferences.
- ❖ **Design:** Develop a system architecture and user interface design based on collected requirements.
- ❖ **Development:** Utilize modern web development technologies to build the system.
- ❖ **Deployment:** After completing testing and quality assurance, we'll aim to deploy the system on Dhaka University's servers. Despite being in a learning phase, our team is dedicated to ensuring a smooth integration and compatibility with the existing infrastructure.

Technologies to be Used:

- ❖ **Front-end:** HTML, CSS, JavaScript, ReactJS
- ❖ **Back-end:** NodeJS
- ❖ **Database:** MongoDB

Conclusion:

The Dhaka University Swimming Pool Management System represents a significant step towards modernizing and optimizing the management of swimming pool facilities at Dhaka University. By implementing this system, we aim to enhance user experience, improve operational efficiency, and contribute to a safer and more enjoyable swimming experience for all members of the university community.