



ESOFT Metro Campus
Bachelor of Information Technology (Honours) Degree
Project Design Implementation and Evaluation – CCU2306

Project Proposal Template

General Guidelines

Paper: The Project Proposal should be printed on good quality A4 size paper

Lettering: Times New Roman.

Printing: A laser quality printing, single sided.

Spacing: Single line spacing

Margins: Left, 1-1/4 inches; top, bottom, and right, 1 inch.

Submission: **Hard Copy and Softcopy**

Project details

Project Title: Library Management System

Group Number : 07

Student
details:

Student ID Number	Student Name

Date Submitted :

Date Approved :

1. Abstract

The abstract serves as the initial impression of the proposed project aimed at modernizing library management systems, pivotal for securing funding. This abstract encapsulates the essential elements: the significance of the work, major objectives, procedures for achieving those objectives, and the potential impact.

Traditional challenges faced by physical libraries, such as limited access to resources, restricted operating hours, and inconvenient locations, underscore the necessity for modernization. The proposal aims to comprehensively address these challenges through innovative strategies that prioritize user experience, security, and efficiency.

Key objectives of the project include enhancing user experience through streamlined access to resources, implementing robust security measures to protect digital assets, automating administrative tasks to improve operational efficiency, and fostering inclusivity and diversity in library services.

The proposed modernization efforts are significant for overcoming the limitations of physical libraries and maximizing the potential of online systems to offer greater accessibility, convenience, and functionality for users. By tackling these challenges, the project aims to empower individuals, enrich communities, and advance the mission of libraries in the digital age.

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2.1 Table of Figures - A table of figures is a list, sorted by page number, of the captions pulled from figures, images, or tables in your document.

2.2 Table of table

3. Abbreviation

a shortened form of a word or phrase.

4. Introduction

The field of library management has experienced significant transformations in recent years, driven by advancements in technology and evolving user expectations. Traditional physical libraries, once the cornerstone of knowledge dissemination, are now faced with numerous challenges in meeting the demands of the digital era. These challenges include limited access to resources, restricted operating hours, inconveniences related to physical location, manual checkout processes, and space constraints.

In response to these challenges, online library management systems have emerged as a promising solution. These systems offer digital collections, 24/7 accessibility, advanced search capabilities, automated processes, and remote access, providing a more efficient and convenient alternative to traditional libraries.

The aim of this proposal is to introduce a comprehensive approach to modernizing library management systems through the integration of innovative technologies. By leveraging modern tools and methodologies, we seek to address the limitations of traditional libraries and enhance the overall user experience.

This introduction will provide an overview of the current landscape of library management, identifying key pain points and challenges faced by institutions and users alike. It will highlight the significance of adopting a technology-driven approach to address these challenges and emphasize the potential benefits of the proposed modernization efforts.

Furthermore, the introduction will outline the major objectives of the project, including the design and development of an innovative online library management system, the evaluation of its effectiveness, and the preparation of final documentation. It will set the stage for the subsequent sections of the proposal, which will delve into each aspect of the modernization process in detail.

4.1 Motivation

Background of the Problem Domain:

The realm of library management has undergone substantial changes in recent years, primarily due to technological advancements and evolving user preferences. Traditional physical libraries, while once indispensable, are now grappling with various challenges in meeting the needs of the digital era. These challenges include limited access to resources, fixed operating hours, inconvenient physical locations, manual checkout processes, and space constraints.

Online library management systems have emerged as a viable solution to these challenges. These systems offer digital collections, round-the-clock accessibility, advanced search capabilities, automated processes, and remote access. They are recognized for their potential to overcome the limitations of traditional libraries and provide enhanced convenience, accessibility, and functionality for users.

Why the Problem is Worth Solving:

Addressing the challenges associated with traditional physical libraries is crucial for several reasons:

1. **Access to Information:** Online library management systems expand access to information and educational resources, overcoming limitations posed by physical space and geographical constraints.
2. **Inclusivity and Diversity:** Online systems cater to diverse user populations, ensuring equal access to resources for individuals with disabilities or language barriers.
3. **Efficiency and Convenience:** Online systems streamline library operations, offering users convenient access to resources anytime, anywhere, saving time and effort.
4. **Cost-Effectiveness and Sustainability:** Digitalization of library collections and services can lead to cost savings and reduced environmental impact compared to traditional libraries.

5. Community Engagement and Outreach: Online systems provide opportunities for libraries to engage with their communities in innovative ways, fostering collaboration, interaction, and knowledge sharing.

Motivations for Undertaking the Project:

The motivation to undertake this project stems from the belief in technology's transformative potential to address longstanding challenges in library management. The opportunity to contribute to improving access to information, enhancing user experience, promoting inclusivity, and fostering community engagement is compelling and personally fulfilling.

Capabilities to Undertake the Project:

As a team, we possess a diverse set of capabilities essential for undertaking this project. These include technical expertise in software development, database management, and user interface design, as well as domain knowledge in library science principles and information management practices. We also have project management skills to plan, execute, and monitor the project effectively, along with strong collaboration and communication abilities to engage with stakeholders and gather feedback. Additionally, we are committed to innovation, adaptability, and ethical considerations to ensure the success and sustainability of the project.

4.2 Aim

This project aims to develop a comprehensive online library management system to address the challenges associated with traditional physical libraries, leveraging modern technologies for enhanced accessibility, efficiency, and user experience.

4.3 Objectives

1. To Conduct a critical review of the challenges and limitations faced by traditional physical libraries in the current digital age, focusing on issues such as limited access to resources, restricted operating hours, and manual processes.
2. To Perform a comprehensive study of modern technologies and innovations in the field of library management systems, analyzing their potential to address the identified challenges effectively.
3. To Design and develop an innovative online library management system that leverages advanced technologies to overcome the limitations of traditional libraries, with a focus on enhancing accessibility, efficiency, and user experience.
4. To Evaluate the effectiveness and performance of the developed system through rigorous testing, user feedback, and comparative analysis with existing solutions, aiming to validate its capabilities in addressing the identified challenges.
5. Prepare comprehensive documentation detailing the design, development, implementation, and evaluation processes of the system, including user manuals, technical specifications, and recommendations for future enhancements and iterations.

5. Requirement and Budget

Ref	Project Expenditures	Estimated Cost
1	Software costs	
1.1	Application software user licenses	50000.00
1.2	Software modifications	20000.00
1.3	Sola winds AD Software	400,000.00
1.4	Red hat enterprise Linux	1,000,000.00
1.5	Operating system (Windows server enterprise)	1,000,000.00
1.6	Network monitoring system (Sola winds)	327,600.00
	Sub total	2,797,600.00
2	Hardware costs	
2.1	Servers (new or upgraded, dedicated or shared)	73000.00
2.2	PC's (new or upgrades)	150000.00
2.3	Additional memory	80000.00
2.4	Additional CPU	200000.00
2.5	Additional processing services (temporary or permanent) via cloud services or other internal resource	450000.00
2.6	Printers	5200.00
2.7	Scanners	6500.00
2.8	UPS	50000.00
2.9	Back up devices (Google automatic drivers)	20000.00
2.10	Disk storage	320000.00
	Sub total	1354700.00
3	Network costs	
3.1	Cabling or wireless LAN, WAN or other network	50000.00
3.2	Server Racks	60000.00
3.3	Routers	69000.00
3.4	Switching devices	21000.00
3.5	Modems	50600.00

3.6	Leased or dedicated lines	98000.00
3.7	Communications software	6000.00
3.8	Internet access 10gbps fiber connection	26000.00
	Sub total	380600.00
4.1	Project team	
4.1	Project manager	100000.00
4.2	Project leader	50000.00
4.3	Systems analysts	90000.00
4.4	Programmers	600000.00
4.5	Systems testers	65000.00
4.6	Vendor consultants	45000.00
4.7	Additional team resources e.g. contractors, temporary staff, other consultants	100000.00
4.8	Travel and expenses	52000.00
	Sub total	1102000.00
	Total Estimated Project cost	2,858,800.00

6. Time Plan

Tasks	Time (days)	2024/04/01-2024/06/01																							
		1				2				3				4				5				6			
1. Planning																									
1.1 Determine Project Scope	10																								
1.2 Define Preliminary Resources	8																								
1.3 Secure Core Resources	10																								
1.4 Scope Complete	5																								
2. Analysis																									
2.1 Gathering Business Requirement	8																								
2.2 Define System Requirement	7																								
2.3 Develop Estimation Budget	6																								
2.4 Secured Required Resources	10																								
2.5 Generate and evaluate Alternatives	5																								
2.6 Analysis Complete	2																								
3. Design and Prototyping																									
3.1 Design and Integrated Network	3																								
3.2 Design Application Architecture	4																								
3.3 Design the user interface	5																								
3.4 Design the system interface	4																								
3.5 Design and integrated the database	6																								
3.6 Prototype for design details	10																								
3.7 Design and Integrate System Control	8																								
4. Software Development																									
4.1 Build the technical architecture	45																								
4.2 Build the database and programs	45																								

7. References

- <https://chat.openai.com/>
- <https://www.youtube.com/>

8. Bibliography

A bibliography is a list of works on a subject or by an author that were used or consulted to write a research paper, book or article. It can also be referred to as a list of works cited. It is usually found at the end of a book, article or research paper.