Group 85
Project Proposal

Project Title: University Timetable Manager
Module: WAD621S - Web Application Development
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1 Introduction & Background

At the university level, managing academic timetables can be challenging for both students and lecturers, especially when dealing with multiple modules, venues, and schedule changes. Most universities in Namibia still rely on static systems like PDFs or noticeboards, which are difficult to update and hard for students to access efficiently, and students often find it difficult to organize their schedules with scattered or manual systems. To address this, we propose developing a dynamic, user-friendly web-based timetable manager. This application will provide a centralized platform where students and staff can easily view, search, and update timetables, thereby improving accessibility, reducing scheduling conflicts, ensuring timely updates, and helping students manage their deadlines to improve productivity.

2 Problem Statement / Objectives

Problem:

-Students and Lecturers often have a hard time managing timetables (accessing and updating) which may lead to confusion, missed classes, poor time management and scheduling conflicts.

General objective:

-Designing and developing a web application for university timetable management that is easily accessible , user friendly and efficient.

Specific objectives:

- Allowing students to view timetables online in real-time.
- Enable lecturers/administrators to add, update and delete class schedules
- Ensure mobile responsiveness for easy access on phones
- Notify users of timetable changes
- Offer weekly and monthly calendar views

3 Proposed Solution

The proposed solution is a University Timetable Manager web application that:

- Displays timetables to students.
- Allows authorized staff to manage schedules.
- Provides search and filter functionality.
- Ensures data consistency and accessibility across devices.

Key Features:

- Login system for students and administrators
- Dashboard with timetable overview
- Add/update/delete timetable entries (for admins)
- Search and filter timetable by course/module/lecturer
- Responsive design for desktop and mobile
- Weekly and daily view modes
- Export timetable to pdf/print option

Technologies to be used:

- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL / MongoDB for storing timetable data
- Hosting & Version Control: GitHub Pages / XAMPP
- Design tools: Figma, VS Code, Github & MySQL

4 Scope & Limitations

Scope :

- Web-based system accessible via browser
- User roles: Student (view) and Admin (manage)
- Real-time updates of timetables
- Search and filter functionality
- User-friendly interface with responsive design
- Basic CRUD operations (Create, Read, Update, Delete) for timetable entries.

Limitations :

- No mobile app (only responsive web)
- No AI-based conflict resolution (manual entry required)
- Limited notification system (basic alerts only)
- Students limited to academic scheduling (no personal task management in first version).
- Notifications/reminders may only be browser-based (no SMS integration)

5 System Design

Page Structure:

- Home
- Login / Register
- Dashboard (Student/Admin views)
- Timetable Viewer
- Timetable Editor (Admin only)
- Contact / About

Wireframes:

- Login Page → Username/Password fields
- Dashboard → Sidebar with navigation, main panel with timetable grid
- Timetable Viewer → Calendar-like interface with filtering options

Navigation Flow:

Login → Dashboard → (Student: View Timetable) OR (Admin: Manage Timetable) →Manage Timetable → Save/View Timetable → Export/Logout

6 Target Audience

The primary users are :

- **Students:** View updated timetables anytime, reducing missed classes.
- **Lecturers/Admins:** Manage schedules easily, reducing duplication and conflicts.
- **University Management:** Streamlined scheduling system improves efficiency.
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Benefits:

- Better time management
- Reduced scheduling conflicts
- Easy access to timetable from multiple devices
- Improved academic productivity

7 Methodology/ Development plan

The project will follow an iterative prototyping approach (small features built and tested step by step):

- Gather requirements and design wireframes
- Build a basic timetable creation feature
- Test and refine with feedback
- Add advanced features (reminders, export options)

Tools:

- Development: Visual Studio Code
- Version control & collaboration: Git + GitHub
- UI Design: Figma
- Database design: MySQL Workbench

8 Timeline

PHASE	DURATION	DEADLINE
Proposal	1 week	Sep 12
Design	1 week	Sep 29
Develpment	4 week	Oct 27
Testing	1 week	Nov 10
Deployment	1 week	Nov 17
Documentation	1 week	Nov 24

9 Expected outcomes

- A functional prototype of the University Timetable Manager web application - with core features (timetable creation, task management, remainders).
- Improved timetable accessibility and update process
- Skills gained: Web design (HTML, CSS, JS), backend/database integration, version control (GitHub), project documentation
- Potential long-term use by universities as a scalable timetable management tool
- Potential for expansion with features like calendar syncing or mobile app development.

References

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