Research Design Document

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Market Research

Project Description:

Our proposed application is a mobile first, interactive notice board app designed specifically for college campuses, with an initial roll out at MCAST. By centralising every piece of student and faculty related information, event announcements, schedule changes, absentee lecturing updates, news items and more into one dynamic digital platform, we replace the clutter and waste of traditional paper based boards with a single, eco-friendly interface.

Key Objectives & Benefits

- **Eco-friendly Communication:** Eliminate printed flyers and posters, reducing paper waste while ensuring that every update reaches its audience instantly.

- **Timeliness & Reliability:** Push notifications and real time syncing guarantee that students and lecturers always see the freshest information no more "old" notices lingering on the board.

- **Accessibility & Engagement:** A streamlined navigation structure, generous use of white space, and a responsive calendar view make for an intuitive experience on any smartphone. Newcomers immediately grasp where to find important announcements; returning users move through the app in just a few taps.

Target Audience:

The primary users are college students, faculty, and administrative staff. The app is designed to cater to the dynamic needs of the academic community, facilitating seamless information dissemination and access.

MARK THOMPSON

About

Age: 45

Lives in Malta and works as a Clerk in the College Administration Office at MCAST
Tech Savviness: Basic to Moderate
Devices: Uses a desktop at work and a smartphone occasionally for work-related tasks.

Motivations

Efficiency: He wants a streamlined way to post and manage notices without having to rely on manual methods like pinning physical documents.
Accuracy: Ensures notices are up to date and accessible to everyone.
Organization: Prefers tools that make it easy to categorize and prioritize notices for different audiences.

Quote

"I just want to know where I need to be and what's happening without feeling so lost all the time!"

Background

Mark has been working in the college administration office for over five years. His responsibilities include managing schedules, updating notices, and communicating important information to faculty, staff, and students. He often finds himself juggling multiple tasks and ensuring that critical updates are posted promptly.

Goals

Efficiently manage and update notices without delays.
Ensure important information reaches the intended audience promptly.
Save time and reduce the clutter associated with physical notices.

Pain Points

Managing physical notice boards is time-consuming and often inefficient.
Notices are sometimes overlooked or outdated because updating them manually is cumbersome.
Miscommunication or delays when posting important updates, especially urgent ones like schedule changes and absent lecturers.
Struggles to ensure that the right notices reach the right audience.

About

Age: 18

Lives in Malta and studies at MCAST
Tech Savviness: Moderate (frequent smartphone user)

SARAH WILLIAMS

Motivations

Stay Organized: She wants a tool to keep track of her classes and events in one place.
Feel Included: As a new student, she wants to stay informed about campus activities and deadlines.
Save Time: She doesn't want to waste time walking around the campus aimlessly.

Pain Points

She is unfamiliar with the campus layout, making it hard to find her classrooms and activity venues.
Printed timetables and physical maps are hard to carry around and update manually.
Traditional notice boards are often cluttered or lack the specific information she needs.
Missing important updates because there's no central source of information.

Background

Sarah is new to college life and still adjusting to her environment. This is her first year at MCAST, and navigating the large campus feels overwhelming. She wants to quickly find her way around the blocks, classrooms, and activity areas.

Goals

Quickly locate classrooms and other facilities on campus without feeling lost.
Use the notice board app to track updates to her timetable or events of interest.
Feel more confident and settled as she navigates her first year at college.

Quote

"I just want to know where I need to be and what's happening without feeling so lost all the time!"

About

Age: 21

Lives in Malta and is in her final year of an Engineering course at MCAST
Tech Savviness: High (uses mobile and desktop tools daily)
Device Usage: Owns a smartphone and laptop, frequently uses apps for academic work and job hunting

Motivations

Career Prep: She wants to stay up to date with internship and job placement opportunities.
Efficiency: Wants to receive relevant updates without sorting through irrelevant content.
Time Management: Aims to manage deadlines and project milestones with ease.

Quote

"I want to stay one step ahead, but I don't have time to scroll through everything. Just give me the updates that matter to me!"

Background

Emily is a motivated final year student balancing heavy coursework, project deadlines, and her search for internships. She has adapted to the college system and is now more focused on what lies beyond graduation.

Goals

Get instant access to internship and job-related notices.
Filter notices based on what's relevant to her department or interests.
Never miss important academic deadlines or submission updates.

Pain Points

Notices are not always categorized clearly, forcing her to scan everything.
She misses opportunities when notices are posted too late.
Feels the current notice board system is too focused on general student life and not enough on career progression.

Competitor Analysis

FreeHour Malta

- **Popularity:** One of the most widely used student apps in Malta.
- **Design:** Clean, minimalistic, and user-friendly interface.
- **Functionality:** Includes timetable management, job postings, and study resources.
- **Strengths:** Strong user base, simple navigation, and seamless timetable sharing.
- **Weaknesses:** Lacks customisation for different institutions and limited interactive features.

MyTimetable

- **Popularity:** Used by students in various universities.
- **Design:** Focused on timetable synchronisation.
- **Functionality:** Allows syncing with personal calendars.
- **Strengths:** Helps with time management.
- **Weaknesses:** Lacks features beyond schedule management.

UniBuddy

- **Popularity:** Popular among international students.
- **Design:** Social interaction-based with peer-to-peer support.
- **Functionality:** Helps students connect with peers and mentors.
- **Strengths:** Social aspect is appealing to new students.

Functional Specifications

1. Home Screen

The home screen is the central hub of the application where all clickable sections lead to different functionalities.

Features:

- Grid layout of cards representing categories:
  - Absent Lecturers
  - Academic Calendar
  - News Updates
  - Timetables
  - Guidelines
  - Handbook
  - Food Menu
  - Clubs
  - Well-being
  - Internships
  - Campus Map
- Countdown footer to end of scholastic year.
- Dark mode toggle (Moon icon).

2. Absent Lecturers Screen

List of absent lecturers

Notes:

Useful for students who rely on real-time updates.

3. Academic Calendar Screen

Interactive calendar showing key dates.

Features:

- View holidays, exam dates, assignment deadlines.

- Download Calendar as pdf

Notes:

Personalised calendars address user needs seen in NoticeBard app feedback.

4. News Updates Screen

Digital notice board of recent updates.

Features:

- Chronological order of posts.

Notes:

From research, students prefer personalised, filterable content feeds

5. Timetables Screen

Access personal class timetable.

Features:

- Weekly timetable view.
- Filter of timetable by class letters.

Notes:

Timetable access is a standard feature in student apps for daily planning.

6. Guidelines, Handbook & Food Menu Screens

Static pages with college guidelines, rules, and cafeteria menu.

Features:

- Downloadable PDF version.
- Easy-to-read layout.

Notes:

Simple design for information retrieval, critical for non-technical users.

7. Clubs, Well-being, Internships Screens

Information hubs for extra-curricular activities, mental health resources, and internship opportunities.

Features:

- Contact information for well-being helpers.
- Form to join clubs
- Internship application links.

8. Campus Map Screen

Interactive map of the college.

Features:

- Pin locations of key areas: libraries, labs, canteen.
- Search functionality (for future improvements).

9. Dark Mode Toggle

Toggle between light and dark mode for user comfort.

Notes:

Widely used feature for accessibility and reducing eye strain.

10. Footer Countdown

Displays a live countdown until the end of the academic year.

Notes:

Motivational and helpful feature based on MCAST's current design.

IPO chart

Functionality	Input	Process	Output	Testing Notes
Home Screen	User Clicks Icon	Navigate to selected screen	Load appropriate content	Test navigation of each button. Test dark mode toggle.
Absent Lecturers	Search Lecturer Name	Matching Function of names	Show Lecturer Absence	Test search function. Test empty/no results. Test half written names
Academic Calendar	Select Date/Event	Retrieve Data	Show Event Details	Test date selection. Test filters for courses/departments.
News Updates	Scroll	Fetch Posts	Show News Feed	Test new post notification. Test bookmark functionality.
Timetables	User Clicks Timetable	Fetch Timetable	Display User Timetable	Test offline download feature.
Guidelines, Handbook, Food Menu	Click Section	Load Static Page	Display Information	Test content visibility.
Clubs, Well-being, Internships	Click Section	Fetch Info	Show Details/ Links	Test form links. Test searchability of content. Test Form
Campus Map	Scroll along map	Access desired area	Show Location on Map	Test responsiveness. Test real map switch. Test the no overlapping
Dark Mode Toggle	Click Moon Icon	Change Theme	Switch to Dark/Light Mode	Test persistence of dark mode. Test UI visibility.
Countdown Timer	App Loads	Calculate Remaining Days	Show Countdown	Test accurate date calculation. Test visual display.

User Testing:

First Impressions:

Most users had a positive first impression of the app, especially appreciating the modern, consistent theme. However, some found the design a bit overwhelming at first, especially those who were new to the area. They suggested having more white space to make the layout feel less cramped. A lot of users liked the "News Updates" section, as it was easy to spot.

Ease of Navigation:

Generally, users found it easy to navigate the app. Key sections like the calendar and absent lecturers were easy to locate. One suggestion was to include a search bar to make finding things even faster. Users also appreciated the use of different shades of colours to help visually separate sections, making it easier to find what they needed.

Usability and Clarity:

The app was generally seen easy to use, with no major usability issues. However, there was some feedback about improving clarity, especially when it came to icons and buttons. Some users felt that adding labels to buttons could make them more intuitive, and others suggested including tooltips or extra visual cues for better guidance.

Likes and Dislikes:

Many users liked the consistency in design and the clear layout, as well as features like the calendar and absent lecturers section. That said, some felt the design could be a bit too dense at times, making it a little overwhelming, especially with the amount of information on the page. The calendar was another area that received feedback, with users mentioning it was hard to read.

Visual and Aesthetic Design:

Some users did mention that the calendar and other content could be better organised to avoid feeling too busy or cluttered.

Conclusion:

After implementing the recommended updates: adding generous white space, integrating a search feature, and optimising the calendar for smaller screens, we've seen a marked improvement in usability and clarity. The notice board app now feels more spacious, navigation is quicker thanks to

search, and the calendar displays cleanly on any device. Overall, these enhancements make the site even more effective at keeping users organised and informed.

Style Guide

Branding & Identity:

Top left logo contains the official MCAST emblem.
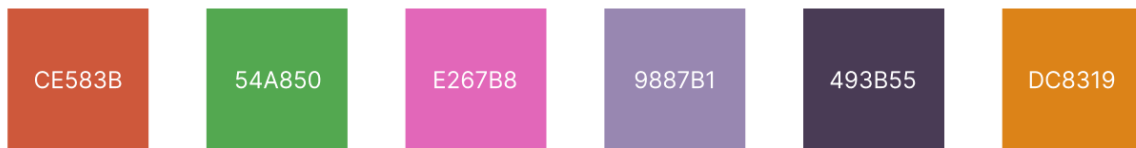
- Light Mode Logo

- Dark mode Logo

Background image

- Background image

An image of MCAST Paola new building with a light grey colour on top of it with low opacity.

Color Palette

CE583B	54A850	E267B8	9887B1	493B55	DC8319

Icons

Icons

Buttons

MORE INFO

Layout & Grid System

- **Screen Size:** Mobile-first responsive design (min-width ~360px)
- Card Grid Layout:
  - 2 Columns per row
  - Padding between cards: **10-12%**
  - Rounded corners: **10px**
  - Cards are full-width and stack vertically on narrow screens