

Design Thinking Project Report

Project Title: UNIVENT (Unified University Events Platform)

Course: CEIT 323 – Multimedia Design and Development

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Executive Summary

This project uses the Design Thinking framework to solve a common problem at METU: the messy and unreliable way students find university events and clubs. Since taking part in campus life is an important part of student well-being and growth, the current system is failing to help students find opportunities. This lack of organization makes it hard for students to find activities and difficult for club leaders to plan successful events. A single, central platform would help new students adjust to campus life and save time for older students with heavy workloads.

During the first phase, we gathered student feedback. We found that students really want one reliable place to see all events and need personalized suggestions. Currently, many people find out about events only after they have already happened. Club leaders also struggle because they don't have useful data; they have to plan events based on guesswork, which often leads to low attendance and wasted resources. This led to our main goal: "How can we create a single platform that offers personalized recommendations for students and provides clubs with the data they need to succeed?"

In the next phase (Ideation), we chose the "Unified University Events Platform" concept—a website and mobile app—because it is practical and would have a big impact. For students, the platform includes a personalized "For You" feed, a calendar with filters, and a way to ask questions on event pages. For student clubs, it provides a dashboard with anonymous data to help them see how much interest there is and plan better events.

We also addressed real-world issues during the process. To keep the data reliable and ensure the platform remains exclusive to the university community, we made it a strict rule that all users must log in using an official university email (@metu.edu.tr). We removed the "Guest Mode" to maintain a secure and verified environment for all participants. Finally, to pay for the platform's maintenance, we included ad spaces for local businesses. This user-focused approach ensured the solution is practical while still being very useful.

Overall, this project shows that a simple, unified digital tool can improve how a university community connects. The next step is to create a detailed model (prototype) and test it with METU students and club leaders to make sure it works. Success in this final phase will prove that the platform can strengthen campus connections and help student organizations grow.

1. Introduction

1.1 Background and Context

The modern university experience is fundamentally shaped by engagement in extracurricular activities and community involvement. However, in large, decentralized institutions like METU, the mechanism for discovering and participating in these vital social and academic opportunities is severely flawed. The absence of a central, shared platform weakens the energy of the campus ecosystem. This issue is particularly acute for newly incoming students at METU, who frequently miss out on club activities and often remain unaware of the existence of smaller, niche student organizations, limiting their opportunities for early integration and community building. For instance, niche groups like the METU Motor Sports Society or the Society of Economic Geologists Club struggle significantly to achieve visibility, even among students who would be genuinely interested in their specific activities.

Broader Landscape and Technological Context: Students use digital tools for almost everything, yet news about campus events is scattered across many different social media accounts, websites, and chat groups. This decentralized system puts a lot of pressure on students because they have to manually check many different sources just to stay informed. This lack of organization makes it hard for new first-year students to connect with others and settle into campus life. It also affects older students with heavy workloads who need an easy way to find relevant events. Because the current process is so difficult and time-consuming, many students simply stop participating in campus activities altogether.

The Data Vacuum for Organizations: Current technology also offers very little help for the people who run campus clubs. Because they don't have any real data or information, student organizations have to plan their events based on guesswork. Current websites and social media pages don't show how many people are actually interested before an event starts. This lack of information often leads to low attendance and wasted effort. It also makes club leaders feel stressed and burnt out, which eventually leads to fewer and lower-quality events on campus.

The Design Rationale: In response to this systemic fragmentation and data deficiency, this project applies the Design Thinking framework to create Univent, a unified digital platform. Univent was chosen as the topic because the current digital environment fails to serve the dual needs of the community: simplifying discovery for all students and providing critical, data-driven support for clubs. The project seeks to leverage technology not just as a broadcast tool, but as a central connector that streamlines information flow and fosters a more vibrant, inclusive, and data-driven campus ecosystem.

1.2 Purpose of the Project

The core purpose of this project is to apply the Design Thinking framework to create a highly effective, human-centered digital solution that fundamentally improves community engagement at METU. We have two main goals:

To Unify Student Experience: To design a centralized platform that aggregates all student club and university event information into a single, reliable hub, thereby overcoming the current state of fragmentation and ensuring students—especially new students and those with heavy academic loads—can easily discover and participate in activities relevant to their interests.

1. **To Empower Student Organizations:** To provide student club administrators with essential, data-driven insights (such as real-time interest and attendance predictions) that are currently unavailable, enabling them to move from speculative planning to strategic, demand-driven event creation.

Using the iterative steps of Design Thinking (Empathize, Define, Ideate, Prototype, and Test), this project aims to develop a robust, scalable, and personalized mobile application concept. The ultimate aim is to foster a more connected, proactive, and successful university community by making event discovery efficient and club administration effective.

1.3 Problem Statement

Despite the rich and diverse club environment at METU, the process for event discovery and engagement is fundamentally broken, leading to poor outcomes for both students and student clubs. The specific problems addressed by this project are:

For Students:

- **Fragmented Information:** Students must navigate numerous independent social media accounts, email lists, and obscure web pages to track campus events, resulting in significant time wastage and missed opportunities
- **Lack of Personalization:** There is no efficient way for students to filter or receive personalized recommendations, meaning relevant events are often buried under noise.
- **Difficulty for New/Busy Students:** This fragmented system disproportionately impacts incoming first-year students seeking connection and upper-year students needing efficient access due to heavy course loads.

For Student Clubs and Administrators:

- **Data Vacuum:** Clubs lack actionable, pre-event data to assess interest, forcing them to plan and market events based on conjecture, which frequently results in wasted resources and low attendance.
- **Visibility Barrier for Small Clubs:** Smaller or niche clubs struggle to gain visibility against larger organizations without a centralized platform, preventing them from connecting with their target audience.

There is a clear need for a unified digital platform that not only solves the information fragmentation problem for students but also simultaneously provides anonymous, data-driven feedback to organizations, ensuring campus activities are relevant, well-attended, and sustainable.

2. Method

2.1 Design Thinking Framework

We followed Stanford d.school's five-stage process:

1. **Empathize:** Understand user needs through interviews and observations.
2. **Define:** Identify core challenges and synthesize insights.
3. **Ideate:** Generate solution ideas through brainstorming.
4. **Prototype:** Create low- and high-fidelity prototypes.
5. **Test:** Collect feedback, evaluate usability, and iterate.

2.2 Data Collection Methods

- Semi-structured interviews with recent METU graduates (n=3)
- Google Forms survey on student club demographics, event management challenges, and digital tool preferences for club administrators. (n=12)
- Semi-structured interviews with METU students (n=8)
- Google Forms survey on student event-discovery experiences, pain points in campus engagement, and feature prioritization for a centralized event hub. (n=26)

3. Process Documentation

3.1 Empathize

3.1.1 User Research Summary

The Empathize phase involved conducting a dual-sided user research study to understand the core challenges faced by both the consumers (students) and the providers (student club administrators) of campus activities.

Participants: We interviewed a total of 23 current METU students from various faculties, including Engineering (Computer, Chemical, Environmental), Education (English Language Teaching, Computer Education and Instructional Technology), and Arts and Sciences (Psychology). We also conducted interviews with 12 individuals who were either active or former Board Members of METU Student Clubs. Additionally, we gathered feedback from 3 recent METU graduates.

Topics Explored: Interviews with students focused on their:

- Current habits for discovering campus events and clubs (reliance on Instagram and posters).
- Specific pain points related to information fragmentation and personalization.
- Willingness to use a centralized platform and the single biggest factor that would increase attendance.
- The frequency of missing out on desired events due to time or scheduling conflicts.

Interviews with club administrators focused on their:

- Methods for planning and promoting events (e.g., posters, digital ads).
- Challenges related to gauging pre-event interest and resource allocation.
- Operational difficulties beyond promotion (e.g., bureaucracy, facility requests).

Key Findings: The user research provided strong validation for the Univent concept:

- **Students:** Students reported relying primarily on fragmented sources like Instagram and physical campus posters for event discovery, leading to the frequent frustration of missing out. The primary inconvenience cited was Time/Scheduling conflicts, followed by the lack of a centralized platform for tracking. Nearly all confirmed they would definitely use a centralized application, particularly noting that events from smaller clubs often remain invisible under the current system.

- **Club Administrators:** Individuals with Board Member experience confirmed that their biggest promotional challenge is reaching the right target audience and overcoming the lack of interest from upper-year students. They unanimously confirmed that integrated data insights and tools for managing difficult bureaucratic processes (e.g., form verification, venue booking) would be highly beneficial and fundamentally change their planning process.
- **Graduates:** Feedback from recent alumni indicated the platform's utility extends beyond current enrollment, suggesting high retention and community value post-graduation.

In summary, the interviews established a clear, validated need for a centralized, data-driven platform that addresses both information discovery and operational efficiency, positioning the project to move confidently into the definition phase.


3.1.2 Key User Insights (Synthesis)

Based on the thematic analysis of student and club administrator responses, several recurring behaviors and critical needs emerged, synthesizing the data into actionable design insights:


- **Information Overload and Scheduling Conflicts:** The number one problem cited by students is the lack of time and scheduling conflicts with academic life. Event discovery is not seamless; the reliance on fragmented sources leads to mental fatigue and missed events due to late awareness or schedule clashes.
- **Failure to Reach Target Audiences:** Club administrators' greatest difficulty is identifying and reaching students who are genuinely interested in niche or non-entertainment events. They confirm that current methods (posters, social media) fail to target the right audience effectively, especially upper-year students whose interests are more specialized.
- **Bureaucracy is a Major Operational Barrier:** Club administrators identified manual paperwork, poster verification waiting times, and obtaining signatures from advisors as major, solvable operational pain points. A university-wide app must facilitate backend administrative tasks to truly support clubs.
- **The Demand for Consolidation is Universal:** Students strongly desire an integrated, Google Calendar-like solution that allows them to organize, track, and be reminded of all events in one place, validating the need for a single, centralized hub.
- **Club Planning is Speculative and Data-Deprived:** Clubs operate in a "data vacuum," using inefficient manual methods (post-event forms, verbal queries) to gather feedback. They urgently require integrated tools for anonymous pre-event interest voting to deduce participation numbers and tailor event topics based on real demand.
- **Uncertainty is a Barrier to Attendance:** Students lack simple, public channels to clarify event details, creating an unnecessary barrier to entry for potential participants.
- **Visibility Gap Impacts Diversity:** The decentralized system confirms the visibility gap, preventing smaller, niche clubs from connecting with their dedicated audience, thereby limiting the diversity of campus life.

3.1.3 User Personas

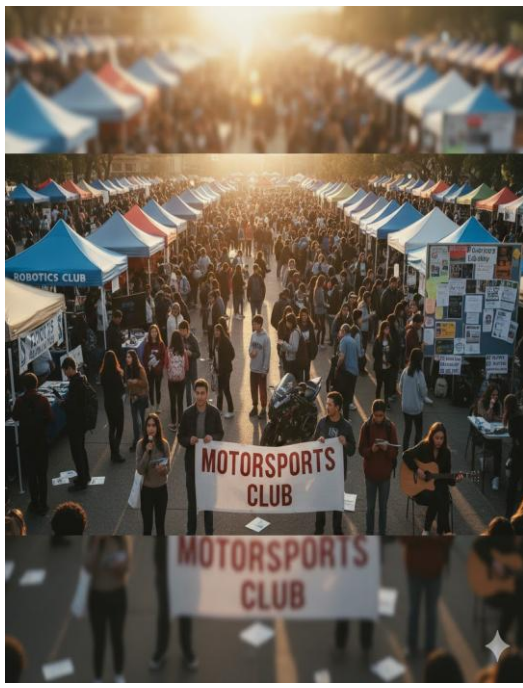
- User Persona (Appendix A)

 A young man with dark hair, wearing a grey t-shirt and blue jeans, stands in the foreground of a campus event. He is holding a map and several brochures. In the background, there are several club stands under blue and white tents. One stand is labeled 'ROBOTICS CLUB' and another 'OUTDOOR ADVENTURES'. Other people are visible at the stands, and a large tree is in the background.	<p>Name: Ilgaz (A preparatory class student who has come to METU)</p> <p>Age: 19</p> <p>Goals:</p> <ul style="list-style-type: none">• To find a student club where they can spend time that suits them (A place to socialize, pursue a hobby, or gain skills).• Adapt to METU's campus life• Secure a social network outside of the preparatory class bubble. <p>Frustrations:</p> <ul style="list-style-type: none">• Having visited too many club stands, he is bombarded with information, leading to extreme confusion. He cannot distinguish what each club actually does.• Due to the clubs' intense and fast-paced promotional activities and social media feeds, he misses out on important initial meetings or announcements.• Since he hasn't fully defined his own interests, he becomes paralyzed and unable to make a decision when faced with the variety offered by the clubs. <p>Behaviors:</p> <ul style="list-style-type: none">• He aimlessly wanders through club stands, visibly confused and overwhelmed by the choices.• He only pays attention to large, popular club stands, remaining unaware of smaller, more niche communities.
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- User Persona (Appendix B)

	<p>Name: Zeynep Mazmanlı (First year METU student)</p> <p>Age: 20</p> <p>Behaviors:</p> <ul style="list-style-type: none">• She stands in front of a busy campus bulletin board, intensely scanning the wall covered with numerous club posters and flyers.• She frequently moves her gaze back and forth between two specific posters that have caught her attention.• She is seen checking her watch or phone repeatedly, likely comparing the times listed on the two events. <p>Needs:</p> <ul style="list-style-type: none">• Clarity on her true priorities (Socializing vs. Skill Development vs. Relaxation).• A mechanism to quickly filter the overwhelming number of club options to find the best fit. <p>Frustrations:</p> <p>Poster Overload Paralysis: She is completely overwhelmed by the sheer volume and visual noise of the countless event posters, making it impossible to focus.</p> <p>Scheduling Conflict: The two most interesting and appealing club events she managed to select are scheduled at the exact same time, forcing an impossible choice.</p> <p>Fear of Missing Out: She is worried that choosing one event means permanently missing the opportunity or connection offered by the other.</p> <p>Lack of Structure: She wishes the university or the clubs provided a clearer, centralized, and easy-to-use schedule instead of relying on chaotic bulletin boards.</p>
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- User Persona (Appendix C)

	<p>Name: Yasin (Manager of a niche club)</p> <p>Age: 23</p> <p>Goals:</p> <ul style="list-style-type: none"> • Successfully recruit students for non-core operational roles, such as Finance, HR (Human Resources), Organization, and Press/Media. • Introduce the core sport (motorsports) to new demographics who aren't pre-existing car enthusiasts or engineers. • Broaden the club's image beyond "just cars" to showcase the high-level professional skill development opportunities (management, budgeting, PR). • Balance the enthusiasm of the core technical members with the structural discipline required by the operational teams. <p>Frustrations:</p> <ul style="list-style-type: none"> • He has no way to know if students are actually interested in his events because there is no data or feedback. • He spends a lot of time posting on social media, but students still miss important announcements because the feed is too crowded. • It is very hard to reach students outside of engineering; most people think they have to be a "car person" to join. • He feels burnt out because he puts a lot of effort into organizing events and hanging posters, but the attendance is often lower than expected. <p>Behaviors:</p> <ul style="list-style-type: none"> • He personally hangs up event posters in high-traffic areas like the library, the student dining hall, and common cafeterias. • He diligently sets up a physical stand during orientation week and recruitment fairs, despite the stand often being overshadowed by larger, flashier clubs. • He regularly posts updates and recruitment calls on Instagram, trying to balance thrilling motorsport content with calls for Finance/HR volunteers.
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3.2 Define

3.2.1 Synthesis of Findings

After analyzing the dual-sided research data, we used affinity mapping to group the key insights from students and club administrators into three core thematic areas. These themes clearly define the systemic deficiencies that Univent aims to solve:

1. **Fragmentation & Cognitive Friction (The Student Problem):** This theme groups issues related to the decentralized nature of information. Students expressed frustration with manually checking multiple sources (Instagram, posters), leading to mental fatigue, missing out on events, and difficulty integrating event schedules with their academic calendars.
2. **Data Vacuum & Operational Inefficiency (The Club Problem):** This theme captures the administrative struggles. Club managers highlighted the complete lack of pre-event interest data, forcing speculative planning, failure to reach specialized target audiences (especially upper-year students), and major roadblocks due to slow, manual bureaucratic processes (e.g., event form verification).
3. **The Visibility Gap (The Diversity Problem):** This theme addresses the structural imbalance. Both user groups confirmed that the current system marginalizes smaller, niche clubs, limiting the diversity of campus offerings and leading to lower adoption interest from students who seek specialized activities.

3.2.2 Problem Definition

The synthesized findings indicate that the project must solve a two-sided marketplace problem: connecting the supply (events/clubs) with the demand (students) efficiently, while providing essential tools to the suppliers.

How Might We (HMW) Statement:

Core Design Challenge

- **How might we** create a single, centralized, and data-driven platform that streamlines event discovery for Middle East Technical University students while simultaneously providing student clubs with the operational efficiency tools and anonymous interest metrics needed to plan successful, targeted, and relevant activities?

Student Experience

- **How might we** help students discover events and student clubs that align with their specific interests to prevent choice paralysis and information overload?
- **How might we** provide students with real-time, personalized event information and automated reminders to ensure they never miss an opportunity due to fast-paced social media cycles?
- **How might we** assist students in managing their social calendars and resolving scheduling conflicts when multiple interesting events occur at the same time?
- **How might we** provide a useful experience for casual guest users while still incentivizing them to sign up for personalized features and deeper campus integration?

Club Management

- **How might we** provide student clubs with actionable, anonymous pre-event data to help them estimate attendance and optimize their planning process?
- **How might we** empower niche or smaller student clubs to reach specific demographics and recruit students for specialized operational roles like Finance, Human Resources, and Media?
- **How might we** reduce the manual labor and inefficiency of physical promotion by providing digital tools that reach the entire university body effectively?

3.3 Ideate

3.3.1 Brainstorming Sessions

We conducted a focused 90 minute brainstorming session during our class hours. Rather than using external digital tools, we relied on intensive group discussions and real-time feedback loops with our instructors. A total of 11 ideas were generated by utilizing the following structured techniques:

Brainwriting: Team members initially worked individually to list potential solutions, ensuring that every unique perspective was captured before opening the floor for group debate.

SCAMPER: We analyzed existing campus services such as the "Ring" shuttle system, canteen operations and current event promotion methods and looked for ways to Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, or Reverse them.

The ideas generated during these sessions covered various aspects of METU campus life:

1. **Canteen Reservation App:** A system to pre-order and reserve items from canteens during short lecture breaks.
2. **Enhanced Ring System:** Optimization and real-time tracking of campus shuttle buses.
3. **A1 Night Transit:** Specialized transport solutions for students returning to dormitories from the A1 gate late at night.
4. **On-Campus Storage Units:** Secure lockers or storage areas for students to keep heavy books or equipment between classes.
5. **Campus Ride-Sharing:** A peer-to-peer shared travel system specifically for METU students to increase transit efficiency.
6. **Digital Lost & Found:** A centralized registry for items lost on campus.
7. **Peer-to-Peer Textbook Marketplace:** A platform for students to sell or exchange used academic books.
8. **Study Group Matching Service:** An algorithm-based tool to connect students with similar course loads for study sessions.
9. **Digital Campus Map with Live Navigation:** An interactive map including indoor building paths.
10. **Skill Exchange Platform:** A system for students to trade skills
11. **The Unified Event Platform:** A centralized hub for all university events and club data insights.

3.3.2 Concept Development

Concept A: The Unified Event Platform

Concept B: Canteen Reservation App

Concept C: On-Campus Storage Units

3.3.3 Selected Concept & Rationale

After a rigorous evaluation of the various solutions generated during our brainstorming sessions, we selected **Concept A: The Unified Event Platform** as our final design solution. Unlike other ideas that targeted isolated logistical inconveniences, Univent addresses the foundational "heart" of the METU experience—the social, cultural, and intellectual synergy created by student organizations. The decision to pursue this platform was based on its unique ability to solve a two-sided marketplace problem: streamlining the discovery process for students while providing a critical, data-driven backbone for club administrators.

From a strategic design perspective, Univent was chosen because it represents the optimal balance within the **Desirability–Feasibility–Viability** framework:

Desirability (Human-Centered Needs): Our research in the Empathize phase revealed a deep-seated frustration with "information clutter." Students are currently overwhelmed by fragmented data across Instagram, WhatsApp, and physical posters. Univent directly answers this by providing a high-desirability, centralized hub.

- **For Students:** It offers a personalized "For You" feed and a synchronized calendar that mitigates the #1 reported problem: scheduling conflicts. Especially for first-year students, it provides a sense of belonging by making "hidden" niche clubs (like Ice Sports or Equestrian) visible.
- **For Club Administrators:** It fulfills the urgent desire for "predictive clarity." By providing anonymous pre-event interest metrics, it allows clubs to know if their event topics are relevant before investing resources, addressing the "data vacuum" cited by board members.

Feasibility (Technical and Operational Reach): Univent is designed with technical pragmatism in mind. Rather than building a complex, closed-loop ecosystem that users might find intrusive, we focused on features that are easy to develop yet highly impactful:

- **Authentication Strategy:** To ensure high-quality data without creating friction, we implemented a login system using official METU emails (metu.edu.tr). This ensures a "vetted" community while being technically straightforward to manage.
- **Adoption Path:** We addressed the feasibility of user adoption by including a functional "Guest Mode." This allows students to derive value immediately through browsing without the commitment of an account, lowering the barrier to entry significantly.
- **Technology Stack:** The platform utilizes standard mobile frameworks, ensuring that the prototype is scalable and adaptable to current university IT infrastructures.

Viability (Long-Term Sustainability): A project's success depends on its ability to survive beyond the initial launch. Univent is structured as a self-sustaining ecosystem:

- **Economic Model:** To cover hosting and maintenance costs, we will integrate non-intrusive, designated advertisement areas. These areas provide local businesses (bookstores, cafes, stationary shops) with direct access to their target demographic, ensuring a steady revenue stream.

- **Institutional Value:** By digitizing the manual bureaucratic tasks mentioned by club managers (such as event form approvals and facility requests), Univent provides clear administrative value to the University. This alignment with institutional goals increases the likelihood of official support and long-term integration into campus life.

3.3.4 Eliminated Concepts & Justification

Although Concept B (Canteen Reservation App) offered a practical logistical solution to a daily inconvenience, it was primarily rejected due to its extremely low feasibility and fragmented impact. The METU campus hosts a vast number of canteens, each operating under different managements and independent infrastructures. The necessity of reaching individual agreements and technical integrations with such a high volume of operators significantly reduces the project's real-world applicability. This decentralized structure makes it nearly impossible to implement a unified campus standard. Furthermore, in interviews, while students complained about long lines, they emphasized that their "single more important problem" was social isolation and missing out on campus life. Concept B focused purely on a transactional, time-saving utility that did not foster deeper connections or support student organizations, making it less aligned with our core goal of enhancing the community experience. As for Concept C (On-Campus Storage Units), it addressed a physical pain point for commuting students, but several significant limitations surfaced during our viability and feasibility analysis. First, an infrastructure-based solution requires substantial initial capital for physical construction, secure locker hardware, and electronic locking systems exceeding the resources and timeline of this project. Concept C also raised serious viability concerns regarding long-term maintenance, security management, and fair allocation of space, which could lead to administrative overhead and user disputes. Furthermore, it lacked the scalability of a digital platform. As a result, Concept C was considered less feasible to build, less universally impactful on student engagement, and far more resource-intensive compared to the selected digital solution, Concept C.

3.4 Prototype

The design process followed an iterative prototyping approach to show the evolution of the solution rather than simply presenting the final result. Feedback gathered at each stage shaped subsequent design decisions and improvements. The Figma application was used to follow the default visualization solutions.

3.4.1 Prototype Version 1

Prototype Version 1 in Figma(Low-Fidelity): (Appendix-D)

- Event Creation
- Club Page Management
- Dashboard YK
- Login Page YK
- Login Page YK
- Login Page Student

- Home
- Search Overlay
- Hamburger Menu

Feedback:

- The layout was clear and well-organized.
- Pages needed further detail and clearer content expansion.
- More attention was required for color harmony and visual consistency.
- A clear and consistent theme needed to be selected.
- The prototype presented a clear navigation structure.
- Users expected more detailed pages and clearer examples.

3.4.2 Prototype Version 2

Prototype Version 2 in Figma(Mid-/High-Fidelity): (Appendix-E)

- Content depth was expanded to provide clearer guidance and structure.
- A more defined and consistent visual theme was established.
- Color choices were finalized to ensure visual clarity and consistency across pages.(Pic-E)

Feedback:

- A "Add Event" button should be added to the Dashboard page (it will redirect to "Create Event").
- The edit button next to events should redirect to the "Event Management" page.
- A "Manage Club Page" button should be added (it will redirect to the "Club Page Management" page).
- A "Data & Insights" button should be added (the page isn't needed right now, but it would be good to have the button visible for the prototype).

3.4.3 Final Prototype

The final multimedia prototype included: (Appendix-F)

- User registration and login system for METU students
- Event browsing interface displaying university and student club events
- Event detail pages with date, time, location, and brief descriptions
- Interactive components supporting user engagement within the application

3.5 Test

3.5.1 User Testing

The prototype was tested through a moderated usability session with five participants. Users were provided access to the interactive map created in Figma and were asked to explore the application independently, without any external guidance or intervention. They were encouraged to navigate the interface freely and interact with the features as they naturally encountered them.

During the session, users' behaviors, comments, and questions were carefully observed and documented in real time. The feedback collected through this process was then systematically reported, discussed within the project group, and reflected in subsequent design revisions and implementation decisions.

3.5.2 Testing Results

User testing revealed an overall positive response to the prototype, indicating that the application was perceived as useful, clear, and functional. Quantitative and qualitative findings are summarized below.

- Users appreciated the ability to browse events and clubs within a single, centralized application and described the calendar integration as “very useful” for planning.
- Several users noted that certain pages contained repetitive event lists and suggested reducing redundancy to improve clarity.
- Some participants experienced initial confusion in the search feature, particularly regarding how search results (clubs vs. events) were displayed, indicating a need for clearer visual distinction.
- Readability-related feedback included requests for improved typography, such as emphasizing keywords and adjusting font weight for better scanning of event information.
- Interface customization emerged as a recurring theme: multiple users suggested adding light/dark mode options and adjustable color preferences.
- From a club management perspective, users expressed interest in viewing basic engagement statistics (e.g., number of views, likes, or intended participation) to better assess event impact.
- Terminology consistency and cultural appropriateness were also highlighted, with suggestions to align naming conventions more closely with METU standards.
- Privacy concerns were raised regarding user comments, with positive responses toward optional anonymity in event discussions.
- 4 out of 5 users reported that the application structure and navigation were clear and easy to follow.
- 4 out of 5 users stated that viewing events through both list and calendar views was practical and useful.
- 3 out of 5 users requested additional personalization options, particularly related to interface

Overall, the findings indicate strong usability and perceived value, while also highlighting specific areas for improvement related to visual clarity, personalization, search behavior, and data visibility. These insights directly informed subsequent design iterations.

3.5.3 Iteration Summary

What was improved based on user testing:

Based on the insights gathered during user testing, several targeted refinements were implemented to improve the usability and clarity of the application.

- Event and club listings were simplified to reduce repetition and visual clutter.
- The search interface was revised to clearly distinguish between club and event results.
- Unnecessary input fields in the club registration process were removed.
- Typography and text hierarchy were adjusted to improve readability and content scanning.
- Terminology was standardized to align with METU's institutional conventions.
- Navigation between event lists and the calendar was strengthened for easier access.

What could be further improved:

- Although the prototype demonstrated strong usability, users suggested additional enhancements for future iterations.
- Expanding interface personalization options, such as adjustable color themes and full dark/light mode support.
- Improving mobile responsiveness to support usage across different devices.

These refinements and future directions reflect a user-centered iteration process in which feedback was systematically translated into concrete design decisions and informed plans for continued development.

4. Results & Discussion

4.1 Project Outcomes

The results indicate that the proposed solution successfully met its primary design goals. User testing demonstrated that the application effectively supported students in discovering university events and navigating student club information through a centralized platform. Participants reported that the combined use of event lists, calendar integration, and clear navigation reduced information overload and made campus engagement easier to manage.

Overall usability was evaluated positively, with an average usability score of **4.4 out of 5**, suggesting that users found the application intuitive, functional, and aligned with their expectations. The solution was particularly effective in improving event visibility, simplifying navigation between clubs and events, and supporting basic planning through calendar-based access. These findings indicate that the application achieved its intended purpose of enhancing campus event discovery and improving the overall student experience.

4.2 Evaluation of Learning Impact

The learning impact of the application was observed through users' improved understanding of the platform's features and more effective interaction with campus event information. The outcomes can be summarized as follows:

- Users demonstrated a clearer understanding of how to discover and track events using both list and calendar views.
- Participants showed increased familiarity with navigating club pages and interpreting event details.
- Interactive elements supported learning by encouraging users to actively explore and test platform features.

After using the application, students were able to locate relevant events more efficiently and reported greater confidence in managing their campus engagement digitally. The structured layout and guided navigation helped users understand how key components—such as search, event pages, and calendar integration—worked together. Overall, the application supported practical learning by enabling users to apply this understanding in real usage scenarios, leading to more informed participation in campus activities.

4.3 Limitations

Several limitations should be considered when interpreting the outcomes of this project. These are:

- Small sample size for testing
- Prototype not fully mobile-responsive
- Limited visual variety in templates

First, the small sample size restricts the generalizability of the findings and limits insight into more diverse learner populations. Second, the prototype was not fully optimized for mobile devices, which may have affected usability for students who typically study on phones or tablets. Finally, the visual variety of the templates was limited, which may have constrained personalization options for learners with different aesthetic preferences or accessibility needs.

4.4 Future Improvements

If more time and resources were available, future development would focus on scaling the application from a prototype into a fully operational campus platform. This would include technical deployment, feature expansion, and long-term sustainability planning. Opening the application to real users would require reliable infrastructure and institutional-level considerations, while additional features could further increase engagement and usability.

Potential future improvements include:

- Deploying the application on a dedicated server infrastructure to support real-time usage, secure user authentication, and data storage
- Launching the platform for the broader METU community as an official or semi-official university service
- Developing a downloadable mobile application or a fully mobile-responsive version
- Expanding personalization features, such as interface themes, notification preferences, and advanced filtering options
- Integrating AI-assisted features, including smart event recommendations, automated tagging, and summary generation
- Establishing non-intrusive advertising and sponsorship partnerships with local businesses to generate revenue
- Offering advanced analytics and promotional tools for student clubs as optional premium features

- Designing the platform as a scalable and modular system that can be adapted for use across different universities, allowing institution-specific customization while maintaining a shared core infrastructure.

Overall, these improvements would allow the project to evolve beyond an academic prototype into a sustainable digital product. By combining technical scalability with monetization strategies and user-centered enhancements, the application has the potential to operate as a small-scale digital enterprise while continuing to support student engagement and campus life.

5. Conclusion

Univent focuses on providing a practical digital solution for campus event discovery. The platform brings student events and club activities together in a single, organized space. This structure reduces information fragmentation and makes it easier for students to follow campus life.

The platform was refined through multiple revisions based on user feedback. As a result, the final design improved clarity, usability, and relevance. Students were able to access event information more efficiently and make more informed participation decisions.

Overall, Univent presents a functional and context-appropriate solution for the university setting. By addressing real student needs, the platform supports more effective engagement and contributes to a more accessible campus experience.

6. Reflection on Design Thinking Process

The development of Univent followed a structured process that helped improve the platform step by step. Early user research identified clear problems such as information overload, low visibility of smaller clubs, and uncertainty about event participation. These findings shaped the main features of the platform.

Prototyping allowed the team to test ideas early and see how the platform would be used. User feedback showed which parts were clear and which needed improvement. Based on this feedback, changes were made to navigation, layout, and content presentation.

Overall, Univent improved through continuous revision. The platform became clearer, easier to use, and more aligned with student needs. This process helped ensure that the final solution was practical and suitable for the university context.

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8. Appendices

Appendix A: Persona — “Ilgaz, A preparatory class student who has come to METU”

Name: Ilgaz Diş

Age: 19

Major: Environment Engineer

Description: Ilgaz is a social and motivated first-year student at METU, but he feels lost in the sheer scale of the university's social ecosystem. He follows dozens of club accounts on Instagram, yet he still finds out about the coolest events only after they have already happened. He is looking for a way to filter the "noise" of campus life.

Goals:

- **Curated Socializing:** Find a student club that matches his specific hobbies (e.g., photography or trekking) without having to join five different groups.
- **Campus Integration:** Quickly adapt to METU's unique campus culture and traditions.
- **Beyond the "Prep Bubble":** Build a social network that includes upperclassmen and students from different departments.

Frustrations:

- **Information Overload:** Visiting the "Oryantasyon" stands left him bombarded with flyers and contradictory info.
- **Fear of Missing Out (FOMO):** Missing initial club meetings because the announcement was buried in a fast-paced Instagram story.
- **Choice Paralysis:** Feeling unable to decide which community to commit to because he can't clearly see what their daily activities look like.

Behaviors:

- **Passive Discovery:** Aimlessly scrolls through social media or wanders through the "Çarşı" area, hoping to stumble upon something interesting.
- **Popularity Bias:** Only notices the largest, loudest clubs (like the ones with loud music at stands), missing out on niche communities that might suit him better.
- **Manual Tracking:** Tries to save event dates in his phone's notes or takes screenshots of posters, which he eventually forgets to check.

Needs:

- **Centralized Feed:** A single place to see all club events without checking 20 different Instagram pages.
- **Smart Filtering:** The ability to filter events by interest (e.g., "Art," "Tech," "Social") or by "Must-Attend" status.

- **Personalized Calendar:** A way to mark "Interested" and have it automatically remind him before the event starts.

Quote:

"I follow so many clubs on Instagram that my feed is a mess. I usually find out about the best workshops the day after they happen through a friend's story."

Appendix B: Persona — “Zeynep, first year METU student”

Name: Zeynep Mazmancı

Age: 20

Major: Geological Engineering

Description: Zeynep is a proactive and enthusiastic first-year METU student. Unlike some of her peers who are passive, Elif is actively trying to get involved. However, the physical and digital "noise" of campus life turns what should be a fun process into a stressful scheduling puzzle.

Goals:

- **Optimal Time Management:** Find a balance between socializing, developing new skills, and personal relaxation time.
- **Effective Filtering:** Quickly narrow down the hundreds of club options to the 2-3 that actually align with her current priorities.
- **Reliable Scheduling:** Have a clear view of her weekly social calendar to avoid "event-hopping" stress.

Frustrations:

- **Poster Overload Paralysis:** Standing in front of a bulletin board (like at Çarşı or Library) and feeling "visual noise" that makes it impossible to absorb information.
- **Scheduling Conflicts:** Discovering two perfect events only to realize they are at the same hour, leading to an "impossible choice."
- **Information Chaos:** Frustrated by the lack of a structured, centralized university schedule, forcing her to rely on messy physical boards or chaotic social media feeds.

Behaviors:

- **Comparative Scanning:** Frequently moves her gaze back and forth between posters, trying to mentally rank which club is "better" or "more important."
- **Anxious Time-Checking:** Constantly checks her watch or phone to cross-reference event times with her class schedule.
- **Indecision:** Spends a long time in front of flyers but often walks away without a clear plan because she is worried about making the "wrong" choice (FOMO).

Needs:

- **Centralized Digital Calendar:** A structured way to see all events in a list or calendar view.
- **Conflict Alerts:** A tool that helps her see immediately if two events she likes overlap.
- **Clarity on Value:** Better descriptions of what a club meeting actually entails (Social vs. Professional) to help her prioritize.

Quote:

"I found two great workshops, but they are at the exact same time. Now I'm just standing here stressed, feeling like no matter what I choose, I'm missing out on something better."

Appendix C: Persona — "Yasin, manager of niche club"

Name: Ahmet Yasin Avcı

Age: 23

Major: geological engineer

User Persona: The Niche Club Architect

Description: Yasin is a senior student and the manager of a specialized motorsport club. He is passionate about his field but struggles with the "business" side of running a club. He knows that to survive, his club needs more than just enthusiasts; it needs a professional team to handle the backend operations.

Goals:

- **Strategic Recruitment:** Successfully recruit students for non-technical roles like Finance, HR, and PR to ensure the club's professional growth.
- **Demographic Expansion:** Break the "engineers only" stereotype and attract students from various departments who can contribute to the club's management.
- **Professional Branding:** Showcase the club as a place for high-level skill development (budgeting, sponsorship, media management) rather than just a hobby group.
- **Structural Balance:** Maintain a disciplined operational team that supports the high-energy technical members.

Frustrations:

- **Invisible Niche:** Feeling overshadowed by "giant" social clubs during orientation week; his stand often gets lost in the noise of louder, more popular groups.
- **Inefficient Promotion:** Spending hours hanging physical posters and posting on Instagram, only to feel like he is reaching the same small circle of people.
- **Skill Gap:** Struggling to explain to a Finance student why they should join a motorsport club, leading to a shortage of "operational" members.

- **Communication Chaos:** Managing recruitment through DMs, emails, and physical lists makes it hard to track potential members effectively.

Behaviors:

- **Guerilla Marketing:** Personally hangs posters in high-traffic spots like the library and cafeteria to ensure maximum visibility.
- **Direct Outreach:** Spends long hours at physical stands during orientation, trying to engage passing students in one-on-one conversations.
- **Content Balancing:** Constantly tries to "mix" his social media feed—posting a cool car video one day and a serious "HR Team Wanted" call the next.

Needs:

- **Targeted Visibility:** A platform where his club isn't just "another poster" but can be found by students searching specifically for "Finance" or "Management" opportunities.
- **Analytics:** Data on how many people are actually interested in his recruitment calls to adjust his strategy.
- **Centralized Dashboard:** A way to manage events and recruitment without relying on chaotic, scattered social media messages.

Quote:

"Everyone thinks we just play with cars, but we are running a mini-corporation here. I need a Finance lead just as much as I need a mechanic, but finding them in this campus chaos is nearly impossible."

Appendix D: Storyboards (Prototype Version 1)

Prototype Version 1 (Low-Fidelity)

Storyboard 1 — "Exploring the Home Page"

1. **Frame 1:** User opens the Univent application and lands on the Home page.
2. **Frame 2:** The Home page displays a list of upcoming events with basic information (event title, date, and poster).
3. **Frame 3:** User scrolls through the event list to explore available activities.
4. **Frame 4:** User taps on an event card to view more details.

Storyboard 2 — "Searching for Events and Clubs"

1. **Frame 1:** User taps the search icon from the top navigation bar.
2. **Frame 2:** A search overlay opens with a search field and suggested items.
3. **Frame 3:** User types a keyword related to an event or club.
4. **Frame 4:** Search results are displayed, allowing the user to select an event or club.

Storyboard 3 — “Viewing Event Details”

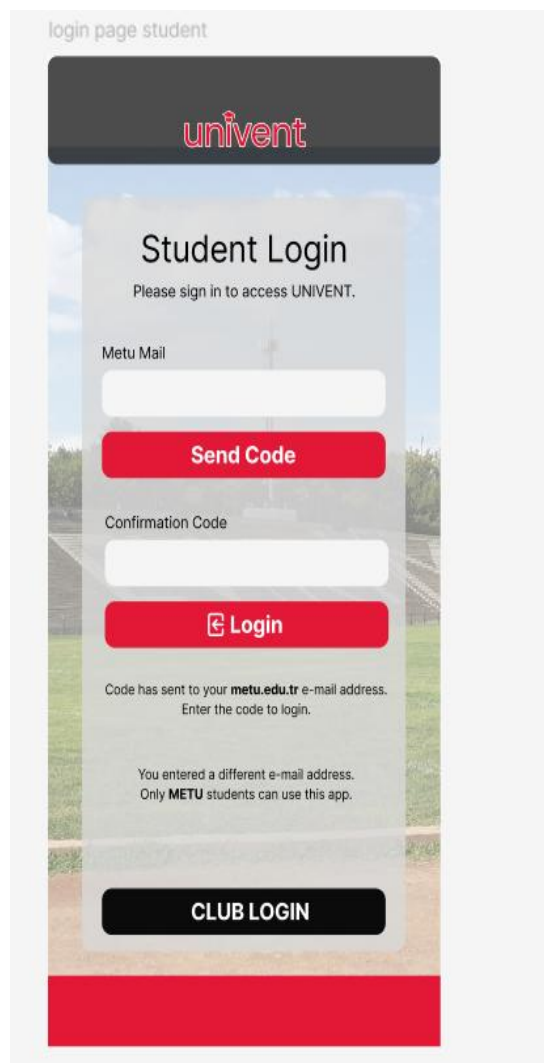
1. **Frame 1:** User opens an event detail page.
2. **Frame 2:** The page displays essential event information (date, time, location, description).
3. **Frame 3:** User reads through the event description and checks basic details.
4. **Frame 4:** User returns to the Home page or continues browsing other events.

Appendix E: Prototype Screenshots (Prototype Version 1)

For the last iteration of the app, you can check the link below:

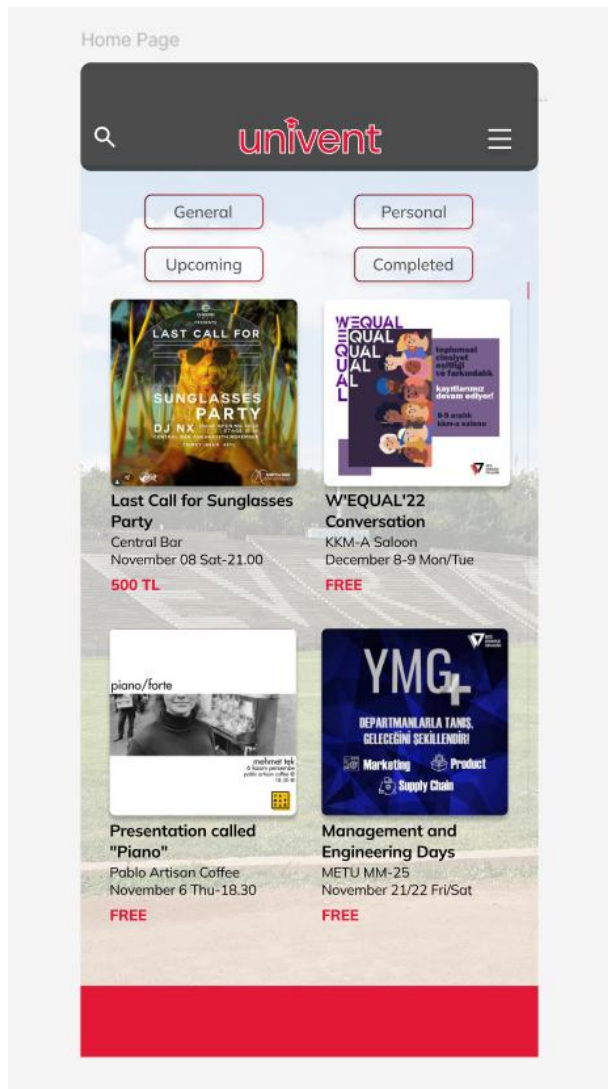
[Figma - UNIVENT](#)

- **Screenshot 1 - Login / Entry Screen**



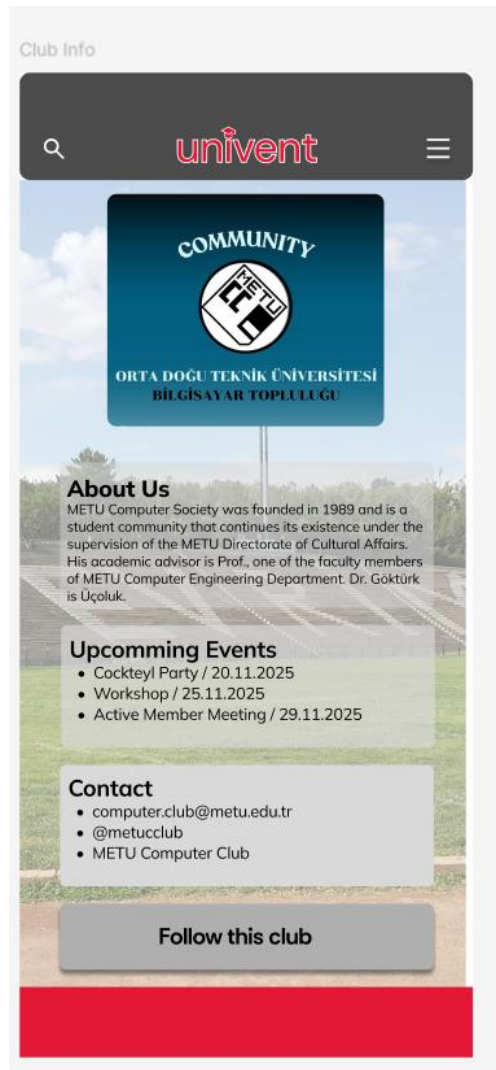
A simple login interface designed for METU students. The screen includes basic input fields for user authentication and minimal visual elements, reflecting the low-fidelity nature of the first prototype.

- Screenshot 2 - Home Page



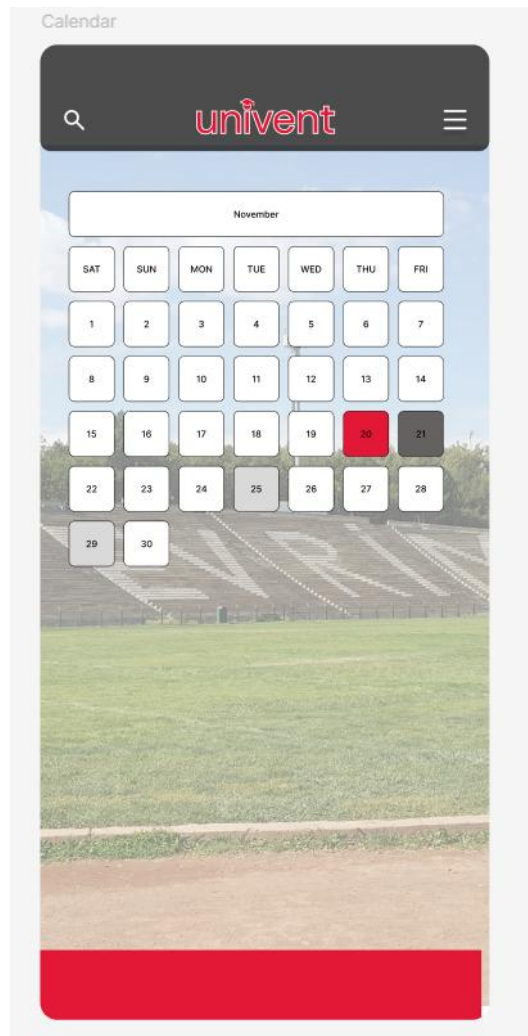
The Home Screen presents a scrollable list of university and student club events. Events are displayed as visual cards including an event poster, title, location, date and time, and participation fee (if applicable). Users can switch between **Upcoming** and **Completed** events using tab buttons at the top of the screen. A search icon and menu button are positioned in the header to support quick access and navigation. This screen serves as the primary entry point for browsing campus events.

- Screenshot 3 - Club Information



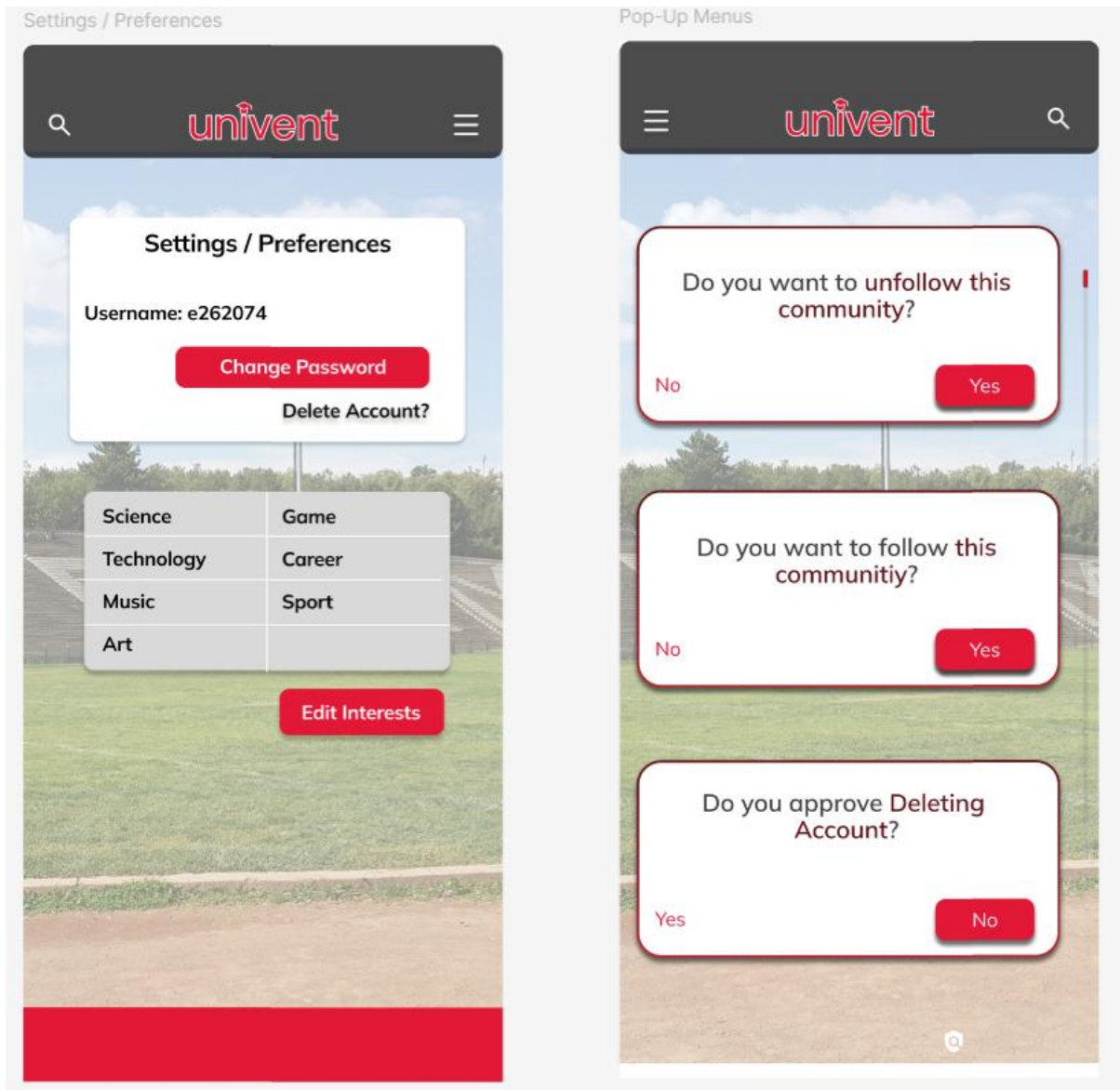
The Club Info page presents essential information about a selected student club in a clear and structured layout. At the top, the club logo and name establish visual identity, followed by an “About Us” section that briefly introduces the club’s background and mission. Below this, upcoming events are listed chronologically to keep students informed about near-term activities. Contact details are provided for accessibility, and a “Follow this club” button allows users to receive updates and stay connected with the club’s events.

- Screenshot 4 - Calendar



The Calendar page enables users to view events in a time-based format, supporting better planning and organization. Events are mapped onto specific dates, allowing students to quickly identify upcoming activities throughout the month. Highlighted dates indicate days with scheduled events, and users can select a date to explore related event details. This view complements the list-based browsing experience by offering a visual overview of campus activity timelines.

- Screenshot 5 - Settings / Preferences Page - Pop-up Menus



The Settings / Preferences page allows users to manage their personal account and customize their experience within the application. Users can view their username, change their password, or delete their account if desired. Additionally, interest categories such as science, technology, music, and sports can be selected to personalize event recommendations. This page supports user control, privacy, and personalization, contributing to a more user-centered and adaptable application experience.

Appendix F: Usability Survey Results

Participants:

5 undergraduate METU students

Tool:

Google Forms

Key Metrics Used:

- **Ease of Use:** 4.5 / 5
- **Clarity of Interface & Information:** 4.4 / 5
- **Engagement with Events & Clubs:** 4.3 / 5
- **Usefulness for Campus Life:** 4.6 / 5

Overall results indicate that users found the Univent application intuitive and helpful for discovering and managing campus events and student clubs. The combination of visual clarity, structured navigation, and calendar integration contributed positively to the user experience.

Selected Comments / Quotations:

- “Finding events from different clubs in one place is very convenient.”
- “The calendar view makes it easier to plan my week.”
- “I liked being able to follow clubs and see their upcoming events.”
- “Dark mode and interest-based filtering would make it even better.”
- “A mobile app version would be great for daily use.”