UADY ASSITANT:
Your academic Companion

Primera entrega.

Product description:

UADY ASSISTANT is a mobile application designed for incoming students of the UADY Faculty of Mathematics. Its purpose is to help these students adapt to their new university life and support them in achieving their first goals in their degree program by providing them with an interactive map, relevant information, a professor ranking with recommendations for performing well in their respective classes, an interactive forum with more senior students, and other functionalities that will assist them throughout their academic life.

Users/Clients

01	Primary Users	New students at the Faculty of Mathematics at UADY
02	Secondary Users	Any student from the Faculty of Mathematics
03	Potential Users	Any student from the Faculty of Engineering or the Faculty of Chemical Engineering at UADY

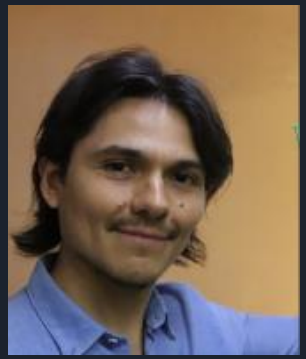
Primary User Example
Name: Daniel
Age: 18
Role: New student, first semester
Program: Software Engineering
Faculty: Faculty of Mathematics, UADY
User Type: Primary User
Routine and Pain Points:
Daniel is in his first days as a student at the Faculty of Mathematics. He typically arrives at campus by **7:30 a.m.**, but on his first few days, he experiences significant difficulties navigating the location:

Campus Confusion:
The UADY campus contains multiple faculties in close proximity, and Daniel struggles to identify the correct buildings belonging to the Faculty of Mathematics. As a result, even though he arrives early, he only makes it to his classroom by **7:45 a.m.**, missing crucial opening minutes of the lecture.

Unclear Assignment Platforms:
On his first day, Daniel is unsure **which platform he should use to submit his homework**. He hears conflicting instructions and is unfamiliar with UADY's fragmented digital ecosystem. That afternoon, he spends over **two hours** trying to figure out whether he should upload his work to:
UADY Virtual
UADY Virtual Academic Unit for Virtual Education
Enlínea
Microsoft Teams
This leads to **stress, wasted time, and risk of missing deadlines**.

Secondary user example
Name: José
Age: 19
Role: Ongoing student, not a freshman
Program: Actuarial Science
Faculty: Faculty of Mathematics, UADY
User Type: Secondary User

Routine and Pain Points:
José has a highly irregular and fragmented class schedule. He typically:
Arrives at the Faculty at **7:30 a.m.**
Goes home and returns at **11:30 a.m.**
Leaves again at **12:30 p.m.**
Comes back once more at **4:00 p.m.**
This erratic schedule causes **inefficient time use**, high fatigue, and difficulty balancing academic and personal life. The root of the problem stems from:
Lack of guidance during course selection:
José was unaware of the course registration process — he didn't know which courses were recommended, who taught them, or how to coordinate his selections. As a result, he ended up with a poorly organized timetable.



Potencial user example
Name: Arturo
Age: 21
Role: Upper-level student
Program: Chemical Engineering
Faculty: Faculty of Chemical Engineering, UADY
User Type: Potential User
Routine and Context:
Arturo attends classes at the UADY campus in the afternoons:

He **arrives at 3:00 p.m.**
He **leaves at 7:30 p.m.**

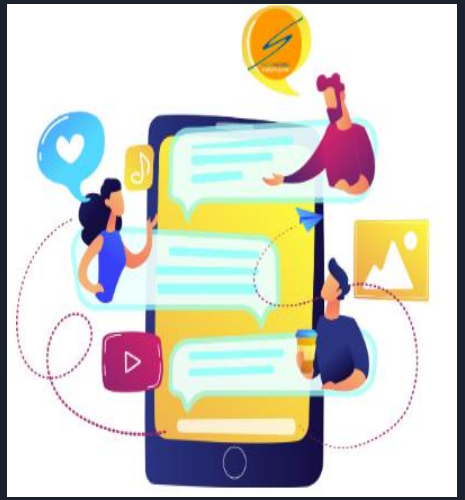
His class schedule is **simple and efficient** — he takes only two courses and is already familiar with his professors. He knows what suits him and doesn't need help choosing.
However, Arturo **works in the mornings**, and his schedule is tight. He usually:
Leaves work at **2:30 p.m.**, often abandoning **urgent tasks**.
Rushes across the city to attend his classes on time.
One day, he arrives only to find there is a **power outage** at the Faculty — no prior notice, no alert, no contingency.

Users stories

Map of the school

Teachers reputation

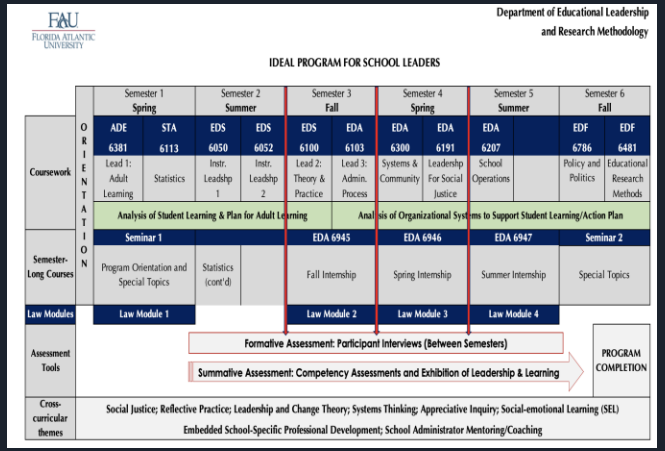
Students interaction



Users stories

A single platform

Courses in the entire degree



FAU Florida Atlantic University

Department of Educational Leadership and Research Methodology

IDEAL PROGRAM FOR SCHOOL LEADERS

		Semester 1 Spring		Semester 2 Summer		Semester 3 Fall		Semester 4 Spring		Semester 5 Summer		Semester 6 Fall	
Coursework	ORIENTATION	ADE 6381	STA 6113	EDS 6050	EDS 6052	EDS 6100	EDA 6103	EDA 6300	EDA 6191	EDA 6207		EDF 6786	EDF 6481
		Lead 1: Adult Learning	Statistics	Instr. Leadshp 1	Instr. Leadshp 2	Lead 2: Theory & Practice	Lead 3: Admin. Process	Systems & Community	Leadership For Social Justice	School Operations		Policy and Politics	Educational Research Methods
		Analysis of Student Learning & Plan for Adult Learning					Analysis of Organizational Systems to Support Student Learning/Action Plan						
Semester-Long Courses		Seminar 1				EDA 6945		EDA 6946		EDA 6947		Seminar 2	
		Program Orientation and Special Topics		Statistics (cont'd)		Fall Internship		Spring Internship		Summer Internship		Special Topics	
Law Modules		Law Module 1				Law Module 2		Law Module 3		Law Module 4			
Assessment Tools		Formative Assessment: Participant Interviews (Between Semesters)										PROGRAM COMPLETION	
		Summative Assessment: Competency Assessments and Exhibition of Leadership & Learning											
Cross-curricular themes		Social Justice; Reflective Practice; Leadership and Change Theory; Systems Thinking; Appreciative Inquiry; Social-emotional Learning (SEL) Embedded School-Specific Professional Development; School Administrator Mentoring/Coaching											

Events calendar

Value Proposition

Due to the highly specific geographical nature of our software. It turns out to be unique in its kind. There are no other similar applications designed for new students at UADY. Making it the only viable option for solving the problem at hand.

Functional Requirements

FR-01: User Authentication

The system must allow users to log in using their account and password in order to access personalized features and interact in depth with the application.

Users must be able to create an account or use existing credentials.

Authentication should securely manage sessions and protect user data.

Functional Requirements

FR-02: Real-Time Campus Map

The system must provide a real-time interactive map where users can visualize campus buildings and key locations within the Faculty of Mathematics.

The map should display classrooms, labs, offices, and common areas.

Users must be able to zoom, search, and view descriptions.

Relevant alerts or updates may be displayed directly on the map.

Functional Requirements

FR-03: Professor and Course Review Section

The system must provide a section for reviewing professors, offering students advice for course selection.

This section must include basic professor profiles.

User-generated reviews, ratings, and course-specific recommendations must be supported.

Additional metadata such as course difficulty, prerequisites, or teaching style may be included.

Functional Requirements

FR-04: Alert and Notification System
The system must include an alert tool that informs users about relevant events and updates happening at the university.
Alerts may be generated by admins or trusted users.
Notifications should appear in real-time and be accessible in a centralized area.

Non-Functional Requirements

NFR-01: Usability

- The system shall provide an intuitive and beginner-friendly interface, considering that most users will be **first-semester students** unfamiliar with both the campus and university platforms.
- All core features (map, forum, notifications, course info) shall be accessible within **three clicks** or fewer from the main screen.
- The platform shall support **responsive design** for mobile and desktop users.

Non-Functional Requirements

NFR-02: Availability
The system shall be available **24/7**, with a **target uptime of 99.5%**, to ensure students can access campus maps, alerts, and course information at any time.
Scheduled maintenance shall be announced in advance through the app's notification system.

Non-Functional Requirements

NFR-03: Scalability
The system architecture must be scalable to support future integration with other UADY faculties beyond the Faculty of Mathematics (e.g., Engineering, Chemical Engineering).
Modular design principles should be applied to support easy expansion of features like additional maps, new notification types, or faculty-specific content

Non-Functional Requirements

NFR-04: Localization
The system interface shall be available in **Spanish by default**, but should be designed with internationalization in mind to support future translations (e.g., English).

Prioritization No functional

Due to the highly specific geographic focus of our software, it turns out to be unique in its kind. There are other applications with some similar features used by UADY, but none directly focused on what we are aiming for with our app, which makes it the only viable option for the problem to be solved.

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No FUNCTIONAL

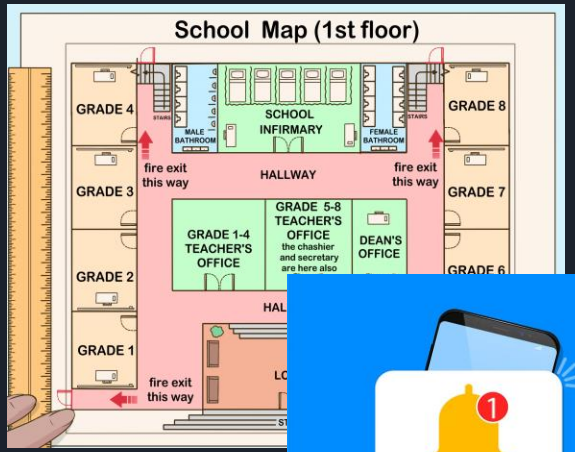
Regarding the non-functional requirements, both a user-friendly interface and the app's availability are necessary. Ideally, the app should be accessible 24/7 to provide free access to everyone; otherwise, it would be counterproductive.

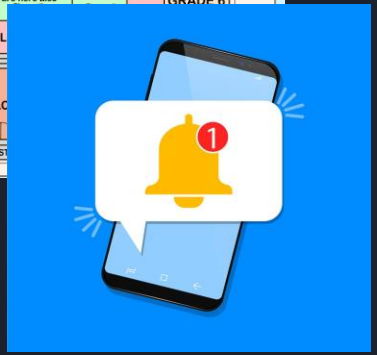
In addition, the growth of the application is being taken into account, from updates that improve performance to expanding its use to other UADY faculties and supporting more than one language.

Prioritization functional

FUNCTIONAL
Regarding the functional requirements, we decided to include the most concise and useful features for incoming students. The interactive map is particularly relevant to help new students familiarize themselves with the FMAT facilities. As for course and professor reviews, we decided to gather these opinions and suggestions in one place, rather than relying only on word of mouth, so that students can have direct access to this valuable information.

Alerts are also essential to make the application more dynamic and to address one of the main problems new students face: the lack of information about both school and extracurricular events.





Artifacts

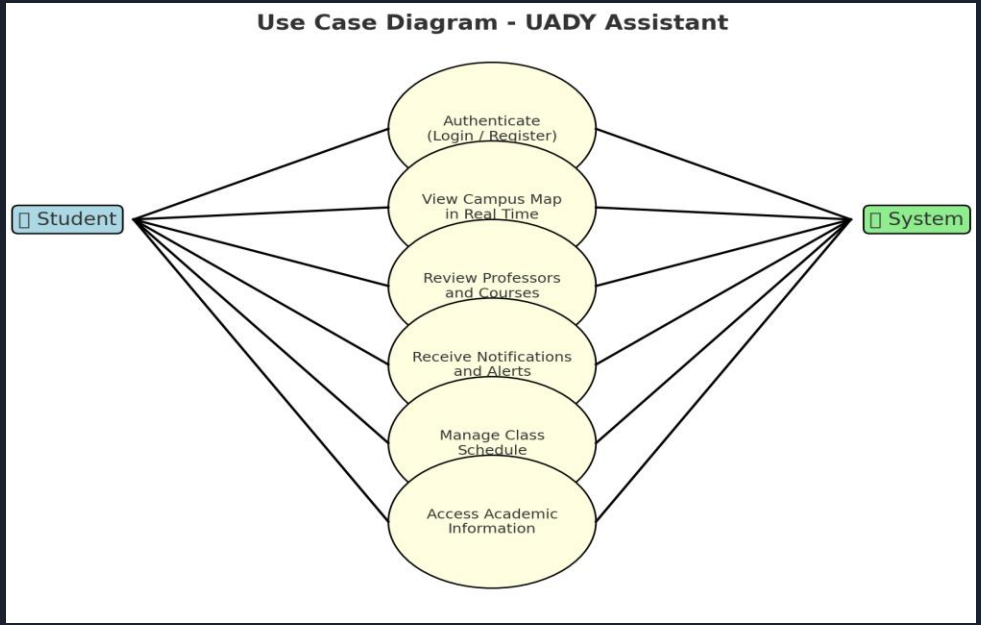
Artifacts included in the project

- **Use Cases:** describe the main interactions between the student and the system (e.g., *View campus map in real time*, *Receive notification*).
- **User Stories with Acceptance Criteria:** explain what the student expects to achieve and under which conditions the requirement is considered fulfilled.
- **List of Functional and Non-Functional Requirements:** documented and organized according to their priority for development.
- **Use Case Diagram:** visual representation that summarizes the set of requirements and the main actors.

Purpose of the Artifacts

- Serve as **documentary evidence** of the requirements gathered during the analysis.
- **Clearly communicate** what the system must do and the exceptions that must be considered.
- Facilitate the **validation and traceability** of the requirements with the future modules of the application.

Artifacts Use Case Diagram



Process

Contribución / Integrantes	Propuesta de funcionalidad	Ingeniería de requerimientos	Diseño de Interfaz	Verificación de requerimientos	Participación completa en segunda entrega	Porcentaje de contribución
Abel	●		●	●	●	20%
Mitchell	●	●			●	20%
Sebastián	●		●		●	20%
Javier	●	●			●	20%
Yessica	●	●		●	●	20%

For the development of the application, team members divided their responsibilities to ensure balanced participation and effective collaboration.

- **Abel** proposal of functionalities, the design of the interface, and the verification of requirements.
- **Mitchell** focused on the proposal of functionalities.
- **Sebastián** requirements engineering and interface design.
- **Javier** proposal of functionalities and verification of requirements.
- **Yessica** proposal of functionalities and requirements engineering.

Each member has a **20% contribution**, reflecting equal participation in the project.
SCRUM method

SCRUM MODEL

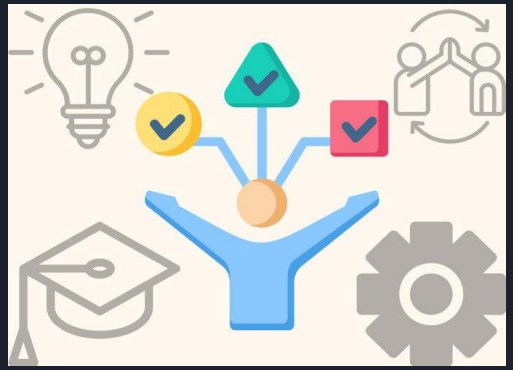
NOMBRE	PORCENTAJE DE PARTICIPACIÓN
Product owner Abel Israel Alvarez Martinez Tareas: Product backlog. Spring planning. Spring backlog. Sprint execution, potentially shippable product increment, sprint review and retrospective.	20%
Scrum Master Mitchell Bachtold Gutiérrez Tareas: Coach. Gestiona el Scrum.	20%
Developer Sebastian Joshua Cardos Pilon Tareas: Diseñador de UI. Programador. Arquitectura de software.	20%
Developer Javier Salazar De La Cruz Canul Tareas: Programador.	20%
Developer Yessica Grisel Mezeta López Tareas: Programador.	20%

GENERIC COMPETENCIES

Generic competencies are promoted in the project by working on activities such as the development of user stories, the value proposition, and the definition of requirements. These tasks foster effective communication, critical thinking, and self-management, as they require expressing ideas clearly, analyzing differences compared to other applications, and organizing resources and time to achieve objectives. In this way, transversal skills are strengthened, enabling performance in different academic and professional contexts.

SPECIFIC COMPETENCIES

Specific competencies are developed by applying technical knowledge of software engineering in activities such as defining functional and non-functional requirements, creating the interactive sketch, the forum, and the teacher ranking. These actions encourage skills in systems analysis, interface design, data structures, and agile methodologies, ensuring better control and quality in product development, while also preparing students to face future professional projects.



Our team

Sebastián Joshua Cardos Pilon	100%
Yessica Grisel Mezeta López	100%
Mitchell Bachtold Gutiérrez	100%
Abel Israel Alvarez Martinez	100%
Javier Adrian Salazar De La Cruz Canul	100%