

**Student Lifecycle Management System**

Requirements Specification

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1.Executive Summary

**1.1 Project Overview**

* **Admission System:**

The University Admission System serves as the initial component of the broader Student Lifecycle Management System. It streamlines the registration process for new students, ensuring an efficient and transparent workflow. Key features of the Admission System include a user-friendly online application form, centralizing student applications for easy review, financial transaction tracking, collaboration between the Student Relations Office, Finance Office, and Secretary Office, and a process for transferring students. The transfer process involves facilitating the seamless transition of students from other institutions, ensuring their academic credits are appropriately evaluated and transferred.

* **Administration System:**

The Administration System is the central hub where the Dean of Students, acting as the Admin, oversees various aspects of student management. This system integrates functionalities for managing student records, activities, clubs, and school services. The Dean has the authority to update student information, track activities and club memberships, and stay informed about school-wide events. Additionally, the Administration System includes an Alumni module to monitor the progress of graduated students.

* **Student Portal:**

The Student Portal is a personalized space for students within the Student Lifecycle Management System. Students can securely log in to access information relevant to their academic journey. The portal includes features such as updating personal details, receiving notifications for activities, clubs, and mentorship programs, providing a seamless and interactive experience for the student community.

**1.2 Purpose and Scope of this Specification**

The purpose of this project specification document is to provide a comprehensive and detailed outline of the Student Lifecycle Management System. It serves as a guiding document for the development team, stakeholders, and end-users, ensuring a common understanding of the project's objectives, functionalities, and constraints.

This specification aims to:

* Clearly define the key components and features of the Student Lifecycle Management System.
* Establish a foundation for the development team to design, implement, and test the system.
* Communicate the expectations and requirements to stakeholders and end-users.
* Serve as a reference point for future enhancements, maintenance, and system updates.
* Ensure alignment between the project deliverables and the institution's goals and policies.

The scope of the Student Lifecycle Management System encompasses the entire student journey within the university, from the admission process to alumni tracking. It includes three main components: Admission System, Administration System, and Student Portal.

* Admission System:
  + Facilitates the registration process for new students.
  + Streamlines communication and collaboration among the Student Relations Office, Finance Office, and Secretary Office.
  + Manages financial transactions related to admission.
  + Ensures transparency and efficiency in the evaluation and confirmation of student applications.
  + Facilitating the process of transferring students, including evaluating credit transfers and ensuring a seamless transition for transfer students.
* Administration System:
* Provides a centralized platform for the Dean of Students to oversee and manage student records, activities, clubs, and school services.
* Includes an Alumni module for tracking the progress and achievements of graduated students.
* Enhances collaboration and communication among different administrative offices involved in student management.
* Student Portal:
* Offers a secure and personalized space for students to access academic and extracurricular information.
* Enables students to update personal details and receive notifications for activities, clubs, and mentorship programs.
* Facilitates seamless interaction and engagement between students and the university.

**2.Product/Service Description**

**2.1 Product Context**

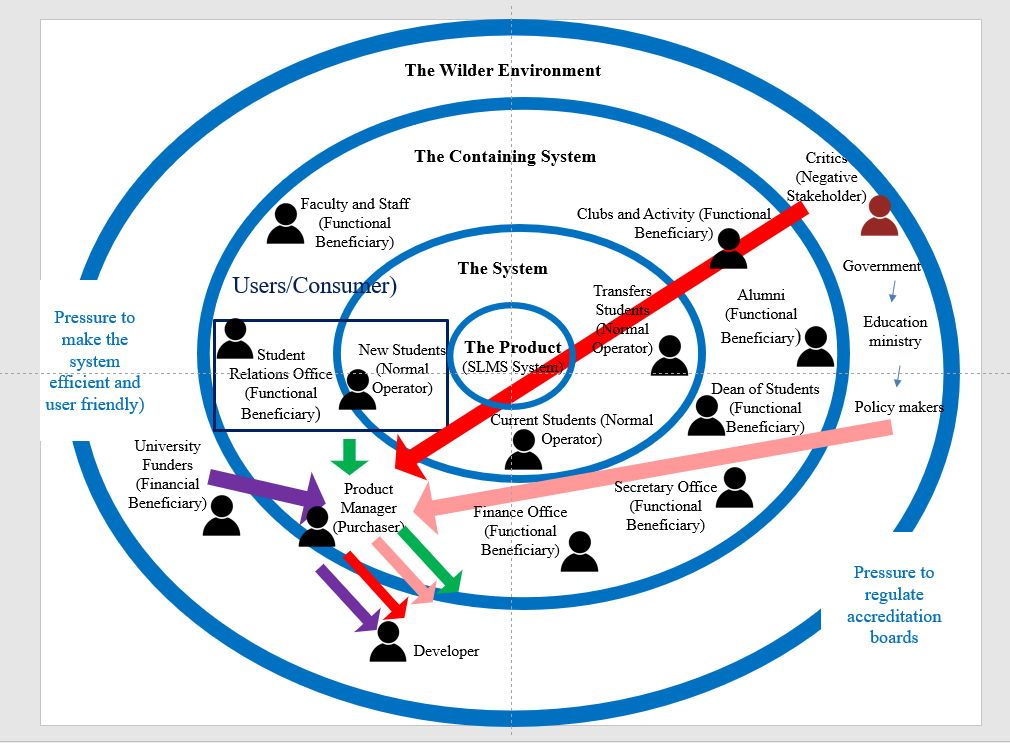
The Student Lifecycle Management System (SLMS) operates as the central hub for student-related processes within a university. It seamlessly integrates with existing systems, aligns with the institution's goals, and caters to diverse stakeholders, including the Dean of Students, admission offices, finance, faculty, and students. The SLMS ensures regulatory compliance, adapts to the institution's technological framework, and evolves to meet future needs. It optimizes collaboration, enhances data accuracy, and contributes to an efficient student management ecosystem.

**2.2 User Characteristics**

**Stakeholder Identification Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Stakeholder** | **Stakeholder Role/Responsibility** | **Importance** | **Influence** | **Interests/Positive Impacts** | **Concerns** |
| 1.New Students | Prospective students who are considering applying for admission to the university. They are responsible for completing the application process and providing necessary documents. | High | New students have a significant influence on the university's enrollment rates and demographic diversity. Their decisions to apply and enroll directly impact the institution's revenue, academic environment, and overall reputation. | * Seeking to pursue higher education opportunities and advance their career prospects * Interested in accessing quality education, diverse academic programs, and valuable resources offered by the university. | * Concerns about the clarity and accessibility of admission requirements, application procedures, and deadlines. * Potential financial concerns regarding tuition fees and scholarships. |
| 2. Student Relations Office | The Student Relations Office is responsible for managing communication with prospective students, handling inquiries, and assisting with the admission process. | High | The Student Relations Office plays a critical role in attracting and engaging prospective students, ultimately influencing their decision to apply and enroll in the university. | * Facilitating smooth communication between prospective students and the university. * Providing accurate and timely information about the admission process, academic programs, and campus life. | * Ensuring clear and effective communication channels between prospective students and the university. * Collaborating with other administrative offices to streamline the admission process. |
| 3. Finance Office | The Finance Office manages financial transactions related to admission, including application fees, tuition payments, and financial aid processing. | High | The Finance Office plays a critical role in ensuring the affordability of education and managing the financial aspects of student enrollment, thus influencing students' decision-making process. | * Providing financial assistance and support to students through scholarships, grants, and loans | * Ensuring accurate and transparent financial transactions for admission-related fees. * Addressing financial concerns and assisting students with financial planning. |
| 4. Secretary Office | The Secretary Office assists in administrative tasks related to admission, such as document processing, record-keeping, and coordination among various administrative offices. | Medium | The Secretary Office plays a supportive role in facilitating administrative tasks related to admission, contributing to the overall efficiency of the admission process. | * Ensuring smooth administrative processes and record-keeping for efficient admission operations. | * Maintaining accurate and up-to-date records to support decision-making processes. * Coordinating effectively with other administrative offices to ensure seamless workflow. |
| 5. Dean of Students  (Administration) | The Dean of Students oversees various aspects of student management within the university. This includes managing student records, activities, clubs, school services, and the transfer of students within the institution. | High | The Dean of Students has significant influence over student affairs and the overall student experience, shaping policies, programs, and services to meet the needs of the student body. | * Ensuring a supportive and conducive environment for students' academic and personal development * Enhancing the overall student experience. | * Addressing students' concerns and grievances effectively. * Ensuring compliance with regulations and policies related to student affairs. |
| 6. Alumni | Graduated students whose progress and achievements are tracked through the Alumni module of the Administration System. They serve as ambassadors of the university and may contribute to fundraising efforts. | Medium | Alumni can influence the university's reputation, recruitment efforts, and fundraising initiatives through their ongoing engagement and support. They serve as valuable advocates for the institution in various professional and social networks. | * Contributing to the university's reputation and success through their achievements and professional networks. | * Ensuring ongoing engagement and communication with alumni to foster a strong alumni community. * Addressing alumni concerns and feedback regarding their experiences with the university. |
| 7. Clubs and Activities | These represent student-led organizations and extracurricular activities on campus. They organize events, foster community, and provide opportunities for students to pursue their interests outside of the classroom. | Medium | Clubs and activities contribute to campus culture, student engagement, and personal growth, influencing the overall student experience and campus community dynamics. | * Enhancing the student experience and promoting a sense of belonging and community. * Offering opportunities for personal and professional development. | * Ensuring inclusivity and diversity within clubs. * Addressing logistical challenges in organizing events and activities. |
| 8. Faculty and Staff | Faculty members are responsible for teaching, advising, conducting research, and contributing to academic programs, while staff members provide administrative and support services essential for the university's operation. | High | Faculty and staff play a central role in delivering the university's mission and goals, impacting student learning outcomes, research productivity, and institutional effectiveness. | * Ensuring quality education through effective teaching and mentorship. * Supporting student success through advising, guidance, and academic support services. | * Ensuring adequate resources, facilities, and support for teaching, research, and administrative duties. * Providing professional development opportunities for faculty and staff achievements. |
| 9. Current Students | Current students are enrolled individuals pursuing their academic studies within the university. They engage in coursework, participate in extracurricular activities. | High | Current students influence campus dynamics, academic programs, and student life through their involvement, feedback, and contributions to the university community. | * Accessing quality education and resources to support their academic goals. * Engaging in extracurricular activities, clubs, and events to enhance their personal and professional development. | * Ensuring access to necessary resources, including academic support services, facilities, and technology. |
| 10. Transfer Students | Transfer students are individuals who have previously attended another educational institution and are seeking to continue their education at the university. They go through the process of transferring credits and adjusting to a new academic environment. | Medium | Transfer students contribute to the diversity and enrichment of the university community and bring unique perspectives and experiences. Their experiences and feedback can inform improvements in transfer processes and support services. | * Pursuing educational opportunities and advancing their academic and career goals. * Accessing resources and support to facilitate a smooth transition to the university. | * Ensuring the accurate evaluation and transfer of credits to minimize academic disruption. * Addressing concerns related to credit transfer policies, course equivalencies, and academic advising. |

**Onion Diagram : Influences on the SLMS System of the Product Manager**



**2.3 Assumptions**

* User Authentication:
* It is assumed that staff members will log in to the SLMS using their university-issued email credentials, ensuring secure access and identity verification.
* Integration and Database:
* It is assumed that the SLMS interface and database are seamlessly integrated into the existing infrastructure of the university, facilitating consistent data flow and accessibility.
* Eligibility and Admission Process:
* It is assumed that all applicants using the SLMS are eligible to apply for the university, and the admission process is contingent on the accuracy of their application information and payment of relevant fees.
* System Security:
* It is assumed that the SLMS will be accessible and used exclusively by authorized personnel. The system will incorporate robust security measures, including user authentication and authorization, to safeguard sensitive student data.
* Scalability and Data Handling:
* It is assumed that the SLMS is designed to handle a large volume of data related to student applications and registrations. The system is expected to be scalable, adapting to the university's evolving needs without compromising performance.
  1. **Constraints**
* Users are expected to run the software on the well-known platforms Windows or Mac. Because of the complexity of the solution the device should have at least average computation power.
* The users should make sure to have reliable internet connection in order for the software to work.
* The intended audience (students, proffesors&staff, student relations office, finance office, secretary office, dean of students) are expected to be at least semi proficient in the English language to understand the utilities provided.
* The audience should know how to use the application.
* The back-end structure should be ready to respond to all requests at any time which might be highly concurrent peaking at university operating hours.
  1. **Dependencies**

|  |  |
| --- | --- |
| **Stakeholder** | **Dependencies** |
| Current Students | * Interaction with Faculty and Staff for academic guidance, course registration, and grading. * Potential collaboration with Clubs and Activities for extracurricular involvement and community engagement. * Possible interaction with Transfer Students for academic and social integration. * Potential engagement with Alumni for networking and mentorship opportunities. |
| Transfer Students | * Interaction with Faculty and Staff for credit transfer evaluation, academic advising, and course registration. * Potential collaboration with Clubs and Activities for extracurricular involvement and social integration. * Interaction with New Students for peer support and orientation to the university environment. * Possible engagement with Alumni for networking and support during the transition process. |
| New Students | * Interaction with Faculty and Staff for admission processes, academic advising, and course enrollment. * Potential collaboration with Clubs and Activities for exploring campus involvement opportunities. * Interaction with Current Students for peer support, orientation activities, and integration into the university community. * Possible engagement with Transfer Students for information exchange and support during the transition process. |
| Student Relations Office | * Collaboration with Current Students for processing inquiries, applications, and providing student support services. * Interaction with Faculty and Staff for coordinating student-related activities, academic advising, and resolving student issues. * Potential collaboration with Clubs and Activities for organizing student events, activities, and initiatives. * Collaboration with Transfer Students and New Students for orientation programs, support services, and integration into the university community. * Interaction with Alumni for alumni engagement programs, networking opportunities, and alumni relations. |
| Finance Office | * Interaction with Current Students for tuition payments, financial aid processing, and student account management. * Collaboration with Faculty and Staff for budget planning, grant management, and financial reporting related to academic programs and research projects. * Interaction with Clubs and Activities for budget allocations, financial oversight, and funding requests for student organizations. * Collaboration with Student Relations Office for financial transactions related to student admissions, registrations, and support services. |
| Secretary Office | * Interaction with Current Students, Transfer Students, and New Students for administrative support services, document processing, and record-keeping related to student enrollment, registration, and academic records. * Collaboration with Faculty and Staff for administrative tasks, scheduling, and coordination of academic activities, meetings, and events. * Interaction with Student Relations Office for coordination of student-related administrative processes, communication, and documentation. * Collaboration with Finance Office for administrative tasks related to budget management, procurement, and financial transactions. * Interaction with Alumni for administrative support services related to alumni relations, events, and communication. |
| Dean of Students/Administration | * Interaction with Current Students, Transfer Students, and New Students for academic advising, student support services, and resolution of student issues and concerns. * Collaboration with Faculty and Staff for academic program management, curriculum development, and student-related policies and procedures. * Interaction with Student Relations Office for coordination of student services, programs, and initiatives aimed at enhancing the student experience. * Collaboration with Finance Office for budget planning, resource allocation, and financial oversight of student-related activities and services. * Interaction with Alumni for alumni engagement initiatives, networking opportunities, and support for student development programs. |
| Alumni | * Interaction with Current Students for mentorship, career guidance, and networking opportunities aimed at supporting student success and professional development. * Collaboration with Student Relations Office for alumni engagement programs, events, and communication initiatives aimed at fostering connections between alumni and the university. * Interaction with Faculty and Staff for involvement in alumni-related academic and research initiatives, guest lectures, and industry partnerships. * Collaboration with Finance Office for financial contributions, donations, and fundraising efforts aimed at supporting university programs, scholarships, and facilities. * Interaction with Secretary Office for administrative support services, alumni records, and documentation related to alumni relations and activities. |
| Clubs and Activities | * Interaction with Current Students for membership recruitment, event participation, and leadership development opportunities within student organizations and clubs. * Collaboration with Student Relations Office for event planning, promotion, and coordination of club activities and initiatives. * Interaction with Faculty and Staff for faculty advisors, academic support, and collaboration on club-sponsored events, projects, and competitions. * Collaboration with Finance Office for budget allocations, funding requests, and financial oversight of club activities, events, and expenditures. * Interaction with Alumni for networking events, alumni mentorship, and sponsorship opportunities supporting club activities and initiatives. |
| Faculty and Staff | * Interaction with Current Students for teaching, academic advising, research supervision, and mentorship aimed at supporting student learning and development. * Collaboration with Student Relations Office for coordination of student services, academic support programs, and resolution of student issues and concerns. * Interaction with Clubs and Activities for involvement in extracurricular activities, faculty advisor roles, and collaboration on student-led initiatives and projects. * Collaboration with Finance Office for budget planning, grant management, and financial reporting related to academic programs, research projects, and departmental activities. * Interaction with Alumni for alumni engagement initiatives, guest lectures, industry partnerships, and networking opportunities supporting faculty research, teaching, and professional development. |

3. Requirements

**3.1 Functional Requirements**

The requirement numbering has a scheme – SLMS## (SLMS for Student Lifecycle Management System):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Req#** | **Requirement** | **Comments** | **Priority** | **SLMS**  **Reviewed/**  **Approved** |
| SLMS\_1 | The system must be supported by a web application. | * This is the main platform for using the software. | High |  |
| SLMS\_2 | User Authentication and Authorization | * Develop a view with different functionalities for the students * Develop a view with different functionalities for the SRO (admin) * Develop a view for the FO * Develop a view for the SO * Develop a view for the professors &staff, * Develop a view for dean of students(administration) * Develop a view for the administrative staff and the club organizers * Develop a view for the students portal. | High |  |
| SLMS\_3 | Design intuitive and user-friendly online forms for new student applications. | * Include fields for personal details, academic history, program preferences, and supporting documents (e.g., transcripts, letters of recommendation) * Enable applicants to save and resume incomplete applications. * Enhance the applicant experience by simplifying the application process and reducing manual paperwork. | High |  |
| SLMS\_4 | Application Review and Processing | * Develop a dashboard for admissions staff to view and manage incoming applications. Include filters, sorting options, and search functionality for efficient application review. * Enable staff to update application statuses, add comments, and communicate with applicants. | High |  |
| SLMS\_5 | Financial Transaction Tracking | * Maintain detailed records of transactions, including dates, amounts, payment methods, and status. | Medium |  |
| SLMS\_6 | Communication and Notification | * Implement messaging features for sending announcements, reminders, and notifications to students, faculty, and staff. * Improve communication effectiveness, increase user engagement, and keep stakeholders informed about important events and deadlines. | Medium |  |
| SLMS\_7 | Extracurricular Activities Management | * Develop tools for clubs and activities to create and manage profiles, events, meetings, and resources. * Enable students to search, join, and participate in clubs based on interests, goals, and availability. * Implement features for club leaders to track membership, attendance, and participation metrics. | Medium |  |
| SLMS\_8 | Alumni Tracking and Engagement | * Build a comprehensive database for storing alumni contact information, employment history, achievements, and affiliations. * Provide alumni with self-service tools to update their profiles, submit class notes, and connect with other alumni. * Strengthen alumni relations, leverage alumni expertise and resources, and cultivate lifelong connections between alumni and the university. | Medium |  |
| SLMS\_9 | Reporting and Analytics | * Develop a reporting dashboard with customizable reports, dashboards, and data visualization tools. * Incorporate data analytics capabilities for predictive modeling, trend analysis, and decision support. | Medium |  |

4. Analysis Model

**4.1 User Scenarios**

|  |  |  |
| --- | --- | --- |
| **Number** | **User Story Name** | **Description** |
| 1 | Successful Login | * User logs in successfully by entering his email and password |
| 2 | Login failed | * User fails to login by using his email and password |
| 3 | Password forgotten | * User forgets his password, changes it by using a code received to his email account |
| 4 | Language chosen | * User changes the language from English to Albania or the other way around |
| 5 | New student applies to the university application form | * Student goes to the university page and fills out the application form |
| 6 | SRO chooses to view the pending list | * SRO logs in with their account and chooses to view the pending list that the student have applied from the application form |
| 7 | SRO chooses to edit the pending list | * SRO logs in with their account and chooses to edit the pending list where they can make comments about a student or accept or reject their application |
| 8 | SRO chooses to view the transactions list | * SRO logs in with their account and chooses to view the transactions list of students where they have made their payment |
| 9 | SRO chooses to view the registered list | * SRO logs in with their account and chooses to view the registered list of students |
| 10 | FO chooses to view the pending list | * FO logs in with their account and chooses to view the pending list that the student have applied from the application form |
| 11 | FO chooses to view the transactions list | * FO logs in with their account and chooses to view the transactions list of students where they have made their payment |
| 12 | FO chooses to edit the transactions list | * FO logs in with their account and chooses to edit the transactions list of students where they put if the student has made the transactions or not and the total sum and comment for every student |
| 13 | FO chooses to view the registered list | * FO logs in with their account and chooses to view the registered list of students |
| 14 | SO chooses to view the pending list | * SO logs in with their account and chooses to view the pending list that the student have applied from the application form |
| 15 | SO chooses to view the transactions list | * SO logs in with their account and chooses to view the transactions list of students where they have made their payment |
| 16 | SO chooses to view the registered list | * SO logs in with their account and chooses to view the registered list of students |
| 17 | SO chooses to edit the registered list | * SO logs in with their account and chooses to edit the list where they chooses to accept or reject the student |
| 18 | SO chooses to edit the registered list | * SO logs in with their account and chooses to edit the list where they chooses to accept or reject the student |
| 19 | Proffesors & Staff chooses to view the pending list | * Proffesors & Staff logs in with their account and chooses to view the pending list that the student have applied from the application form |
| 20 | Proffesors & Staff chooses to view the transactions list | * Proffesors & Staff logs in with their account and chooses to view the transactions list of students where they have made their payment |
| 21 | Proffesors & Staff chooses to view the registered list | * Proffesors & Staff logs in with their account and chooses to view the registered list of students |
| 22 | Create Student Activities | * An administrative staff member creates new student activities, events, and clubs within the SLMS system, specifying details such as name, description, date, time, location, and relevant categories, to facilitate student engagement and participation. |
| 23 | Manage Student Activities | * Dean of Students manages existing student activities, events, and clubs within the SLMS system, edit details, update schedules, assign organizers, and track attendance to ensure successful execution and coordination. |
| 24 | Promote Student Activities | * An administrative staff member, promotes student activities, events, and clubs within the university community through the SLMS system, by creating announcements, sending notifications, and publishing information on the student portal, to increase awareness and participation. |
| 25 | Approve Student Activity Requests | * An administrative staff member, reviews and approves requests submitted by students to create new activities, events, or clubs, ensuring they align with university policies, guidelines, and objectives, to maintain quality and relevance in student programming. |
| 26 | Monitor Student Activity Participation | * Dean of Students monitors student participation and engagement in various activities, events, and clubs through the SLMS system, by tracking attendance, collecting feedback, and analyzing participation data, to assess the impact and effectiveness of student programming. |
| 27 | Provide Support to Club Organizers | * Dean of Students provides support and guidance to club organizers through the SLMS system, by offering resources, answering questions, and facilitating communication, to empower them in successfully managing their clubs and activities. |
| 28 | Evaluate Activity Impact | * An administrative staff member evaluates the impact and effectiveness of student activities, events, and clubs within the SLMS system, by collecting feedback, analyzing participation trends, and assessing outcomes, to inform future planning and decision-making. |
| 29 | Access Personal Information | * A student has access to view personal information stored in the SLMS system, including contact details, academic records, and enrollment status, to stay informed about their educational journey. |
| 30 | Update Personal Details | * A student updates my personal details (such as address, phone number, or emergency contacts) through the student portal, ensuring that their information is accurate and up-to-date for communication and administrative purposes. |
| 31 | Explore Extracurricular Activities | * A student explores and discovers extracurricular activities, clubs, and events available on campus through the student portal, including descriptions, schedules, and contact information, to enhance their college experience and get involved in campus life. |
| 32 | Receive Notifications and Announcements | * A student receives notifications and announcements through the student portal regarding important deadlines, events, campus news, academic updates, and other relevant information, to stay informed and engaged with the university community. |