**Project Articles of Incorporation**

**Project Information**

**Data**

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| Company / Organization | MLG |
| Project | ForoU |
| Date of preparation | 18-08-2025 |
| Customer | Duocuc |
| Sponsors |  |
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| Project Manager | Giovanni Oyarzún |

**Purpose and justification of the project**

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| Our ForoU aims to create a global web platform for Spanish-speaking students, which allows them to ask questions, obtain answers and share knowledge in different academic areas. The justification lies in the lack of an inclusive and motivating space for collaborative learning, ForoU seeks to solve this problem through an environment without negative votes, with gamification, educational microvideos and modern search and notification tools, adding value to both the academic field and the field of Computer Engineering. |

**Project description and deliverables**

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| The project consists of the development of a global student web platform, which will integrate an interactive forum for questions and answers in various academic areas, a gamification system with achievements and badges, an advanced search engine with categorization by subjects and levels of knowledge, as well as a section of educational microvideos such as "quick tips". The solution will be supported by a scalable and accessible web architecture, aimed at Spanish-speaking students. |

**Objectives**

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| **Objective** | **Success Indicator** |
| **Scope** | |
| Development of the web platform with forum, login and search engine. | Reach 70% of registered users participate in questions or answers in the first 3 months. |
| System of achievements, badges and levels of participation. | Achieve 60% of active users earn at least one badge in the first 6 months. |
| Micro-content module in short video format. | Getting 40% of users to view or upload micro-videos in the first half of the year. |
| Email notifications and publication saving system. | Reach 50% of users using these features in the first 3 months |
| **Timeline (Time)** | |
| ForoU Platform Implementation Duration: 2 Months | - |
| Gamification Duration: 1 Month | - |
| Duration of Educational Microvideos: 1 Month | - |
| Duration of Notifications and Tracking: 1 Month | - |
| **Cost** | |
| Team salary $1,221,709 per person $610,854 220 hours more or less are counted | - |
|  | - |
|  | - |
|  | - |
| **Quality** | |
| Ensure software quality | -Perform white box and black box tests.  -Achieve 90% test coverage.  -Get 95% satisfaction in usability surveys |
| Comply with security standards | -Implement basic security protocols in login and data handling.  -Pass security audits with 0 critical vulnerabilities. |
| Ensuring the usability of platforms | -Achieve over a score of 85/100 on tests  -Maintain an average charging time of less than 2 seconds. |
| **Other** | |
| Official launch of the platform | Leave the platform in a condition to be presented for a possible official launch after academic validation. |
| Improve operational efficiency | Reduce the average response time in forum tests by 30%.  -Increase by 25% the interaction between testers (questions, answers and positive votes) in internal tests. |
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**High-level initial risks**

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| * Integration problems: Difficulties when integrating the main modules of the system (forum, login, search engine, notifications, achievements), which could delay deliveries. * Inaccurate estimates: Underestimation of time to implement certain critical functionalities, leading to schedule delays. * Lack of technical expertise: Potential development complications due to lack of mastery of new or specific technologies (e.g., push notifications or achievement system). * Security risk: Vulnerabilities in authentication, protection of personal data, and session management, which could compromise user trust. |

**Timeline of major milestones**

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| Technology Renewal: 4-5 months  (DOC) Phase 1: Documentation – 18/08/2025 → 08/09/2025 (4 weeks)   * DOC1: Requirements – 18/08 → 31/08 * DOC2: Architecture and Plan – 01/09 → 08/09   (DEV) Phase 2: Development – 09/09/2025 → 16/11/2025 (10 weeks)   * DEV1: Base modules (forum/login/search engine) – 09/09 → 06/10 (4 weeks) * DEV2: Gamificación – 07/10 → 20/10 (2 sem) DEV3: Microvideos – 21/10 → 03/11 (2 sem) * DEV4: Notifications & Save – 11/04 → 11/10 (1 week) * DEV5: Integración + unit tests – 11/11 → 16/11 (1 sem)   (QA) Phase 3: Testing and Closure – 17/11/2025 → 05/12/2025 (3 weeks)   * QA1: Functional + Safety – 11/17 → 11/23 * QA2: Usability + Performance – 24/11 → 30/11 * QA3: Final Adjustments + Delivery – 01/12 → 05/12 |

**Initial budget allocated**

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| The project does not contemplate a direct monetary investment by the institution. However, an assessment was made based on the work time of the members, considering an estimated 2 hours per day of dedication per person, between August 18 and December 5, 2025.   * Estimated hours per person: 220 hours * Reference hourly value: $2,777 CLP * Estimated amount per person: $610.854 CLP * Estimated amount per team (2 people): $1,221,709 CLP   In addition, development is based on:   * Personal equipment (computers, internet, energy). * Free software (frameworks, IDEs, cloud platforms in free tier mode). * Technical knowledge and time of the members. |

**Quality**

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| ForoU Web Platform Development   * Black Box Testing: Validation of all the main functionalities (forum, login, search engine, saving system, notifications) from the perspective of the end user. Indicators of Success:     + 100% of critical operational functionalities error-free.   + Less than 1% of critical defects reported in acceptance testing. * White Box Testing: Review of source code and internal modules to ensure efficiency, correct integration and absence of logical errors. Indicators of Success:     + Unit test coverage greater than 85%.   + Correction of 100% of critical errors detected before final delivery.   Achievements, Badges and Levels System   * Usability Testing: Validation of the clarity and motivation of the reward system from the point of view of the students. Indicators of Success:     + User satisfaction rating above 90% in pilot tests.   + Access achievements and levels in less than 3 clicks.   Microcontent Module (Short Videos)   * Performance Testing: Evaluation of the loading time and fluidity of the microvideos integrated into the platform. Indicators of Success:     + Initial load time of each video less than 2 seconds.   + Uninterrupted playback on at least 95% of devices tested.   Notifications and Saving Posts   * Integration Testing: Verification of the correct interaction of the notification system with emails and the saving of publications in the database. Indicators of Success:     + Notification delivery with a success rate of over 98%.   + 0 failures in the recovery of saved publications.   Global Security Testing   * Indicators of Success:    + 0 critical vulnerabilities detected in security testing.   + Compliance with good data protection practices and secure authentication. |

**Stakeholder List**

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| **Name** | **Charge** | **Departamento / División** |
| Duocuc IT Team | Support and Development Area | Duoc UC Technology Management |
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**Project Manager Assignment and Authority Level**

**Project Manager**

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| **Name** | **Charge** | **Departamento / División** |
| Giovanni Oyarzún | Project Manager | Computer Engineering – Duoc UC |
| Matias Melivilu | Assistant Project Manager | Computer Engineering – Duoc UC |
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**Levels of authority**

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| **Area of authority** | **Description of the level of authority** |
| Staffing decisions | The project team defines and distributes internal tasks. There is no hiring of external personnel. |
| Budget management and its variations | The project will be developed with the resources of each 1, but they will have a salary for their hours applied to the creation of the project |
| Technical decisions | The project team has full authority over the choice of technologies, frameworks, and development methodologies. |
| Conflict resolution | Internal conflicts are resolved within the team |
| Escalation path and authority limitations | The highest authority corresponds to the guide teacher and the career coordinator of Duoc UC, who supervise and validate the project process |

**Pre-allocated staff and resources**

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| **Resource** | **Departamento / División** |
| Giovanni Oyarzún | Computer Engineering – Duoc UC |
| Matías Melivilu | Computer Engineering – Duoc UC |
| PC | Own resources |
| Internet | Own resources |
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**Approvals**

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| **Sponsor** | **Date** | **Signature** |
| Giovanni Oyarzun | 18-08-2025 |  |
| Duocuc Manager | 18-08-2025 |  |