**Guía3. Informe final Proyecto APT**

**Asignatura Capstone**

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| **1. Informe final Proyecto APT** |
| El objetivo de este informe es que describas los aspectos más relevantes de tu Proyecto APT. Es importante que fundamentes las decisiones que tuviste que tomar a lo largo del proceso.  A continuación, encontrarás distintos campos que deberás completar con la información solicitada, los que dan cuenta del resumen de tu proyecto APT y sus principales resultados. |

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| Nombre del proyecto | Finder |
| Área (s) de desempeño(s) | Project Management and Software Development |
| Competencias | Software Architecture - Requirements Gathering - Software Development - Project Management - Database Development |

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| **Contenidos del informe final** |

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| 1. Relevancia del proyecto APT | **The loss of pets is a common issue in Chile, impacting both owners and communities, highlighting the lack of centralized tools for their recovery. This challenge is relevant to Computer Engineering as it allows for the application of innovative technological solutions to benefit society.** **Finder**, developed as part of this approach, is a web and mobile application that centralizes reports of missing pets, utilizing Google Maps to visualize locations and Machine Learning to compare images and notify matches. This significantly enhances efficiency in pet recovery, connecting people quickly and effectively. Finder adds value by demonstrating how technology can solve real-world problems, strengthening community collaboration, and promoting animal welfare. |
| 2. Objetivos | **Facilitate the search and recovery of lost pets through a technological platform that leverages artificial intelligence and geolocation.** Specific Objectives  1. Enable the publication of reports with photos, descriptions, and locations. 2. Use Machine Learning to identify matches between images. 3. Incorporate interactive maps to visualize relevant areas in real-time. 4. Design an accessible interface for web and mobile devices. 5. Promote user collaboration to expedite pet recovery. |

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| 3. Metodología | **To develop the project, we used the SCRUM methodology, which is based on an agile and collaborative approach.** Phases and Procedures  1. **Initial Planning**: We defined the project objectives and prioritized key functionalities. 2. **Sprints**: The work was divided into short cycles, ensuring functional deliveries in each iteration. 3. **Reviews and Adjustments**: We constantly evaluated progress and made improvements based on team feedback.  Relevance of SCRUM SCRUM was relevant as it allowed us to quickly adapt to changes, prioritize critical functionalities such as Machine Learning and geolocation, and ensure consistent deliverables, thereby efficiently meeting the stated objectives. |
| 4. Desarrollo | **APT Project Stages**   1. **Initial Research**: Definition of requirements and adjustments after analyzing the problem. 2. **Design**: Creation of the system architecture and database, with team validations. 3. **Development**: Construction of the backend, frontend, and key modules such as Registration, Login, and Home. 4. **Integration and Testing**: Implementation of Google Maps, Machine Learning, and integrated testing. 5. **Deployment and Documentation**: Cloud deployment, final testing, and preparation for presentation.  **Challenges and Facilitators** **Facilitators**: Use of technological tools like Google Maps and AI, along with effective team coordination through SCRUM. **Challenges**: Technical issues in integrating external technologies and frequent adjustments to requirements. **Adjustments Made**  * Additional sessions were held to resolve technical errors. * Key objectives were prioritized to optimize time. * Modules and functionalities were adjusted after testing.   These measures enabled the team to meet objectives and deliver a functional solution. |
| 5. Evidencias |  |
| 6. Intereses y proyecciones profesionales | **The development of Finder allowed our entire team to gain deeper knowledge in key areas of computer science, such as artificial intelligence integration, web development, and database management. Throughout the project, we discovered a stronger interest in technologies that address social issues, such as using Machine Learning to enhance the search for lost pets. After completing the project, our professional interests remain aligned with those established at the beginning, but now with a sharper focus on technological applications aimed at social good.** **Career Projections** We aim to continue exploring the field of applied artificial intelligence and the development of innovative technological solutions that have a positive societal impact. Additionally, we seek to deepen our expertise in mobile application development and cloud technologies. Upon completing the project, we envision ourselves in roles such as software developers, data engineers, or AI developers, with the goal of continuing to integrate cutting-edge technologies to create scalable and effective solutions. |