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1. **PARTE I**

| **1. Personal Background** |
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| Below is a table in which you must complete the requested information. |

| Student's name | **Freddy Bravo, Sergio Sandoval, Ema Simunovic, Ximena Valderrama** |
| --- | --- |
| Rut | **20.918.441-9, 20.449.237-9, 19.381.190-6, 21.288.786-2** |
| Career | **Computer Engineering** |
| Headquarters | **Puente Alto** |

| **2. APT Project Description** |
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| In the description you must briefly state the name of your APT project and the competencies of the graduate profile that you are going to put into practice. If performance areas are defined in your career, also mention to which performance areas the project is linked. |

| Project name | AdoptaPet |
| --- | --- |
| Performance area(s) | The areas of performance that will be performed in the project will be web development, collaborative work, providing IT solutions to a problem that is found today in society. |
| Competences | Design, develop, implement and deploy an IT project. There is also the collaborative work to evaluate and manage the APT project in cooperation with the work team. Have analytical skills and critical thinking to be able to address the challenges that arise when developing the APT project. |

| **3. APT Project Rationale** |
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| Below are different fields that you must complete with the requested information. This section is intended to describe in detail your project and justify its relevance and pertinence. |

| Relevance of APT project | The problem that will be solved with the project is the large number of abandoned and homeless pets that currently exist in Chile. The objective is to be able to give them a home and a family that loves them, also to help reunite owners and pets when they are lost, and also to teach responsible care for pets. This commonly affects people who have pets or people who give up pets for adoption and are not sure that the pet will be in good hands. This topic was chosen because responsible adoption should be something that all people should take into account and be more aware of. In this case the location would be all of Chile, since all around the country there are millions of abandoned animals that need a home. |
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| APT Project Description | AdoptaPet will be a web platform where users will be able to register pets available for adoption, lost pets and found pets. Also to learn how to take responsibility when caring for and teaching the pet. The platform will allow users to search for pets by different criteria such as location, species, age, etc. The platform will also contain information on animal care, responsible adoption tips and pet welfare resources. |
| Relevance of the project to the profile of graduation | The AdoptaPet project is thus related to the graduate profile, as it requires designing, developing and implementing a technological solution to a real problem. This project applies key competencies such as web development, project management and teamwork. These competencies are necessary to create a platform that facilitates the adoption and location of pets, addressing a relevant social problem. |
| Relation with professional interests | Professional interests are focused on developing technological solutions that have a positive impact on society.AdoptaPet reflects these interests by addressing a significant social problem using technology as a tool to facilitate the responsible adoption of pets, promote their welfare and match lost pets with their owners. Carrying out this project will contribute to professional development by allowing the application of web development and project management skills in a context that aligns personal and professional values. |
| APT Project development feasibility | The AdoptaPet project is feasible within the time and resources available. It can be broken down into manageable steps to be completed during the semester.Collaboration with other students will facilitate its development. Potential difficulties include the technical complexity of web development and coordination with students who will be part of the project development, as well as miscommunication among students and misunderstanding of the project. These difficulties can be overcome with careful planning, use of appropriate tools and effective communication. |

1. **PARTE II**

| **4. Objectives** |
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| In this section you should define general and specific objectives of the APT Project. It is important to clarify that the objectives should be stated clearly, concisely and without further explanation, i.e., they should be understood by themselves. It is suggested that they be written using an infinitive verb, as this obliges you to specify concrete actions. |

| General Objective | To develop a web platform that facilitates responsible pet adoption and the location of lost pets in Chile. The platform will allow users to search for and register pets, connecting with others to coordinate adoptions or reunions. It will also offer resources on animal care and promote the welfare of pets, helping to solve the problem of abandoned animals in the country. |
| --- | --- |
| Specific objectives | * Implement a registration system for pets available for adoption, lost and found pets. * Design an advanced search engine that allows filtering pets by location, species, age and other criteria. * In the case of having medical records, upload them for more information. * Provide relevant information about animal care and responsible adoption. * Ensure the scalability and maintainability of the platform for future developments and improvements. |

| **5. Methodology** |
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| In the following section you should describe the methodology, specific to your discipline, that you will use to solve the APT project described above, including the stages and working methods. |

| Methodology Description |
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| The development of the AdoptaPet platform will follow the traditional cascade methodology:   * Project Planning   + **Review background and objectives of the project:**     - Establish a clear understanding of the objectives and purpose of the project.     - Review relevant background information to ensure that the project is aligned with the organization's goal   + **Requirements gathering and analysis:**     - Gather all functional and non-functional system requirements through stakeholder meetings, interviews, and existing documentation for better understanding.     - Document the requirements that were extracted from those meetings, interviews, etc.   + **Definition of team roles and responsibilities:**     - Assign clear roles for each team member, such as backend developer, frontend developer, tester, project manager, project manager, etc.     - Establish a detailed timeline and project plan, including milestones and delivery dates. * System Design   + **Database design:**     - Create detailed database design.     - Document design decisions and perform reviews to ensure database integrity and scalability.   + **Backend design:**     - Define the backend architecture, including the structure of the APIs to be used, the endpoints required, and the services to be implemented.     - Create data flow diagrams and architecture models, ensuring that all backend components are clearly specified.   + **Frontend design (user interface):**     - Create user interface prototypes, ensuring that they meet usability and accessibility requirements.     - Define the frontend architecture and user interaction with the system. * System Development   + **Backend implementation:**     - Backend developers implement the defined functionalities, following the established coding standards and patterns.   + **Front-end development (user interface):**     - Frontend developers build the user interface using the prototypes and interface design defined in the design phase.     - Consistency with the approved design is ensured. * Testing and Validation   + **Unit tests of individual components:**     - Each module or component undergoes unit testing to verify that it works correctly in isolation.     - The testers document any bugs or problems encountered and the developers make the necessary corrections..   + **Frontend and backend integration tests:**     - Integration tests are performed to ensure that all components interact correctly with each other.     - The full functionality of the system is verified at this stage.   + **Acceptance tests with end-users:**     - End-user testing is performed to validate that the system meets the established requirements and is easy to use and intuitive.     - User feedback is documented and minor adjustments are made if necessary.. * Deployment   + **Configuration of production environment:**     - The production environment is prepared, including the configuration of servers, databases, and other resources necessary for the operation of the platform.     - Final testing is performed in the production environment to ensure that everything is ready for deployment.   + **Deployment of the platform on servers:**     - The final version of the system is deployed in the production environment.     - Everything is verified to work correctly after deployment and a final review is performed with the stakeholders.   + **Initial post-release monitoring:**     - Intensive system monitoring is performed in the first weeks after launch to identify and resolve any incidents that may arise.     - Ensures that the system is stable and that users can use it without problems. * Maintenance   + **Post-release support and troubleshooting:**     - The support team manages any problems or issues reported by users and applies corrections.     - All support activities are documented for future reference.   + **Implementation of improvements and new functionalities:**     - Based on user feedback, enhancements or new features are planned and implemented in future versions of the system.     - The same development cycle is followed for any major upgrade. |

| **6. Evidences** |
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| Below, describe what evidence will be evaluated in the progress report and in the final report of your APT project. This evidence should be agreed with your teacher. Evidence shall be understood as the products developed during the project and whose purpose is to make visible or document how the work has been implemented |

| **Type of evidence**  **(progress or final)** | **Evidence name** | **Description** | **Justification** |
| --- | --- | --- | --- |
| Progress | System Architecture Report | Document detailing the technical structure of the platform. | Ensures that all technical aspects are aligned and documented, facilitating implementation and future improvements. |
| Progress | Prototype User Interface | Design of the navigation flow and functionalities. | It allows to visualize the design progress and receive early feedback to fine-tune the user interface development. |
| Progress | Basic functionalities | Initial implementation of the system's main functions, such as pet registration, search system, login, user registration, etc. | It demonstrates that the project is progressing according to plan and allows early validation of key modules by the development team and stakeholders. |
| Final | Functional WEB platform | Final delivery of the application, where the application must be operational. | Evaluates the complete completion of the project, ensuring that the objectives were met and that the platform is ready for actual use. |
| Final | Project final report | Initial implementation of the system's main functions, such as the pet registry and search system. | Evaluates the complete completion of the project, ensuring that the objectives were met and that the platform is ready for actual use. |

| **7. Work Plan** |
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| In the following table you define the planning of your APT Project according to your requirements. |

| **APT Project Work Plan** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Competence or units of competence | Name of Activities/Tasks | Description Activities/Tasks | Resources | Activity duration | Responsible[[1]](#footnote-0) | Observations |
| Competence or units of competence | Project planning | Project requirements gathering, with interviews and analysis with stakeholders, role definitions, etc. | Documentation tools | 2 weeks | Project Manager | It requires the collaboration of potential users and stakeholders to ensure that all necessary functionalities are considered. |
| Interface development | System design | Creation of mockups and designs of the application, databases, among others. | Design software (Figma, etc) | 2 weeks | Design team, development team | It is crucial to have the requirements and an understanding of what the project will look like to avoid costly redesigns later in the development process. |
| WEB Development | System development | WEB application functionalities, login, registration, etc. API'S development. Frontend development | Visual Studio Code, database. | 5 weeks | Development team | Backend integration and development must be seamless to ensure that all functionality operates as expected. |
| Test and validation phase | Testing and validation | Perform testing of the web application, to ensure the quality of the system. | Test environment, users for acceptance tests | 5 weeks | QA Team | Detailed test cases are essential to cover all possible interactions on the platform. |
| Project management and deployment | Deployment | Configuration of the production environment and deployment of the platform. | Servers, monitoring tools | 2 weeks | Development team, stakeholders | Continuous monitoring during the first few weeks is necessary to identify and correct any problems that may arise in the production environment. |
| Project management and maintenance | Maintenance | Problem solving and implementation of improvements based on feedback from users and stakeholders. | Support team, ticket system | 1 weeks | Maintenance team | It is important to maintain an open communication channel with users to receive feedback and make continuous improvements. |

| **8. Gantt Chart** |
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| Find a Gantt Chart format that suits you and organize in it the activities planned in the previous point considering the period assigned for the development of your APT Project. You must maintain the temporality of the academic period in the development of the three phases of the Degree Portfolio Cours |

| **Activity** | **Phase 1** | | | | **Phase 2** | | | | | | | | | | | | **Phase 3** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S 1** | **S 2** | **S 3** | **S 4** | **S 5** | **S 6** | **S 7** | **S 8** | **S 9** | **S 10** | **S 11** | **S 12** | **S 13** | **S 14** | **S 15** | **S 16** | | **S 17** | **S 18** |
| **Project planning** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| **System design** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| **System development** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| Testing and validation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| Project management and deployment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| Project management and maintenance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |

1. En caso de que el Proyecto APT sea grupal, en esta columna deben indicar el nombre de los responsables de cada tarea o actividad. Esto posteriormente permitirá diferenciar la evaluación por cada integrante. [↑](#footnote-ref-0)