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1. **PART I**

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

| Student name | **Fabián Cortés / Kevin Olguín / Cristian Salvo** |
| --- | --- |
| Rut | **20.782.393-7 / 19.846.856-8 / 21.175.398-6** |
| Career | **Informatic Engineering** |
| Campus | **Maipú** |

| **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 | **Territorial Unity System** |
| --- | --- |
| Performance area(s) | **Analysis and evaluation of informatic solutions.**  **Software development.** |
| Skills | * **Develop a software solution using techniques to systematize the development and maintenance process, ensuring the achievement of the objectives.** * **Build data models to support the requirements of the organization according to a defined and scalable design over time.** * **Perform certification tests of both products and processes using good practices defined by the industry.** |

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

| Relevancia del proyecto APT | *Every project, whether it is an innovation, product, service, etc., aims to respond to a situation or problem. Indicate what problem your project seeks to solve and the relevance it has for the labor field of your career. Also mention the context in which this problem is situated (place, who would be impacted, etc.). It is important that this problem is relevant in the context of the profession, being its resolution a real or simulated contribution to the organization or environment in which it is located. Some questions that may help you answer this section are:*   * *Why did you choose this topic? Why is this topic relevant to your career field?*   **We chose this system because today, the procedures of the neighborhood council and the municipality are traditional, i.e., paper and pencil. This generates slowness in the process. We will implement a technological system to improve and facilitate the procedures between both. It is relevant because our career and knowledge allows us to develop technological solutions based on the problems that are being addressed today.**   * *Where is the situation you are going to address located (e.g., country, region, municipality or institution)?*   **Chile, Región Metropolitana, Maipú. Municipalidad de Maipú.**   * *Who is affected or impacted by the situation you are going to address (e.g., age group, service users, etc.)?*   **Todas las juntas de vecinos y municipalidades de Maipú.**   * *What would be the value contribution (real or simulated) of your APT Project for the work and/or social context in which it would be placed?*   **Efficiency in Administrative Management (automation of processes and optimization of resources).**  **Improved communication (notices, notifications, requests).**  **Facilitation of teamwork (Improved speed in project review and decision making).**  **Skills development (Development of skills to use information management tools).**  **Access to information (news, updates).**  **Active participation of neighbors (the platform will facilitate access and participation in activities of neighbors within the community, allowing them to apply for projects and request social assistance).** |
| --- | --- |
| Descripción del Proyecto APT | *Indicate what the project is expected to achieve (objective) and briefly describe what it would consist of, how you plan to address the problems presented in the previous section.*  **It is expected to create a system capable of improving the management between the municipality and the neighborhood council, through the development of a web page and mobile, thus improving the administration of activities, neighborhood projects, organization of neighbors, communication and reduction of waiting times.** |
| Pertinencia del proyecto con el perfil de egreso | *Justify how your APT Project is related to the graduate profile of your career and, in particular, to the competencies of the graduate profile you selected previously.*  *In what way is the APT Project related to the graduate profile of your career? In what way are the competencies you selected necessary to solve the problem to be worked on?*  **This project requires most aspects of the graduate profile of our career, from the management and planning of the system to the development of all areas (database, design and structure).** |
| Relación con los intereses profesionales | *Please indicate how your proposed APT Project relates to your professional interests.*  *What are your professional interests?*  **Web and mobile development, create front-end, back-end and mobile application development.**  *What aspects of your professional interests are reflected in your APT Project?*  **Web development, front and back end.**  *How will this APT Project contribute to your professional development?*  **It will contribute in a positive way as it will allow us to reinforce knowledge that we may have forgotten, to have a better command of our skills and to learn new things through the development of the project.** |
| Factibilidad de desarrollo del Proyecto APT | *Briefly justify why it is possible to develop your APT project. Consider the time and materials you need to develop it, as well as possible external factors that could hinder and facilitate its development.*  *Why do you think it is possible to develop your APT project? To answer this question you should take into consideration:*   1. *Duration of the semester* 2. *Hours assigned to the course* 3. *Materials required* 4. *External factors that facilitate its development* 5. *External factors that hinder its development and ways in which you could solve them.*   **Since it is a simulation and not necessarily a real case, certain aspects can be omitted, facilitating the development of the project; however, there are external factors that may hinder the development, such as the limited number of members of the group, fewer working hours as opposed to a real project, equipment and development systems. In order to face the possible difficulties, tasks and/or functions of the system can be simplified.** |

1. **PART 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 | **Improving the management of the territorial unit of a neighborhood council** |
| --- | --- |
| Specific objectives | **Public use:**  **-Facilitate access to different information regarding news and social activities of neighbors.**  **-Facilitate processes such as the registration of neighbors to the neighborhood council, processes of management of community assets.**  **Internal Use:**  **-Improve the management of requests and issuance of documents.**  **-Simplify the management of information on activities and news, sending notifications and notices to residents.** |

| **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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| **For the development of this project we will use the agile/scrum methodology, the development will be in different sprints in order to address the different parts of the system. The roles and tasks of the members of the project group will be delegated based on the knowledge of each of them as follows:**  **-General tasks and project management: All members.**  **-System design and architecture: Kevin Olguín**  **-Database: Fabián Cortés**  **-Software quality control: Cristián Salvo**  **Note: Although there are “*in charge*” of each area, due to the limited number of members of the group, the development will be addressed by all members.**  **Roles of the scrum team::**  **Product owner: Kevin Olguín**  **Scrum master: Fabián Cortés**  **Development team:**   * **Fabián Cortés** * **Kevin Olguín** * **Cristián Salvo** |

| **6. Evidence** |
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| Next, describe what evidence will be evaluated in the progress report and in the final report of your APT project. These evidence should be agreed with your teacher. Evidence will 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** |
| --- | --- | --- | --- |
|  | **Project constitution act** | **Document to initiate the project, defining its objectives and development phases.** | **The definition of the objectives and scope of the project must be recorded.** |
|  | **4+1 view model** | **Corresponds to the system views describing the scenarios and architecture of the application.** | **The 4+1 model gives us a better view of how the different components interact with each other in the system.** |
|  | **Roadmap** | **This document describes the development phases and what will be worked on in each one.** | **Registration and management of the project development phases.** |
|  | **Source code** | **Corresponds to the system source code** | **Source code** |
|  | **Test cases** | **Documentation of the different tests that are performed during the project development.** | **Testing of the developed functionalities and quality control.** |
|  | **Product backlog** | **Document with the user stories** | **This document helps us to identify the functionalities that the system will have.** |
|  | **Sprint planning** | **List of all the tasks (from the product backlog) to be developed within the current sprint.** | **Tracking of the tasks to be developed and prioritizing them.** |
|  | **Sprint review** | **Meeting in which the advanced work is shown to the stakeholders.** | **This meeting helps us to have a retrospective of the sprint and update the product backlog if necessary.** |

| **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** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Competency or units of competency | Name of Activities/Tasks | Description Activities/Tasks | Resources | Duration of the activity | Responsible[[1]](#footnote-0) | Comments |
| **Develop a software solution using techniques to systematize the development and maintenance process, ensuring the achievement of the objectives.** | **Design software solution** | **The software is designed and planned, the documentation is made and a record of the project is made.** |  | **This set of activities lasts 4 weeks from the beginning of the project.** | *Fabian Cortés*  *Kevin Olguín*  *Cristian Salvo* |  |
| **Build data models to support the organization's requirements according to a defined and scalable design over time.** | **Data modeling and software development** | **The different software features are developed. The database is modeled and created.** |  | **The development has a duration of 10 weeks divided in different sprints.** | *Fabian Cortés*  *Kevin Olguin*  *Cristian Salvo* |  |
| **Perform certification testing of both products and processes using best practices defined by the industry.** | **Quality Assurance** | **The last testing tests are performed before integrating the solution. Project closure is documented together with the stakeholders.** |  | **The closure phase lasts 3 weeks.** | *Fabian Cortés*  *Kevin Olguín*  *Cristian Salvo* |  |

| **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 Course. |

| **Activity** | **Phase 1** | | | |
| --- | --- | --- | --- | --- |
| **S 1** | **S 2** | **S 3** | **S 4** |
| **Design software solution** | **Project start-up** | **Requirements gathering** | **Architecture design** | |

| **Phase 2** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S 5** | **S 6** | **S 7** | **S 8** | **S 9** | **S 10** | **S 11** | **S 12** | **S 13** | **S 14** | **S 15** |
| **Development environment configuration** | **Database design and implementation** | **Registration and login system** | **Business logic implementation** | | **Front-end / back-end creation and integration** | | **Development of key functionalities** | | **Integration of external services** | |

| **Phase 3** | | | |
| --- | --- | --- | --- |
| **S 16** | | **S 17** | **S 18** |
| **Last tests before integration** | | | **Presentation and closing of the project** |

1. If the APT Project is a group project, in this column you must indicate the name of the persons responsible for each task or activity. This will later allow differentiating the evaluation for each member. [↑](#footnote-ref-0)