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1. **PART I**

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

| Student Name | **Cristóbal Navarrete, Daniel Briones, Ignacio Venegas** |
| --- | --- |
| Tax ID | **21,314,922-9, 21,403,327-5, 21-081-083-8** |
| Major | **Computer Engineering** |
| Location | **Maipú** |

| **2. APT Project Description** |
| --- |
| In the description, you should briefly state the name of your APT project and the graduate profile competencies that you will put into practice. If your degree program defines areas of performance, also mention which areas of performance the project is linked to. |

| Project Name | ***Process digitization and website development for the SME "Happy Huapi"*** |
| --- | --- |
| Performance area(s) | * Software development * Requirements engineering * Digital transformation of SMEs |
| Skills | * Design and develop IT solutions applying software engineering principles. * Identify technical and functional requirements in real contexts to propose efficient solutions. * Apply technological tools to improve organizational processes. * Manage IT projects based on objectives, timelines, and resources. |

| **3. APT Project Justification** |
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| Below are several fields that you must complete with the requested information. This section asks you to describe your project in detail and justify its relevance and significance. |

| Relevance of the APT Project | Every project, whether it is an innovation, product, or service, aims to respond to a situation or problem. In this case, the project seeks to digitize the SME Happy Huapi, an organization that currently manages its processes in an analogical way, which limits its visibility, reach, and competitiveness in an increasingly digitized market. The central problem lies in the need for digital transformation of small and medium-sized enterprises that do not yet have an online presence. In the case of Happy Huapi, this lack of digitization hinders the promotion of its products/services, restricts access to new customers, and reduces its ability to grow in the face of competition. This project is relevant in the field of computer engineering, as it responds to a real and frequent problem: the technological adaptation of traditional businesses. The development of a website for Happy Huapi will allow for the application of professional knowledge in design, programming, user experience, digital communication, and content management, providing a concrete and impactful solution.  The context of the problem is located in Chile, Metropolitan Region, an area where SMEs play a fundamental role as generators of employment and drivers of the local economy. In this environment, digitization is not only a tool for modernization, but also a strategic requirement for sustainability and competitiveness.  The situation directly impacts:  Happy Huapi, by providing it with a platform to expand its reach. Current and potential customers, who will be able to access clear and up-to-date information about its products/services. The local community, by strengthening the visibility and permanence of the SME.  The value of this project lies in providing Happy Huapi with a comprehensive digital solution that will strengthen its market position, improve its communication with customers, and lay the foundations for future growth strategies (such as online sales or digital marketing). From a professional standpoint, this project represents an applied exercise in technological and management skills, contributing to the development of skills that are in high demand in the workplace. |
| --- | --- |
| APT Project Description | Happy Huapi is a candy bar, i.e., a business dedicated to organizing and setting the scene for celebrations, mainly birthdays. It coordinates event planning with customers, offering services that include setting up themed tables, personalized decorations, table linens, and aesthetic details that enhance the festive experience. Its value proposition is to provide comprehensive solutions that combine creativity, organization, and customer proximity to ensure memorable celebrations.  The main objective of the "Digitalization of Candy Bar Happy Huapi" project is to modernize commercial management and strengthen the company's digital presence through the development of a functional, attractive, and easy-to-manage website. The proposed solution consists of implementing a platform that includes a digital catalog of products and services, an online quotation system, a contact form integrated with WhatsApp, and an event booking calendar, with the aim of improving communication with customers, optimizing internal processes, and expanding the SME's reach in the market.  The digital catalog will be an essential component of the website, as it will allow Happy Huapi to showcase its various offerings in an organized and visually appealing way. This catalog will be divided into specific categories (such as children's birthdays, weddings, corporate and themed events), will feature high-quality photographs, clear descriptions, reference prices or quote ranges, and will allow users to filter and explore the most relevant options according to their needs. The aim is to provide a more professional and reliable experience that motivates customers to request a quote or book a service.  Schedule availability management will allow customers to view in real time which dates and time slots are available for booking a service. This will prevent duplicate reservations and provide a more transparent and efficient experience by facilitating event planning for both the company and its customers.  To address the identified problems of dependence on informal channels and lack of digital visibility, the project will be developed in stages: requirements gathering, interface design, technical implementation, testing and validation with the customer, culminating in the final deployment of the website. This strategy is expected to provide Happy Huapi with a sustainable digital tool that will enable it to grow, differentiate itself from the competition, and respond more efficiently to customer demands. |
| Relevance of the project to the graduate profile | The *"Digitization of the Happy Huapi Candy Bar"* project is directly linked to the graduate profile of the Computer Engineer, as it involves the gathering and analysis of requirements, the design and implementation of a computer system (manageable website), and the integration of information technologies that optimize the communication and commercial management processes of the SME.  To solve the problem at hand, the following skills are essential:  Requirements gathering and analysis: this made it possible to identify the real needs of the business (digital catalog, online quotes, reservations).  Development and integration of technological solutions: web languages and frameworks are applied to build a functional and manageable portal.  Quality assurance and software testing: necessary to ensure that the platform functions stably and securely before being delivered to the customer.  IT project management: a work plan was organized with clear phases (design, implementation, testing, and deployment), optimizing time and resources.  The project also promotes the development of cross-cutting skills such as teamwork, problem solving, innovation, and adaptation to new technologies, which are essential in today's professional field.  In this sense, the APT Project not only allows students to apply the technical knowledge acquired during their studies, but also constitutes a practical exercise in professional integration, contributing to the growth of a real organization and strengthening students' preparation to face the challenges of the working world. |
| Relationship with professional interests | Our professional interests are mainly related to development, which in turn is directly related to the objective of the APT project, as in our project we will develop a website, giving us experience in this professional field. |
| Feasibility of developing the APT project | The "Digitization of the Happy Huapi Candy Bar" project is technically feasible to develop during the semester, as the estimated duration is 8 to 10 weeks out of a total of 17, which allows for adjustments and partial deliveries. Easily accessible web technologies (HTML, CSS, JavaScript, frameworks), design tools (Figma, Canva), and project management tools will be used, ensuring economic viability.  The development includes defining requirements through meetings with the client, designing interfaces and user flow through prototypes, and preparing test reports to validate that the functionalities (catalog, quotes, reservations, and contact) operate correctly on different devices and browsers.  External factors such as the availability of free resources and the collaboration of the SME favor the project, while the lack of experience with some tools or limited time availability are risks that will be mitigated with phased planning, the use of agile methodologies, and continuous feedback.  In conclusion, the project is feasible because it has adequate time, accessible resources, and a management strategy that ensures quality, flexibility, and the achievement of objectives. |

1. **PART II**

| **4. Objectives** |
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| In this section, you must define the general and specific objectives of the APT Project. It is important to clarify that the objectives must be stated clearly, concisely, and without further explanation; that is, they must be self-explanatory. It is suggested that they be written using an infinitive verb, as this requires specifying concrete actions. |

| General objective | Develop a functional, manageable website tailored to the needs of Candy Bar Happy Huapi, which will modernize its digital presence, optimize communication with customers, and improve its commercial reach by integrating a catalog of products and services, an online quotation system, and interaction tools that strengthen its market positioning. |
| --- | --- |
| Specific objectives | **Define the functional and technical requirements** necessary to ensure that the website meets the needs of the SME.  **Design the website interface** ensuring usability, accessibility, and visual consistency with the Happy Huapi identity.  **Develop and implement a digital catalog** organized into categories, with photographs, descriptions, and filters that facilitate user navigation.  **Implement an online quotation system** that allows customers to request quotes quickly and efficiently.  **Integrate direct communication tools** (contact form, WhatsApp button, and email) to strengthen customer interaction. **Incorporate a booking calendar** to manage event availability and better organize logistics.  **Perform functionality, compatibility, and quality tests** on different devices and browsers, ensuring an adequate user experience.  **Train the client in website administration** so they can update content and manage requests independently. |

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

| Description of the Methodology |
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| To address the identified problem and meet the objectives set, the *"Digitization of the Happy Huapi Candy Bar"* project will be developed using an agile methodology, based on Scrum principles, adapted to the time and resources available. This methodology is characterized by working in short iterations (sprints), prioritizing constant communication with the client, and delivering functional progress in a progressive manner, which allows for adjustments to be made based on the feedback received.  This methodology will allow the project to move forward in an organized manner, with partial deliveries and periodic reviews, ensuring that the final solution effectively responds to Happy Huapi's needs and meets the proposed digitization objectives. |

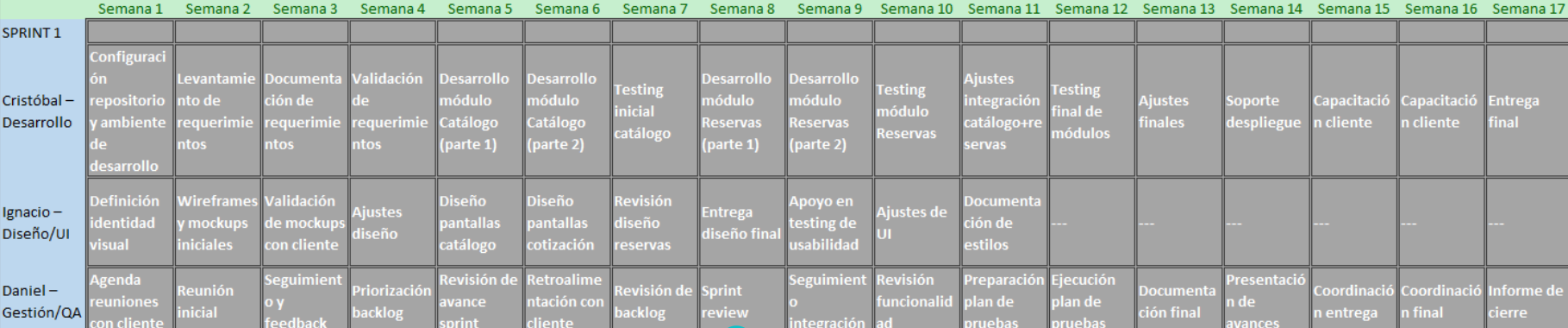
| **6. Evidence** |
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| Below, describe what evidence will be evaluated in the progress report and final report of your APT project. This evidence must be agreed upon with your instructor. Evidence shall be understood as the products developed during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

| **Type of evidence**  **(progress or final)** | **Name of evidence** | **Description** | **Justification** |
| --- | --- | --- | --- |
| **Preliminary** | **Articles of incorporation.** | **Initial document defining objectives, scope, team, roles, and commitments.** | **Formalizes the start of the project and establishes the basis for planning and responsibilities.** |
| **Progress** | **Requirements matrix.** | **Table with functional and non-functional requirements gathered from the client.** | **Ensures that all identified needs are taken into account and prioritized.** |
| **Progress** | **User stories.** | **Drafting of requirements from the end customer's perspective, with acceptance criteria.** | **This is the basis of the agile methodology; it guides the functionalities that must be implemented.** |
| **Progress** | **UML diagram** | **Graphical representation of the structure and behavior of the system.** | **Facilitates technical communication, clarifies system logic, and serves as a guide for programming and validation.** |
| **Final** | **Complete website deployed.** | **Page implemented with catalog, quote, contact.** | **Main evidence of the project and fulfillment of the overall objective.** |

| **7. Work Plan** |
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| The following table defines the planning of your APT Project according to requirements. |

| **APT Project Work Plan** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Competency or competency units | Name of Activities/Tasks | Description of Activities/Tasks | Resources | Duration of activity | Responsible[[1]](#footnote-0) | Comments |
| Analyze and gather requirements | *Meeting with client and gathering requirements* | *Interviews and agreements to define functionalities* | *Articles of incorporation, requirements matrix, computer, internet connection* | *1 week* | *Daniel Briones* | *May make it difficult for the client to find time, but facilitates clarity regarding the scope of the project.* |
| *Designing digital solutions* | *Interface prototype (wireframes and mockups)* | *Preliminary website design and user flow.* | *Design tools (Figma, Canva), visual identity guide* | *2 weeks* | *Ignacio Venegas* | *Requires constant validation with the client to avoid rework.* |
| *Develop web applications* | *Implementation of the digital catalog* | Creation of a module to display products and services organized into categories. | *Languages HTML, CSS, Python* | *2 weeks* | *Cristóbal Navarrete* | *Requires constant validation with the client to avoid rework.* |
| *Develop web applications* | *Online quotation system* | Programming a dynamic form for quoting services. | *Development frameworks, form libraries* | *2 weeks* | *Ignacio Venegas* | *Requires testing with real data to ensure functionality.* |
| *Build and manage data models* | *Reservation management and schedule availability* | *Creation of a system that shows available dates and prevents duplication.* | Database, hosting, calendar libraries | *2 weeks* | *Cristóbal Navarrete* | *Integration with the catalog may be difficult, but it is key to the organization of the SME.* |
| *Apply agile project management methodologies* | *Sprint reviews* | *Presentation of partial deliverables to the client for feedback.* | *Management board (Trello/Notion), virtual or face-to-face meetings* | *Every 2 weeks* | *Daniel Briones* | *Timely feedback from the client will facilitate continuous improvements.* |
| *Perform testing and quality control* | *Functionality testing* | *Verify that the page works on different devices and browsers.* | *Mobile devices, web browsers, testing plan* | *1 week* | *Cristobal Navarrete* | *Possible adjustments based on results, but ensures a reliable product.* |

| **8. Roadmap** |
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1. If the APT Project is a group project, the names of those responsible for each task or activity should be indicated in this column. This will subsequently allow for individual assessment of each member. [↑](#footnote-ref-0)