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**Guía1. Definición Proyecto APT**

**Asignatura Capstone**

1. **PARTE I**

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| **1. Personal Information** |
| Below is a table where you should complete the requested information. |

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| Student Name | **Daniel González** |
| Rut | **20418096-2** |
| Major | **Computer Engineering** |
| Campus | **Duoc UC Plaza Oeste** |

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| Student Name | **Pamela Rosas** |
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| Major | **Computer Engineering** |
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| Student Name | **Karim Silva** |
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| Major | **Computer Engineering** |
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| **2. Description of the APT Project** |
| In the description, you should briefly indicate the name of your APT project and the competencies from the graduation profile that you will put into practice. If your major has defined performance areas, also mention which performance areas are linked to the project. |

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| Project Name | Arte en Masa |
| Performance Areas | The areas that will be covered in this APT project are:   * Web Development * Mobile Development * Requirements Gathering * Database Modeling * QA * Project Management * Prototype Design |
| Competencies | **Proposal of IT solutions**: Analyze the business processes of the bakery/pastry shop to offer appropriate technological solutions.  **Software Development**: Use software development and maintenance techniques to create the website and mobile application.  **Data Modeling**: Build scalable data models that support the management of products, orders, and customers.  **Query and Routine Programming**: Create queries and routines to manipulate database information, such as inventories and orders.  **Program and Routine Creation**:  Develop specific functionalities for the web and app, such as the shopping cart and payment system.  **Certification Testing**: Conduct tests to ensure that both the website and app function correctly and meet quality standards.  **IT Project Management**: Coordinate the project by offering alternatives and making decisions based on business requirements. |

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

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| Relevance of the APT Project | This topic was chosen primarily to help a small business continue to grow and modernize while providing technological solutions for both the staff and users. This small business is located in the Peñaflor municipality in the Metropolitan Region. The value contribution to this particular company will be to provide greater accessibility for customers to access the store's products, making processes such as sales, product searching, and price calculations more convenient and secure. This system will also ease the workload for the staff by automating part of the customer service, providing benefits to both customers and staff. |
| Description of the APT Project | The project aims to be a web solution that allows users to view bakery products, including store stock, and purchase the various products offered. These are the main characteristics, or at least the most important ones. Additionally, there will be a section where customers can request customized bakery products. |
| Relevance of the Project to the Graduation Profile | *The competencies employed in this project are:*   * **Offering IT solution proposals**: To reach this conclusion, we must observe and understand the environment and then provide a possible solution that resolves problems or improves weaknesses in that environment. * **Developing software solutions**: This project involves creating a software solution—specifically, a web platform and a mobile app—that meets the client's needs. * **Building data models**: Proper data modeling will be necessary to store information so that the web application and mobile app are useful to the client. * **Conducting quality tests**: To deliver a quality product to the client, we must test every function of the web platform and mobile app, ensuring their correct and optimal operation. * **Building an architectural model**: Choosing a well-constructed architecture is fundamental in creating a software project, as it serves as the project's foundation. * **IT Project Management**: Managing both the project timeline and team members is crucial to successfully completing the project. |
| Relation to Professional Interests | This project is closely related to our professional interests because it aligns with our team’s strengths, such as web development and mobile applications. Furthermore, our professional interests are focused on these areas of the IT sector while also aiming to help and modernize small businesses by providing technological solutions so they can continue to grow. |
| Feasibility of the APT Project | *The "Arte en Masa" project is feasible for several reasons. First, a period of 3 months and 2 weeks has been established, which is realistic and allows for careful planning and the development of each project phase. The team also has the necessary technological resources, such as computers and internet access. To manage time and ensure the project progresses as planned, weekly online meetings have been organized to evaluate progress and identify potential obstacles early. Additionally, capstone classes will help address complex topics, ensuring smoother development.* |

1. **PART II**

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| **4. Objectives** |
| In this section, you must define the general and specific objectives of the APT Project. It is important to state the objectives clearly and concisely without providing too many explanations; they should be understandable on their own. It is suggested to draft them using an infinitive verb to specify concrete actions. |

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| General Objective | The general objective of the project is to create a web and mobile solution that meets our client's needs and improves existing processes by making them automatic and convenient for customers. |
| Specific Objectives | Automate the processes within the small business to achieve higher sales.  Digitize and update the stock of each product offered by the company.  Provide an online payment gateway for greater customer convenience.  Consider the option of offering delivery services at some point.  Include a system for scheduling specific desserts for customers who wish to purchase special products. |

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

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| Descripción de la Metodología |
| To address the small business's issues, the "Arte en Masa" project was created, aiming to develop a technological solution that modernizes and optimizes the processes of a bakery/pastry shop by implementing the Scrum methodology. This agile methodology will allow us to manage the project iteratively, ensuring flexibility and adaptation to the client's needs.  **Team Roles:**   * **Development Team:** All group members make up the development team and are responsible for building the technological solution. Each member will focus on different aspects of development while providing support to one another.   The work will be carried out in sprints, allowing the team to focus on specific objectives and quickly adapt to changes. During each sprint, the following activities will be conducted:   * **Planning**: Plan tasks and assign responsibilities to each team member. * **Daily Meetings**: Hold daily meetings to review progress, identify obstacles, and plan daily work. * **Reviews**: Review progress with the Product Owner to receive feedback and adjust according to needs. * **Retrospectives**: Reflect on what went well and what could be improved in the process.   **Tasks and Responsibilities:**   * **Software Development:** The team will focus on developing the website and mobile application. * **Data Modeling:** Manage the data model and create the necessary queries for the database. * **Quality Assurance:** Conduct thorough testing to ensure the proper functioning of the technological solution. |

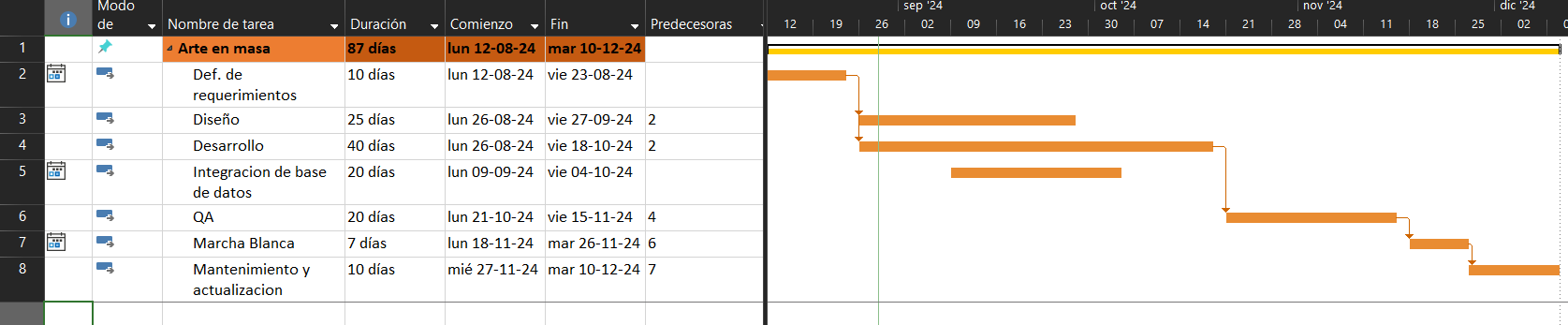
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| **6. Evidencias** |
| Describe what evidence will be evaluated in the progress report and the final report of your APT project. This evidence should be agreed upon with your instructor. Evidence refers to the products developed during the project that aim to visualize or document how the work has been implemented. |

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| **Type of Evidence** | **Name of the Evidence:** | **Description:** | **Justification:** |
|  | **Diagrams** | *Describe las evidencias acordadas con tu docente, siempre teniendo en mente que estas deben dar cuenta del desarrollo de tu Proyecto APT.* |  |
|  | **Mockups** |  |  |
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| **7. Plan de Trabajo** |
| En la siguiente tabla define la planificación de tu Proyecto APT de acuerdo a lo requerido. |

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| **Plan de Trabajo Proyecto APT** | | | | | | |
| |  | | --- | | **Competency**  **or Units of**  **Competency** |  |  | | --- | |  | | Name of Activities/Tasks | Description of Activities/Tasks | Resources | Duration of Activity | Responsible | Observations |
| *Ofrecer propuestas de solución informática* | Requirements gathering | Meetings with the client to capture all useful, relevant, and important requirements for the web and mobile solution we will create. | *-Computadoras*  *-Internet* | *2* weeks | |  | | --- | | Work Team |  |  | | --- | |  | | *Escribe las dificultades o facilitadores que se podrían presentar durante la ejecución de cada una de las actividades propuestas para llevar a cabo el plan de trabajo.* |
| *Diseño de prototipo* | |  | | --- | | Interface design |  |  | | --- | |  | | *Create interface prototypes using prototyping applications such as mockups, then consult with the client to evaluate their satisfaction based on the prototype.* | *-Computadoras*  *-Herramientas de diseño, más su respectiva documentación*  *-Internet* | *5* weeks | Work Team |  |
| *Desarrollar soluciones de software* | |  | | --- | | Project  development |  |  | | --- | |  | | *This is the time period where we will begin creating the web and mobile solutions based on the previously gathered requirements.* | *-Computadoras*  *-Herramientas de programación*  *-Internet* | *8* weeks | Work Team |  |
| *Construir modelos de datos* | Database integration | *Once the applications are built, proceed to integrate a database to contain all the necessary information for both solutions to function.* | *-Servidor de base de datos (Cloud)*  *-Computadoras*  *-Internet*  *-Herramientas de desarrollo* | *4* weeks | Work Team |  |
| *Pruebas de calidad* | QA | *Perform various tests on the different functionalities of the web and mobile applications to ensure the correct functioning of the final product.* | *-Computadoras*  *-Internet*  *-Herramientas de testing* | *4* weeks | Work Team |  |
| *Gestión de proyectos* | |  | | --- | | Soft launch |  |  | | --- | |  | | *Launch both products in a simulated environment to check their final performance and operation.* | *–Computadoras*  *-Internet*  *-Herramientas y monitoreo* | *1* week | Work Team |  |
| *Desarrollar soluciones de software* | |  | | --- | | Maintenance  and  updates |  |  | | --- | |  | | *After the project is completed and delivered to the client, periodic maintenance sessions will be held to refine details and necessary updates.* | *-Computadoras*  *-Internet*  *-Herramientas de programación* | *Continuous maintenance* | Work Team |  |

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| **8. Carta Gantt** |
| Find a Gantt chart format that suits you and organize the activities planned in the previous section, considering the time period assigned for the development of your APT Project. You must maintain the academic term's time frame in the development of the three phases included in the Capstone Portfolio course. |

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