

| **1. APT Project Progress Summary** |
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| Below, you will find various fields that you must complete with the requested information. |

| APT Project Progress Summary | So far, we have made swift progress thanks to the Scrum methodology. Out of our 3 Sprints, we are currently in the second one, which covers the following user stories:   * H1 User Registration * H2 Login * H3 Password Recovery * H7 User Profile Management * H8 Payment Processing * H5 Reservation Confirmation * H4 Availability Search * H9 Notifications and Reminders * H13 Reservation Modification (Admin) * H14 Reservation Cancellation (Admin)   We still have the presentation of the second Sprint to go, after which we can start the third and successfully complete the project. |
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| Objectives | General Objective:  To streamline the management of Tinajas Rustic, in other words, to improve the efficiency and effectiveness of Tinajas Rustic's operational, administrative, and logistical processes by reducing time, optimizing resources, and increasing responsiveness to offer better customer service and improve the business's profitability.  Specific Objectives:  To build customer loyalty, in other words, to increase the customer retention rate by 15% by the end of the year through the introduction of a loyalty program and post-sale follow-up. |
| Metodología | For the project, we will adopt the agile Scrum methodology, which will allow us to manage efficiently and collaborate continuously on software development. This methodology divides the work into short iterations called sprints, enabling us to adapt to changes and deliver product increments continuously. |
| Evidencias de avance | In the progress report, we will present various pieces of evidence that document the project's progress, focusing on key aspects of management, development, and quality assurance, in accordance with Scrum methodology principles. These pieces of evidence not only demonstrate the work done but also how we have correctly applied the tools and techniques specific to our discipline to ensure the quality of the project. Below, I detail the main evidence we include and their justification:   1. System Architecture 2. Risk Management 3. Resource Management 4. Communication Management 5. Project Timeline 6. User Stories 7. Product Backlog and Sprint Backlog 8. Requirements Documentation 9. Quality Management   To ensure the project's quality, we have applied the Scrum methodology throughout all development phases. This includes the proper organization, execution, and evaluation of each sprint, ensuring the fulfillment of requirements and the team's adherence to agile principles. Platforms like GitHub have been used to monitor code versioning, ensuring an effective and collaborative development process. Continuous evaluations and automated testing ensure that the product meets the expected quality standards.  Through the following link : [Documentación Proyecto](https://drive.google.com/drive/folders/1BnDPxN3MsOUhR1KCA0afBjiPxZYCGibx?usp=sharing)  we confirm that the project development follows the established plan, applying effective engineering and project management methods to ensure its success. |
| **2. Work Plan Monitoring** |

| Competency Units | Name of Activities/Tasks | Description of Activities/Tasks | Resources | Activity Duration | Responsible | Observations |
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| Programming and web develop | Development of the User Registration Form | Create and validate the user registration form on the web platform. | VS Code, Web Server,  Data Base. | 10 days | Vicente Vallejos, Francisca Sepulveda and  Matias Gatica | Validate that the form is mobile-compatible. |
| Database Management | Implementation of the Reservation Confirmation Module | Develop the reservation confirmation logic, generating a receipt for the user. | VS Code, Backend Server, Database. | 12 days | Vicente Vallejos, Francisca Sepulveda and  Matias Gatica | Ensure that the receipt is sent via email. |
| Payment Gateway Management | Integration of Payment System | Integrate a payment gateway to process reservation payments (Transbank). | Payment Gateway, Database | 11 days | Vicente Vallejos, Francisca Sepulveda and  Matias Gatica | Validate the correct implementation of the payment gateway and test with transactions. |
| Mobile Application Development | Creation of Interface for Reservation Management (Admin) | Create the section where the administrator can view and modify reservations from the mobile app. | Ionic, Angular, Data Base | 10 days | Vicente Vallejos, Francisca Sepulveda and  Matias Gatica | Validate the responsive design and ease of use on mobile devices. |
| Implementation of Notifications | Configuration of Notifications and Reminders | Program the notification system that sends reservation reminders to customers. | Backend Server, Email API | 9 days | Vicente Vallejos, Francisca Sepulveda and  Matias Gatica | Verify the timely delivery of notifications and conduct tests on different devices. |

| **3. Adjustments Based on Monitoring** |
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| Deepen the observations of your work plan. Analyze the planned activities and identify which aspects facilitated or hindered the execution of the plan. Discuss how you addressed and/or will address the obstacles. Finally, indicate the adjustments you made to the work plan based on this analysis. |

| Factors That Have Facilitated the Development of My Work Plan:   * Use of Firebase: The integration with Firebase has been a key factor that has facilitated the development of the system. Firebase provides a comprehensive solution for authentication, data storage, and notifications, which has simplified various technical aspects, avoiding the need to implement these services from scratch. * Use of Angular and Ionic: Utilizing Angular and Ionic has allowed for good project structuring, particularly in the frontend, facilitating the creation of a responsive interface for both the web and mobile versions. This has accelerated the development of visual functionalities, such as the reservation system. * Integration with Transbank: The implementation of payment processing with Transbank has been quite successful, enabling secure transactions for users efficiently and improving trust in the system. * Teamwork and Planning: The project planning and clear communication within the team have facilitated task execution, as roles are well-defined and deliverables have been met within the estimated timelines. This has been an important enabler for progressing as planned.   Factors That Have Hindered the Development of My Work Plan:   * Firebase and MongoDB Connection (Initial Difficulty): One of the biggest challenges was the inability to connect Firebase and MongoDB for data management. Initially, there was an attempt to use both technologies, but due to the inability to resolve the integration, it was decided to continue solely with Firebase. This decision simplified the system architecture and allowed for a concentrated effort on a single backend. * Errors in Form Management in Angular: When implementing forms in Angular using ReactiveForms, there were difficulties related to data validations and synchronization errors. This slowed progress on some frontend functionalities, such as user registration and profile management. * Delays in Password Recovery Email Sending: When implementing the password recovery functionality, there were some delays in sending emails from Firebase. This was a critical challenge as it directly affected the user experience. * Problems with Husky on Windows: During the setup of Husky in a Windows environment, errors related to the lack of bash and obsolete commands emerged, complicating the implementation of hooks for version control. * Optimization of Availability Search: The search for availability for reservations was another challenge due to the complexity of the queries and the amount of data that needs to be managed in real time. This resulted in slower response times than expected. |
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| Adjusted Activities  Change from Firebase and MongoDB to Only Firebase: Initially, the plan included using Firebase alongside MongoDB for database management. However, due to connection issues and the complexity of integrating both platforms, it was decided to use only Firebase.  Justification: The decision to work solely with Firebase simplified data management, as Firebase provides all the necessary tools for authentication, storage, and notifications. This allowed for a focus on a simpler and more efficient architecture, reducing the complexity of development.  Optimization of the Form System in Angular: The development of forms in Angular using ReactiveForms presented validation errors and data synchronization issues, necessitating adjustments to the logic and validations in the frontend.  Justification: It was necessary to adjust the logic of the forms to ensure that the validations were accurate and that the data entered by users was stored correctly. This was done to improve the user experience and avoid errors in user management.  Review and Optimization of the Password Recovery Functionality: During development, delays in sending password recovery emails were identified, requiring adjustments to the notification system configuration.  Justification: This adjustment was necessary to ensure that recovery emails arrived in a timely manner, thereby improving usability and user trust in the system. Collaboration with SendGrid and Twilio was undertaken to enhance response times.  Reconfiguration of Husky on Windows: The initial setup of Husky in the Windows environment presented technical issues related to the lack of bash and obsolete scripts. The scripts were adjusted to function correctly in this environment.  Justification: These adjustments were necessary to properly implement version control hooks, allowing the development team to maintain good practices in using Git.  Optimization of Availability Search: Performance issues were identified in the availability search functionality, leading to adjustments in database queries to improve response times.  Justification: This functionality was adjusted so that users could check available dates more efficiently and without long wait times. This adjustment is key to maintaining a smooth user experience.  Deleted Activities  Elimination of the MongoDB Implementation: The initial idea of combining MongoDB with Firebase was removed from the work plan due to integration issues and the redundancy it entailed.  Justification: Firebase alone offers all the necessary tools for authentication, storage, and real-time data management, making the use of MongoDB unnecessary. This also helped reduce complexity and operational costs. |
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| Activities That You Have Not Started or Are Delayed    So far, there are no tasks that have not been started, none with incorrect dates, and no delays in our project. Thanks to the strategy of simultaneous work and constant coordination among team members, this achievement has been realized. The Burndown chart clearly shows the ongoing progress, demonstrating a steady decrease in the remaining work hours and the tasks yet to be completed. This approach has allowed us to meet established deadlines and ensure the efficient advancement of planned activities, keeping the project aligned with the set objectives. |
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