

Guide 2. APT Project Development Capstone Course

1. APT Project Progress Summary

Below, you'll find various fields that you'll need to complete with the requested information.

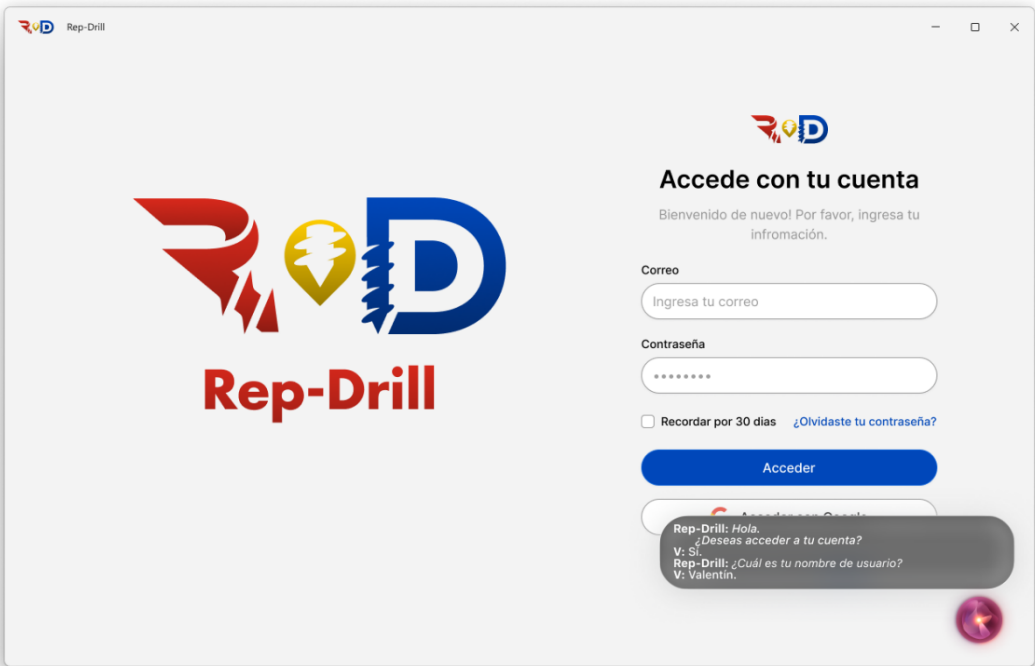
Resumen de avance proyecto APT	During phase two, the development team has progressed the designs, architecture, model, and backend of the Rep-Drill management software. Subsequently, the activities carried out are specified;		
	Activities	Description	Compliance Objectives
	Mockup Design	Visualize software views to validate aesthetic design and user experience.	Partially all the objectives defined.
	Software Architecture	Represent at a technical level the fullness of the software, dependencies, connections and its processes.	Partially all the objectives defined.

	Relational Database Model	Structure the database relationally in order to store and manage data.	Partially all the objectives defined.
	Backend Development	<p>Building the abstraction of data and process management;</p> <ul style="list-style-type: none"> ▪ Product Management. ▪ Report Management. ▪ User Management. ▪ Notification Management. ▪ Audit Management. 	<p>Partially certain specified objectives;</p> <ul style="list-style-type: none"> ▪ Implement and facilitate product inventory management. ▪ Report product inventory management. ▪ Manage user access control. ▪ Implement an automated notification system to report low quantities of a certain product.
Objectives	<p>One of the specific objectives has been removed due to the limited time and the client's preference for other functional requirements;</p> <ul style="list-style-type: none"> ▪ SPC-OBJ-PROJ-01_07: Quote pricing information for products from various suppliers. 		
Methodology	No changes have been made to the methodology.		
Evidence of progress	<p>During the development of the IT project, significant milestones were identified, and the execution and construction processes were confirmed through evidence.</p> <p>Subsequently, the details of said evidence of progress are outlined.</p>		

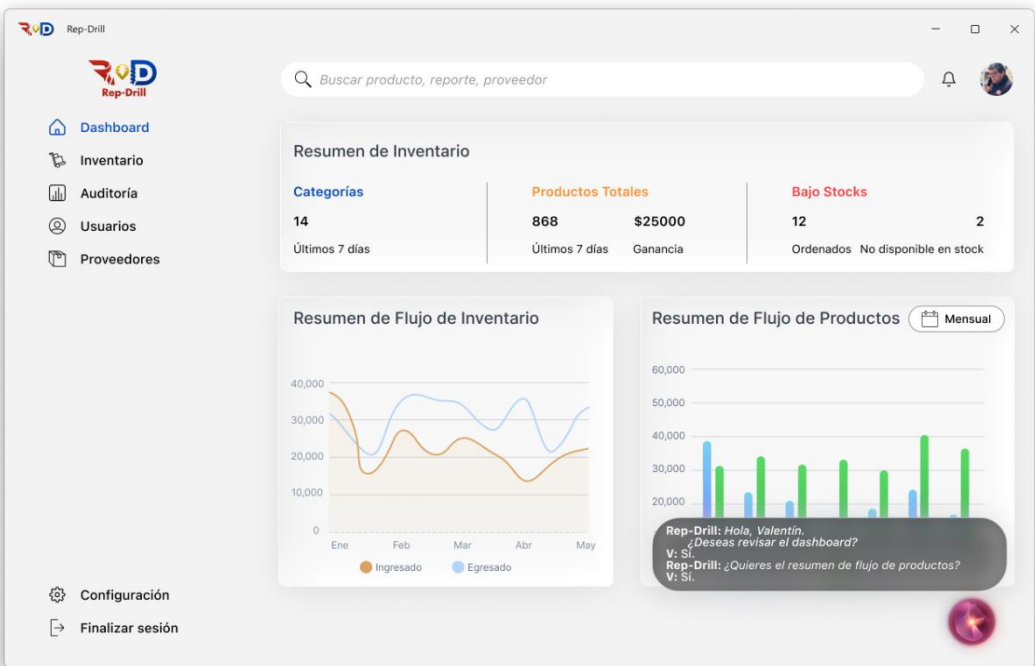
	Name	Description	Justification	Format
	Mockups	Visual representations of the software.	Capture the user interface and experience.	PNG
	Software Architecture	Abstraction of the computer structure.	Structuring the construction of the software.	PNG
	Relational Database Model	Database design.	Model, create, and manage data used in the software.	JPG
	Project Repository	Contain the coding of the computer project.	Store, organize, maintain and disseminate computer files.	HTML / JS / CSS
	Sprints Reviews	Images from the Sprint Reviews.	Progress and feedback meeting with the client.	JPG

Mockups

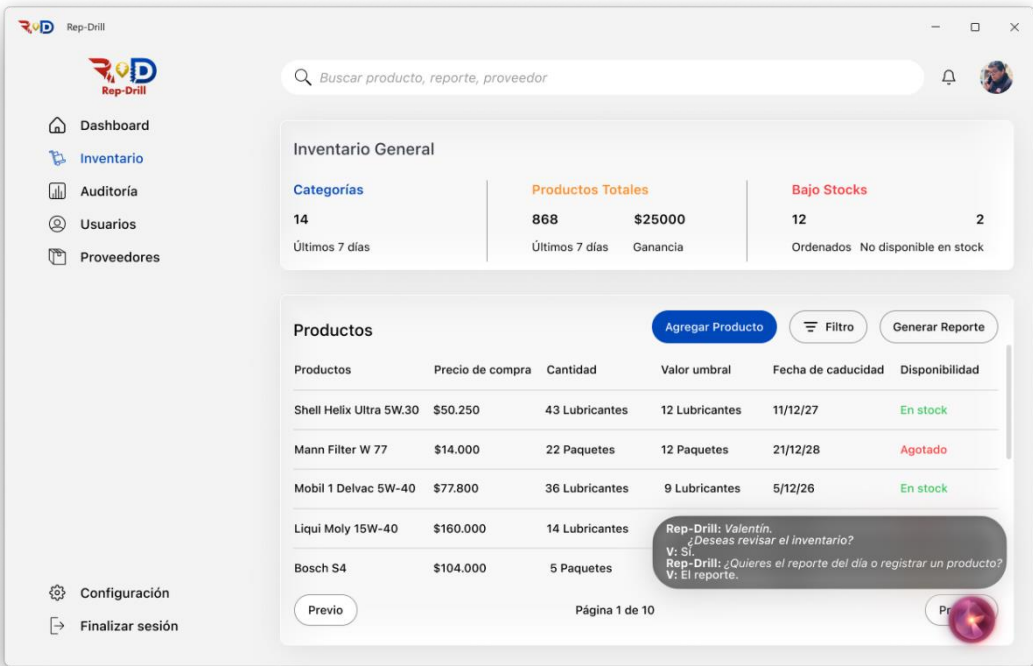
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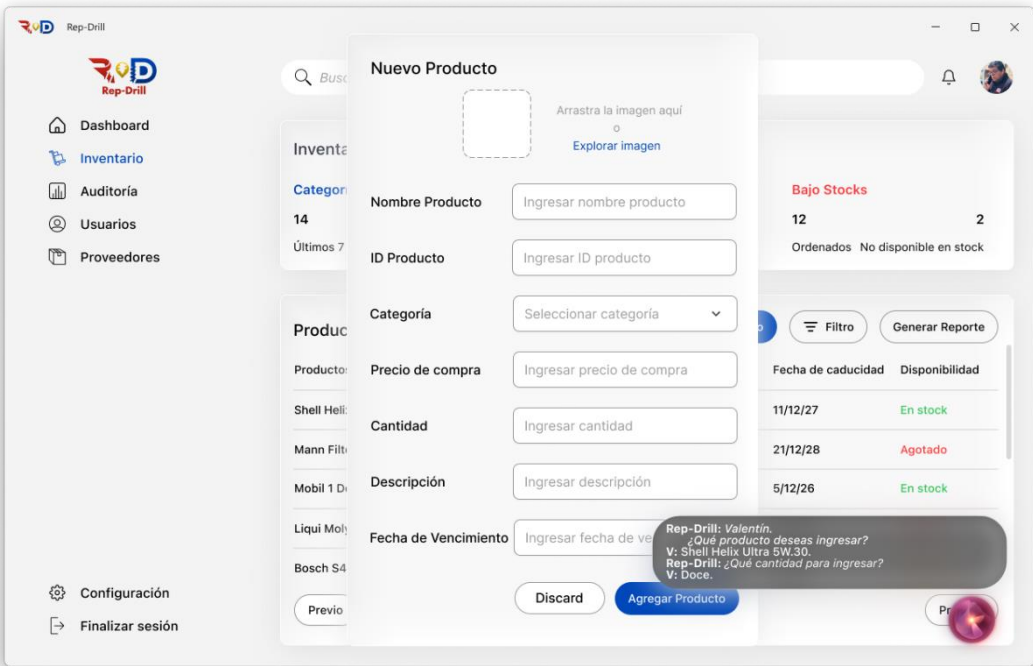
Dashboard



Inventory



Inventory (Add Product)



Inventory (Product View)

Rep-Drill

Dashboard

Inventario

Auditoría

Usuarios

Proveedores

Configuración

Finalizar sesión

Buscar producto, reporte, proveedor

Shell Helix Ultra 5W.30

EditarGenerar reporte

Vista generalComprasAjustesHistorial

Detalles primarios

Nombre producto

Shell Helix Ultra W.30

ID producto

456567

Categoría

Lubricante

Fecha de vencimiento

13/4/32

Detalles de proveedor

Nombre proveedor

Shell

Número de contacto

(56) 2 2350 2000

Correo

enexdirecto@enex.cl

Total de Stock

50

Stock Ingresado

20

Rep-Drill: Valentin.

¿Qué producto deseas editar?

V: Shell Helix Ultra 5W.30.

Rep-Drill: ¿Qué parámetro deseas editar?

V: El total de stock.

Audit

Rep-Drill

Inventario

Dashboard

Auditoría

Usuarios

Proveedores

Configuración

Finalizar sesión

Buscar producto, reporte, proveedor

Resumen de Auditoría

Mensual

25

20

15

10

5

0

Jan

Feb

Mar

Apr

May

Jun

Jul

Ago

Sep

Oct

Nov

Dec

Ene

Feb

Mar

Abr

Correctos

Incorrectos

Auditoría

Agregar Auditoría

Filtro

Generar Reporte

TítuloID AuditoríaEstadoTipoFecha de inicioFecha de término

Auditoría de Negocio

INT-2025-0012

En preparación

Auditoría de Inventario

SIS-2025-0023

Plan de Acción

Rep-Drill: Valentin.

¿Deseas realizar la auditoría?

V: Si.

Rep-Drill: ¿Quieres el resumen de auditoría?

V: Si.

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Pr

Users

Rep-Drill

Dashboard

Inventario

Auditoría

Usuarios

Proveedores

Configuración

Finalizar sesión

Buscar producto, reporte, proveedor

Usuarios

Agregar Usuario

Filtro

Generar Reporte

Nombre de usuario	Tipo	Número de contacto	Correo	Fecha de ingreso	Disponibilidad
Valentín	Administrador	(9) 4930 8018	valentin@rep-drill.cl	11/12/25	Conectado
Nayade	Empleador	(9) 7359 6139	nayade@rep-drill.cl	11/12/25	Desconectado

Nombre de usuario
Tipo de usuario
Número de contacto
Correo

Valentín
Administrador
(9) 4930 8018
valentin@rep-drill.cl

Editar

Generar reporte

Nombre de usuario
Tipo de usuario
Número de contacto
Correo

Nayade
Empleador
(9) 7359 6139
nayade@rep-drill.cl

Rep-Drill: Valentín.
¿Deseas revisar los usuarios?
V: Si.
Rep-Drill: ¿Quieres el reporte de los usuarios?
V: Si.

Suppliers

Rep-Drill

Dashboard

Inventario

Auditoría

Usuarios

Proveedores

Configuración

Finalizar sesión

Buscar producto, reporte, proveedor

Proveedores

Agregar Proveedor

Filtro

Generar Reporte

Nombre	Producto	Número de contacto	Correo
Shell	Shell Helix Ultra 5W.30	(56) 2 2350 2000	enexdirecto@enex.cl
J. Riveros SAIC Mann Filter	Mann Filter W 77	(56) 2 2397 4444	contacto@riveros.cl
Mobil	Mobil 1 Delvac 5W-40	(56) 2 2656 9329	ventas@distribuidorasanjavier.cl
Liqui Moly	Liqui Moly 15W-40	(56) 2 2332 2100	ventas@liqui-moly.cl
Bosch	Bosch S4	(56) 2 2405 5633	store.bosch@cl.bosch.com

Rep-Drill: Valentín.
¿Deseas revisar los proveedores?
V: Si.
Rep-Drill: ¿Quieres el reporte de los proveedores?
V: Si.

Previo

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Pr

Suppliers (New Supplier)

Rep-Drill

Dashboard

Inventario

Auditoría

Usuarios

Proveedores

Configuración

Finalizar sesión

Nuevo Proveedor

Arrastrar image aquí

Explorar imagen

Nombre Proveedor

Ingresar nombre de proveedor

Producto

Ingresar producto

Categoría

Seleccionar categoría

Precio de compra

Ingresar precio de compra

Número de contacto

Ingresar número de contacto

Correo

Ingresar correo

Cancelar

Add Supplier

Proveedor

Filtro

Generar Reporte

Proveedor	Contacto	Correo
00		enexdirecto@enex.cl
144		contacto@riveros.cl
329		ventas@distribuidorasanjavier.cl
100		ventas@liqui-moly.cl
633		store.bosch@cl.bosch.com

Rep-Drill: Valentin.

¿Deseas ingresar un proveedor?

V: Si

Rep-Drill: ¿Cuál proveedor?

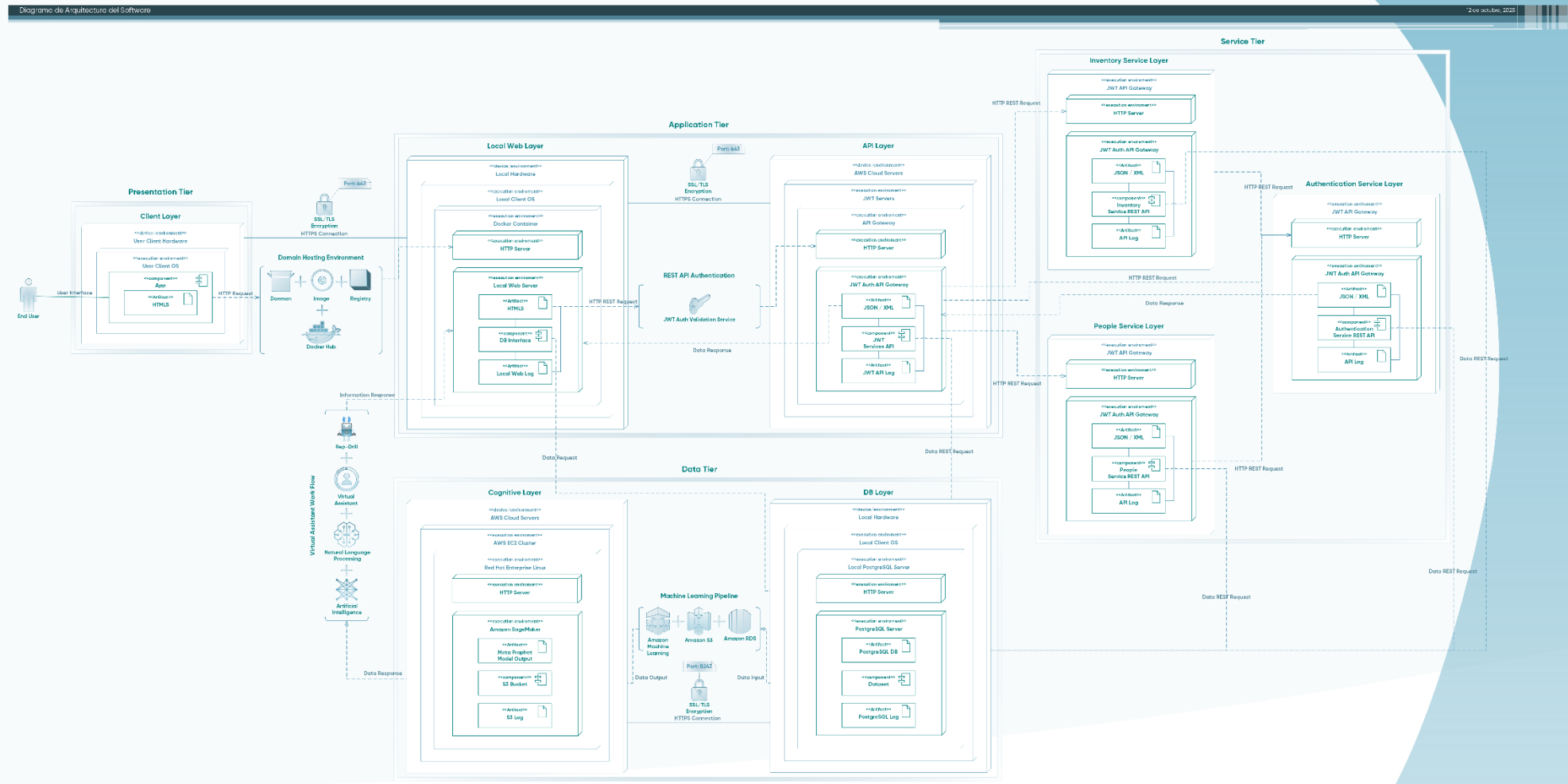
V: J. Riveros SAIC Mann Filter.

Previo

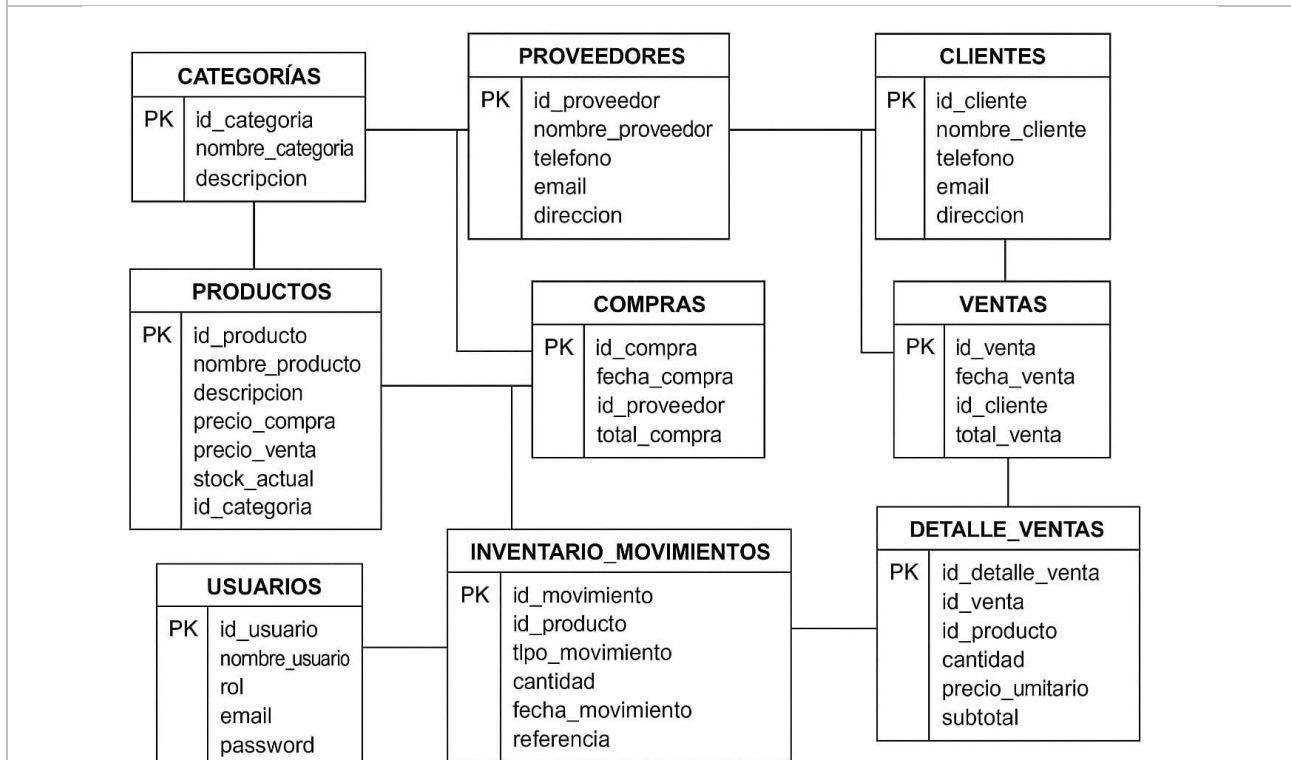
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Pr

Software Architecture



Relational Database Model



Project Repository

- [GitHub: Rep-Drill](#)

Sprints Reviews

Presentation, Review, Feedback and Retrospective with the Client









Commemoration with the Client



2. Monitoring the Work Plan

Carefully examine your work plan, focusing especially on the progress and adjustments column.

Work Plan							
Competence or units of competences	Activities	Resources	Duration of the activity	Responsible ¹	Observations	State of progress	Adjustment
Phase 2: APT Project Development: Execution and Control							
Iteration / Sprint 2: Design and Gestation							
<ul style="list-style-type: none"> Computer Engineering. Analysis and Development of Database Models. Software Architecture. 	Execution and Control of Modelling, Design and Architecture Management.	<ul style="list-style-type: none"> Humans. Time. Technology. Machinery and equipment. Information and data. 	5 days.	<ul style="list-style-type: none"> Elián Farias Jorge Freire David Lever 	Facilitator: Wit, knowledge, skills, and conceptualization of architectures, prototypes, and technological models.	Completed.	There are no adjustments.
<ul style="list-style-type: none"> Computer Engineering. Software Programming. Analysis and Development of Database Models. 	Execution and Control of Implementation Development Environment Management.	<ul style="list-style-type: none"> Humans. Time. Technology. Machinery and equipment. Information and data. 	1 day.	<ul style="list-style-type: none"> Elián Farias Jorge Freire 	Facilitator: Knowledge of applied technologies.	Completed.	There are no adjustments.
Iteration / Sprint 3: Building and Incrementing Product and Report Management							

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 later allow for different evaluations for each member.

<ul style="list-style-type: none">▪ Computer Engineering.▪ Software Programming.▪ Analysis and Development of Database Models.	Execution and Control of Product Management.	<ul style="list-style-type: none">▪ Humans.▪ Time.▪ Technology.▪ Machinery and equipment.▪ Information and data.	2 weeks.	<ul style="list-style-type: none">▪ Elián Farias▪ Jorge Freire	Facilitator: Understanding applied technologies.	In progress.	There are no adjustments.
<ul style="list-style-type: none">▪ Computer Engineering.▪ Software Programming.	Execution and Control of Report Management.	<ul style="list-style-type: none">▪ Humans.▪ Time.▪ Technology.▪ Machinery and equipment.▪ Information and data.	2 weeks.	<ul style="list-style-type: none">▪ Elián Farias▪ Jorge Freire	Facilitator: Intelligence of applied technologies.	In progress.	There are no adjustments.
Iteration / Sprint 4: Build and Increment of Self-Registration, Authenticate, and User Management							
<ul style="list-style-type: none">▪ Computer Engineering.▪ Software Programming.▪ Analysis and Development of Database Models.	Execution and Control of Self-Registration, Authenticate and User Management.	<ul style="list-style-type: none">▪ Humans.▪ Time.▪ Technology.▪ Machinery and equipment.▪ Information and data.	2 weeks.	<ul style="list-style-type: none">▪ Elián Farias	Facilitator: Understanding and skills in the use of applied technologies.	Adjusted.	The JSON Web Token (JWT) standard has been used.
Iteration / Sprint 5: Build and Increment of Notify Stock Management							

<ul style="list-style-type: none"> ▪ Computer Engineering. ▪ Software Programming. 	<p>Execution and Control of Notify Stock Management.</p>	<ul style="list-style-type: none"> ▪ Humans. ▪ Time. ▪ Technology. ▪ Machinery and equipment. ▪ Information and data. 	<p>1 week.</p>	<ul style="list-style-type: none"> ▪ Elián Farias 	<p>Facilitator: Intelligence and wit in the use of the service.</p>	<p>Completed.</p>	<p>There are no adjustments.</p>
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3. Adjustments from monitoring

Dig deeper into your work plan observations. Analyze the planned activities and identify what aspects facilitated or hindered the plan's execution. Discuss how you addressed and/or will address the obstacles. Finally, highlight any adjustments you made to the work plan based on this analysis.

Factors that have facilitated and/or hindered the development of my work plan:

Facilitators	
<ul style="list-style-type: none"> ▪ Project Management: Planning and management of the IT project in advance. ▪ Design Competencies: Wit, knowledge, skills and conceptualization of architectures, prototypes and technological models. ▪ Execution and Construction: Knowledge, understanding and skills in the use of technologies applied in the development of software. 	
Difficulties	Response
Project Coordination and Collaboration: Disadvantages of teamwork.	Establish and streamline communication sessions between team members.
Artificial Intelligence: Lack of experience in integrating AI technology.	Investigate and train the incorporation of AI tools.
User Authentication: Complexity in certain areas during the development of the functionality.	Implementation of the open standard JSON Web Token (JWT).

Activities adjusted or eliminated:

- **Advanced increments:** Certain increments in the data and process management layer have been advanced early.
 - **Stock Notification Management.**
 - **Audit Management.**

- **Execution and Control of Price Quotes Management:** The supplier price quote management functionality has been removed from the IT project planning due to limited time and the prioritization of other key client requirements.

Activities that you have not started or are delayed:

- **Construction of the Final Frontend:** Delay in the creation of the UI/UX design, due to the delay in the development of the mockups and validation of said designs with the client.
- **Real Data Ingestion:** Postponing the ingestion of real data into the database, due to the vast magnitude of products on the sales floor.