



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.

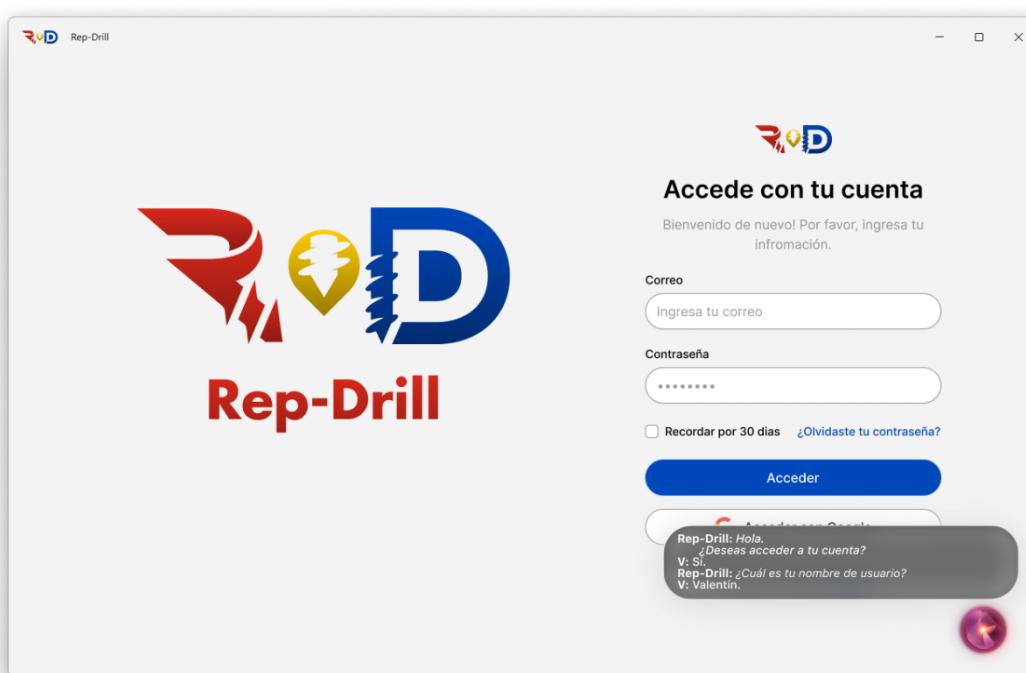
Resumen de avance proyecto APT	During phase two, the development team has progressed the designs, architecture, model, and backend of the Rep-Drill management software. Subsequently, the activities carried out are specified;		
	Activities	Description	Compliance Objectives
	Mockup Design	Visualize software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

	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. 	Partially certain specified objectives; <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

- Sign In



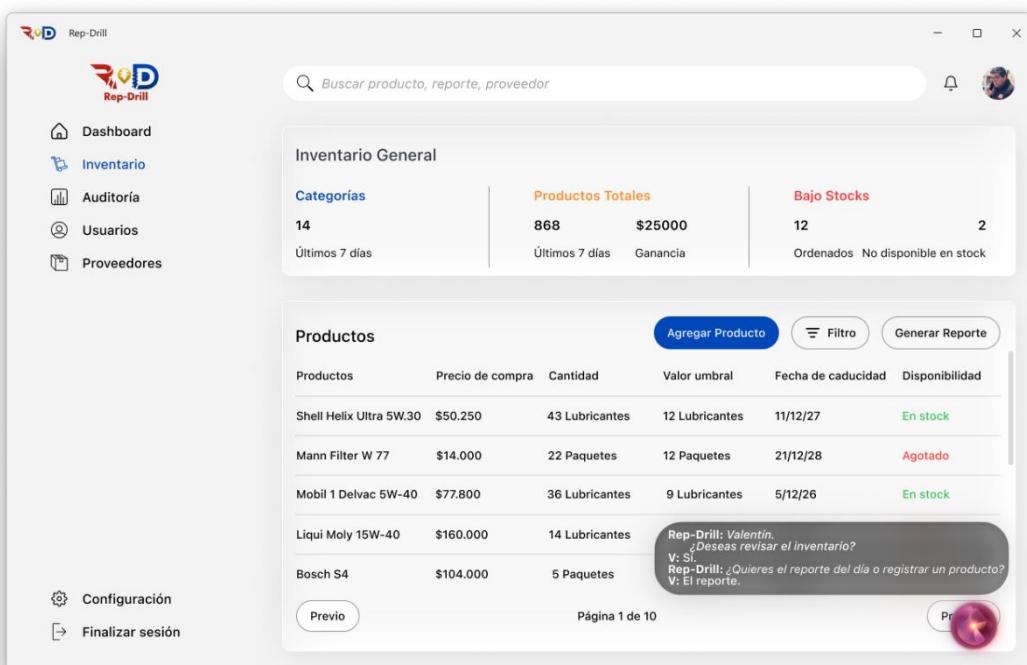
▪ Dashboard

The screenshot shows the Rep-Drill dashboard. On the left is a sidebar with icons for 'Dashboard' (selected), 'Inventario', 'Auditoría', 'Usuarios', and 'Proveedores'. The main area has a search bar at the top with placeholder text 'Buscar producto, reporte, proveedor'. Below the search bar are three summary sections: 'Resumen de Inventario', 'Resumen de Flujo de Inventario', and 'Resumen de Flujo de Productos'. The 'Resumen de Inventario' section shows 14 categories, 868 products total, and 12 items with low stock. The 'Resumen de Flujo de Inventario' section is a line chart showing monthly inflow and outflow from January to May. The 'Resumen de Flujo de Productos' section is a bar chart showing monthly product flow. A dark gray callout bubble at the bottom right contains a conversation: 'Rep-Drill: Hola, Valentín. ¿Deseas revisar el dashboard? V: Sí.' and 'Rep-Drill: ¿Quieres el resumen de flujo de productos? V: Sí.' To the right of the callout is a small purple circular icon with a white star-like symbol.

▪ Inventory

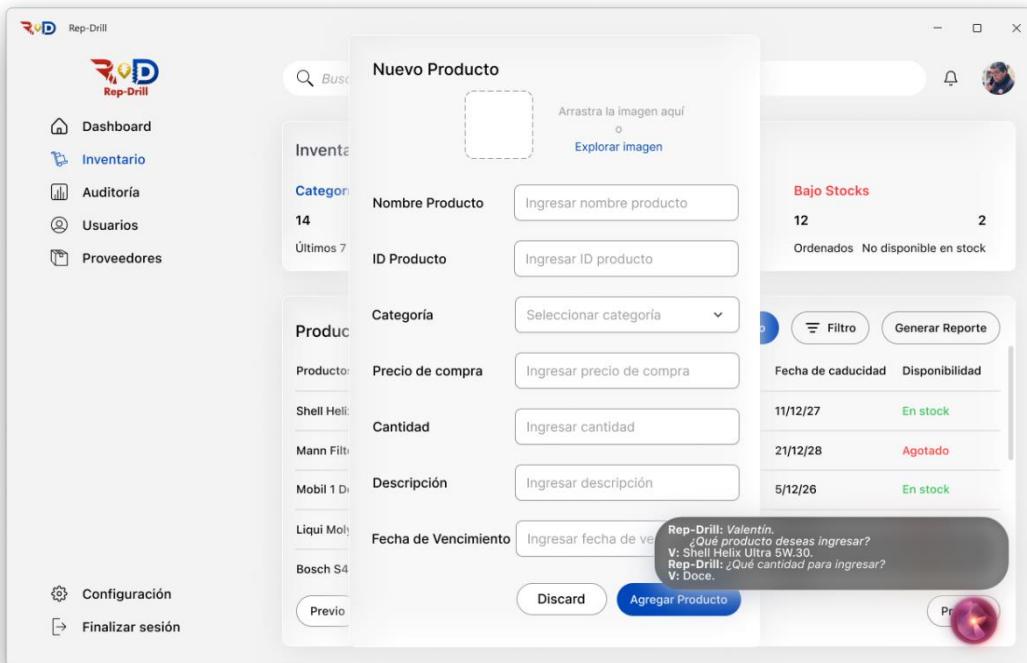
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The screenshot shows the Rep-Drill application interface. On the left is a sidebar with icons for Dashboard, Inventory, Auditoria, Usuarios, and Proveedores. The main area has a search bar at the top. Below it is a summary section titled "Inventario General" with metrics: Categorías (14), Productos Totales (868), and Bajo Stocks (12). It also shows "Últimos 7 días" and "Últimos 7 días Ganancia". The main content area is titled "Productos" and lists several items with columns for Productos, Precio de compra, Cantidad, Valor umbral, Fecha de caducidad, and Disponibilidad. A tooltip from a user named Valentin asks if they want to check the inventory. At the bottom are navigation buttons for "Previo" and "Próximo".

▪ Inventory (Add Product)

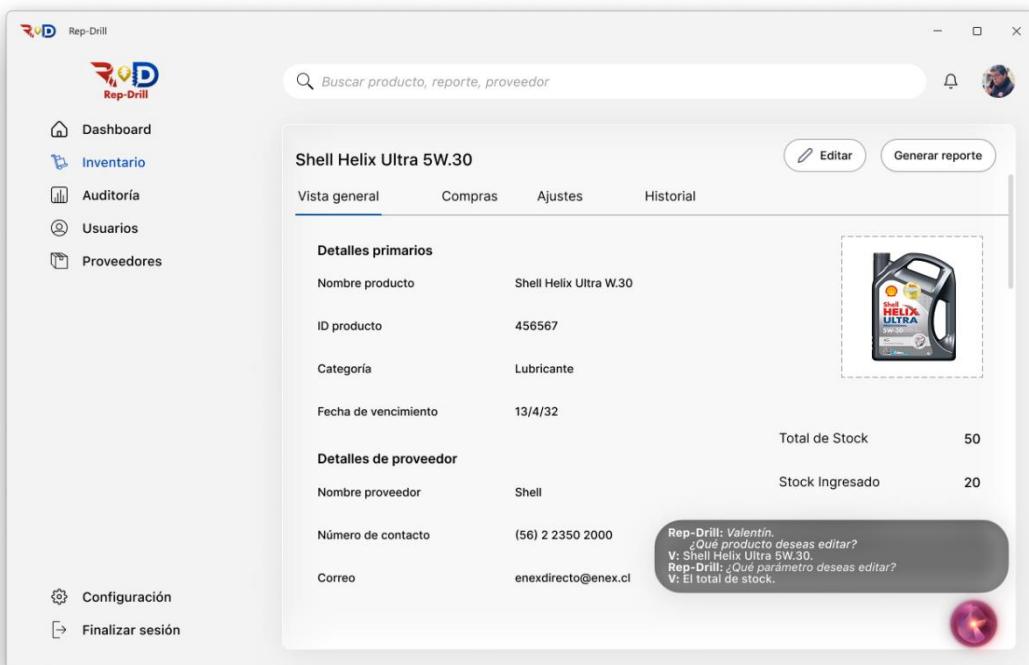


This screenshot shows the "Nuevo Producto" (New Product) form. It includes fields for Nombre Producto, ID Producto, Categoría, Precio de compra, Cantidad, Descripción, and Fecha de Vencimiento. There's a file upload section with "Arrastra la imagen aquí" and "Explorar Imagen". A tooltip from Valentin asks what product to enter, specifying Shell Helix Ultra 5W-30. The right side of the screen shows a preview of the product list with a "Bajo Stocks" section and a "Generar Reporte" button.

▪ Inventory (Product View)

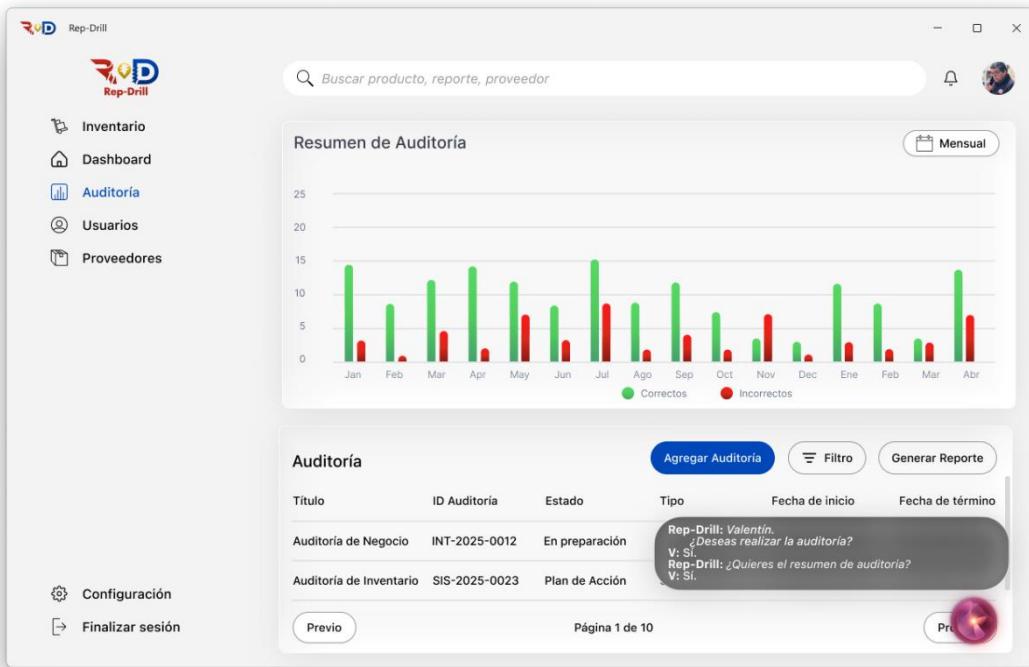
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The screenshot shows the Rep-Drill application interface. On the left is a sidebar with icons for Dashboard, Inventario, Auditoría, Usuarios, Proveedores, Configuration, and Finalizar sesión. The main area has a search bar at the top. Below it, a card displays product details for "Shell Helix Ultra 5W.30". The card includes tabs for Vista general, Compras, Ajustes, and Historial. Under Vista general, there are sections for "Detalles primarios" and "Detalles de proveedor". A preview image of the oil container is shown. A tooltip from the system asks if the user wants to edit the product or parameter.

Audit



The screenshot shows the Rep-Drill application interface under the Audit section. The sidebar and main search bar are identical to the previous screen. The main area features a chart titled "Resumen de Auditoría" showing the number of correct (green) and incorrect (red) audits per month. Below the chart is a table for "Auditoría" with columns for Título, ID Auditoría, Estado, Tipo, Fecha de inicio, and Fecha de término. A tooltip from the system asks if the user wants to perform an audit or generate a report.

Users

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The screenshot shows the 'Users' section of the Rep-Drill application. On the left, there is a sidebar with icons for Dashboard, Inventory, Auditoria, Users (selected), and Suppliers. The main area has a search bar at the top. Below it, a table lists users:

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

Below the table, there are two user profiles with edit and report buttons. A modal window is open for the user 'Nayade' with the following details:

Nombre de usuario	Valentín
Tipo de usuario	Administrador
Número de contacto	(9) 4930 8018
Correo	valentin@rep-drill.cl

The modal also contains a message from 'Rep-Drill': 'Rep-Drill: Valentín. ¿Deseas revisar los usuarios? V: Sí.' and 'Rep-Drill: ¿Quieres el reporte de los usuarios? V: Sí.'

At the bottom of the screen, there are configuration and sign-out options.

■ Suppliers

The screenshot shows the 'Suppliers' section of the Rep-Drill application. The sidebar and main interface are similar to the 'Users' section, with a search bar at the top. The main area displays a table of suppliers:

Nombre	Producto	Número de contacto	Correo
Shell	Shell Helix Ultra 5W.30	(56) 2 2350 2000	enxdirecto@enex.cl
J. Riveros SAIC Mann Filter	Mann Filter W 77	(56) 2 2397 4444	contacto@jriveros.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

A modal window is open for the supplier 'Bosch' with the following details:

Nombre	Bosch
Producto	S4
Número de contacto	(56) 2 2405 5633
Correo	store.bosch@cl.bosch.com

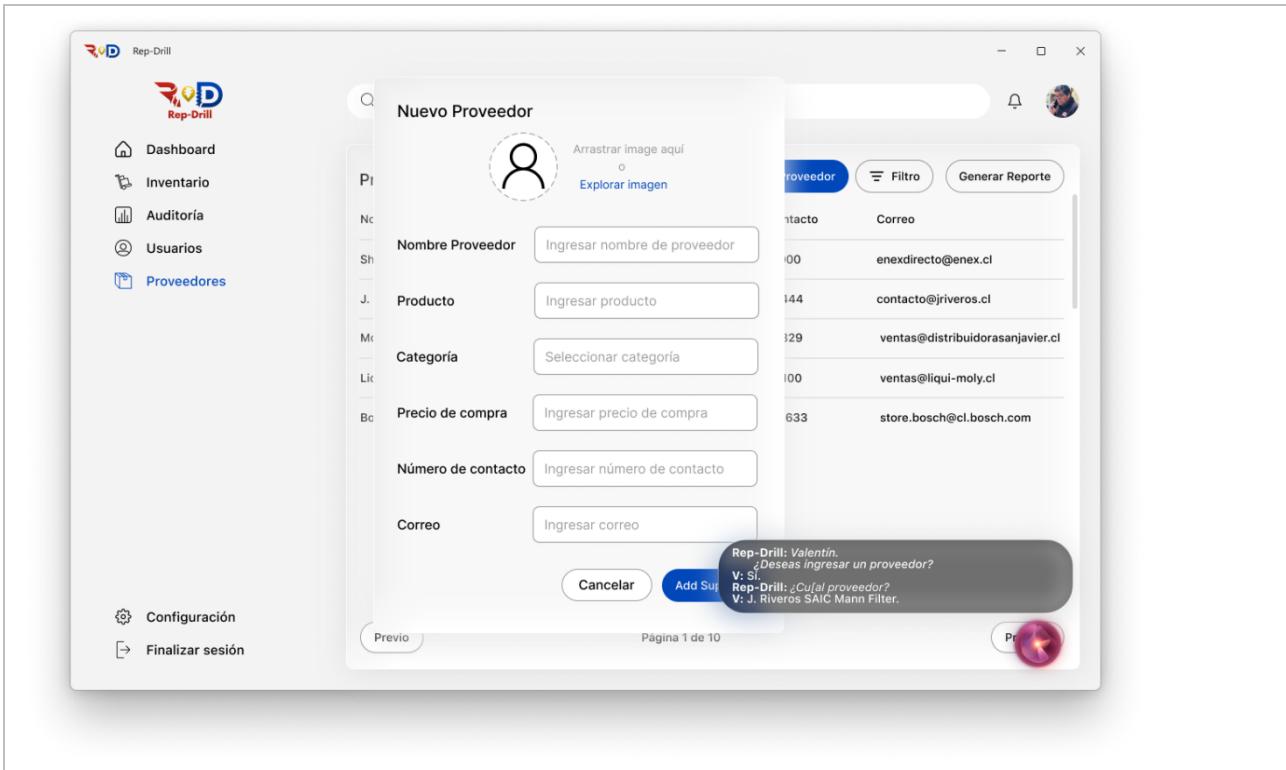
The modal also contains a message from 'Rep-Drill': 'Rep-Drill: Valentín. ¿Deseas revisar los proveedores? V: Sí.' and 'Rep-Drill: ¿Quieres el reporte de los proveedores? V: Sí.'

At the bottom of the screen, there are configuration and sign-out options, along with navigation buttons for 'Previo' and 'Próximo'.

■ Suppliers (New Supplier)

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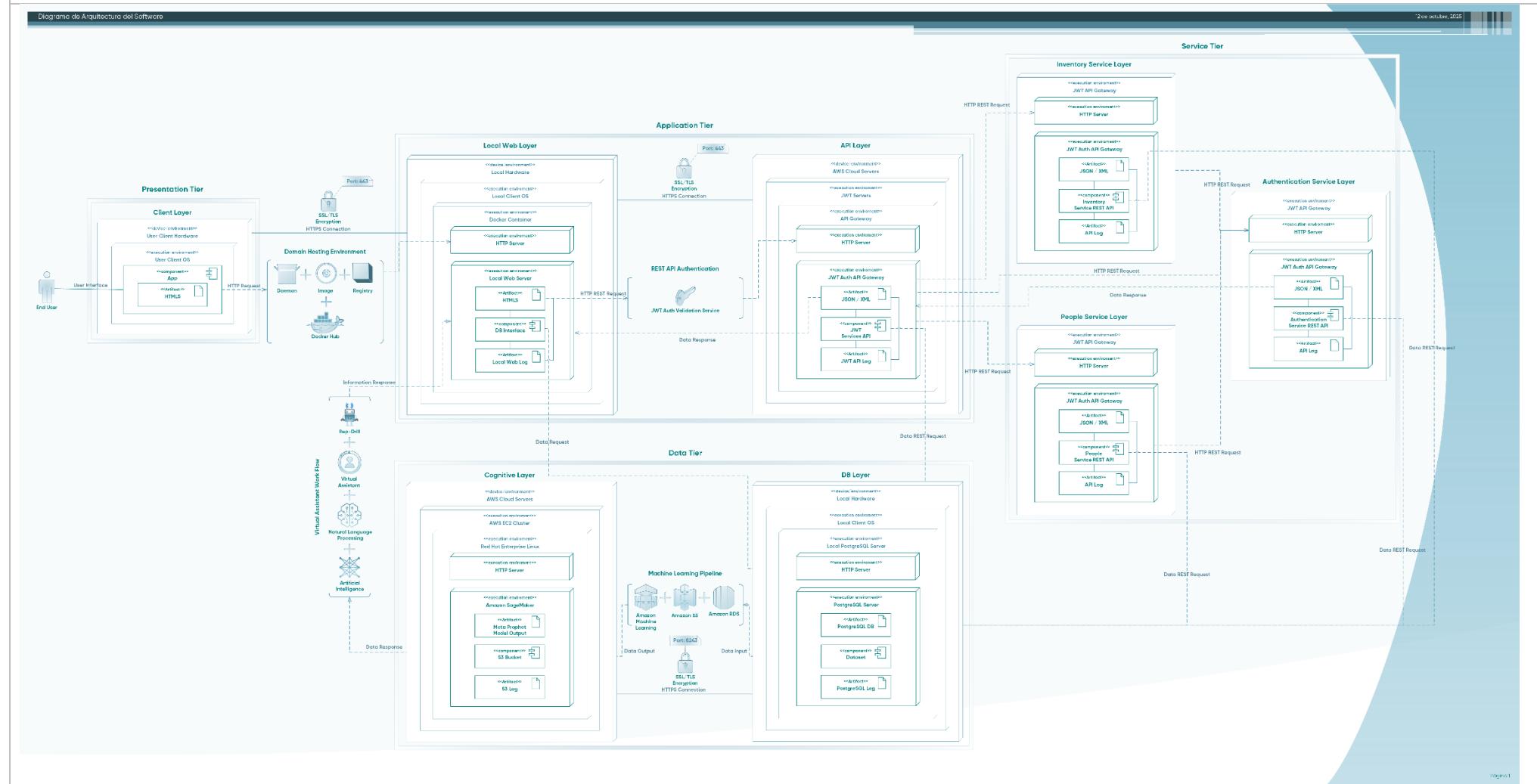
The screenshot shows the Rep-Drill application interface. On the left, there's a sidebar with icons for Dashboard, Inventory, Auditoria, Usuarios, and Proveedores (Suppliers). The main area has a search bar and a 'Nuevo Proveedor' (New Supplier) form. The form fields include:

- Imagen (Image): A placeholder for dragging or selecting an image.
- Nombre Proveedor (Supplier Name): An input field with placeholder text "Ingresar nombre de proveedor".
- Producto (Product): An input field with placeholder text "Ingresar producto".
- Categoría (Category): A dropdown menu with placeholder text "Seleccionar categoría".
- Precio de compra (Purchase Price): An input field with placeholder text "Ingresar precio de compra".
- Número de contacto (Contact Number): An input field with placeholder text "Ingresar número de contacto".
- Correo (Email): An input field with placeholder text "Ingresar correo".

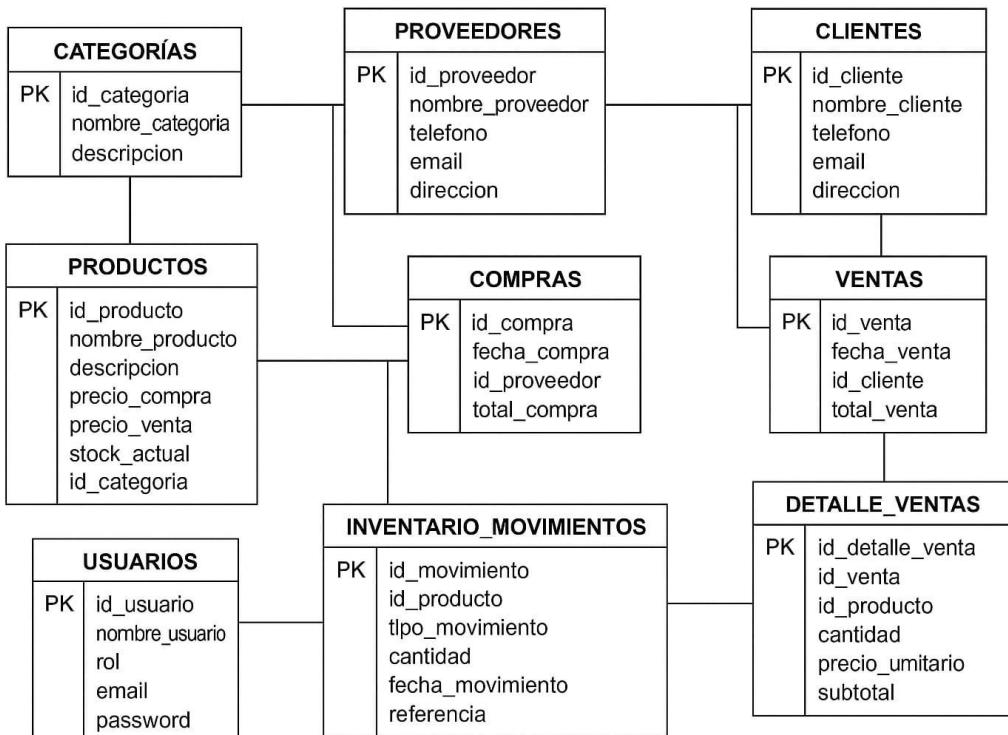
Below the form is a modal dialog with the following text:
Rep-Drill: Valentin.
¿Deseas ingresar un proveedor?
V: Sí
Rep-Drill: ¿Cuál proveedor?
V: J. Riveros SAIC Mann Filter.

At the bottom right of the main window, there's a small circular icon with a play button symbol.

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							
▪ Computer Engineerin g.	Execution and Control of Modelling, Design and Architecture Management.	▪ Humans. ▪ Time. ▪ Technolog y. ▪ Machinery and equipment. ▪ Informatio n and data.	5 days.	▪ Elián Farias ▪ Jorge Freire ▪ David Lever	Facilitator: Wit, knowledge, skills, and conceptualizati on of architectures, prototypes, and technological models.	Completed.	There are no adjustme nts.
▪ Analysis and Developme nt of Database Models.							
▪ Software Architectur e.							
▪ Computer Engineeri ng.	Execution and Control of	▪ Humans. ▪ Time. ▪ Technolo gy.	1 day.	▪ Elián Farias ▪ Jorge Freire	Facilitator: Knowledge of applied technologies.	Completed.	There are no adjustme nts.
▪ Software Program ming.	Implementation	▪ Machinery and equipme nt.					
▪ Analysis and Developm ent of Database Models.	Environment Management.	▪ Informati on and data.					
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.

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<ul style="list-style-type: none"> ▪ Computer Engineering. ▪ Software Programming. ▪ Analysis and Development of Database Models. 	<ul style="list-style-type: none"> 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: Elián Farias Jorge Freire	In progress.	There are no adjustments.
<ul style="list-style-type: none"> ▪ Computer Engineering. ▪ Software Programming. 	<ul style="list-style-type: none"> 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: Elián Farias Jorge Freire	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. 	<ul style="list-style-type: none"> Execution and Control of Self-Registration. Registration, Authentication 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: Elián Farias	Adjusted.	The JSON Web Token (JWT) standard has been used.
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Iteration / Sprint 5: Build and Increment of Notify Stock Management

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▪ Computer Engineering.	Execution and Control of Notify	▪ Humans. ▪ Time. ▪ Technology.	1 week.	▪ Elián Farias	Facilitator: Intelligence and wit in the use of the service.	Completed.	There are no adjustments.
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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	
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:
<ul style="list-style-type: none">▪ Advanced increments: Certain increments in the data and process management layer have been advanced early.<ul style="list-style-type: none">▪ 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.