

EKO INNOVATION & TRADING S.L. E-COMMERCE WEBSITE PROJECT

TEAM MEMBERS

Number	Name	Role
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User Stories and Related Scenarios of the Project

User Story #1: Product Management

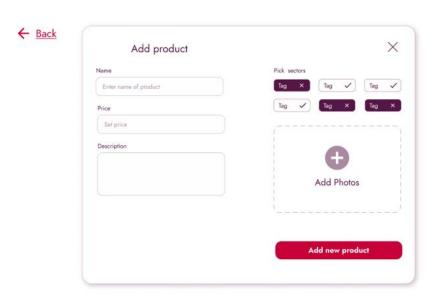
Ahmet works at EKO Innovation & Trading S.L., a company active in the smart city, energy, ITS & Traffic, security, and iron industries. He is responsible for selecting and managing the products to be sold on the EKO Innovation & Trading S.L. website. Ahmet envisions a website that showcases the company, includes explanations of relevant industries, and lists products for each sector. He wants the ability to add products, remove them, and update information about them, ensuring that the website adapts whenever the company's product lineup changes.

Related Scenarios for User Story 1# Product Management

Scenario #1: Product Addition

Initial Assumption: Ahmet, who serves as the Product Admin for EKO Innovation & Trading S.L., successfully logs into the company's website platform and accesses the product management dashboard. He has the necessary permissions to add, edit, and manage product listings. Ahmet is ready to add a new product that is set for sale on the website.

Normal: goes Ahmet the to "Products" section within the dashboard, where he can manage current products and add new ones. He clicks the "Add New Product" button to begin the product creation process. He fills out all mandatory fields. He specifies the name of the new product, adds a detailed description outlining the product's features and usage, the selling price, inputs the stock quantity available in inventory, chooses the appropriate sector (e.g., smart city, energy, ITS & traffic) to categorize the product. Ahmet uploads an image of the product, ensuring it meets file



requirements (e.g., resolution and file size limits). After filling the name, description, price, stock, sector, image information, he clicks "Add new product" to finalize the entry. A pop-up or onscreen message appears confirming that the product has been successfully added. The newly added product is immediately visible to website customers in the "Products" section, complete with all entered details.

What Can Go Wrong:

- If Ahmet omits any mandatory fields (like product name or price), the system immediately highlights the missing information and prompts him to complete it before saving.
- If the uploaded image file exceeds the allowable size or format, an error message appears, and the system prevents saving until a suitable image is uploaded.
- If Ahmet attempts to add a product with an identical name, the system may prompt him to review and confirm the entry to prevent duplicates.

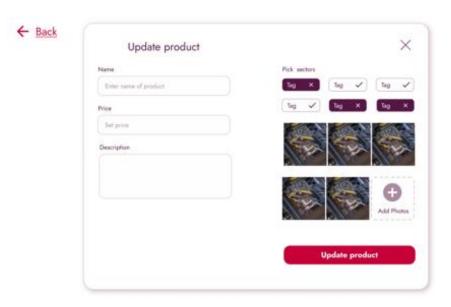
Other Activities: Another product admin uses the website functionally at the same time.

System State on Completion: Upon successful completion, the new product is added to the database and immediately displayed to users on the website. The product's data, including its photo, name, description, price, stock status, and sector classification, is accessible in website.

Scenario #2: Updating Product Information

Initial Assumption: Ahmet, the Product Admin at EKO Innovation & Trading S.L., identifies that a product's details (such as name, description, price, or stock status) are outdated or inaccurate. He is logged into the website's product management dashboard with permissions to modify product information.

Normal: Ahmet navigates to the "Products" section, where he can view all the items currently listed for sale on the website. He finds the specific product that requires information updates. Ahmet clicks the pencil icon next to the product he wants to modify. This opens a form where he can update the product's details. Ahmet makes necessary changes to fields like name, description, price, stock, sector or new image. He clicks "Update product" the to save modifications. The system



displays a success message confirming that the product information has been updated. The changes are immediately reflected on the database. Website is updated and customers see the latest information.

What Can Go Wrong:

- If a technical issue occurs (e.g., server downtime or connectivity problems), the system may not save Ahmet's changes.
- If Ahmet enters incorrect or invalid values, such as a negative stock number or invalid characters in the price field.
- If customers are actively viewing the product during the update, they might see inconsistent information temporarily.

Other Activities: Another product admin uses the website functionally at the same time.

System State on Completion: Upon successful completion, the product information is fully updated and synchronized with the website's frontend. Customers now have access to the accurate, up-to-date product details, ensuring transparency in product offerings. Ahmet can review the product in the "Products" section to confirm the successful update. The system maintains an accurate product catalog, supporting customer trust and inventory management.

Scenario #3: Removing a Product from Sale

Initial Assumption: Ahmet, the Product Admin, has identified a product on the EKO Innovation & Trading S.L. website that needs to be removed from sale, either due to stock unavailability, discontinuation, or a strategic decision. He is logged into the website's product management dashboard and has permission to delete products.

Normal: Ahmet navigates to the "Products" section, where he can view the full list of items currently listed for sale on the website. Ahmet clicks the trash bin icon located in the corner of the specific product card he wishes to remove. A pop-up confirmation dialog appears, warning that deleting this product will permanently remove it from the website and make it unavailable to customers. He clicks "Confirm" in the dialog to complete the deletion process. A confirmation message appears, notifying Ahmet that the product has been successfully removed from the listing. After confirming deletion, the product immediately disappears from the "Products" section and is no longer visible to customers browsing the website.

What Can Go Wrong:

- If a temporary system error or glitch occurs, the product may not be deleted, resulting in it remaining
- visible on the website. In such cases, an error message should appear, informing Ahmet that the deletion was unsuccessful and prompting him to try again later or contact technical support.
- If there's a delay in syncing the website database, the product may temporarily appear on the front end even after deletion.



• Customers currently viewing or interested in the removed product might see an error or "Product Unavailable" message if they attempt to add it to their cart or view its details. The system should ideally prevent access to deleted products in real-time to avoid confusion.

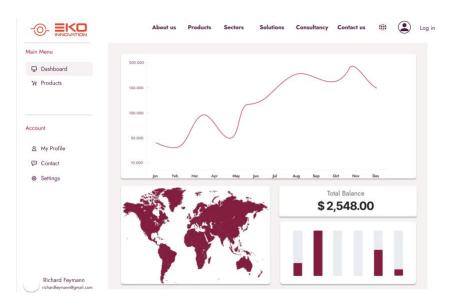
Other Activities: Another product admin uses the website functionally at the same time.

System State on Completion: Upon successful completion, the selected product is removed from the website's database and is no longer visible to customers. Ahmet can review the updated "Products" section to confirm the removal. The system reflects an accurate, real-time inventory for customers, maintaining the reliability of available listings.

Scenario #4: Viewing Sales Statistics

Initial Assumption: Ahmet, as the Product Admin at EKO Innovation & Trading S.L., wants to monitor and analyze sales performance for better inventory and business decisions. He is logged into the website's product management dashboard with permissions to view detailed sales data and statistics.

Normal: Ahmet logs in and navigates to the "Dashboard" section, dedicated to displaying analytical insights and performance metrics. The dashboard displays a graph or chart that shows monthly sales figures, enabling Ahmet seeing the total balance. Ahmet can see countries of sales, allowing him to identify key markets and target regions. After reviewing the statistics, Ahmet notes any patterns or areas for improvement, such as adjusting inventory based on high-demand regions or exploring marketing opportunities in underperforming areas.



What Can Go Wrong:

• If the data has not been updated or synchronized with the latest sales records, Ahmet may view inaccurate or stale information.

Other Activities: Another product admin uses the website functionally at the same time.

System State on Completion: Ahmet successfully reviews and interprets up-to-date sales statistics on the dashboard. These insights provide Ahmet with valuable information to make informed decisions on inventory, marketing, and sales strategies, enhancing overall business performance.

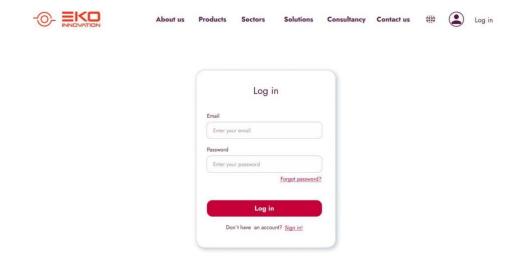
User Story #2: Order Request

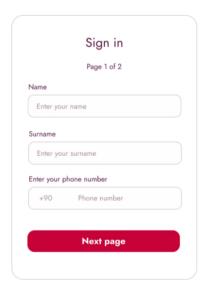
Zehra is an employee responsible for sourcing products needed by her company. She relies on the EKO Innovation website for streamlined purchasing transactions between companies. She seeks a fast, reliable and secure shopping experience to procure the products her company requires as efficiently as possible. Zehra must create an account and log in to place an order on the EKO Innovation platform. Then she can add products to her cart.

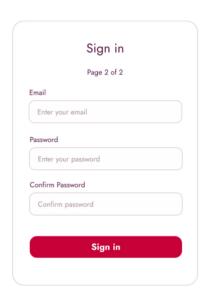
Related Scenario #1: Place an Order

Initial Assumption: Zehra enters the domain name of the EKO Innovation website. She wants to create an account, and log into her account the starts shopping. The site provides a user-friendly interface that allows for seamless navigation and efficient product search.

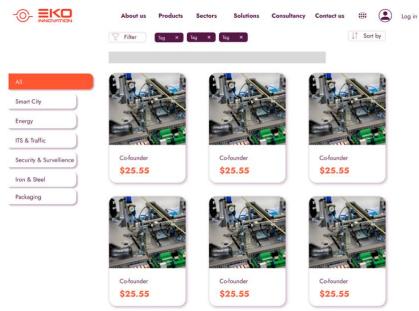
Normal: Zehra needs to create an account on the EKO Innovation website. She navigates to the login page by clicking "Log in" button. Zehra needs to create an account that's why she clicks "Sign in!" text under the button in login page. She enters necessary details like her name and surname, email address, phone number, password and confirm password. After submitting the form, she receives a verification email. Zehra clicks on the link in this email to verify her account, completing the registration process. Next, she logs into her account using her email and password, gaining access to her profile and the shopping functions of the platform.



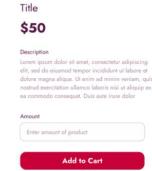




Zehra explores the website in "Products" section, brows product categories to find the required items. She clicks the specific product image, sees the information of the product. She enters the amounts based on her company's need and adds the product to her c art by clicking the "Add to Cart" button.

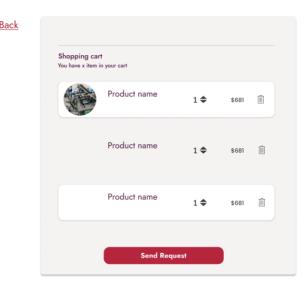






Upon clicking the "Shopping cart" button, Zehra should see a summary with individual product names, quantity and a total cost in her cart. She can see product's name, quantity, price, and total cost Zehra reviews the items in her cart, verifying each selection, adjusting quantities, or removing unwanted items.

Zehra clicks "Send Request" to confirm her order. After successfully submitting her request, Zehra receives a confirmation message that her order has been received and is in processing. Her profile page allows her to track the order status, with real-time updates from "request" to "done."



What Can Go Wrong:

- Server issues could prevent Zehra from adding items to her cart or completing her order.
- If Zehra's session expires, she may need to re-log in to proceed with the order.
- If order status updates are delayed, Zehra may be unable to follow her order's progress accurately.

Other Activities: Another product admin uses the website functionally at the same time.

System State on Completion: Upon successful completion of the order, Zehra receives a confirmation that her purchase is being processed. The system updates her profile with the order status, moving from "request" to "done" as her order proceeds through each phase. This allows her to monitor and manage the process, ensuring she receives the necessary products securely and promptly.

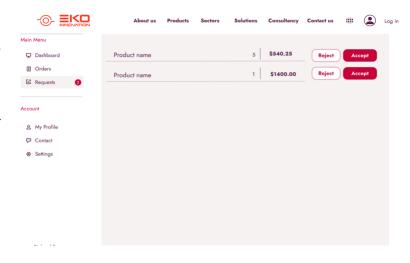
User Story #3: Order Management

As an Order Admin, Merve is responsible for viewing and reviewing all orders on the EKO Innovation platform. Merve wants to quickly approve incoming orders to meet customer requests and enhance customer satisfaction by ensuring a smooth and efficient order process.

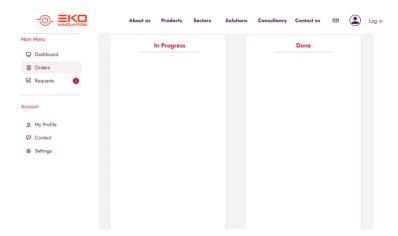
Related Scenario #1: Approve an Order

Initial Assumption: Merve is Order Admin in EKO Innovation. She has permissions to reject or approve the requests of customers and to modify order status. Merve logs into the EKO Innovation admin panel and navigates to the "Requests" section, ready to review and approve or reject orders.

Normal: Upon login, Merve sees a dashboard with all "Requests" listed, each showing an overview of order details such as customer name and total amount. Merve selects an order to review and views comprehensive information, including the list of products, quantities, total cost. If the order is complete and accurate, Merve clicks "Accept". If the order has errors or discrepancies (e.g., incorrect quantities), Merve can choose to reject it by clicking "Reject" button. The order status is updated to "in-



progress". She can see the status of orders in the "Orders" section. Merve can change the order status at various stages (e.g., in-progress, done). "Done" stage is for delivered orders. Customer sees the status changings. Status updates are reflected in the customer's profile, allowing real-time order tracking. Merve should be able to view historical orders and their status.



What Can Go Wrong:

- If the admin panel has slow loading times, it may hinder Merve's ability to review orders efficiently.
- Merve might mistakenly reject or approve an order, especially if she's managing a high volume of orders at once.
- •If Zehra's session expires during the shopping process, she may be required to re-login to continue with her order.

Other Activities: Another admin might be reviewing and approving orders simultaneously, requiring the system to handle potential concurrent updates smoothly.

System State on Completion: Upon successful completion, Merve has reviewed and approved (or rejected) all new orders, and customers can see their order status. The order information the system is up to date, with completed transactions accurately reflected in both the admin and customer interfaces.

PRODUCT BACKLOG

Epic	Key	Description	Reporter	Priority	Status
Orientation	SOF-2	This part is about getting familiar with the framework and programming languages we'll work with. It consists of: Frontend: react.js Backend: .NET API: Rest API Github Jira MYSQL	Dicle Çoban	Highest	Done
User and Database Manageme nt / Security	SOF- 11	This epic ensures secure user account controls and database protection. It covers user registration, authentication, role-based access, and encrypted storage, along with secure database management practices like schema design, access control, and backups. Together, these features enhance data security and user trust.	Dicle Çoban	High	In Progress
Shopping Cart and Product Page	SOF-17	This epic covers functionalities for adding, viewing, and adjusting items in the cart, as well as a secure checkout and payment process. It ensures a smooth and reliable shopping experience from cart to order confirmation.	Dicle Çoban	Highest	To Do
Contact and Frequently	SOF-25	This epic focuses on providing customers with easy access to support and	Dicle Çoban	Low	To Do

Asked Questions		essential information. It includes a contact form for reaching out to the support team and a well-organized FAQ section where users can find answers to common questions. Together, these features enhance user experience by offering quick assistance and self-service options.			
Control Panel and Manageme nt	SOF-28	This epic provides administrators with a centralized control panel to manage key aspects of the platform. It includes functionalities for product management, order tracking, customer account oversight, and inventory control. These tools enable efficient day-to-day operations, ensuring that administrators can maintain and update the platform effectively.	Dicle Çoban	Highest	To Do
Home Page and About Us	SOF-33	This epic aims to create a welcoming first impression with a Home Page that highlights featured products and key navigation, and an About Us section that shares the company's mission and values, building trust and encouraging further exploration.	Dicle Çoban	High	To Do
Test Cases and Error Handling	SOF- 196	This epic ensures platform reliability by implementing test cases to verify functionality and robust error handling for managing issues gracefully, providing a stable and user-friendly experience.	Dicle Çoban	Highest	To Do

Orientation

Tasks	Key	Description	Status
Dicle Çoban: Learning React and Figma Design	SOF-6	Task: Set up the React project and create basic components (navigation, header, footer, placeholder pages). Goal: Establish the skeleton structure of the application, set up page routing, and build the foundation for language selection. Output: A functional React project with placeholder pages and working language options. Task: Design the general layout, user interface, and interactions for all pages. Goal: Create mockups for both the user and admin interfaces and design a prototype for all screens. Output: A completed design document in Figma, ready for further development.	Done
Semih Sarikoca: Learning ASP.NET	SOF-7	Task: Learning the fundamental things at asp .net Goal: Set up database connections, build the infrastructure for a user login system, and create initial API endpoints. Output: A working asp .net project with a basic API structure and database connection.	Done

Zerda Gül: Learning ASP.NET	SOF-8	Task: Learning the fundamental things at asp .net Goal: Set up database connections, build the infrastructure for a user login system, and create initial API endpoints. Output: A working asp .net project with a basic API structure and database connection.	Done
Mehmet Emir Albayrakl: Learning ASP.NET	SOF-9	Task: Learning the fundamental things at asp .net Goal: Set up database connections, build the infrastructure for a user login system, and create initial API endpoints. Output: A working asp .net project with a basic API structure and database connection.	Done
Anhelina Bondarenko: Learning React and Figma Design	SOF-10	Task: Set up the React project and create basic components (navigation, header, footer, placeholder pages). Goal: Establish the skeleton structure of the application, set up page routing, and build the foundation for language selection. Output: A functional React project with placeholder pages and working language options. Task: Design the general layout, user interface, and interactions for all pages. Goal: Create mockups for both the user and admin interfaces and design a prototype for all screens. Output: A completed design document	Done

in Figma, ready for further development.

User and Database Management - Security

User Story	Key	Summary	Su	ıbtasks				Status			
As a customer,I want to be able to create an	SOF-12	When a customer visits the platform, they should be able to create a new account by providing necessary details such as		Summary Design Registration Form UI	Key SOF- 67	Assignee Anhelina	Status Done	In Progress			
account so that I can access the		and password. The system should validate the input, securely store the information, and send a confirmation message if	and password. The system should validate the input, securely store the information, and send a confirmation message if	should validate the input, securely store the information, and send a confirmation message if	and password. The system should validate the input, securely store the information, and send a confirmation message if		Create Submit Button	SOF-	Anhelina	Done	
platform with my own						information, and send a confirmation message if Secure Password Input 60 Anhelina D	Done				
credentials.			Integrate with Backend API	SOF-	Anhelina	Done					
		have personalized access to the platform and maintain their own accounts.		User-Side Validation	SOF- 59	Anhelina	Done				
				Database Integration	SOF- 65	Zerda Gül	Done				
		Ш	Create User Registration API Endpoint	SOF- 63	Zerda Gül	In Progress					
			Ш	Check for Duplicate Accounts	SOF- 66	Zerda Gül	In Progress				

				Input Validation & Sanitization Design Database schema Send Account Verification Email	SOF-68 SOF-67	Zerda Gül Zerda Gül Zerda Gül	In Progress In Progress To Do	
As a customer, I	SOF-13	Customers should have the	[Summary	Key	Assignee	Status	In Progress
want to deactivate or delete my account		ability to either temporarily deactivate or permanently delete their accounts. Deactivating an]	Create Account Deletion API Endpoint	SOF- 75	Zerda Gül		
so that I can remove my data from the	remove user from logging in until reactivated, while deleting an account will	1	Handle Data Removal or Archiving	SOF- 76	Zerda Gül	In Progress		
platform.		permanently remove the user's data from the platform. The process]	Database Updates	SOF- 78	Zerda Gül	In Progress	
		should be straightforward, secure, and should require confirmation to avoid		Security Checks	SOF-	Zerda Gül	In Progress	
		accidental actions. Both options should ensure that user privacy is respected		Create Database using SQL	SOF- 79	Semih Sarıkoca	Done	
		and data is handled securely.	1	Email Notification (optional)	SOF- 89	Zerda Gül	In Progress	
				Create a menu in user profile page	SOF- 167	Anhelina	Done	
				Integrate with Backend API	SOF- 72	Anhelina	Done	
				Design Account Management UI	SOF-	Anhelina	Done	
				Redirect After	SOF-	Anhelina	Done	

			Account Deletion	73			
			Create Confirmation Page	SOF- 70	Anhelina	Done	
			Form Validation and User Feedback (modal)	SOF- 71	Anhelina	Done	
As a	SOF-14						Done
customer, I want to		This user story focuses on implementing a secure	Summary	Key	Assignee	Status	
securely log in using my email		login system that allows customers to access their accounts using their email	Input Validation for Email and Password	SOF- 82	Dicle Çoban	Done	
password so that only	only authenticated users can access their data and account functionalities. The system should handle	Form Submission & API Integration	SOF- 84	Dicle Çoban	Done		
my account.		account functionalities. The system should handle	Design Login Page UI	SOF- 81	Dicle Çoban	Done	
		common security concerns, such as hashing passwords., and providing	Redirect After Successful Login	SOF- 87	Dicle Çoban	Done	
		feedback on incorrect login attempts.	Define Database Relationships	SOF- 83	Zerda Gü	To Do	
			Database Backup and Security Measures	SOF- 85	Mehmet Emir Albayrak	To Do	
		Store User Session/Token (optional)	SOF- 86	Semih Sarıkoca	Done		
			Create Login API Endpoint	SOF- 88	Semih Sarıkoca	Done	
			Secure Password Storage (optional but recommended)	SOF- 89	Semih Sarıkoca	Done	
			Session Management and	SOF- 93	Semih Sarıkoca	Done	

			Expiration (Optional)				
			Authenticate User Credentials	SOF- 90	Semih Sarıkoca	Done	
			Rate Limiting and Brute-Force Protection (optional)	SOF- 92	Semih Sarıkoca	Done	
			Generate Authentication Token (jwt token)	SOF- 91	Semih Sarıkoca	Done	
As a	SOF-15	This user story involves					Done
customer, I want to		This user story involves creating a secure password	Summary	Key	Assignee	Status	
reset my password if I forget it	reset process that enables customers to recover	Design 'Forgot Password' Page UI	SOF- 96	Dicle Çoban	Done		
so that I can regain access to		they forget their password. The process should include requesting a password reset, verifying	Create Password Reset Email Notification UI	SOF- 98	Anhelina	Done	
my account.		the customer's identity (via email verification or token), and allowing them	Handle Form Submission & API Integration	SOF- 101	Anhelina	Done	
		to set a new password securely. The system must ensure that the process is	Design Password Reset Form	SOF- 99	Anhelina	Done	
		secure, user-friendly, and prevents unauthorized access.	Input Validation for Email Address	SOF- 97	Anhelina	Done	
			Loading Indicators and Feedback (modal)	SOF- 102	Anhelina	Done	
			Form Validation for New Password	SOF- 100	Anhelina	Done	
			Security Enhancements for Frontend (optional)	SOF- 103	Mehmet Emir Albayrak	Done	

			Create 'Forgot Password' API Endpoint	SOF- 104	Mehmet Emir Albayrak	Done	
			Generate and Send Password Reset Email	SOF- 105	Mehmet Emir Albayrak	Done	
			Create 'Reset Password' API Endpoint	SOF- 106	- Mehmet Emir Albayrak	Done	
			Token Security and Expiration (optional)	SOF- 107	- Mehmet Emir Albayrak	Done	
			Handle Password Reset Request	SOF- 108	- Mehmet Emir Albayrak	Done	
			Password Hashing (optional)	SOF- 109	Mehmet Emir Albayrak	Done	
			Security Logging and Monitoring	SOF- 111	- Mehmet Emir Albayrak	Done	
			Encryption and Secure Communication (optional)	SOF- 112	Mehmet Emir Albayrak	Done	
As a	SOF-16						In
customer, I want to		This user story involves creating a user-friendly	Summary	Key	Assignee	Status	Progress
update my profile information		interface and backend functionality that allows customers to update their profile information,		SOF- 125	Dicle Çoban	In Progress	
(e.g., name, email, password)		including their name, email, and password. The process should ensure that	•	SOF- 120	Dicle Çoban	In Progress	
so that I can keep my account up-to-date.		the updated information is validated and securely saved in the database.		SOF- 117	Dicle Çoban	Done	

Additionally, the system must provide feedback to the user upon successful updates or errors encountered during the process.

Messages			
Implement Password Change Functionality	SOF- 115	Dicle Çoban	Done
Handle Form Submission & API Integration	SOF- 118	Dicle Çoban	Done
Input Validation for Profile Fields	SOF- 122	Dicle Çoban	Done
Create a Submit Button	SOF- 116	Dicle Çoban	Done
Design Profile Update Page UI	SOF- 113	Dicle Çoban	Done
Create Profile Update API Endpoint	SOF- 121	Mehmet Emir Albayrak	To Do
Input Validation on the Backend	SOF- 122	Mehmet Emir Albayrak	To Do
Verify Current Password (if changing)	SOF- 123	Mehmet Emir Albayrak	To Do
Update Profile Information in the Database	SOF- 124	Mehmet Emir Albayrak	To Do
Security Measures for Backend	SOF- 125	Mehmet Emir Albayrak	To Do
Error Handling	SOF- 126	Mehmet Emir Albayrak	To Do
Create Navigation Bar	SOF- 150	Anhelina	Done

As a	SOF-						In
customer, I want to	142	This user story focuses on implementing a secure	Summary	Key	Assignee	Status	Progress
securely log out so that I can		logout feature that ensures user sessions are properly terminated. When a user	Create Logout Button	SOF- 143	Dicle Çoban	Done	
access my account another time.		logs out, their session should be invalidated, and any sensitive data should be cleared from the client	Implement Logout Functionality (Integration)	SOF- 144	Anhelina	In Progress	
	side. This feature will enhance security by preventing unauthorized access to the user's	Handle Logout Response (optional)	SOF- 146	Dicle Çoban	In Progress		
	account after they leave the application.	Display Confirmation Modal	SOF- 145	Dicle Çoban	In Progress		
			Create Logout Endpoint	SOF- 147	Semih Sarıkoca	Done	
			Return Logout Confirmation Response (Optional)	SOF- 149	Semih Sarıkoca	Done	

Shopping Cart and Product Page

User Story	Key	Summary	Subtasks		Status		
As a customer,	SOF-18						To Do
I want to select products		This user story focuses on allowing customers	Summary	Key	Assignee	Status	
which I like, so I can easily buy them from		to select products they want to purchase, add them to their cart, and	Design Product Listing Page UI	SOF- 168		To Do	
my cart.		easily access them later for checkout. This	Add 'Add to Cart' Button and Icon	SOF- 169		To Do	
		involves implementing a seamless and user-friendly interface on the	Product Detail Page Design	SOF- 170		To Do	
		frontend to browse and select products, and	Handle Add to Cart	SOF-		To Do	

		backend functionality to store and retrieve cart	Action	172			
		information.	Display Feedback Messages	SOF- 173		To Do	
			Create Cart API Endpoint	SOF- 174		To Do	
			Database Schema for Cart	SOF- 175		To Do	
			Implement Stock Check on Add to Cart	SOF- 176		To Do	
			Handle Stock Check on Add to Cart	SOF- 177		To Do	
			Return Cart Summary	SOF- 178		To Do	
			Session or Token Management for Guest Users (Optional)	SOF- 179		To Do	
		Logging and Monitoring	SOF- 180		To Do		
As a customer,	SOF-19						To Do
I want to see my cart		This user story focuses on providing customers	Summary	Key	Assignee	Status	
whenever I want, so I can check the	whenever I want, so I can	with easy access to their cart so they can view the items they've selected	Design Cart Page UI	SOF- 181		To Do	
products which I'll buy		for purchase. The feature should allow	Fetch Cart Data from Backend	SOF- 182		To Do	
from my cart.		of their cart, including product names,	Display Feedback Messages	SOF- 183		To Do	
		quantities, prices, and the total cost. This requires frontend	Subtotal and Total Calculation	SOF- 184		To Do	
	components to display the cart details and backend functionality to retrieve and manage the	Add Cart Icon with Quick Access (Mostl Likely Need That)	SOF- 185		To Do		

		cart contents.	Create Cart Retrieval API Endpoint	SOF- 186		To Do	
			Implement Cart Summary Calculation	SOF- 187		To Do	
			Error Handling	SOF- 272		To Do	
As a customer,	SOF-20						To Do
I want to manage		adjust the quantity of products they have already added to their cart. The feature should be intuitive on the frontend, enabling users to easily increase or decrease the quantity of items. On the backend, quantity updates should be managed accurately, including recalculating the cart totals and checking product stock availability. This feature ensures customers can tailor their purchases to	Summary	Key	Assignee	Status	
amount of products which I put on my cart before,			Add Quantity Controls in Cart Page	SOF- 188		To Do	
so I can buy everything			Implement Quantity Input Validation	SOF- 189		To Do	
according to my needs.			Update Cart Summary on Quantity Change	SOF- 190		To Do	
			Error Handling and User Feedback (optional)	SOF- 191		To Do	
			Create Quantity Update API Endpoint	SOF- 192		To Do	
		before proceeding to checkout.	Stock Validation on Quantity Change	SOF- 193		To Do	
			Update Cart Totals	SOF- 194		To Do	
			Logging Quantity Changes for Audit	SOF- 195		To Do	
As a customer,	SOF-21						To Do
I want to remove the		This user story involves giving customers the	Summary	Key	Assignee	Status	
producst which I don't		ability to remove items from their shopping cart,	Implement Remove Button in Cart UI	SOF- 197		To Do	

want anymore, so with that just products that I wan't to buy remains in my cart.		ensuring they can keep their cart organized with only the products they intend to purchase. This requires both frontend and backend functionality, where users can initiate product removal, and the backend updates the cart accordingly.	Handle Remove Action and Update Cart Display Confirm Removal Action (Optional) Update Cart Totals Display Feedback Messages (optional) Create Remove Item API Endpoint Verify Item Ownership in Cart Update Cart Database Handle Errors and Validation Log Removal	SOF- 198 SOF- 199 SOF- 200 SOF- 201 SOF- 202 SOF- 203 SOF- 204 SOF- 205		To Do	
As a customer,	SOF-23		Actions (Optional)	206			To Do
I want to view detailed		This user story focuses on providing customers	Summary	Key	Assignee	Status	1020
information about a product so that	ormation out a	with comprehensive product details, helping them understand the	Design Product Detail Page UI	SOF- 207		To Do	
I can make an informed purchasing decision.		product better before making a purchase. This feature includes	Display Product Images with Zoom Feature (optional)	SOF- 208		To Do	
		displaying key information such as product name, price, description, availability, customer reviews, and any relevant specifications or options	Implement Product Specifications and Options	SOF- 209		To Do	
			Add 'Add to Cart' Button	SOF- 210		To Do	
		(e.g., size, color). By offering clear and thorough product	Customer Reviews and Ratings Section	SOF- 211		To Do	

		information, customers can make confident and informed buying	Create Product Detail API Endpoint	SOF- 212		To Do	
		decisions.	Fetch and Display Customer Reviews	SOF- 213		To Do	
			Handle Product Stock Availability	SOF- 214		To Do	
			Logging and Monitoring	SOF- 215		To Do	
As a customer,	SOF-35						To Do
I want to browse		This user story focuses on allowing customers	Summary	Key	Assignee	Status	
products by category, so I can find the types of products I'm		to browse products by specific categories, making it easier for them to find items of interest quickly. The	Design Product Sidebar Menu	SOF- 241		To Do	
looking for.		feature will display all	Create Filter Bar with Tags	SOF- 242		To Do	
		explore products within each one. It involves creating a user-friendly	Add Sorting Dropdown	SOF- 243		To Do	
		interface for selecting categories on the	Design Product Card Component	SOF- 244		To Do	
		frontend and backend functionality for retrieving and	Implement Pagination	SOF- 245		To Do	
	ba	displaying products based on category selection.	Responsive Design Testing	SOF- 246		To Do	
		Pro AH Ca Im Lo	API Endpoint for Product List	SOF- 247		To Do	
			API Endpoint for Category List	SOF- 248		To Do	
			Implement Filtering Logic by Tags	SOF- 249		To Do	
			Sorting and Pagination Logic	SOF- 250		To Do	

			Optimize Database Queries	SOF- 251		To Do	
As a customer,	SOF-37	This					To Do
I want to search for		This user story focuses on providing a search	Summary	Key	Assignee	Status	
products by entering keywords in a		bar that allows customers to easily find specific products by	Design Search Bar UI	SOF- 252		To Do	
search bar, so I can quickly find specific items.	search bar, so I can quickly find specific items. entering search quickly find specific items. results names other a custom they no extens	entering keywords. The search function should quickly return relevant results based on product names, descriptions, or	Implement Real- Time Search Suggestions (Optional)	SOF- 253		To Do	
		other attributes, helping customers locate what	Build Search Results Page Layout	SOF- 254		To Do	
		they need without extensive browsing. By enabling efficient and accurate searches, this feature improves the shopping experience and makes it more convenient for customers to find	Clear Search Option	SOF- 255		To Do	
			Create Search API Endpoint	SOF- 256		To Do	
			Implement Keyword Matching Logic	SOF- 257		To Do	
		desired items.	Optimize Database Query for Search	SOF- 258		To Do	
			Pagination and Limit Results	SOF- 259		To Do	
			Log Search Queries and Monitor Performance	SOF- 260		To Do	
			Handle Empty Results and Edge Cases	SOF- 261		To Do	

Contact and Frequently Asked Questions

User Story	Key	Summary	Subtasks				Status
As a customer, I want the	SOF-26	In this feature, we aim	Summary	Key	Assignee	Status	To Do
communication to be completed so that I can reach the		to enhance the communication experience for our	Design Contact Form Section UI	SOF-		To Do	
Support Team		customers by providing a dedicated section where they	Develop Contact Form	SOF- 40		To Do	
		can easily reach out to our support team. The communication	Test the Contact form.	SOF- 41		To Do	
	section will include a user-friendly contact form, allowing customers to submit	API Endpoint for Submitting Support Requests	SOF- 52		To Do		
		their inquiries, feedback, or concerns directly. Overall, this feature will improve user satisfaction by streamlining the communication process.	Database Schema Design for Support Requests	SOF- 53		To Do	
			Automated Email Acknowledgment to Customers (optional)	SOF- 54		To Do	
As a customer, I want to quickly	SOF-27	This feature aims to	Summary	Key	Assignee	Status	To Do
find answers to my problems by reviewing the		enhance the customer experience by providing a well- structured and easily	Design FAQ Page Layout	SOF-		To Do	
frequently asked questions page.		accessible Frequently Asked Questions	Develop FAQ Search Feature	SOF- 44		To Do	
		as a self-service resource where customers can quickly find answers to	Organize FAQ Content	SOF- 45		To Do	
			Add FAQ Page Link to Navigation Bar	SOF- 46		To Do	
		common questions,					

saving time and reducing the need to contact customer support.	Test FAQ Page Usability	SOF-	To Do
The page will be	Implement Feedback Mechanism(optional)	SOF- 48	10 00
organized into categories, ensuring that users can	Database Schema Design for FAQ	SOF- 49	To Do
navigate through different topics	Backend Validation and Error Handling	SOF- 50	To Do
effortlessly. Additionally, a search functionality will be implemented to allow	Update Operations for FAQ Management	SOF- 51	To Do
customers to quickly locate specific answers. By offering clear, concise, and accurate information, the FAQ page will help customers resolve their issues independently and efficiently.			

Control Panel and Management

User Story	Key	Summary	Subtasks	Subtasks					
As a product	SOF-29	This user story enables the			To Do				
admin, I want to add, edit,		product admin to have full control over the product	Summary	Key	Assignee	Status			
and delete products so that I can		catalog by allowing them to add new products, edit	Adding the data into cloud	SOF- 140		To Do			
manage the catalog efficiently.		necessary. This Cunctionality ensures that	Design Product Management Dashboard	SOF- 216		To Do			
	the catalog is always up- to-date with accurate product information,	Build Add Product Form	SOF- 217		To Do				

		making it easier to manage inventory and meet customer expectations. A	Build Edit Product Form	SOF- 218		To Do	
		user-friendly interface and backend support for these actions streamline catalog management, saving time	Implement Delete Product Confirmation Dialog	SOF- 219		To Do	
		and reducing errors.	Handle Product Image Upload and Preview (optional)	SOF- 220		To Do	
			Create Add Product API Endpoint	SOF- 221		To Do	
			Create Edit Product API Endpoint	SOF- 222		To Do	
			Create Delete Product API Endpoint	SOF- 223		To Do	
		a	Handle Image Storage and Retrieval	SOF- 224		To Do	
			Error Handling	SOF- 273		To Do	
As an order	SOF-30						To Do
admin, I want to manage		This user story is focused on providing the order	Summary	Key	Assignee	Status	
orders and track their status so that I can ensure	admin with a comprehensive system to manage and track customer orders. The admin should be able to view all orders, update	comprehensive system to manage and track	Design Order Management Dashboard	SOF- 225		To Do	
timely processing		admin should be able to	Implement Order Detail View	SOF- 226		To Do	
and delivery to customers.	"Requests," "In Progress" "Done"), and manage specific order details,	Add Order Status Update Controls (optional)	SOF- 227		To Do		
	proini fui fro im	ensuring each order progresses smoothly from initiation to delivery. This	Display Real-Time Status Updates	SOF- 228		To Do	
		functionality requires both frontend and backend implementations to support efficient order	User Feedback and Notifications (optional)	SOF- 229		To Do	

		tracking and status management.	Create Order Management API Endpoint Implement Order Detail Retrieval Endpoint Create Order Status Update API Endpoint Error Handling	SOF- 230 SOF- 231 SOF- 232 SOF- 275		To Do To Do To Do	
As a product admin, I want	SOF-31	This user story focuses on	Cummour	Vov	Assignee	Status	To Do
to track stock levels and receive notifications when stock is low, so I can restock in time.		enabling the product admin to monitor stock levels efficiently and receive timely notifications when stock for any product reaches a low threshold. This helps ensure products are available for customers	Display Stock Levels in Product Management Dashboard	SOF- 262	Assignee	To Do	
		without interruption. The frontend provides a clear	Create Low Stock Notification Settings	SOF- 263		To Do	
		display of stock levels and notification settings, while the backend manages	Low Stock Notification Display	SOF- 264		To Do	
		stock tracking and notification triggers.	Filter and Sort by Stock Levels	SOF- 265		To Do	
			Develop Stock Monitoring System	SOF- 266		To Do	
			Configure Low Stock Thresholds in Database	SOF- 267		To Do	
			Implement Low Stock Notification Logic	SOF- 268		To Do	
			Notification API Endpoint	SOF- 269		To Do	

			Manage Notification Status	SOF- 270		To Do	
			Error Handling	SOF- 274		To Do	
As an order	SOF-						To Do
admin, I want to see the	271	This user story is focused on providing the order	Summary	Key	Assignee	Status	
stocks of the products in Dashboard.		admin with visibility into product stock levels directly within the dashboard. This feature	Design Stock Display in Order Management Dashboard	SOF- 276		To Do	
		will help the order admin keep track of inventory while processing and	Implement Low Stock Indicators	SOF- 277		To Do	
		managing orders, ensuring that products are available and allowing proactive steps if stocks are low.	Add Sorting and Filtering Options for Stock Levels (optional)	SOF- 278		To Do	
		The dashboard should display stock levels for each product in a clear and organized manner.	Tooltip or Detail View for Additional Stock Information (optional)	SOF- 279		To Do	
			Responsive Design for Dashboard View	SOF- 280		To Do	
		Create API Endpoint for Product Stock Levels	SOF- 281		To Do		
		Optimize Database Query for Stock Retrieval	SOF- 282		To Do		
			Configure Low Stock Thresholds	SOF- 283		To Do	
			Data Caching for Frequent Access (Optional)	SOF- 284		To Do	
			Error Handling and Validation	SOF- 285		To Do	

Home Page and About Us

User Story	Key	Summary	Subtasks				Status	
As a customer, I	SOF-34	This user story focuses on creating an attractive and	Summary	Key	Assignee	Status	To Do	
want to see a nice order homepage		well-organized homepage for customers, featuring a visually engaging layout that highlights popular products, key categories, and current promotions. The homepage is designed to make it easy for customers to discover items of interest at a glance,	Design Homepage Layout	SOF- 233		To Do		
that showcases featured			products, key categories, and current promotions.	Implement Featured Products Section	SOF- 234		To Do	
products, categories, and promotional			Create Promotional Banner Slider (optional)	SOF- 235		To Do		
banners, so I can quickly find items of		guiding them toward products and deals that may appeal to them. By	Add Categories Section	SOF- 236		To Do		
interest.		providing clear navigation and visually distinct sections, the homepage	Loading Indicators and Error Messages	SOF- 237		To Do		
	enhances the shopping experience, encouraging exploration and helping customers quickly find what they are looking for.	Create API Endpoint for Featured Products	SOF- 238		To Do			
		• •	Develop API Endpoint for Promotional Banners	SOF- 239		To Do		
			API Endpoint for Categories	SOF- 240		To Do		

UML (Unified Modeling Language) Diagrams of the Project

a. Use Case Diagram of Eko Inovation Website

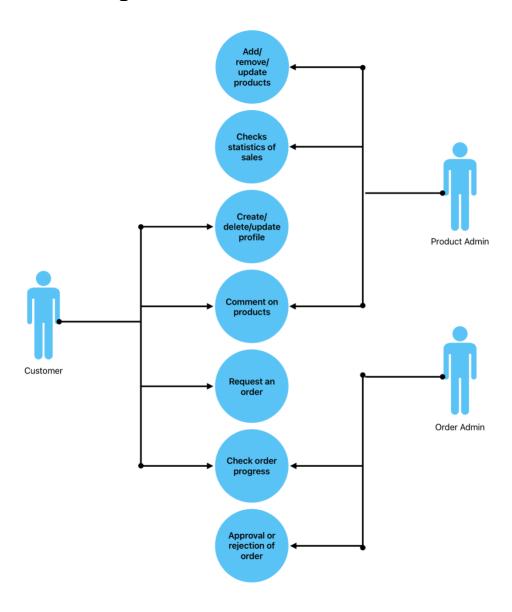


Figure a.1 Use cases

b. Use Case by Roles

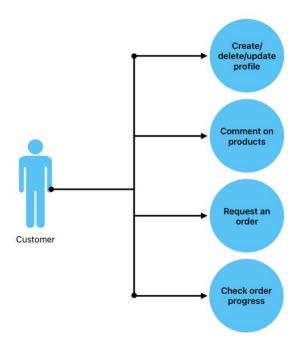


Figure b.1 Use cases involving the role "Customer"

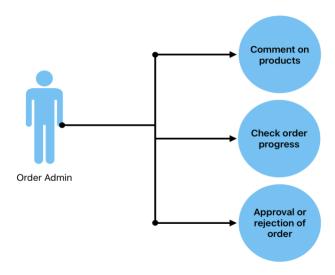


Figure b.2 Use cases involving the role "Order Admin"

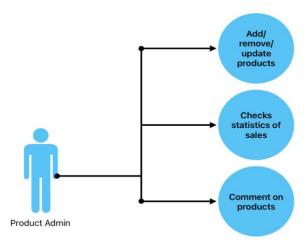


Figure b.3 Use cases involving the role "Product Admin"

Use Case Tables

Use Case Table: Add/Remove/Update Products		
Actors	Product Admin	
Description	The Product Admin can add new products, update existing products, or remove products from the system.	
Data	Product name, description, price, stock information	
Stimulus	The Product Admin initiates the action to add, update, or remove a product.	
Response	Product information is updated in the database, and the product list and stock status are refreshed.	
Comments	This feature enables the Product Admin to manage the product catalog and stock availability.	

Use Case Table: Check Statistics of Sales		
Actors	Product Admin	
Description	The Product Admin views sales statistics to analyze sales performance.	
Data	Sales data, number of units sold per product, total revenue	
Stimulus	The Product Admin accesses the sales statistics dashboard.	
Response	Sales data is analyzed and displayed to the Product Admin.	
Comments	This feature allows the Product Admin to examine sales trends and	
	performance insights.	

Use Case Table: Create/Delete/Update Profile		
Actors	Customer	
Description	The Customer can create, update, or delete their profile.	
Data	Customer information (name, email, address, etc.)	
Stimulus	The Customer creates, updates, or deletes their profile.	
Response	Profile information is saved, updated, or removed from the database.	
Comments	This feature allows customers to keep their profile information up-to-date	
	for streamlined order processing.	

Use Case Table: Comment on Products		
Actors	Customer, Order Admin	
Description	The Customer and Order Admin can communicate about products through comments.	
Data	Comment text, customer information, product information	
Stimulus	The Customer leaves a comment or question about a product, and the Order Admin may respond with relevant information.	
Response	The comment is saved in the database and displayed on the product page.	
Comments	This feature allows customers to inquire about products and receive responses from the Order Admin.	

Use Case Table: Request an Order		
Actors	Customer	
Description	The Customer can place an order request.	
Data	Order information (product, quantity, payment details, etc.)	
Stimulus	The Customer adds products to the cart and completes the checkout	
	process.	
Response	The order is saved in the database, and order processing begins.	
Comments	This feature allows customers to place orders for products.	

Use Case Table: Check Order Progress		
Actors	Customer	
Description	The Customer checks the status of their current orders.	
Data	Order status (confirmed, processing, shipped, etc.)	
Stimulus	The Customer accesses the order status screen.	
Response	The order status is displayed on the screen.	
Comments	This feature provides customers with updates on the progress of their	
	orders.	

Use Case Table: Approval or Rejection of Order		
Actors	Order Admin	
Description	The Order Admin reviews and either approves or rejects incoming orders.	
Data	Order information, customer information	
Stimulus	The Order Admin reviews the order and decides to approve or reject it.	
Response	The order status is updated, and the Customer is notified accordingly.	
Comments	This feature allows the Order Admin to manage order approvals and keep	
	customers informed.	

User Interface Main page



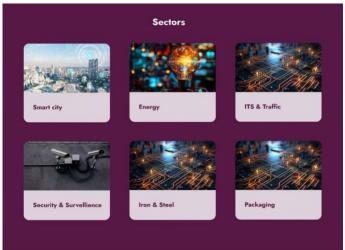
New products











About us

As (DO) howardor & Trading S.L., we are a consultancy and project development firm operating in 6 different anterior an an international resist. Our page of its in optimize business provesses, reduce room, and develop substitutibly projects for the future by offering our climits the most innovative and efficient solutions. With our respect stars, we provide advanced recknology based solutions in the fields of Smart Cifes, Evergy, Transportation & Traffic, Security & Durwillance, love & Steel, and Problegang.

About us →



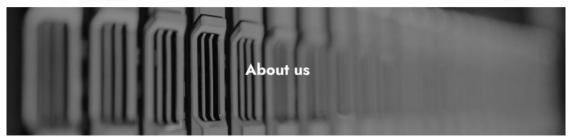
About us



About us Products Sectors

Solutions Consultancy Contact us





Who we are

As EKO Innovation & Trading S.L., we are a consultancy and project development firm operating in 6 different sectors on an international scale. Our goal is to optimize business processes, reduce costs, and develop sustainable projects for the future by offering our clients the most innovative and efficient solutions. With our expert team, we provide advanced technology-based solutions in the fields of Smart Cities, Energy, Transportation & Traffic, Security & Surveillance, Iron & Steel, and Packaging.

In addition to our consultancy and project development services, we offer a wide range of products within the framework of international trade, including ANPR and CCTV Camera Systems, Data Centers, RFID Systems and Tags, Electrical Panels, Sensors, Zircon Refractory Bricks, PET Flake, Iron & Steel Industry Spare Parts, and Carbon Credits.

Our company prioritizes quality, safety, and sustainability in every project, aiming to provide the best service to our clients by closely following innovations and developments in the sector.

More about our products ->



Our vision

To enhance the global competitiveness of our business partners through innovative solutions that promote digital transformation and sustainability.

Our mission

To develop projects that prioritize efficiency and sustainability in business processes by offering customized solutions to meet our clients' needs.

Partners

Kamil Alpaydın

Co-founder

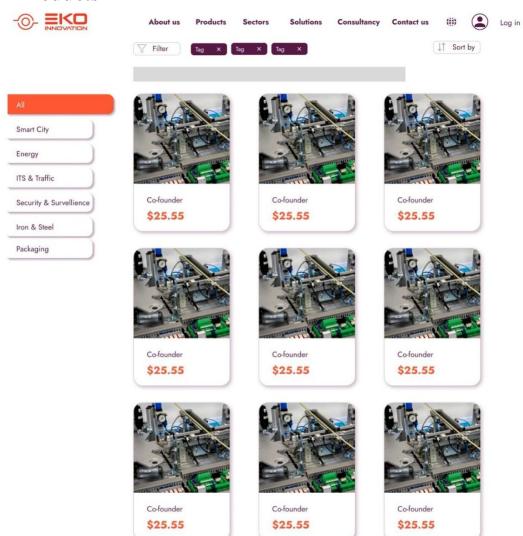
Kamil has many years of experience in technology and engineering, with a specialization in Smart Cities, Security, and Surveillance systems. His leadership in developing innovative projects has significantly contributed to the company's growth and the production of technology-

Emre Baykal

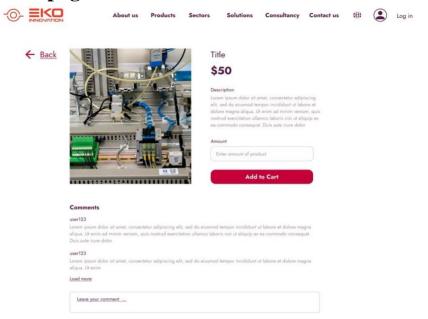
Spain General Manager

energy and automation systems. His expertise energy and automation systems. His expertise in energy projects, factory automation, and data management allows him to deliver highly efficient solutions to clients. His engineering and management skills play a critical role in the successful management of the company.

Products

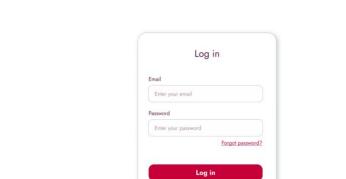


Product page



User management Log in

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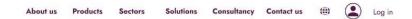


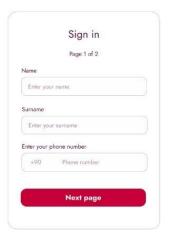
Don't have an account? Sign in!

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Registration

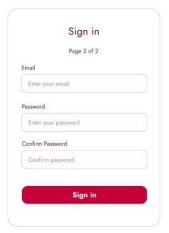




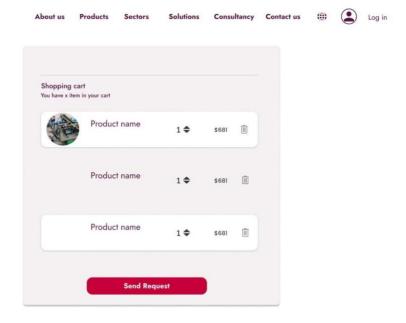




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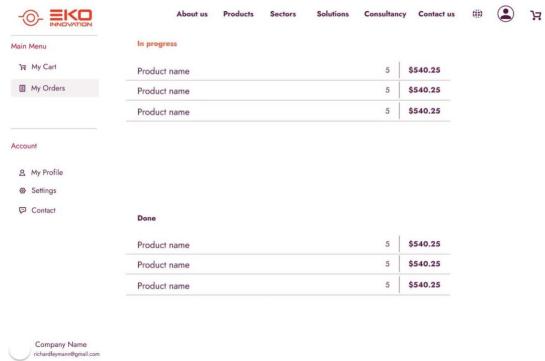
Shopping cart (accessed from navigation panel)



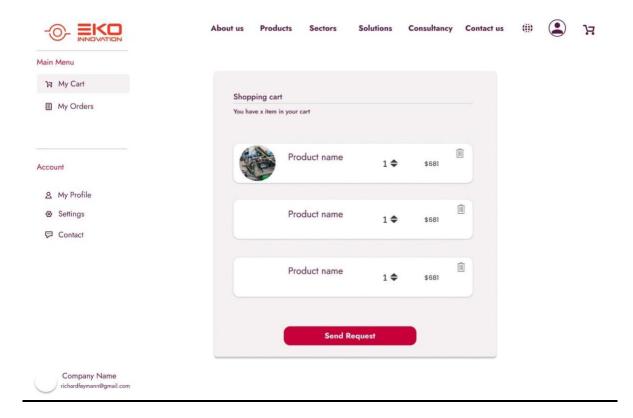
Profile Panel for User

-O- EKO

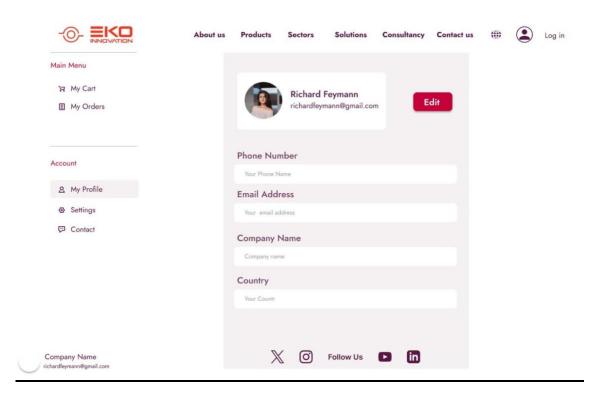
Orders history and status



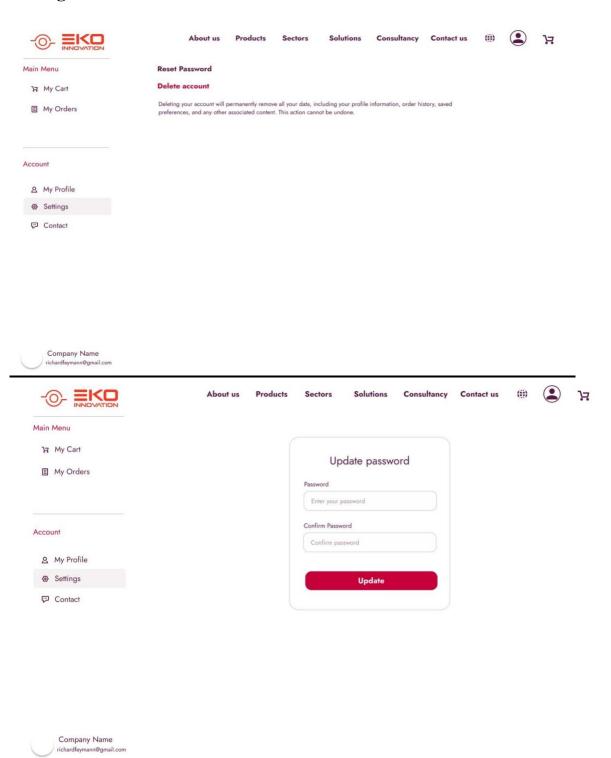
Shopping Cart



Profile information

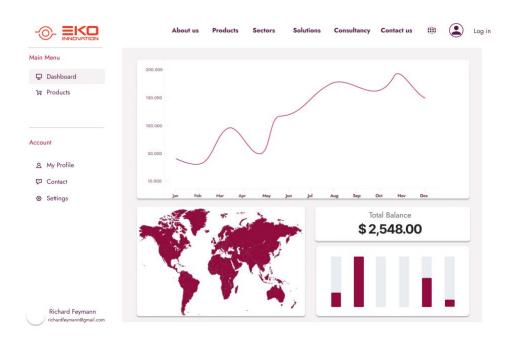


Settings

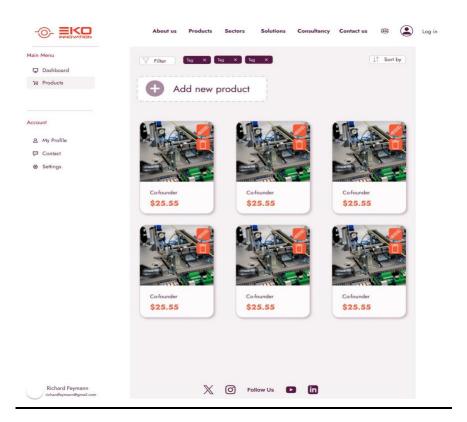


Product Admin Panel

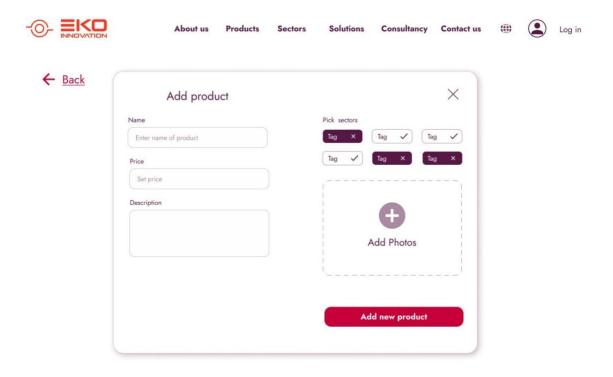
Dashboard



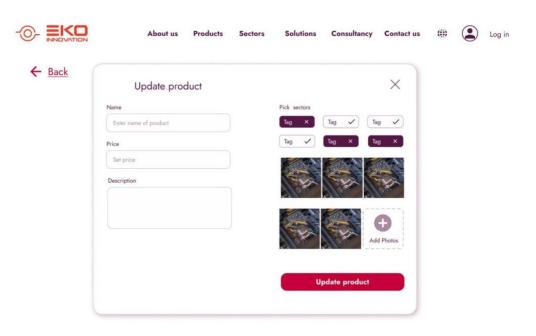
Product management



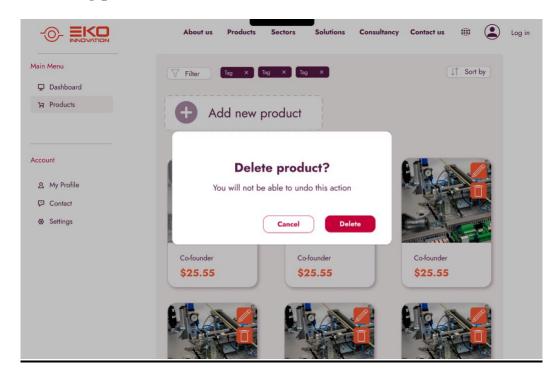
Adding new product



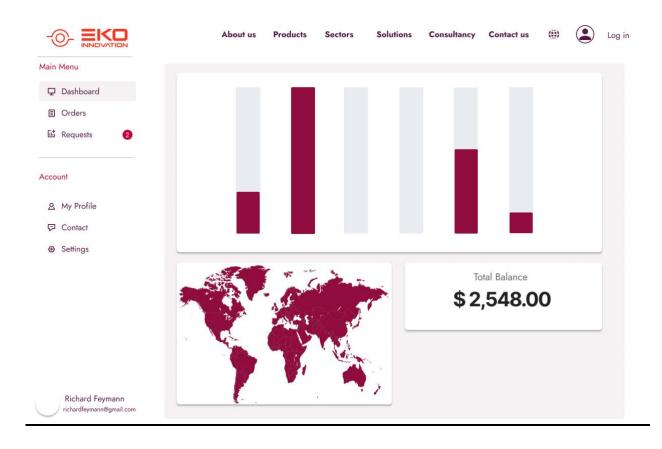
Update product



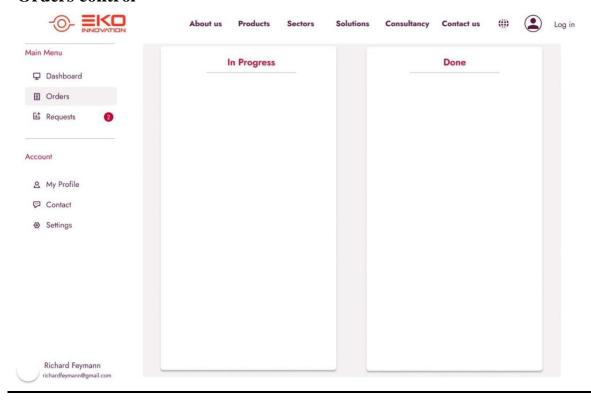
Deleting product



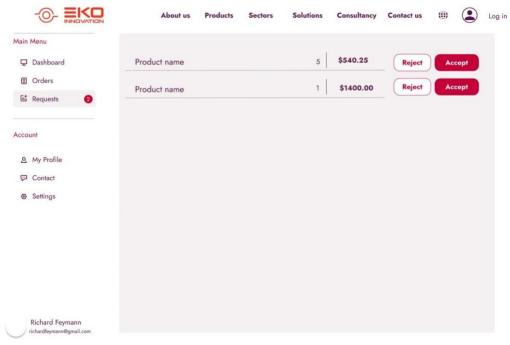
Order Admin Panel



Orders control



Request for purchase



User Test Cases

Test Case 1

Test Case ID	Test 1
Test Case Description	Verify if a new user can create an account
	successfully
Created By	Semih Sarıkoca
Date Tested	1.11.2024
Result	Pass
Prerequisites	1. A web browser
	2. URL of the website
	3. User email
Test Scenario	A logged-in user successfully deletes their
	account.

Step #	Step Details	Expected	Actual Results	Pass/Fail
		Results		
1	Enter valid	Account is	Account is	Pass
	email,	created	created	
	password, and	successfully	successfully	
	other required	and user	and user	
	details	receives a	receives a	
		verification	verification	
		email	email	
2	Try to create	System shows	System shows	Pass
	an account	an error: 'Email	an error: 'Email	
	with an	already	already	
	existing email	registered'	registered'	
3	Submit	System	System	Pass
	registration	prompts to	prompts to	
	form with	complete	complete	
	missing fields	required fields	required fields	

Test Case 2

Test Case ID	Test 2
Test Case Description	Verify if a user can delete their account
	successfully
Created By	Semih Sarıkoca
Date Tested	30.10.2024
Result	Pass
Prerequisites	User account with login credentials
-	URL of the website

Test Scenario	A logged-in user successfully deletes their
	account.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail
1	Log in to the user account	User is successfully logged in	User is successfully logged in	Pass
2	Navigate to account settings and select delete account	System prompts for confirmation of deletion	System prompts for confirmation of deletion	Pass

Test Case 3

Test Case ID	Test 3
Test Case Description	Verify if a user can log in with valid
	credentials
Created By	Mehmet Emir Albayrak
Date Tested	2.11.2024
Result	Pass
Prerequisites	1. A web browser
	2. URL of the website
	3. Existing user account
Test Scenario	A user enters valid login credentials and
	accesses their account.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail
1	Enter valid email and password	User is logged in successfully	User is logged in successfully	Pass
2	Enter invalid password	System shows an error: 'Invalid password'	System shows an error: 'Invalid password'	Pass
3	Enter unregistered email	System shows an error: 'Invalid email address'	System shows an error: 'Invalid email address'	Pass

Test Case 4

Test Case ID	Test 4
Test Case Description	Verify if a user can log out successfully
Created By	Mehmet Emir Albayrak
Date Tested	31.10.2024
Result	Pass
Prerequisites	Logged-in user session
Test Scenario	A logged-in user logs out of their account.

Step #	Step Details	Expected	Actual Results	Pass/Fail
		Results		
1	Click on the	User is logged	User is logged	Pass
	logout button	out	out	
		successfully	successfully	

Test Case 5

Test Case ID	Test 5
Test Case Description	Verify if a user can reset their password
	successfully
Created By	Zerda Gül
Date Tested	31.10.2024
Result	Pass
Prerequisites	User email for password reset
Test Scenario	A user initiates password reset and
	successfully changes their password.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail
1	Request password reset with registered email	User receives a password reset email	User receives a password reset email	Pass
2	Enter new password on the reset form	Password is successfully updated	Password is successfully updated	Pass
3	Request password reset with unregistered email	System shows an error: 'Email not registered'	System shows an error: 'Email not registered'	Pass

Test Case 6

Test Case ID	Test 6
Test Case Description	Verify if a user can update their profile
	information successfully
Created By	Mehmet Emir Albayrak
Date Tested	1.11.2024
Result	Pass
Prerequisites	1. Logged-in user session
	2. Profile data to update
Test Scenario	A logged-in user updates their profile
	information, such as name and email.

Step #	Step Details	Expected	Actual Results	Pass/Fail
		Results		
1	Navigate to	Profile	Profile	Pass
	profile settings	information is	information is	
	and update	updated	updated	
	details	successfully	successfully	
2	Enter invalid	System shows	System shows	Pass
	email format	an error:	an error:	
		'Invalid email	'Invalid email	
		format'	format'	

Software Requirements Spesifications

Front-End

- HTML: HTML provides the essential structure for web pages, ensuring that content is accessible and consistently rendered across devices. It is fundamental for creating the user interface of a web portal.
- SCSS: SCSS (Sassy CSS) extends traditional CSS with features like variables and nested rules, which help in maintaining a clean, modular, and consistent design—important for a scalable and visually cohesive web portal.
- **React.js:** React is a popular JavaScript library that enables the creation of interactive and dynamic user interfaces. Using React, we can build reusable components and handle data changes efficiently, creating a responsive and engaging user experience.

Back-End

• ASP.NET: ASP.NET is a secure and scalable web development framework ideal for handling the backend logic of a web portal. It provides strong support for object-oriented

programming and offers built-in security features for user authentication and data processing, ensuring the application meets high standards of reliability and performance. Database

• MySQL: MySQL is a widely used relational database that is both reliable and high-performing. It is well-suited for web portals because it can efficiently handle large volumes of data and supports complex queries, facilitating seamless integration with ASP.NET for efficient data storage and retrieval.