

User Manual

Indice

Login Window.....	4
Window Layout.....	4
Visual Feedback Elements.....	4
Action Buttons:.....	4
Available Operations.....	5
Error Handling.....	6
Navigation Behavior.....	7
Security Features.....	7
Tips and Best Practices.....	7
SingUp Window.....	8
Header Area:.....	8
Main Form Area:.....	8
Gender Selection:.....	9
Action Buttons:.....	9
Available Operations:	9
A. Create a New Account:.....	9
B. Field Validation:.....	10
C. Navigate to Login:.....	10
Error Handling:.....	11
Navigation Behavior:.....	11
Tips and Good Practices:.....	11
Shop Window.....	12
Window Layout.....	12
Additional Tools:.....	13
Available Operations.....	13
File Management.....	16
Error Handling and Messages.....	16
Tips and Best Practices.....	17
Troubleshooting.....	18
Company Window.....	19
Window Structure:.....	19
Left Side Panel:.....	19
Main Area:.....	19
Top Bar:.....	20
Company Cards:.....	20
Available Operations:.....	20

A. Open Company Products:	20
Additional Functionalities:	20
Generate Report:	20
Window Navigation:	21
Access the User Manual:	21
Profile Window	22
Left Side Panel:	22
Main Area:	22
Top Bar:	22
Profile Header:	22
Available Operations:	23
A. Modify Account:	23
B. Delete Account:	23
C. Logout:	23
Additional Functionalities:	23
Generate User Report:	23
Access the User Manual:	24
Window Navigation:	24
Users Table Window	25
User Management Window Structure:	25
Left Sidebar:	25
Main Area:	25
Top Bar:	25
Table Columns:	25
Available Operations:	26
A. Enable Edit Mode:	26
B. Edit an Existing User:	26
C. Create a New User:	26
D. Delete a User:	27
Additional Features:	27
Generate Report:	27
Access the Manual:	27
Window Navigation:	28
Companies Table Window	28
Window Structure:	28
Left Sidebar:	28
Main Area:	29
Top Bar:	29
Table Columns:	29
Available Operations:	29
A. Enable Edit Mode:	30

B. Edit an Existing Company:.....	30
C. Create a New Company:.....	30
D. Delete a Company:.....	30
Additional Features:.....	31
Generate Report (PDF):.....	31
Access the Manual:.....	31
Window Navigation:.....	31
Company Products Window.....	32
Window Structure.....	32
Left Sidebar:.....	32
Main Area:.....	32
Top Bar:.....	33
Product Elements / Fields:.....	33
Available Operations:.....	33
A. View Product Details:.....	33
B. Select Size and Add to Cart:.....	34
C. Generate Company Products Report:.....	34
D. Back / Navigation:.....	34
Additional Features:.....	34
Access the Manual:.....	34
Modify User Window.....	35
Window Structure.....	35
Left Sidebar:.....	35
Main Area:.....	36
Top Bar:.....	36
Fields and Important Behavior:.....	36
Available Operations:.....	37
A. Load User Data:.....	37
B. Edit Fields:.....	37
C. Input Validation:.....	37
D. Save Changes:.....	38
E. Cancel:.....	38
F. Generate User Report:.....	38
G. Open Manual:.....	39
Product Creation Window.....	40
Product Modify Window.....	44

Login Window

Overview

The Login window is the entry point for existing users to access the application. It provides secure authentication and directs users to the appropriate interface based on their role.

Window Layout

Header Area:

Application Logo: Displayed at the top of the window

Main Form Area:

The login form contains the following elements:

Username Field:

Text field for entering your unique username

Located below the application logo

Password Field:

Password-protected field for entering your account password

Located directly below the username field

Visual Feedback Elements:

Error Message Label:

Appears below the form when login fails

Displays specific error messages

Action Buttons:

Log In Button:

Primary button for submitting login credentials

Located below the password field

Sign Up Button:

Secondary button for new users

Redirects to the registration window

Located below the Log In button

Available Operations

A. Log In to Your Account:

Enter Credentials:

Type your username in the "Username" field

Type your password in the "Password" field

Submit Login:

Click the "Log In" button

The system verifies your credentials

Successful Login:

If credentials are valid:

The Login window closes

A new window opens based on your user role:

Administrators: Redirected to the Product Modify Window

Regular Users: Redirected to the Shop Window

B. Field Validation:

The system validates input before processing:

Both fields must be filled

Credentials must match an existing account

If validation fails:

An error message appears: "The username and/or password are incorrect"

Fields remain editable for correction

C. Navigate to Sign Up:

Click the "**Sign Up**" button

The Login window closes

The Sign Up window opens for new account creation

Error Handling

Common Error Messages:

Empty Fields:

Message: "*Please fill in both fields.*"

Solution: Enter both username and password

Invalid Credentials:

Message: "*The username and/or password are incorrect.*"

Solution: Verify username/password or use Sign Up for new account

Visual Feedback:

- Error messages appear in red below the form
- Fields remain accessible for correction
- No data persistence on error

Navigation Behavior

Successful Login Flow:

Login window closes automatically

New window opens based on user role:

Admin users → Product management interface

Regular users → Shopping interface

Alternative Navigation:

Sign Up button: Closes login, opens **registration**

Users **can return** to login **from Sign Up** window

Security Features

Password Protection:

Password field **masks characters** for privacy

Secure authentication process

No **password recovery** in this window (contact administrator)

Tips and Best Practices

For Successful Login:

Check Caps Lock: Ensure correct case for username/password

Verify Credentials: Double-check spelling before submitting

New Users: Use "Sign Up" if you don't have an account

Account Management:

Keep your username and password confidential

Contact support if you suspect unauthorized access

Remember that username is **case-sensitive**

Troubleshooting

Common Issues and Solutions:

Issue	Possible Cause	Solution
Can't log in	Incorrect password	Re-enter carefully, check caps lock
Fields don't accept input	Application error	Restart the application
"Incorrect" message persists	Account doesn't exist	Click "Sign Up" to create account
Button doesn't respond	Missing required fields	Fill both username and password

SingUp Window

The Sign Up window contains:

Header Area:

- **Application logo:** Displayed at the top of the window
 - **Title:** “Create your account”, centered inside the main form
-

Main Form Area:

The registration form allows new users to create an account by filling in the following fields:

- **Username:** Unique identifier for the user
- **Name:** User's first name

- **Surname:** User's last name
 - **Email:** Valid email address
 - **Telephone:** Contact phone number
 - **Card Number:** 16-digit card number
 - **Password:** User's account password
-

Gender Selection:

- **Man**
- **Woman**
- **Other**

Only one option can be selected.

Action Buttons:

- **Sign Up:** Submits the registration form
 - **Log In:** Redirects the user to the login window if they already have an account
-

Available Operations:

A. Create a New Account:

- Fill in **all required fields** in the form
- Select a **gender** option
- Click the "**Sign Up**" button

- If the information is valid:
 - The account is created successfully
 - The user is automatically logged in
 - The main window opens:
 - **Admins** are redirected to the Product Modify window
 - **Regular users** are redirected to the Shop window
-

B. Field Validation:

The system validates all input fields before creating the account:

- All fields must be filled
- Email must have a valid format
- Telephone number must contain exactly **9 digits**
- Card number must contain exactly **16 digits**
- A gender option must be selected

If a field is invalid:

- An error message is displayed
 - The invalid field is highlighted in **red**
-

C. Navigate to Login:

- Click on "**Log In**"
- The Sign Up window closes
- The Login window opens

Error Handling:

- Validation errors are shown below the form
 - Invalid input fields are visually highlighted
 - The sign-up process stops until all errors are fixed
-

Navigation Behavior:

- Successful registration opens a new window based on user role
 - The Sign Up window closes automatically after navigation
 - Clicking **Log In** returns the user to the login window
-

Tips and Good Practices:

- Use a valid and accessible email address
 - Ensure the telephone and card number contain only digits
 - Choose a secure password
 - Double-check all information before submitting
-

Shop Window

Overview

The Shop Window is the **main interface** for regular users to **browse products**, manage their **shopping cart**, and **make purchases**. It provides a visually appealing product display with complete shopping functionality.

Window Layout

Header Area:

Application Logo: Displayed at the top-left corner

Navigation Bar:

Located horizontally or vertically for easy access to different sections:

Store Button:

Active view (current screen)

Displays all available products

Companies Button:

Navigates to Company Window

Shows brand/company information

User Profile Button:

Navigates to Profile Window

Access personal account settings and order history

Main Content Area:

A. Product Display Section:

Product Cards: Visual grid/list showing available items

Each Product Card Contains:

Product image (left side)

Product name (**bold title**)

Product description (brief details)

Price tag (in euros)

"Add to Cart" button (green outline)

B. Shopping Cart Section:

Located typically on the right side or bottom:

Cart Table:

Item Column: Product name

Amount Column: Quantity of each item

Price Column: Price per item (in euros)

Cart Management Buttons:

Buy Button: Processes the purchase

Empty Cart Button: Clears all items from cart

Report Generation:

Context menu available for generating cart reports

Right-click anywhere in the **search-bar** to access this feature

Additional Tools:

User Manual Button: Opens PDF user guide

Available Operations

A. Browsing Products:

View Product Details:

Each product card shows essential information

Scroll through the product list

Products are loaded from the database automatically

Browse All Products:

All available products are displayed

Scroll vertically to see complete catalog

B. Adding Items to Cart:

Select Product:

Click the "Add to Cart" button on any product card

Choose Size :

A pop-up dialog appears showing available sizes

Select desired size from the dropdown list

Click "OK" to confirm

Automatic Cart Update:

Item appears in the cart table immediately

Cart is saved automatically to user's personal file

C. Managing Shopping Cart:

View Cart Contents:

Items display in table format

Each row shows: Product name, Quantity, Price

Total calculation (implied by system)

Empty Entire Cart:

Click the "Empty Cart" button

Confirmation may be required

All items are removed

Cart file is deleted from system

Purchase Items:

Review Cart:

Ensure all items are correct

Check quantities and prices

Initiate Purchase:

Click the "Buy" button

System shows confirmation dialog: "Do you really want to buy this?"

Confirm Purchase:

Click "OK" to proceed

System processes the transaction:

Reduces stock for purchased items

Clears the cart

Updates inventory database

Cancel Purchase:

Click "Cancel" in confirmation dialog

Return to cart for modifications

D. Navigation Operations:

Access Company Information:

Click "Companies" button

Company Window opens

Current Shop Window closes automatically

Access User Profile:

Click "User" button

Profile Window opens

Current Shop Window closes automatically

Access User Manual:

Click the "help" menu then the user manual option

PDF manual opens in system's default PDF viewer

File Management

Cart Persistence:

Automatic Saving: Cart saves after each addition

Personal Cart File: Carrito[Username].dat

Persistent Between Sessions: Cart loads automatically on login

File Location: Application directory

Report Generation:

Format: PDF documents

Content: Current cart items with details including product names, quantities, and prices

Usage: For order tracking, expense management, or purchase records

Error Handling and Messages

Success Messages:

Item Added: Visual feedback in cart table

Purchase Complete: Cart clears, stock updates

Report Generated: PDF opens successfully

Warning Messages:

Empty Cart Purchase Attempt: System prevents empty purchases

Report Generation on Empty Cart: No report generated if cart is empty

Manual Not Found: If PDF file is missing

Error Messages:

File Access Errors: During cart save/load

Database Errors: When updating stock

Image Loading Errors: Missing product images

Visual Features

Product Cards:

Clean, modern design with rounded corners

Impure white background with proper spacing

Consistent layout across all products

Interactive Elements:

Context-Sensitive Menus: Right-click options in search-bar

Cart Display:

Table with clear column headers

Real-time updates

Visual distinction for different sections

Tips and Best Practices

Shopping Tips:

Check Sizes Carefully: Some products have multiple size options

Review Cart Before Purchase: Verify quantities and items

Generate Reports: For order tracking or expense management before purchasing

Browse All Products: Scroll through complete catalog to see all options

Cart Management:

Regularly empty cart of unwanted items

Generate reports before large purchases for record keeping

Check cart contents thoroughly before clicking "Buy"

Navigation Tips:

Use the navigation bar for quick access to different sections

The "Store" button always returns you to the main shop view

User manual is always accessible for help

Security Features

User-Specific Data:

Each user has their own cart file

No cross-user cart contamination

Secure profile access

Purchase Validation:

Stock verification before purchase

Confirmation dialog for all purchases

Transaction logging

Troubleshooting

Common Issues and Solutions:

Issue	Possible Cause	Solution
Can't add to cart	Size not selected	Choose a size from the pop-up dialog
Cart not saving	File permission issues	Check application directory permissions

Products not loading	Database connection	Restart application, check network
Images not showing	Missing image files	Contact administrator
Report not generating	Empty cart or PDF issues	Ensure cart has items, check PDF software
Manual won't open	Missing PDF file	Reinstall application or request manual
No context menu	Right-click area incorrect	Right-click within the cart table area

Company Window

Window Structure:

The companies management window contains:

Left Side Panel:

- **Store:** Navigates to the store window
 - **Companies:** Current window (highlighted)
 - **Profile:** Opens the user profile
-

Main Area:

- **Companies panel:** Displays all registered companies as cards
- **Company buttons:** Each company is represented by a clickable button

- **Scroll area:** Allows navigation when many companies are available
-

Top Bar:

- **Help Menu:** Access to the user manual
 - **Cart icon:** Access to the shopping cart
-

Company Cards:

Each company card contains:

- **Company Name:** Displayed inside the card
 - **Clickable button:** Opens the selected company products
-

Available Operations:

A. Open Company Products:

- Click on a company card
 - A new window opens showing the products of the selected company
 - The current window closes automatically
-

Additional Functionalities:

Generate Report:

- Right-click on the companies area

- Select "**Report**" from the context menu
 - A PDF report containing all registered companies is generated
-

Window Navigation:

- **Store:** Store window
- **Profile:** User profile window

Each navigation opens a new window and closes the previous one.

Access the User Manual:

- Click on "**Help**" (top-right corner)
- Select "**View Manual**"

The user manual opens in PDF format

Profile Window

The profile management window contains:

Left Side Panel:

- **Store:** Navigates to the store window
 - **Companies:** Navigates to company management
 - **Profile:** Current window (highlighted)
-

Main Area:

- **User label:** Displays the logged-in username
 - **Settings section:** Allows account management actions
 - **Action buttons:**
 - Modify Account
 - Delete Account
-

Top Bar:

- **Help Menu:** Access to the user manual
-

Profile Header:

- **Username label:** Shows the current user's username
 - **Logout button:** Logs out the current user and returns to the login window
-

Available Operations:

A. Modify Account:

- Click on the "**Modify Account**" button
 - The user modification window opens
 - The current window closes automatically
 - User data can be updated in the new window
-

B. Delete Account:

- Click on the "**Delete Account**" button
 - A confirmation popup window appears
 - The user must confirm the deletion
 - If confirmed, the account is permanently deleted
-

C. Logout:

- Click on the **logout icon** in the top-right area
 - The session is closed
 - The login window opens
-

Additional Functionalities:

Generate User Report:

- Right-click anywhere on the profile window

- Select "**Report**" from the context menu
 - A PDF report with the current user information is generated
-

Access the User Manual:

- Click on "**Help**" (top-right corner)
 - Select "**View Manual**"
 - The user manual opens in PDF format
-

Window Navigation:

- **Store:** Product browsing and store management
- **Companies:** Company and product management
- **Profile:** Current window (user account management)

Each navigation action opens a new window and closes the current one.

Users Table Window

User Management Window Structure

The user management window contains:

Left Sidebar:

- **Products:** Navigate to product management
- **Companies:** Navigate to company management
- **Users:** Current window (highlighted)
- **Logout:** Log out of the system

Main Area:

- **“Edit” checkbox:** Enables/disables edit mode
- **Users table:** Displays all registered users
- **“+” button:** Adds a new user

Top Bar:

- **“Help” menu:** Access to the user manual
-

Table Columns:

- **USERNAME (Not editable):** Unique user identifier
- **PASSWORD:** User password
- **EMAIL:** Email address

- **NAME:** User's first name
 - **TELEPHONE:** Phone number
 - **SURNAME:** Last name(s)
 - **GENDER:** Gender
 - **DELETE:** Button to delete the user
-

Available Operations:

A. Enable Edit Mode:

- Check the “**Edit**” checkbox
- The table becomes editable
- You can modify any cell except **USERNAME**

B. Edit an Existing User:

- Double-click on any editable cell
- Edit the content
- Press **Enter** or click another cell to save
- Changes are automatically saved to the database

C. Create a New User:

- Scroll to the bottom of the table
- Click the large “+” button
- A popup appears to enter **username, email, and telephone**

- A new row is created with the entered data
- Fill in the remaining fields

D. Delete a User:

- Click the “**Delete**” button in the corresponding row
 - A deletion confirmation window appears
 - Enter the administrator password: **1234**
 - Click “**Delete**” to confirm
 - **Cancel:** Cancels the operation
 - **Delete:** Permanently removes the user
-

Additional Features:

Generate Report:

- Right-click on the table
- Select “**Report**” from the context menu
- A PDF report containing all users is generated and displayed

Access the Manual:

- Click “**Help**” (top-right corner)
 - Select “**View Manual**”
 - The user manual opens in PDF format
-

Window Navigation:

- **Products:** Product and company management
- **Companies:** Company management and their products
- **Users:** Current window (user management)

Companies Table Window

Window Structure

The **Company Management Window (Companies Table)** contains:

Left Sidebar:

- **Application logo**
- **Buttons / Navigation:**
 - **Products:** Navigates to product management (opens `ProductModifyWindow`)
 - **Companies:** Current window (highlighted)

- **Users:** Navigates to user management (opens [UserTable](#))
 - **Logout:** Logs out and returns to the login screen (opens [LogInWindow](#))
-

Main Area:

- “Edit” checkbox: Enables/disables table edit mode
 - **Companies table (TableView):** Displays companies loaded from the database
 - “+” button (**addUser**): Adds a new company (creates a new row with empty fields)
 - **Table header and contextual space**
-

Top Bar:

- **Help menu → “View Manual”:** Opens the user manual in PDF format
-

Table Columns:

- **NAME:** Company name
 - **NIE:** Company tax identification number (NIE)
 - **LOCATION:** Address or location
 - **URL:** Website / URL
 - **DELETE:** Button to delete the company (per row)
-

Available Operations:

A. Enable Edit Mode:

- Check the “**Edit**” checkbox
 - The table becomes editable (`tableView.setEditable(true)`)
 - The **NAME**, **NIE**, **LOCATION**, and **URL** columns become editable
 - Unchecking “**Edit**” disables editing
-

B. Edit an Existing Company:

- Enable “**Edit**”
 - Double-click the cell you want to edit (using `TextFieldTableCell`)
 - Enter the new value and press **Enter** to confirm
-

C. Create a New Company:

- Click the “+” button
 - A new row appears in the table
 - Fill in the **NAME**, **NIE**, **LOCATION**, and **URL** fields
 - To ensure data is saved correctly, complete the required fields and confirm the edit by pressing **Enter**
-

D. Delete a Company:

- Click the “**Delete**” button in the corresponding row
- A confirmation window opens

- If the user confirms in the popup:
 - The company is deleted from the database
 - The row is removed from the UI list
 - The table is refreshed
 - If the user cancels, the popup is closed
-

Additional Features:

Generate Report (PDF):

- Right-click on the table to open the context menu
 - Select “Report”
 - A PDF containing all companies is generated
-

Access the Manual:

- From the top bar: **Help → View Manual**
 - Opens [pdfs/User_Manual.pdf](#)
-

Window Navigation:

- **Products:** Click the “Products” button in the sidebar → opens [ProductModifyWindow.fxml](#) and closes the current window
- **Companies:** “Companies” button (current window)

- **Users:** Click the “**Users**” button in the sidebar → opens `UserTable.fxml` and closes the current window
- **Logout:** Click “**Logout**” → returns to the login view (`LogInWindow.fxml`)

Company Products Window

Window Structure

The window displays the products associated with a company and allows the user to view details, select sizes, and add items to the cart.

Left Sidebar:

- **Store:** Navigates to the global store
 - **Companies:** Current window (returns to the company list)
 - **Profile:** Accesses the user profile
-

Main Area:

- **Product list:** Product cards inside a `ScrollPane` (small image, name, short description, price, “**View**” button)
- **Right detail panel:**
 - Large image of the selected product
 - “**Available Sizes**” section (dynamic buttons)
 - “**Add to cart**” button (disabled until a size is selected)

- **Top title:** Company name + “ - Products”
 - **“No products available” message** if the company has no products
-

Top Bar:

- **< / Go Back button:** Returns to the Companies view
 - **Help menu → “View Manual”:** Opens the user manual in PDF format ([pdfs/User_Manual.pdf](#))
 - **Cart icon/menu:** Visual access to the shopping cart
-

Product Elements / Fields:

- **Product image**
 - **NAME:** Product name
 - **DESCRIPTION:** Description (truncated if too long)
 - **PRICE:** Displayed in **€x.xx** format
 - **SIZE buttons:** Available sizes (each size shows a tooltip with stock information)
 - **Add to cart:** Adds the selected product and size to the cart
-

Available Operations:

A. View Product Details:

- Click **“View”** on a product card

- The large image, extended description, and available sizes are displayed
-

B. Select Size and Add to Cart:

- In the right panel, select a size (size button)
 - Once selected, the “**Add to cart**” button becomes enabled
 - Click “**Add to cart**” to add the product with the selected size to the cart and display a confirmation message
-

C. Generate Company Products Report:

- Right-click on the product list and select “**Report**”
 - A PDF containing the company’s products is generated
 - If there are no products, an alert is shown indicating that there is no data to generate the report
-

D. Back / Navigation:

- The “<” button or “**Companies**” in the sidebar returns to the company view
 - **Store** and **Profile** open their respective views; the current window closes when navigating
-

Additional Features:

Access the Manual:

- **Help → View Manual** opens the PDF
- If the file does not exist, it will not open and a warning is logged

Modify User Window

Window Structure

The window allows the user to securely and guidedly modify their own profile (name, surname, telephone, and password).

Left Sidebar:

- **Store:** Navigates to the store (Store)
- **Companies:** Navigates to the company list

- **Profile:** Opens the profile window (highlighted in the sidebar)
-

Main Area:

- **Title:** “*Modify your account*”
 - **Edit form with fields:**
 - **Name**
 - **Surname**
 - **Telephone**
 - **New Password**
 - **Confirm Password**
 - **Action buttons:**
 - **Save Changes:** Saves the validated changes
 - **Cancel:** Cancels and returns to the Profile window without saving
 - **Error label (`errorLabel`):** Displays validation or success messages
-

Top Bar:

- **Help menu → View Manual:** Opens the user manual in PDF format
 - **Context menu** (right-click on the window): “**Report**” option to generate a user report
-

Fields and Important Behavior:

- **Name (required)**: Cannot be empty
 - **Surname (required)**: Cannot be empty
 - **Telephone (optional)**: If provided, it must contain only digits and be between **9 and 15 digits**
 - **New Password / Confirm Password (optional)**:
 - If one field is filled and the other is empty, an error is shown
 - If both fields are filled, they must match
 - The new password must be different from the current profile password
 - If both fields are empty, the password is not modified
-

Available Operations:

A. Load User Data:

- When the window opens (`initData` / `loadUserData`), the **Name**, **Surname**, and **Telephone** fields are filled with the current profile values
 - Password fields remain empty
-

B. Edit Fields:

- The user can modify **Name**, **Surname**, **Telephone**, and optionally the password using the form
-

C. Input Validation:

- When clicking “**Save Changes**”, the following validations are performed:

- **Name** and **Surname** are not empty
 - **Telephone**, if provided, contains only numbers and has **9–15 digits**
 - If attempting to change the password: confirmation is correct and it is different from the current one
 - If validation fails, the message is displayed in `errorLabel`
-

D. Save Changes:

- Click “**Save Changes**”
- If validation passes and there are actual changes (at least one modified field or a new password):
 - The profile is updated in the database
 - A success message is shown and the window returns to **Profile**
- If there are no actual changes, the user is informed:
 - “*You haven't made any changes to save.*”

E. Cancel:

- Click “**Cancel**” to close the edit window and return to **Profile** without applying changes
-

F. Generate User Report:

- Right-click → **Report**
 - A PDF containing the user's information is generated (`ReportService`)
-

G. Open Manual:

- Help → View Manual

Product Creation Window

Window Structure

The window allows the user to securely create new products with associated sizes, images, and company assignment.

Left Sidebar:

- **Store:** Navigates to the store
- **Companies:** Navigates to the company list
- **Users:** Navigates to the users table
- **Products:** Navigates to the products management window (highlighted in the sidebar)

Main Area:

Title: "Create New Product"

Edit form with fields:

- **Product Name** (required)
- **Category** (required)
- **Description** (required)
- **Company** (required - dropdown selection)
- **Price** (required - spinner €0.00-€1000.00)
- **Initial Stock** (required - spinner 0-100)
- **Product Image** (optional - preview button)
- **Sizes** (required - dynamic list with Add Size button)

Action buttons:

- **Create Product:** Saves the validated product and sizes to database

- **Create Size:** Adds new size to product size list
- **Back:** Returns to Products window without saving

Top Bar:

- **Help menu → View Manual:** Opens the user manual in PDF format
- **Context menu** (right-click on window): Navigation options available

Fields and Important Behavior:

Product Name (required): Cannot be empty

Category (required): Cannot be empty

Description (required): Cannot be empty

Company (required): Must select one company from dropdown list

Price (required): Must be between €0.00 and €1000.00

Initial Stock (required): Must be between 0 and 100

Product Image (optional): PNG/JPG/GIF files, shows 200x200 preview. Uses default image if none selected

Sizes (required):

- At least one size must be added
- Cannot add duplicate sizes
- Cannot add empty sizes
- Sizes display as circular green-bordered buttons (100x100px)

Available Operations:

A. Initialize Window:

When the window opens (`initData`), the following occurs:

- All companies loaded into Company dropdown
- Price spinner defaults to €19.99 (range €0.00-€1000.00)
- Stock spinner defaults to 1 (range 0-100)
- All text fields empty

- Sizes list empty

B. Insert Image:

Click **Insert Image** button:

- Opens file chooser filtered for PNG/JPG/GIF images
- Selected image displays as 200x200 preview on button
- Stores file path for product creation

C. Add Size:

1. Enter size label in **Size** text field
2. Click **Create Size**
3. Valid size creates circular green-bordered button (100x100px) in sizes area
4. Size added to internal sizes list
5. Size field clears for next entry
6. Error shown if size empty or duplicate

D. Input Validation (Create Product):

When clicking **Create Product**, validations performed:

- Product Name, Category, Description not empty
- Company selected from dropdown
- At least one size added
- Price and Stock within valid ranges
- If validation fails, error alert displayed and operation cancelled

E. Create Product:

Click **Create Product** after validation passes:

- Product created with name, price, category, description, image path, selected company
- All sizes saved with initial stock quantity
- Success confirmation shown
- Window navigates to Products management window

F. Navigation:

- **Companies:** Opens Companies management window
- **Users:** Opens Users management window
- **Products:** Opens Products management window
- **Logout:** Returns to Login window

G. Error Handling:

- **No sizes:** "Please insert at least one size."
- **No company:** "Please select a company."
- **Missing product data:** "Please fill out all data for the product."
- **Invalid size:** "Please insert valid data for the new size."

H. Visual Feedback:

- Size buttons: White background, green border, circular (100x100px), centered text
- Image preview: 200x200px thumbnail on Insert Image button
- All spinners show real-time values
- Success alerts confirm product creation

Product Modify Window

Window Structure

The window allows administrators to browse products by company, modify prices, manage product sizes (create/update/delete), view sales charts, and generate reports.

Left Sidebar:

- **Companies:** Navigates to the company list
- **Users:** Navigates to the users table
- **Create Item:** Opens Product Creation window
- **Products:** Current window (highlighted in sidebar)

Main Area:

Title: "Product Management"

Company Selection:

- **Company Dropdown** (required): Select company to view its products

Products List:

- **Product Cards** (click to select):
 - 50x50px product image
 - Product name (ellipsis + tooltip)
 - Description (ellipsis + tooltip, max 48px height)
 - **Price Spinner** (€0.00-€1000.00, editable)
 - **Save Price** button (green border)

Sizes Area:

- **Size Buttons** (40x40px circular, green border): Click to select size

- **+ Button:** Reset to create new size mode

Selected Size Controls:

- **Size Text Field** (edit size label)
- **Stock Spinner** (0-100)
- **Save Size:** Updates existing or creates new size
- **Delete Size:** Removes selected size

Product Controls:

- **Delete Product:** Removes selected product

Sales Chart:

- **Line Chart:** Daily sales per size (Days vs Sales count)
- Updates when product or size selected

Action buttons:

- **Save Size:** Creates/updates size data
- **Delete Size:** Removes selected size
- **Delete Product:** Removes selected product
- **Create Item:** Opens creation window

Top Bar:

- **Help menu → View Manual:** Opens PDF manual
- **Context menu** (right-click): "Report" generates complete companies/products/sizes PDF

Fields and Important Behavior:

Company (required): Must select company to view products

Product Cards (interactive): Click selects product, shows sizes and sales

Price Spinner (required for edits): €0.00-€1000.00 range, 5-character width

Size Label (required): Cannot be empty or duplicate

Stock (required): 1-100 (0 invalid for new sizes)

Size Buttons: 40x40px circular, ellipsis + tooltip for long labels

Available Operations:

A. Initialize Window:

When window opens (`initData`):

- All companies loaded into dropdown
- Sales chart configured (Days/Sales axes)
- Stock spinner disabled initially
- Products/sizes areas empty

B. Select Company:

1. Choose company from dropdown
2. Products load as cards in **Products VBox**
3. Each card shows image, name, description, editable price

C. Select Product:

Click product card:

- Loads all product sizes as 40x40px buttons
- Shows product sales chart (all sizes)
- Adds + button to create new sizes

D. Select Size:

Click size button:

- Loads size sales chart (daily purchases)

- **Stock Spinner** shows current stock (0-100)
- **Size Text Field** shows current label

E. Modify Price:

1. Edit **Price Spinner** on product card
2. Click **Save Price**
3. Warning if price unchanged, success if modified

F. Create New Size:

1. Click **+** button (resets fields)
2. Enter size label and stock (1-100)
3. Click **Save Size**
4. New size created if no duplicate exists

G. Update Existing Size:

1. Click existing size button
2. Modify label/stock
3. Click **Save Size**
4. Updates database and refreshes display

H. Delete Size:

Click **Delete Size** with size selected
Confirmation shown, size removed from product

I. Delete Product:

Click **Delete Product** with product selected
Confirmation shown, product and sizes removed

J. Input Validation:

- **No product selected:** Cannot create/modify sizes
- **Empty size label:** "Please insert valid data for the new size"
- **Stock ≤ 0:** "Please insert valid data for the new size"
- **Duplicate size:** "The new size already exists"
- **No size selected:** Cannot delete size
- **No product selected:** Cannot delete product
- **Same price:** "The products price is the same as before"

K. Visual Features:

- **Product Cards:** White background, green border, rounded (12px)
- **Size Buttons:** White circular (40x40px), green border, 11px font
- **+ Button:** Same style as size buttons
- **Price Spinners:** Light gray background, bold font
- **Text Overrun:** Ellipsis (...) + hover tooltip for long text
- **Sales Chart:** Line chart by day, one line per size

L. Sales Chart Data:

- Shows daily purchase count per size
- X-axis: Days since first purchase
- Y-axis: Sales count per day
- Multiple lines (one per size)
- Data sorted chronologically

M. Navigation:

- **Companies/Users:** Switch to management windows
- **Create Item:** Opens Product Creation window
- **Logout:** Returns to Login window
- **Help → View Manual:** Opens PDF manual

N. Error Handling:

- **No product:** "Must select a product before adding a size"
- **No size:** "No size has been selected to delete"
- **No product for delete:** "Please select a product to delete"