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Building a scalable Multi-Tenant eCommerce Marketplace web platform for a Start-up to serve Tenants globally, based on an innovative business model - selling products without handling the delivery of the products or products stocks

Customer Profile:

Industry: Retail and Commerce
Headquarters: Switzerland
Company status: Start-up
Goal: building the eCommerce Marketplace platform to operate at a global level

Challenges:

- Extending the existing Multi-Tenant platform modules connecting the Marketplace with the Tenant system and enabling tenants to register, filter and publish products available from sellers, generating a personalized URL and customizable storefront to re-sell without tenants to handle the delivery of the products or inventory management

- Enhancing the personalization and customization capabilities for each user entity

- Building a complex commission system involving multiple users (Sellers, Tenants, Super Admins based on normal user purchases)

- Building wallets per entity to store and track each purchase amount including commissions and display to each entity the earned amount per each conversion

- Technical limitations of existing eCommerce modules and lack of structured code to be scalable and easily maintainable, taking so much time for developers to implement the solutions

- Integration with the most popular multi-channel system from Germany enabling the platform to become an option for the Sellers that are using the multi-channel system to sell their products also on our platform

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Implemented solutions:

- Enabled the communication between the Marketplace and Tenant system and building the products filtering by seller name, city and country where the tenant wants to target the sales conversions connected with the commission system in the background

- Integrated the most popular payment gateways Stripe and PayPal for the users to be able to pay including with credit cards (VISA and Mastercard)

- Implemented the commission system for all entities to benefit from each user purchase

- Implemented the wallet system from scratch, to keep track of all transactions amounts and show earnings for all users involved in the purchase process (Seller, Tenant, Super Admin)
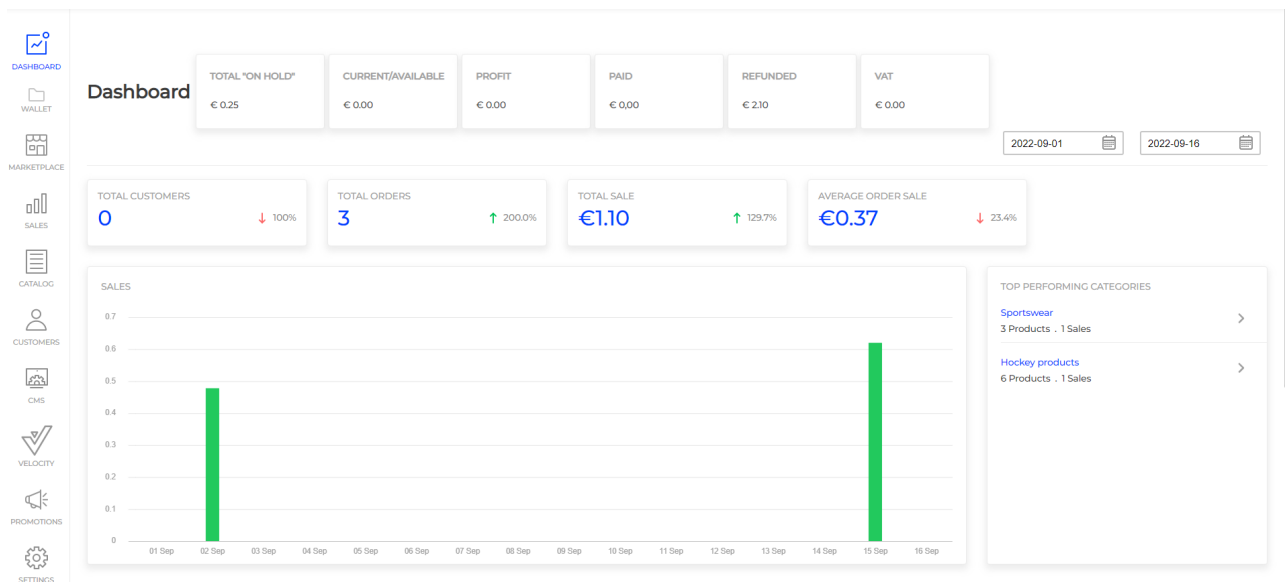
- screenshot from super admin dashboard, the wallet is displayed in the top of the page showing earned amounts per conversion based on the status of the order and payments

- Updated the products imports process for generating unique SKU per products to solve multiple seller imports and mass updates of products (prices, product details, variations, attributes)
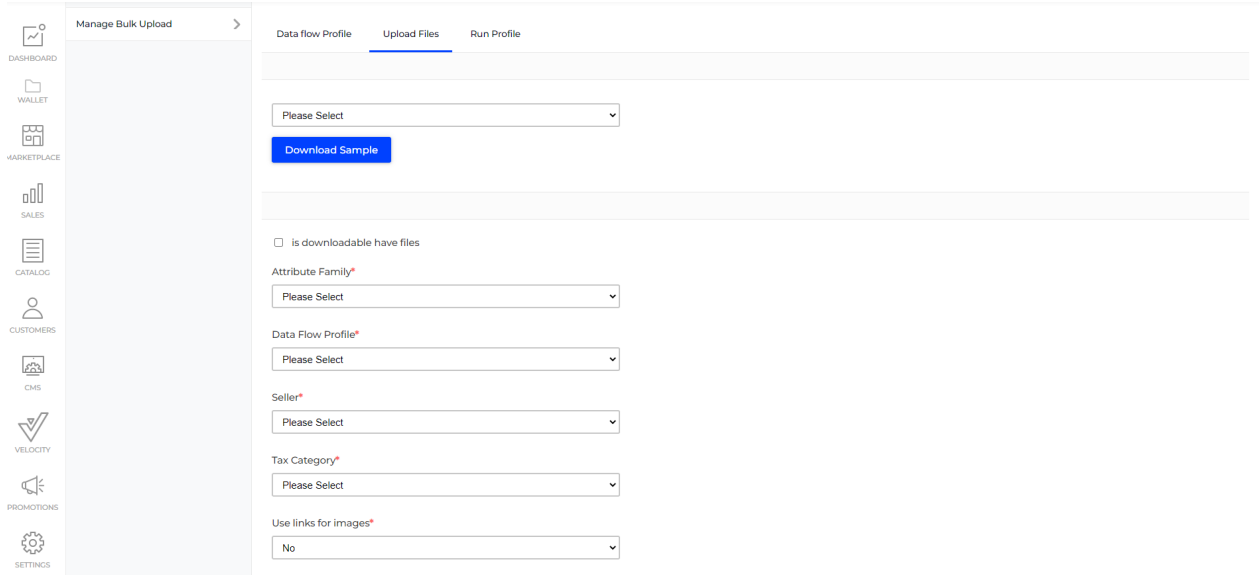
- screenshot from the bulk upload products feature showing settings for uploading a new batch of products with specific attributes, assigned to a specific seller, adding tax category or links for images to be uploaded

- Enhanced the customization options of storefronts including shoppable images feature
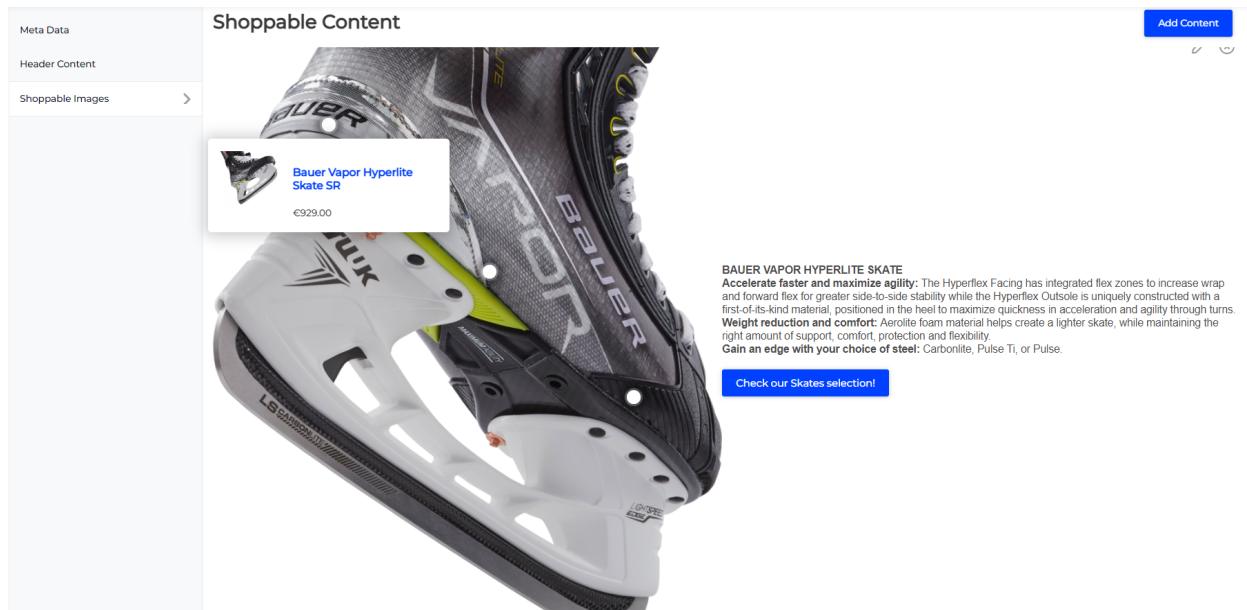
- screenshot from the admin, shoppable images section where you can add tags and assigne specific products on the image, add/edit shoppable image background, title and description, including call to action link update.

- screenshot from the storefront section of the shoppable images, the products tagged on the image can be added directly to the cart by the end user

User's capabilities and functions:

Marketplace user types:

- Super Admin
- Sellers
- Tenants
- Normal Users

- **Admin Dashboard:** administrators can see all orders amounts tracked in the wallets and sales activity for a specific period of time including total sales, average order sales, top performing categories, top selling products, top of the customers with most sales, products stocks thresholds.
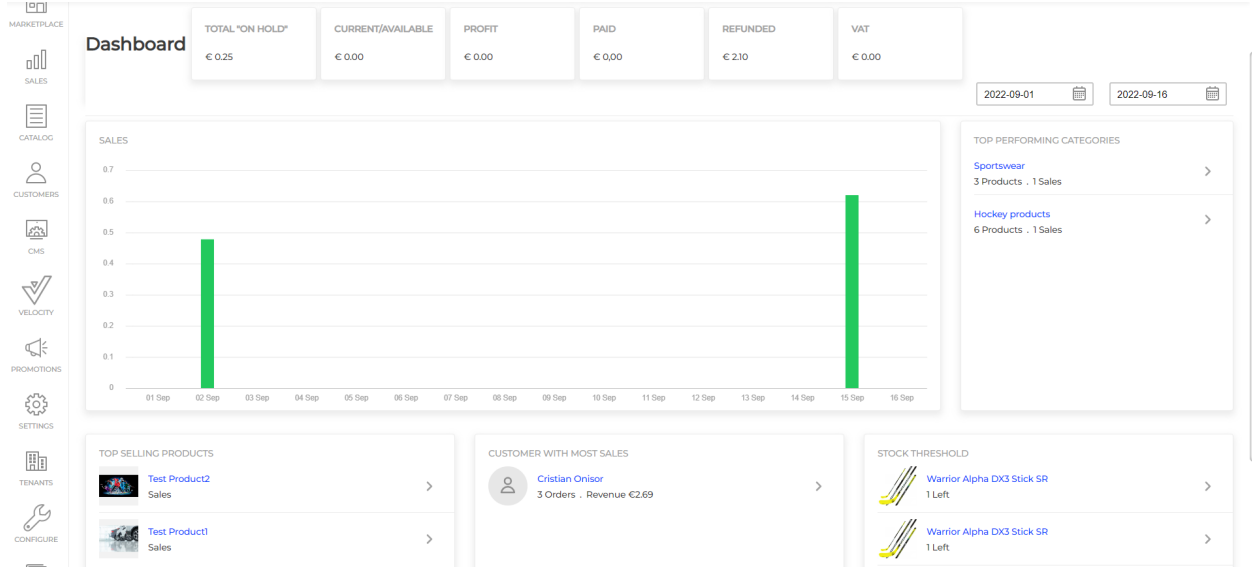
- screenshot from super admin dashboard, showing wallets section in the top and then total number of customers, orders, sales in a specific period of time, including top performing categories, top selling products, customer with most sales, stock threshold, see also next screenshot
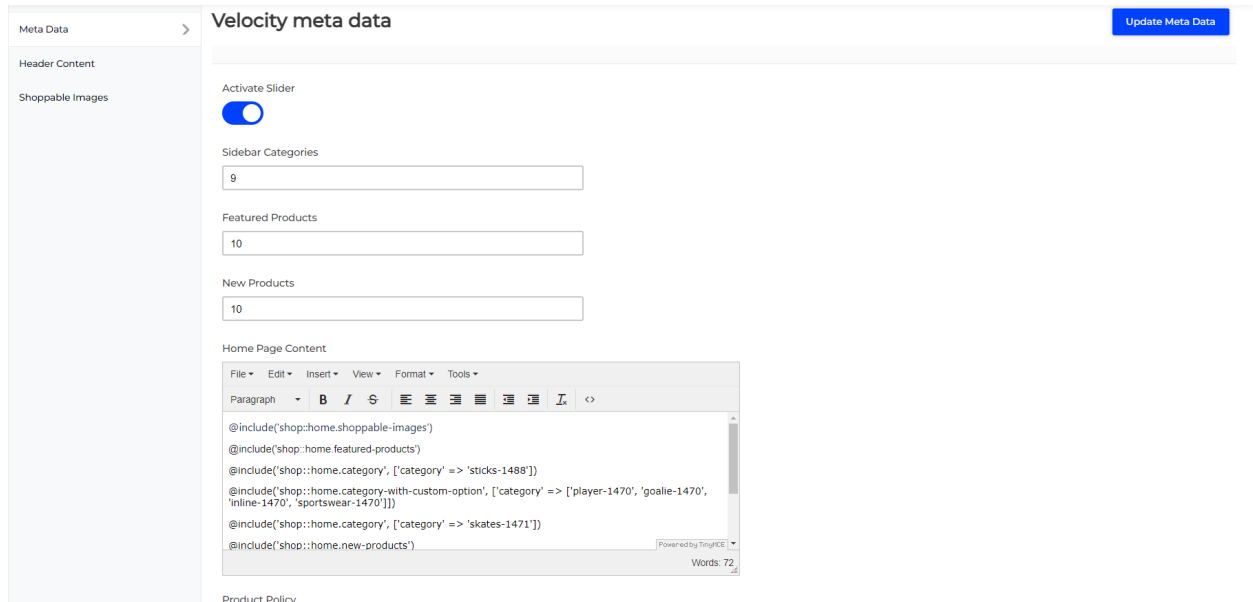
  The admin has an overview of all orders activities, shipments, invoices, refunds, pending refunds, orders cancelations, marketplace sellers registered, products, seller reviews, products categories

  The admin can configure the platform commissions, for Sellers and Tenants and has the overview of all users registered (sellers + tenants) including tenants registered users.

  Other configurations are taxes, languages, mass products imports and also the configuration of the marketplace storefront: logo, banners, shoppable images, featured products section, special categories section, new products section, popular categories section and other sections including products reviews

- **Tenant Storefront Customization:** a new tenant can filter the desired products that wants to sell from a specific seller or specific city or country where he/she wants to do business/sell the products and publish the products on the storefront and can start the sales immediately.

  There is customizable the tenant storefront according to the store needs as follows: logo, banners, shoppable images, featured products section, special categories section, new products section, popular categories section and other sections including products reviews

Velocity meta data

Update Meta Data

Meta Data

Header Content

Shoppable Images

Activate Slider

Sidebar Categories

9

Featured Products

10

New Products

10

Home Page Content

File ▾ Edit ▾ Insert ▾ View ▾ Format ▾ Tools ▾

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@include('shop::home.shoppable-images')

@include('shop::home.featured-products')

@include('shop::home.category', ['category' => 'sticks-1488'])

@include('shop::home.category-with-custom-option', ['category' => ['player-1470', 'goalie-1470', 'inline-1470', 'sportswear-1470']])

@include('shop::home.category', ['category' => 'skates-1471'])

@include('shop::home.new-products')

Powered by TinyMCE

Words: 72

Product Policy

- tenant admin customization section, updating the sections categories, popular categories, new products, featured products, special categories, shoppable images positioning, reviews, etc.

Here the results after customization:
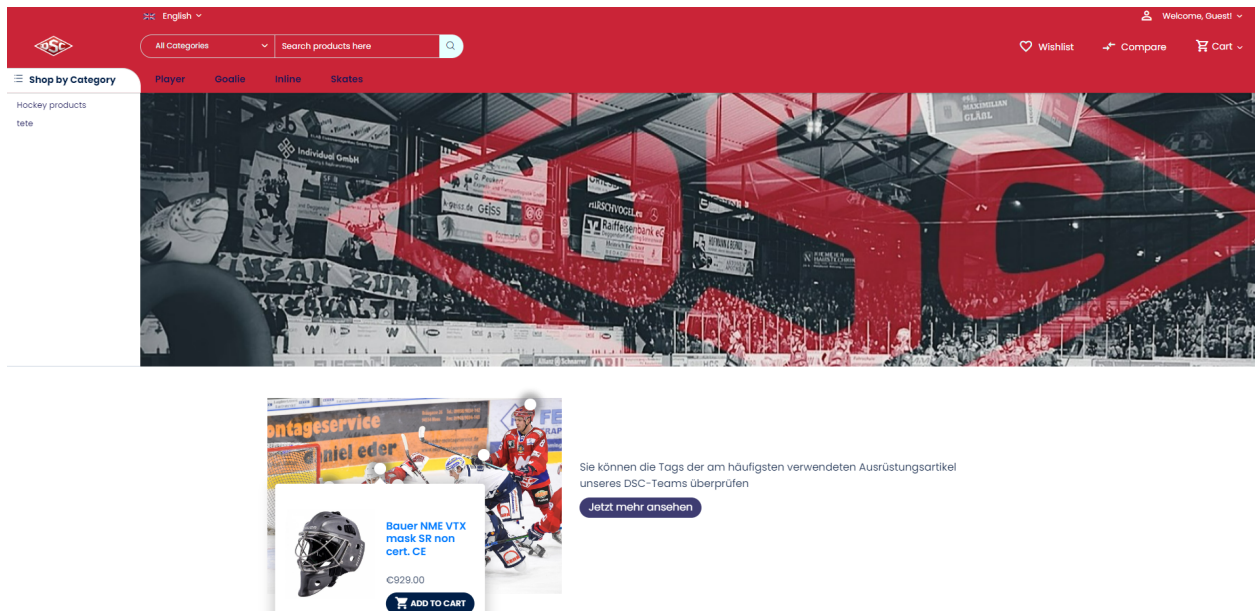
- screenshot with the storefront header section where the user can see the main categories menu, banner, header categories and shoppable images, including login profile, multilanguage selection, wishlist, compare and the cart or can search the desired products using the search field
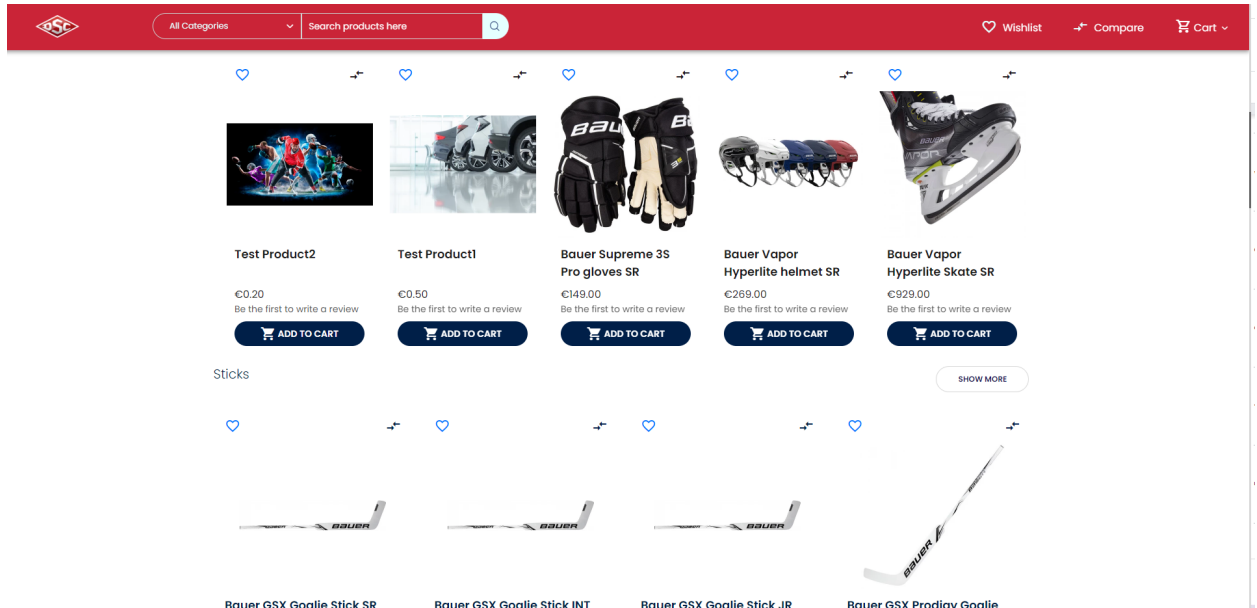
- Screenshot with fixed header menu and featured or specific product sections that can be placed based on the webshop business needs
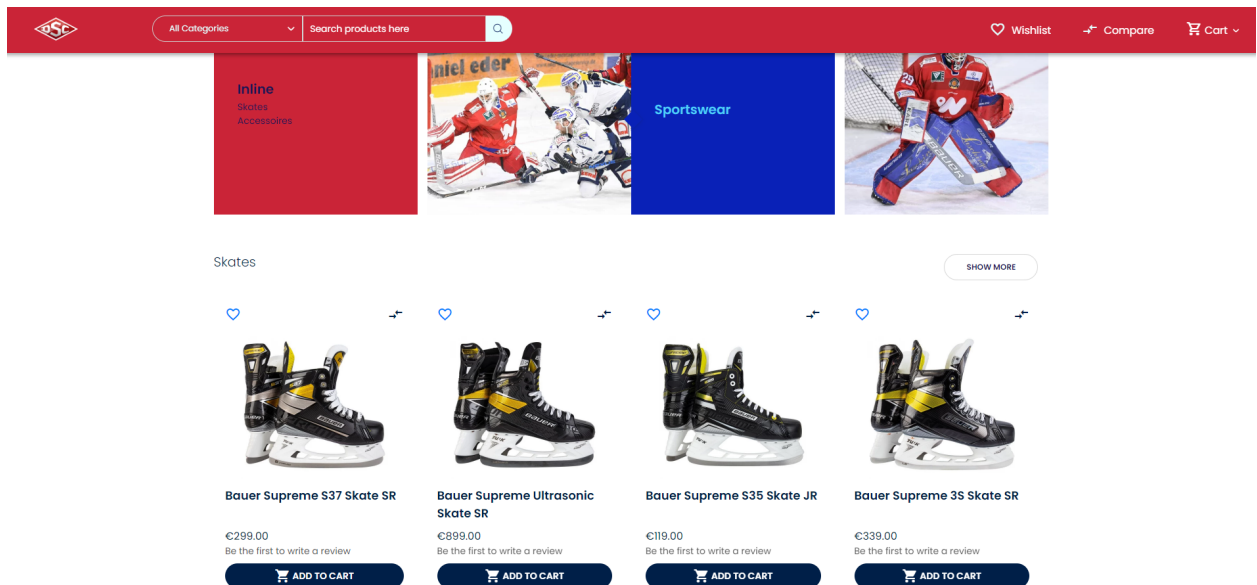
- screenshot showing special categories and images of categories including some products sections that can be customized per business needs

- **Tenant Dashboard:** tenants can monitor all their orders activity and amounts tracked in the wallets, the sales activity for a specific period of time including total sales, average order sales, top performing categories, top selling products, top of the customers with most sales, products stocks thresholds (see previews admin dashboard for details)

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- **Seller Dashboard:** sellers can monitor all their orders activity and amounts tracked in the wallets, the sales activity for a specific period of time including total sales, average order sales, top selling products, customers with most sales, products stocks thresholds

Sellers can update products data including shipping rates, can keep track of their orders, manage products reviews or customize their seller profile by uploading the shop logo, banner, description, social media profiles and policies

- **User capabilities:** the user can filter products from the category page product attributes, can add products to a wishlist and compare products by attributes

Main features summary:

- **Shoppable images:** enabling images upload and tag specific products so then users can see the products tagged on the image, view and add to cart by one click

- **Promotions:** can be created catalog rules or cart rules to be applied for a specific period of time for users to benefit from discounts and promotions. Coupons can be generated as well.

- **Products Reviews:** users are able to review products and they can be displayed on each tenant storefront or marketplace storefront

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- **Tenant products filtering and publish on the storefront:** tenants have the functionality to filter products by seller name or by a specific city or country where they target the customer sales and publish the products on the storefront to start sales immediately

- screenshot shows the tenant filtering products by the country where the business is targeted, county, city or by a specific seller name that he wants to work with, or by specific products attributes

- **Personalized storefront:** the new tenant registered will have a generated and dedicated URL of their e-store that can be promoted and generate sales immediately without managing the delivery or inventories of the product

- **Sales Dashboard and wallets:** conversions amounts are tracked in the admin dashboards and wallets for the admin to know every minute of the earnings and sales progress

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Technology stack used for extending the platform and refactor all system:

Features	Initial System	Refactored Platform
Architecture	Monolithic	Monolithic
Backend technologies	PHP 8	PHP 8
Frontend technologies	HTML, CSS, VueJS	HTML, CSS, Bootstrap, VueJS
HTTP Communication service/Multi-channel	JTL Wavi	JTL Wavi
Notification System	Simple, no queue, email only	Laravel Queue, emails
Version Control	Git, Bitbucket	Git, Bitbucket
Continuous Integration & Development	Bitbucket pipelines	Bitbucket pipelines
QA & Automation	manual	manual, E2E Automated Tests
Mobile apps	no mobile app	no mobile app, mobile responsive
Environment	Dev, Staging and Production	Dev, Staging and Production
CDN	DigitalOcean/AWS	DigitalOcean/AWS
Services	Docker, Session based auth, Laravel Telescope	Docker, Laravel Sanctum Auth, Laravel Telescope

For more details, contact us at contact@boostit.com