



SOFTWARE REQUIREMENT SPECIFICATION

Project Name : MMOMarketSystem

Table of Contents

I. Record of Changes	3
II. Software Requirement Specification	4
1. Overall Requirements	4
1.1 Context Diagram	4
1.2 Main Business Processes	5
1.3 User Requirements	5
1.4 System Functionalities	12
1.5 Entity Relationship Diagram	17
2. Use Case Specifications.....	18
2.1 <<Feature Name1>>	18
2.2 Xyz Feature	10
3. Functional Requirements.....	52
3.1 Feature Name1	52
3.2 User Authentication.....	57
3.3 System Administration.....	60
4. Non-Functional Requirements.....	95
3.1 External Interfaces	95
3.2 Quality Attributes	95
5. Requirement Appendix	97
5.1 Business Rules.....	97
5.2 System Messages	97
5.3 Other Requirements... ..	98

I. Record of Changes

Date	A* M, D	In charge	Change Description
13/09/2025	A	Viet	1.5 Create ERD
13/09/2025	A	Viet	1.5 Create Entity Description
14/9/2025	A	Viet	1.2 Main Business Processes
15/9/2025	M	Viet	1.5 Update ERD
15/9/2025	A	Viet	1.3.1 Actors
15/9/2025	A	Viet	1.4 System Functionalities
16/9/2025	A	Viet	5. Requirement Appendix
18/9/2025	M	Viet	1.3.3 Update Use case diagrams

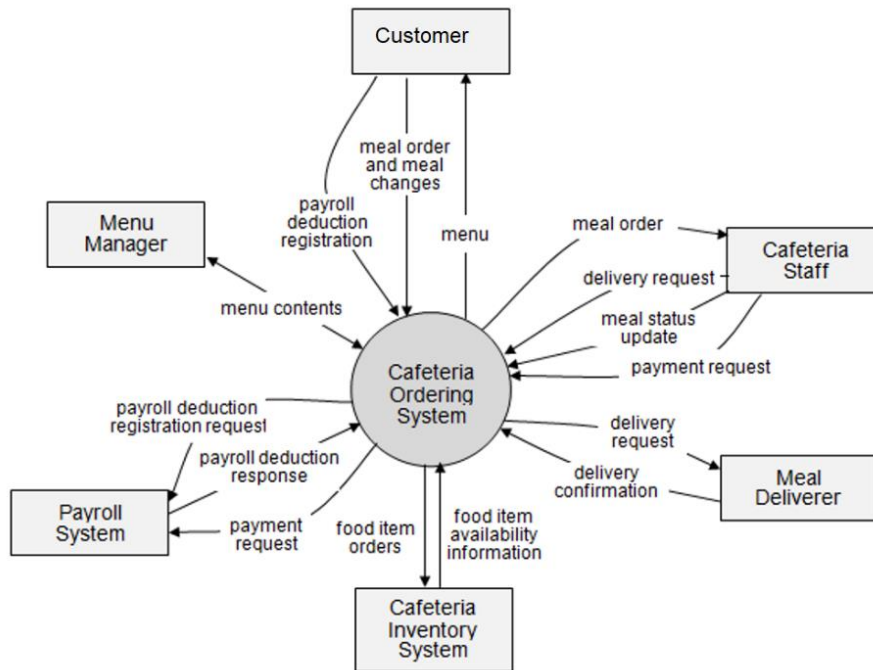
*A - Added M - Modified D - Deleted

II. Software Requirement Specification

1. Overall Requirements

1.1 Context Diagram

<<Sample: The Cafeteria Ordering System is a new software system that replaces the current manual and telephone processes for ordering and picking up meals in the Process Impact cafeteria. The context diagram below illustrates the external entities and system interfaces for release 1.0. The system is expected to evolve over several releases, ultimately connecting to the Internet ordering services for several local restaurants and to credit and debit card authorization services.



>>

1.2 Main Business Processes

1.2.1 Order Processing

1. User registers or logs in.
2. User adds money to their wallet.
3. User browses or searches for products.
4. User selects the product they want to buy.
5. User checks if the wallet balance is enough for the product.
6. If the balance is enough, user pays using wallet funds. If not, they are prompted to add more funds.
7. The system confirms the order and sends a notification to the user.
8. User can access or download the digital product.

Involved Actors: User, Seller, Admin (only if dispute).

1.2.2 Shop Creation & Selling

1. Seller registers or logs in.
2. Seller creates a shop (status = *Pending Approval*).
3. Seller deposits at least 5 million VND into their wallet.
4. The more money they deposit, the more they can sell. The selling limit is 1/10 of the deposit.
5. User creates a shop with basic information (name, description, etc.).
6. User can start selling products within the allowed limit without needing admin approval.
7. Seller receives orders from Users.
8. When a customer buys a product, the payment is held by the platform (not immediately credited to the shop's wallet).
9. The platform holds the payment for 3 days after the order is placed.
10. If no complaints are made within 3 days, the platform releases the payment and adds it to the shop's wallet balance.

Involved Actors: Seller, System, Admin, User (as the buyer of the product).

1.3 User Requirements

1.3.1 Actors

#	Actor	Description
---	-------	-------------

1	Admin	The Admin has full control over the system. They can manage users, shops, orders, and system configurations.
2	User	The User is a customer who can browse, purchase products, and track their orders.
3	Seller	The Seller is a vendor who can list products, manage their shop, and process orders
4	Guest	The Guest is a non-registered user who can browse products but cannot make purchases or manage an account.

1.3.2 Use Cases (UC)

Checkou t	Use Case	Feature	Use Case Description
01	Register	Authentication	Guest provides personal information to establish an account and gain access to marketplace features
02	Login	Authentication	User can log into the system using credentials to access user-specific features
03	Log Out	Authentication	User can securely log out of the system to end their session
04	Forgot Password	Authentication	User can reset their password when they forget it
05	Search Products	Product List	Both guests and users can quickly search for specific MMO products using keywords, with options to sort and filter results.
06	View Product Details	Product List	Both Guest and User can examine detailed product information to evaluate MMO items and make informed decisions
07	Edit profile	Profile Management	User can update their personal details like name, email, contact information
08	View profile	Profile Management	User can view their current profile information and account details
09	View Transaction History	Wallet Management	User can view their complete transaction history including purchases and payments
10	View Wallet Balance	Wallet Management	User can check their current wallet balance and available funds

11	Add Funds to Wallet	Wallet Management	User can add money to their wallet using various payment methods
12	View Purchased Items	Order Management	User can view all MMO items they have purchased and their current status
13	Track Order Status	Order Management	User can track the status of their orders from purchase to delivery
14	Report Product Issues	Report product	User can report problems or issues with products they have purchased
15	Rate Seller	Rating System	User can rate and review sellers based on their transaction experience
16	Rate Product	Rating System	User can rate and review products they have purchased
17	Chat with Seller	Chat	User can communicate directly with sellers to ask questions or resolve issues
18	Checkout	Transaction	User can purchase MMO products using their wallet balance or other payment methods
19	Register for Sell	Seller Registration	User can register to become a seller and start selling their own MMO products
20	Update Store information	Store Management	Seller can update store information.
21	View Product	Product Management	Seller can view all their products in the store.
22	Add product	Product Management	Seller can create products in the store.
23	Update product	Product Management	Seller can update products in the store.
24	Delete product	Product Management	Seller can delete products in the store.
25	View product in stock	Stock Management	Seller can view product inventory.
26	Update product quantity	Stock Management	Seller can update product quantity.
27	View Order List	Order Management	Seller can view the list of customer orders.

28	View Order Details	Order Management	Seller can view details of a specific order (products, quantity, delivery address, status).
29	View Top Selling Products	Reporting & Analytics	Seller can view the list of top-selling products.
30	View Stock-Out Products	Reporting & Analytics	Seller can view the list of out-of-stock products.
31	View Revenue/Escrow	Financial Management	Seller can view revenue balance and escrow account.
32	Create a Withdrawal Request	Financial Management	Seller can submit a request to withdraw money to their personal account.
33	View Withdrawal History	Financial Management	Seller can view the history of withdrawal transactions.
34	Chat with Buyers	Dispute Management	Seller can chat directly with buyers to resolve issues.
35	Handle Refunds/Exchanges	Dispute Management	Seller can handle refund or exchange requests from buyers.
36	View Notifications	Notifications	Seller can receive and view notifications from the system (e.g., new order, out of stock, status changes).
37	View All Accounts	Account Management	Admin can view all accounts (user, seller, admin).
38	Lock Account	Account Management	Admin can lock user/seller accounts that violate policies.
39	Unlock Account	Account Management	Admin can unlock accounts after review.
40	Add Role to Account	Account Management	Admin can assign additional roles to a user.
41	Remove Role from Account	Account Management	Admin can remove roles from a user.
42	Hide Violating Product	Product Moderation	Admin can hide products that violate platform policies.
43	Manage Product	Product Moderation	Admin can manage products on the platform, including viewing and moderating them.

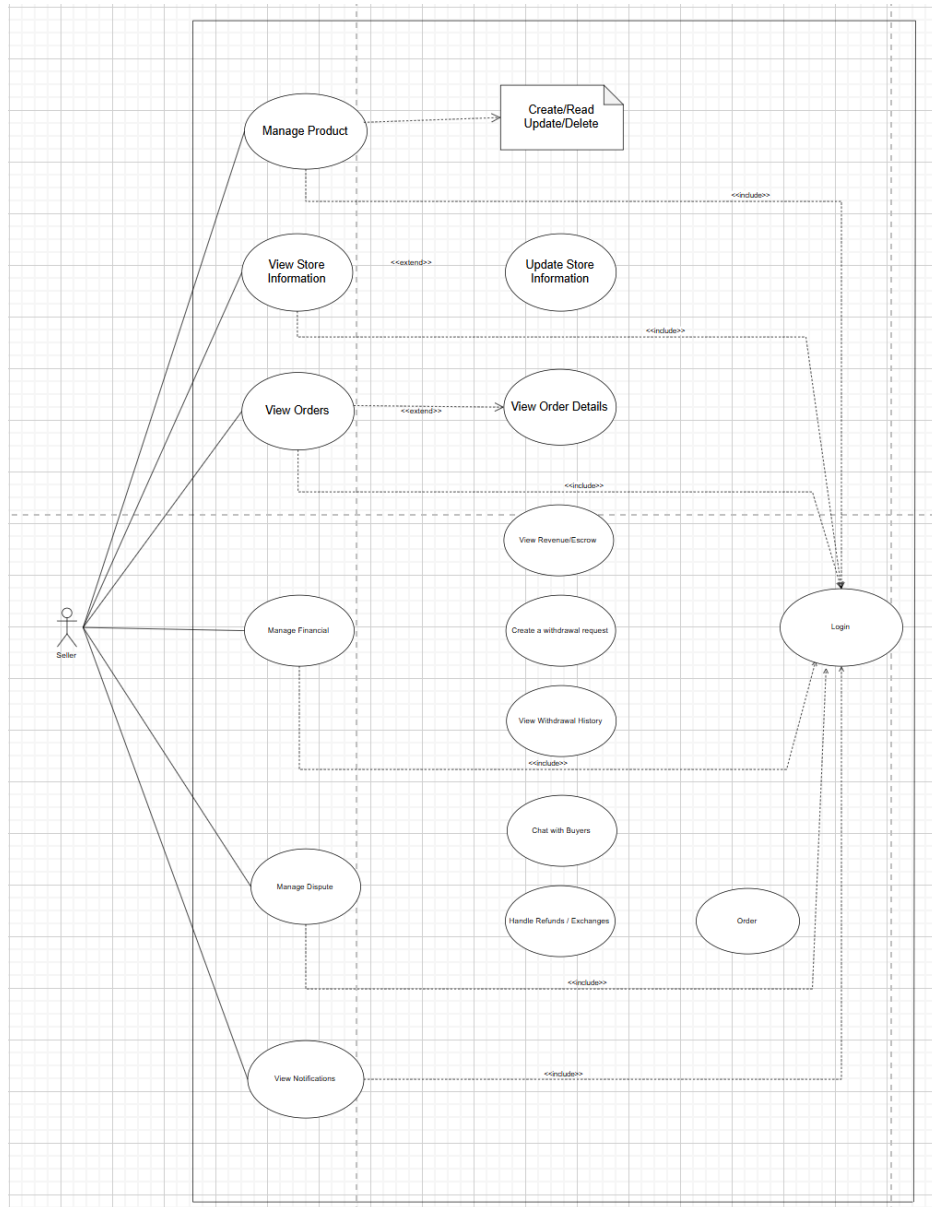
44	Wallet System Management	Wallet Management	Admin can access and manage the overall wallet system.
45	Add Money to User Wallet	Wallet Management	Admin can add balance to a user's wallet after confirming deposit.
46	Confirm Successful Deposit	Wallet Management	Admin confirms the user's payment and updates their wallet balance.
47	Transfer Money to Seller Wallet	Wallet Management	Admin transfers funds from escrow to the seller's wallet upon successful transaction.
48	Withdrawal Request Approva	Wallet Management	Admin approves or rejects withdrawal requests made by sellers/users.
49	Refund Processing	Complaint Management	Admin can view a list of all user-submitted complaints.
50	Complaint Details	Complaint Management	Admin can view detailed information of a specific complaint.
51	View Sales Reports	Financial Management	Admin reviews complaint details and decides whether to issue a refund or reject it.
52	Floor Revenue Report	Financial Management	Admin can generate reports on platform-wide financial revenue.
53	Transaction Management (+/- Money)	Financial Management	Admin can view and manage platform transactions, including manual adjustments.
54	Transaction Management	Financial Management	Admin can view and update reports related to platform commission rates.
55	View List of Complaints	Complaint Management	View list of user complaints

1.3.3 Use Case Diagrams

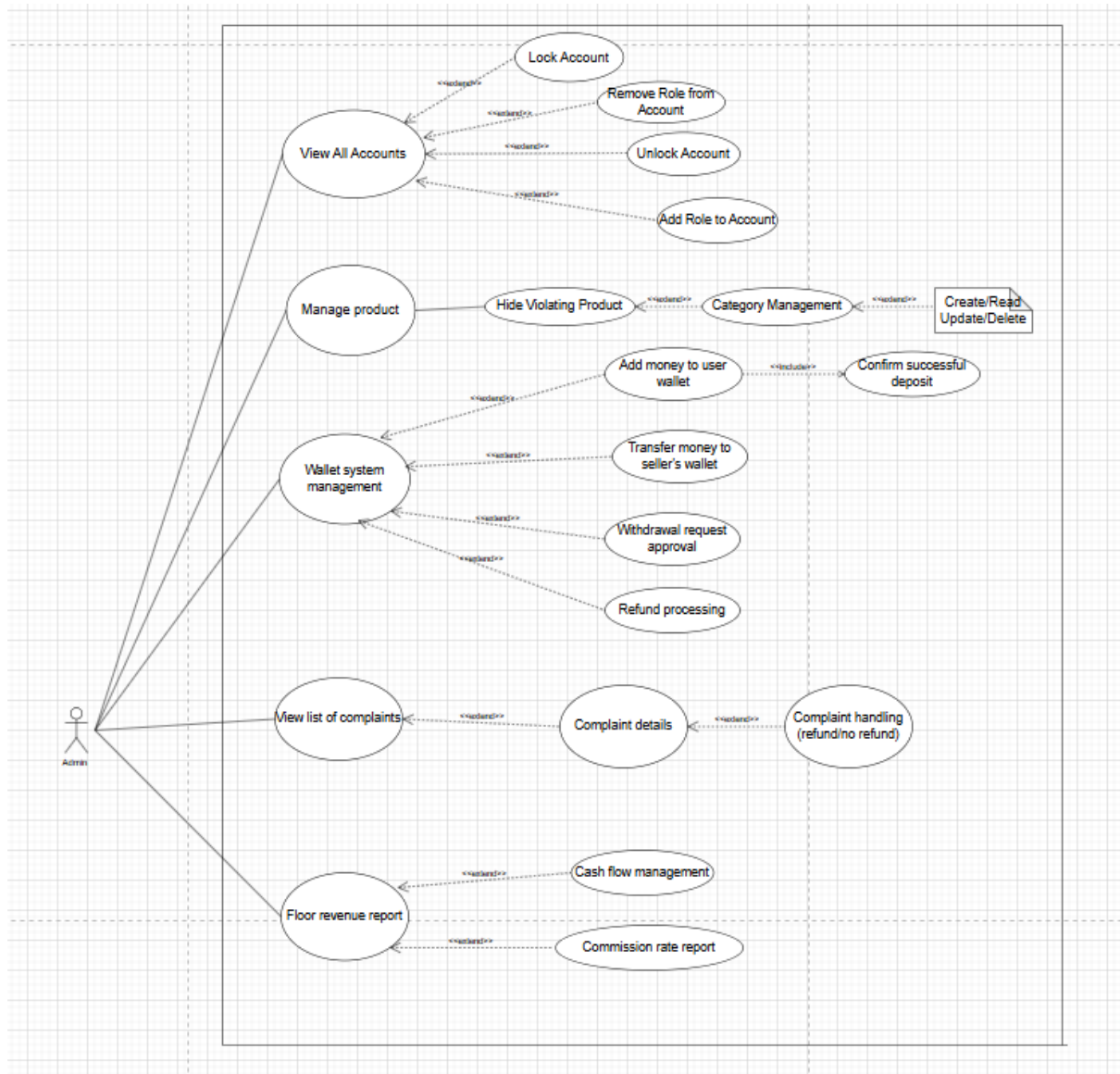
1.3.2.1 UCs for Guest and User



1.3.2.2 UCs for Sellers



1.3.2.3 UCs for Admin

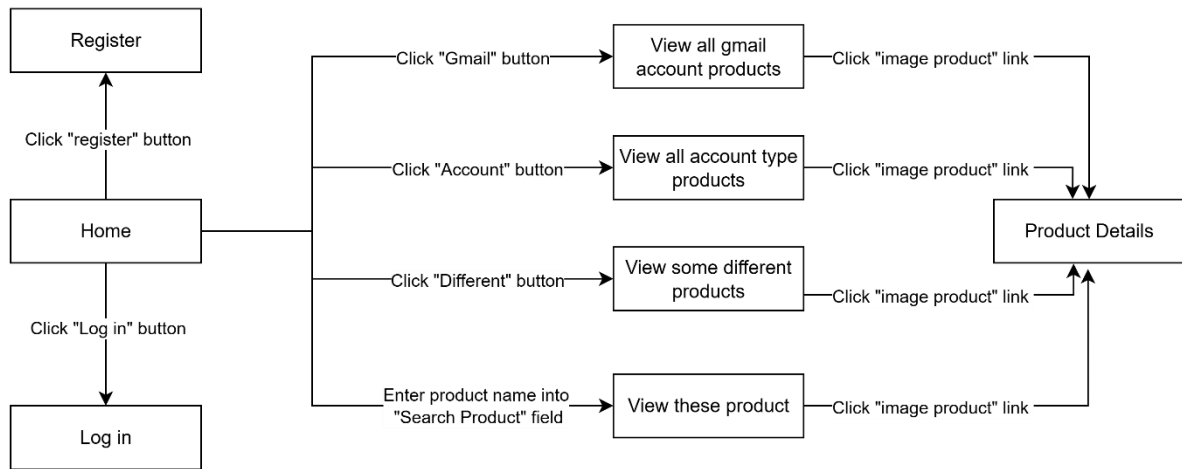


1.4 System Functionalities

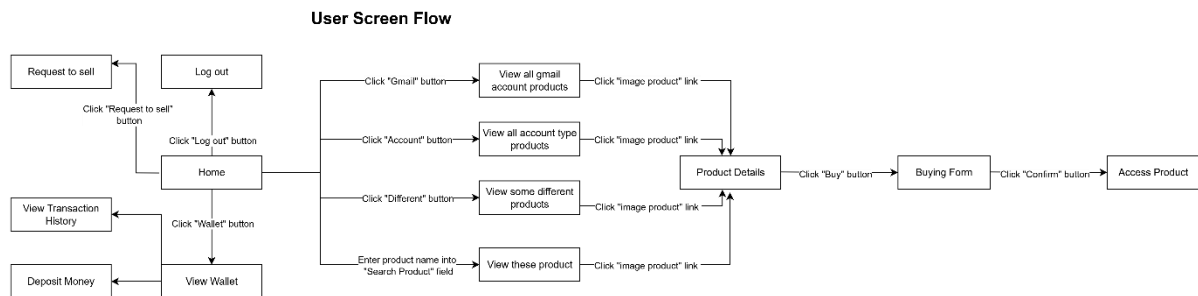
1.4.1 Screens Flow

1.4.1.1 Guest Screen Flow

Guest Screen Flow

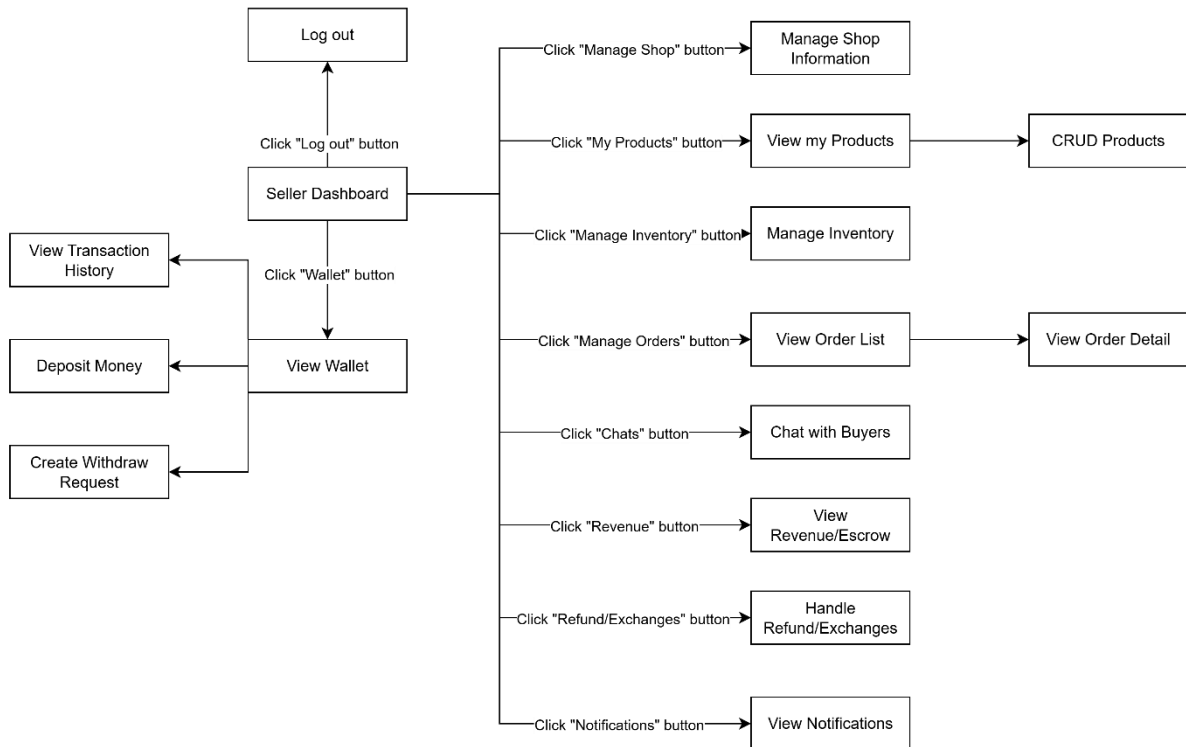


1.4.1.2 User Screen Flow



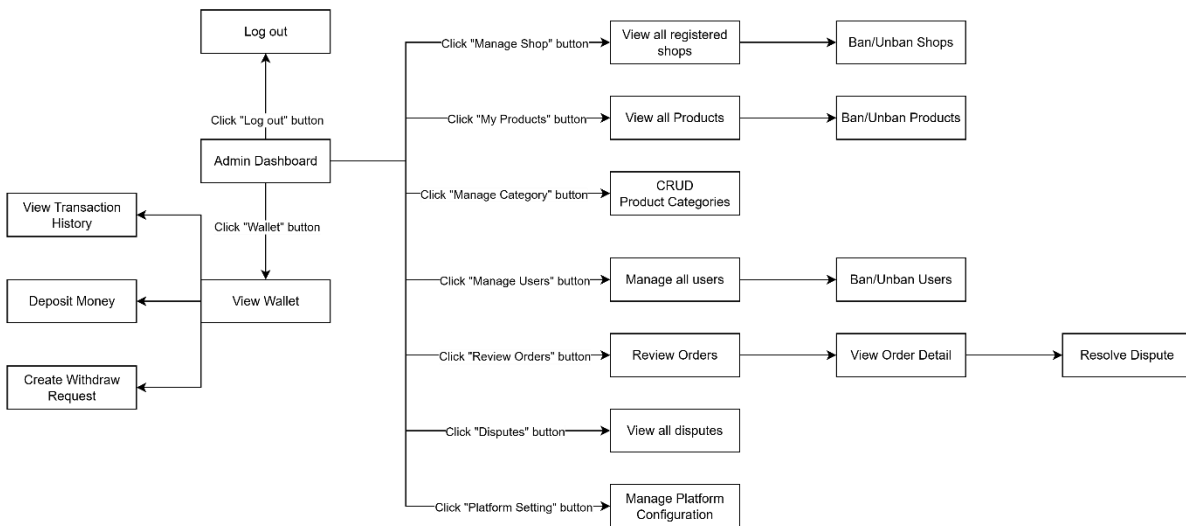
1.4.1.3 Seller Screen Flow

Seller Screen Flow



1.4.1.4 Admin Screen Flow

AdminScreen Flow



1.4.2 Screen Authorization

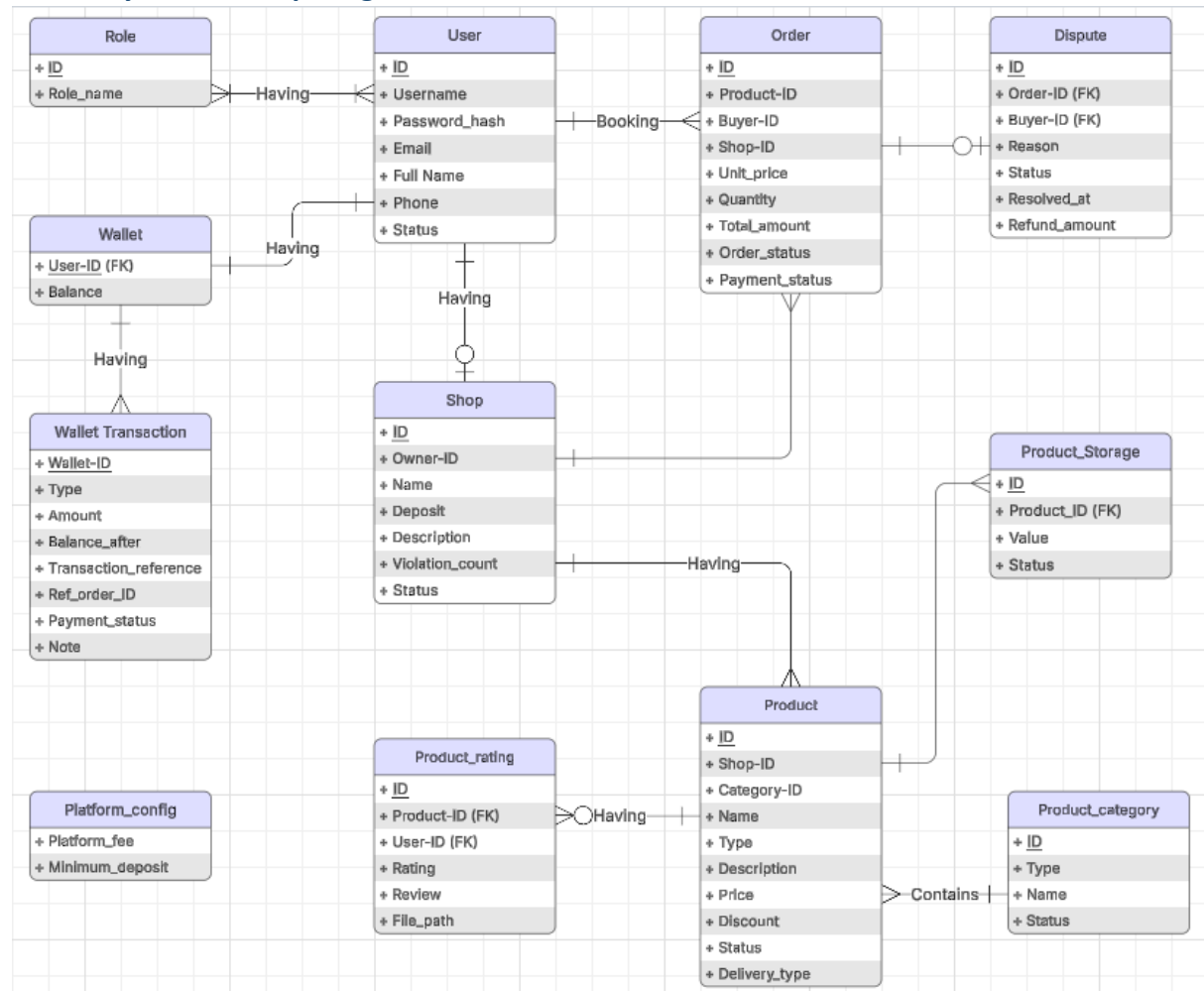
Screen	Guest	User	Seller	Admin
Register	X			
Login	X			
Log Out		X	X	x

Search Products	X	X	X	X
View Product Details	X	X	X	X
Edit profile		X	X	X
View Transaction History		X	X	X
Add Funds to Wallet		X	X	X
Track Order Status		X		
Report Product Issues		X	X	X
Rate Seller		X	X	X
Rate Product		X	X	X
Chat with Seller		X		
Buy Product		X	X	X
Register for Sell		X		
Update Store information			X	
Add product			X	X
Update product			X	X
Delete product			X	X
View product in stock			X	X
Update product quantity			X	X
View Order List			X	X
View Order Details			X	X
View Top Selling Products			X	X
View Stock-Out Products			X	X
View Revenue/Escrow			X	X
Create a Withdrawal Request			X	
View Withdrawal History			X	X
Chat with Buyers			X	
Handle Refunds/Exchanges			X	

1.4.3 Non-UI Functions

1	RBAC	Assign multiple roles	Assign multiple roles per user
2	RBAC	Permission checks	Per-endpoint permission checks
3	Wallet & VNPAY	Deposit	Create PENDING wallet_transaction → redirect to VNPAY → verify IPN signature & idempotency → mark COMPLETED/FAILED → credit wallet
4	Orders & Fulfillment	Instant debit & delivery	Validate balance ≥ final amount → debit wallet with payment_reference → trigger fulfillment → persist payload → set order COMPLETED or auto-refund on failure
5	Disputes & Refunds	Dispute workflow & wallet refund	Open/track dispute → on RESOLVED REFUND create refund wallet_transaction, credit buyer, adjust seller revenue
6	Shop Governance	3-strike enforcement	Admin track copyright_violation_count / resolved_disputes_count; auto SUSPEND when threshold reached

1.5 Entity Relationship Diagram



Entities Description

#	Entity	Description
1	User	Store user account information, which can be a buyer, seller, or admin.
2	Role	Role represents a collection of permissions or access rights assigned to users in a system. Each Role defines the actions a user can perform or the resources they can access.
3	Permission	Permission refers to the rights or actions that a user or role can perform on resources in the system. Permissions can include actions like " read ", " write ", " delete ", or " execute ".
4	Wallet	Manage the user's wallet balance. This wallet will be used to deposit money and make payments for orders.

5	Wallet_transaction	Store the transaction history of the user's wallet, including deposits, deductions when paying for orders, and refunds.
6	Shop	Store the seller's store information. Each store can list multiple products for sale. A seller can own one or more stores.
7	Product	Store detailed information about the products that the seller lists in their store.
8	Product_category	Categorize products/services into groups (software, ebooks, web services, etc.).
9	Order	Store information about the buyer's order. Each order can contain multiple products.
10	Order_detail	Store detailed information about the products in each order.
11	Fulfillment	Provide access, activation codes, or download links immediately after the payment is completed.
12	Disputes	Store information about disputes or complaints from buyers regarding products or services. This is where buyers can request refunds when there are issues with the product.
13	Product_rating	Store information about buyer reviews for products after the transaction is completed. Buyers can rate the product with stars and leave comments.
14	Discount	Manage discount programs that the store can apply to products.
15	Product_delivery	This table will store the necessary information for shipping the product after the buyer completes the payment.
16	Tax	Manage taxes for stores based on their revenue. Each store can apply different tax policies.

2. Use Case Specifications

2.1 Authentication

2.1.1 Register

Primary Actors	Guest	Secondary Actors	None
Description	As a guest, I want to create an account to purchase and manage my items.		
Preconditions	Guest is not logged in.		
Postconditions	New account is created; user may log in..		
Normal Sequence/Flow	1) Guest opens Sign up . 2) System shows registration form.		

	3) Guest enters details and submits. 4) System creates account . 5) System shows success message and link to login.
Alternative Sequences/Flows	AF-1 Email exists → System asks to use Forgot Password .

2.1.2 Login

Primary Actors	User, Seller, Admin	Secondary Actors	None
Description	As a user, I want to log into the system to access authenticated features and my account.		
Preconditions	User account exists; user is logged out.		
Postconditions	Session is created; successful login is recorded in activity log.		
Normal Sequence/Flow	1) User clicks Login . 2) System shows login form. 3) User enters email & password, clicks Submit . 4) System validates credentials and account status. 5) System creates session and redirects to Home (or previous page).		
Alternative Sequences/Flows	AF-1 Invalid credentials: System shows error; after N failed attempts, temporarily lock account.		

2.1.3 Log Out

Primary Actors	User, Seller, Admin	Secondary Actors	None
Description	As a user, I want to log out so that I can end my session and keep my account secure on shared devices		
Preconditions	User is logged in.		
Postconditions	Session invalidated; user is redirected to public page.		
Normal Sequence/Flow	1) User clicks Log Out . 2) System clears session/cookies and redirects.		
Alternative Sequences/Flows	AF-1 Session already expired → show login page.		

2.1.4 Forgot password

Primary Actors	User, Seller	Secondary Actors	Database
----------------	--------------	------------------	----------

Description	As a user, I want to reset my password by requesting a password reset link or code so that I can regain access to my account if I forget my password.
Preconditions	<ul style="list-style-type: none"> User has a registered account with a valid email (or phone). User is logged out.
Postconditions	<ul style="list-style-type: none"> System generates a secure password reset token (or OTP). User receives reset instructions and can set a new password.
Normal Sequence/Flow	<ol style="list-style-type: none"> 1) User clicks Forgot Password on the Login page. 2) System shows the Password Recovery form. 3) User enters registered email (or phone) and submits. 4) System verifies that the account exists. 5) System generates a reset token/OTP and sends a reset link (via email/SMS). 6) User clicks the reset link (or enters OTP). 7) System displays Reset Password form. 8) User enters new password and confirms. 9) System validates, updates password, and confirms success.
Alternative Sequences/Flows	<p>AF-1: Account not found</p> <ul style="list-style-type: none"> If the email/phone does not match any account, system shows <i>"Account not found"</i>. <p>AF-2: Expired or invalid token</p> <ul style="list-style-type: none"> If the reset link/OTP is invalid or expired, system shows error and asks user to request again. <p>AF-3: Weak password</p> <ul style="list-style-type: none"> If the new password does not meet security policy, system rejects and prompts correction. <p>AF-4: Session expired</p> <ul style="list-style-type: none"> If the reset session times out, user must restart the process from step 1.

	AF-5: Email service failure <ul style="list-style-type: none">• If the system cannot send email/SMS, it shows error and suggests trying later.
--	---

2.2 Product List

2.2.1 View Product Details

Primary Actors	Guest, User	Secondary Actors	None
Description	As a customer (guest or registered user), I want to view detailed information of a product so that I can evaluate its features, price, and seller before making a purchase decision.		
Preconditions	The product exists in the catalog and is active.		
Postconditions	The system displays the full product details (description, price, images, seller, reviews).		
Normal Sequence/Flow	<ol style="list-style-type: none">1) Customer selects a product from the search results or product list.2) System retrieves product details from the database.3) System displays the product page with description, price, stock, seller, images, and reviews.4) Customer may choose to add the product to the cart or proceed to buy.		
Alternative Sequences/Flows	AF-1: Product not available <ul style="list-style-type: none">• At step 2, if the product is inactive/out of stock, the system shows an “Unavailable” message.		

2.2.2 Search Products

Primary Actors	Guest, User	Secondary Actors	None
Description	As a customer (guest or registered user), I want to search for products by keywords or filters so that I can quickly find items that match my needs.		
Preconditions	Product catalog is available and accessible.		
Postconditions	Search results are displayed according to the entered keyword or applied filters.		
Normal Sequence/Flow	<ol style="list-style-type: none">1) User navigates to Profile or Account Settings page.2) System displays the current personal information (name, email, phone, etc.).		

	<ol style="list-style-type: none"> 3) User selects Edit and updates personal details. 4) User clicks Save. 5) System validates the new information (format, uniqueness, required fields). 6) System saves the changes and confirms the update.
Alternative Sequences/Flows	<p>AF-1: No results found</p> <ul style="list-style-type: none"> • System displays a message “No products found” and suggests similar or popular products. <p>AF-2: Invalid search input</p> <ul style="list-style-type: none"> • If the input is empty or invalid, the system shows an error message and prompts the user to re-enter.

2.3 Profile Management

2.3.1 Edit profile

Primary Actors	User, Seller, Admin	Secondary Actors	None
Description	As a user, I want to edit my personal information so that my profile is accurate and up to date.		
Preconditions	User is logged in with a valid session.		
Postconditions	Updated information is validated and saved in the system.		
Normal Sequence/Flow	<ol style="list-style-type: none"> 1) User navigates to Profile or Account Settings page. 2) System displays the current personal information (name, email, phone, etc.). 3) User selects Edit and updates personal details. 4) System validates the new information (format, uniqueness, required fields). 5) System saves the changes and confirms the update. 		

Alternative Sequences/Flows	<p>AF-1: Invalid input</p> <ul style="list-style-type: none"> If user enters incorrect format (e.g., email, phone), system displays error and asks to re-enter. <p>AF-2: Session expired</p> <ul style="list-style-type: none"> If session expired before saving, system redirects to Login and discards unsaved changes.

2.3.2 View Profile

Primary Actors	User, Seller , Admin	Secondary Actors	None
Description	As a user, I want to view my personal information so that I can check and verify my profile details.		
Preconditions	User is logged in with a valid session.		
Postconditions	The system displays the user's personal information in a read-only format.		
Normal Sequence/Flow	<ol style="list-style-type: none"> 1) User navigates to Profile or Account Settings page. 2) System retrieves user information from the database. 3) System displays the personal information (e.g., full name, email, phone, address, join date). 		
Alternative Sequences/Flows	<p>AF-1: Session expired</p> <ul style="list-style-type: none"> If the user's session is expired, system redirects to the Login page. <p>AF-2: User information not found</p>		

	<ul style="list-style-type: none"> If the database does not return information (error/missing record), system shows an error message "User information not available."
--	---

2.4 Wallet Management

2.4.1 View Transaction History

Primary Actors	User	Secondary Actors	Wallet Service, Database
Description	As a user, I want to view my wallet transaction history so that I can track my spending and deposits.		
Preconditions	<ul style="list-style-type: none"> User is logged in. User has an active wallet. 		
Postconditions	The system displays a list of past transactions (payments, deposits, refunds).		
Normal Sequence/Flow	<ol style="list-style-type: none"> User navigates to Wallet or Transaction History page. System retrieves the list of transactions from the database. System displays transactions with details (date, amount, type, status, reference). User can filter or sort transactions (by date, type, status). 		
Alternative Sequences/Flows	<p>AF-1: No transactions found</p> <ul style="list-style-type: none"> If the wallet has no transactions, system displays a message "No transaction history available." <p>AF-2: Session expired</p> <ul style="list-style-type: none"> If the session is expired before viewing, system redirects to Login. 		

2.4.2 View Wallet Balance

Primary Actors	User	Secondary Actors	Wallet Service, Database
Description	As a user, I want to view my wallet balance so that I can know how much money I currently have available for transactions.		
Preconditions	<ul style="list-style-type: none">• User is logged in.• User has an active wallet.		
Postconditions	The system displays the current wallet balance.		
Normal Sequence/Flow	<ol style="list-style-type: none">1) User navigates to Wallet page.2) System requests wallet balance from the Wallet Service/Database.3) System displays the current wallet balance on the screen.		
Alternative Sequences/Flows	<p>AF-1: Session expired</p> <ul style="list-style-type: none">• If the session has expired, system redirects the user to the Login page. <p>AF-2: Service/Database error</p> <ul style="list-style-type: none">• If the Wallet Service or database is unavailable, system shows error: <i>"Unable to retrieve balance. Please try again later."</i>		

2.4.3 Add Funds to Wallet

Primary Actors	User	Secondary Actors	Wallet Service, Database, Payment Gateway(VNPAY)
Description	As a user, I want to add funds to my wallet so that I can have enough balance to make purchases.		
Preconditions	<ul style="list-style-type: none">• User is logged in.• User has an active wallet.• Supported payment methods are available.		
Postconditions	<ul style="list-style-type: none">• Wallet balance is increased by the funded amount.• A new wallet transaction is recorded in the system.		
Normal Sequence/Flow	<ol style="list-style-type: none">1) User navigates to Wallet page and selects Add Funds.2) System displays top-up options (amount, payment method).3) User enters the amount, selects payment method, and confirms.4) System redirects to the Payment Gateway for processing.5) User completes payment through the gateway.6) Payment Gateway notifies the system of success.7) System credits the user's wallet, records a wallet transaction, and displays confirmation.		
Alternative Sequences/Flows	<p>AF-1: Payment canceled by user</p> <ul style="list-style-type: none">• If user cancels payment at gateway, system shows "Top-up canceled" and does not change balance. <p>AF-2: Payment failed</p> <ul style="list-style-type: none">• If the gateway declines or fails, system shows "Payment failed, please try again" and does not change balance. <p>AF-3: Session expired</p> <ul style="list-style-type: none">• If session expires before completing, system redirects to Login and cancels top-up. <p>AF-4: Gateway timeout/service unavailable</p> <ul style="list-style-type: none">• If gateway does not respond, system shows error and keeps pending status until resolved.		

2.5 Order Management

2.5.1 View purchased Items

Primary Actors	User	Secondary Actors	Key/License Delivery Service, Database,
Description	As a user, I want to view my purchased items (keys/licenses/files) so that I can access, download, or use them after payment.		
Preconditions	<ul style="list-style-type: none">User is logged in with a valid session.User has at least one completed/paid order with deliverable items.		
Postconditions	<ul style="list-style-type: none">Purchased items are displayed; user can view keys/licenses or download files per policy.		
Normal Sequence/Flow	<ul style="list-style-type: none">User navigates to My Orders or My Library/Purchases.System retrieves the list of completed orders and associated entitlements (items/keys/files).User selects an order or opens Purchased Items directly. System displays each purchased item with details (name, type, issue date, status, usage notes).For license/key items: user clicks Reveal/Copy Key; system reveals (may mask partially first) and logs the event.		
Alternative Sequences/Flows	AF-1: No purchased items <ul style="list-style-type: none">If no completed orders or entitlements exist, system shows “<i>No purchased items yet</i>” and suggests browsing the catalog.		

2.5.2 Track order status

Primary Actors	User	Secondary Actors	Order Service
Description	As a user, I want to track the status of my orders so that I can know whether they are paid, processing, completed, or refunded.		
Preconditions	<ul style="list-style-type: none">User is logged in with a valid session.User has at least one order in the system.		

Postconditions	The system displays the current status of the selected order(s).
Normal Sequence/Flow	<ol style="list-style-type: none"> 1) User navigates to My Orders page. 2) System retrieves the list of orders linked to the user. 3) User selects an order to view details. 4) System displays the order details including: order ID, date, total amount, payment method, and current status (Paid, Processing, Completed, Refunded).
Alternative Sequences/Flows	<p>AF-1: No orders found</p> <ul style="list-style-type: none"> • If user has no orders, system shows message: <i>"You have no orders yet."</i> <p>AF-2: Session expired</p> <ul style="list-style-type: none"> • If session expired, system redirects to the Login page before showing the orders.

2.6 Report Product

2.6.1 Report product issues

Primary Actors	User	Secondary Actors	Admin
Description	As a user, I want to report problems with a product (e.g., incorrect description, invalid key, offensive content) so that the admin team can review and take corrective action.		
Preconditions	<ul style="list-style-type: none"> • User is logged in. • Product exists in the catalog. 		
Postconditions	<ul style="list-style-type: none"> • A report ticket is created and stored in the system for review. 		

	<ul style="list-style-type: none"> User receives confirmation that the report was submitted.
Normal Sequence/Flow	<ul style="list-style-type: none"> User navigates to the Product Detail page. User clicks Report Product. System displays a form for reporting (reason, description, evidence if needed). User fills out the form and submits. System validates the input and creates a report entry linked to the product and user. System notifies Admin/Moderation Service and shows confirmation message to the user.
Alternative Sequences/Flows	<p>AF-1: Duplicate report</p> <ul style="list-style-type: none"> If the same user already reported this product with the same issue, system prevents duplicate submission and informs the user. <p>AF-2: System error</p> <ul style="list-style-type: none"> If the system cannot create the report, it shows: <i>"Report failed, please try again later."</i> <p>AF-3: Missing/invalid input</p> <ul style="list-style-type: none"> If required fields are empty or invalid, system shows an error and asks user to correct.

2.7 Rating System

2.7.1 Rate seller

Primary Actors	User	Secondary Actors	Database
Description	As a user, I want to rate and give feedback about a seller so that other customers can know the seller's reputation and the platform can maintain quality.		
Preconditions	<ul style="list-style-type: none"> User is logged in. User has purchased at least one product from the seller. 		
Postconditions	<ul style="list-style-type: none"> Seller rating and feedback are saved in the system. 		

	<ul style="list-style-type: none"> Overall seller reputation score is updated.
Normal Sequence/Flow	<ol style="list-style-type: none"> 1) User navigates to Order Details or Seller Profile. 2) User selects Rate Seller option. 3) System displays a rating form (e.g., star rating 1–5, text comment). 4) User enters rating and feedback, then submits. 5) 6) System validates the input and saves the rating. System updates seller's average rating and shows confirmation.
Alternative Sequences/Flows	<p>AF-1: Invalid input</p> <ul style="list-style-type: none"> If rating value or feedback is invalid (e.g., empty required fields), system prompts correction. <p>AF-2: Duplicate rating</p> <ul style="list-style-type: none"> If user tries to rate the same seller for the same order more than once, system blocks duplicates. <p>AF-3: Session expired</p> <ul style="list-style-type: none"> If session expires before submission, system redirects to Login and discards unsaved rating.

2.7.2 Rate product

Primary Actors	User	Secondary Actors	Database
Description	As a user, I want to rate and review a product that I purchased so that other customers can benefit from my experience and the platform can improve quality control.		
Preconditions	<ul style="list-style-type: none"> User is logged in. User has purchased the product (order completed/paid). 		
Postconditions	<ul style="list-style-type: none"> Product rating and review are saved in the system. 		

	<ul style="list-style-type: none"> Product's average rating and review count are updated.
Normal Sequence/Flow	<ol style="list-style-type: none"> User navigates to Purchased Items or Product Detail page. User selects Rate Product option. System displays a rating form (e.g., 1–5 stars, comment box). User provides rating and optional review text, then submits. System validates the input and saves the rating/review. System updates product's overall rating and confirms submission.
Alternative Sequences/Flows	<p>AF-1: Duplicate rating</p> <ul style="list-style-type: none"> If the same user tries to rate the product multiple times for the same order, system prevents duplicate submission. <p>AF-2: Session expired</p> <ul style="list-style-type: none"> If session expires before submission, system redirects to Login and discards the unsaved rating.

2.8 Chat

2.8.1 Chat with seller

Primary Actors	User	Secondary Actors	Messaging Service , Database
Description	As a user, I want to chat with the seller about a product or order so that I can ask questions, get support, or resolve issues quickly.		
Preconditions	User is logged in.		
Postconditions	<ul style="list-style-type: none"> A message thread between the user and seller is created or updated. The seller is notified of the new message. 		
Normal Sequence/Flow	<ol style="list-style-type: none"> User navigates to Product Detail or Order Detail page. User selects Chat with Seller. System displays the chat interface with existing conversation (if any). User types a message and clicks Send. System stores the message in the database and delivers it to the seller via the Messaging Service. 		

	6) Seller receives a notification and can reply.
Alternative Sequences/Flows	<p>AF-1: Seller offline</p> <ul style="list-style-type: none"> System queues the message and delivers it once the seller is online; sends a notification. <p>AF-2: Session expired</p> <ul style="list-style-type: none"> If user session expired before sending, system redirects to Login. <p>AF-3: Message not delivered (network error)</p> <ul style="list-style-type: none"> System shows error "Message could not be sent. Please try again."

2.9 Transaction

2.9.1 Checkout

Primary Actors	User	Secondary Actors	Wallet Service , Order Service
Description	As a user, I want to buy products using my wallet balance so that I can complete my purchase and receive the digital items.		
Preconditions	<ul style="list-style-type: none"> User is logged in. Product exists and is available for sale. Available balance 		
Postconditions	<ul style="list-style-type: none"> A new order is created and marked as paid. User's wallet balance is deducted, and the transaction is recorded. Purchased items (keys/licenses/files) are deliverable to the user. 		
Normal Sequence/Flow	<ol style="list-style-type: none"> User clicks Buy Now or Checkout. System shows Order Summary (items, total, discount, fees). System checks wallet balance: <ul style="list-style-type: none"> If sufficient → go to step 5. If insufficient → trigger Alternative Flow AF-1. 		

	<p>4) System deducts the amount, creates wallet transaction, and marks order as Paid.</p> <p>5) System delivers purchased items (keys/files) to the user's Purchased Items section.</p>
Alternative Sequences/Flows	<p>AF-1: Insufficient wallet balance</p> <ul style="list-style-type: none"> System shows message "Insufficient balance" and offers option to Add Funds to Wallet. If top-up succeeds → return to step 4.

2.10 Seller registration

2.10.1 Register for Sell

Primary Actors	User	Secondary Actors	Admin ,Database
Description	As a user, I want to register as a seller by paying a deposit so that I can open my shop on the platform.		
Preconditions	<ul style="list-style-type: none"> User is logged in. User has a completed personal profile (e.g., verified email/phone). User meets seller requirements (e.g., valid ID, KYC, terms accepted). 		
Postconditions	<ol style="list-style-type: none"> User navigates to Register for Seller page. System shows the required deposit amount and rules. User confirms and chooses Pay Deposit. System checks wallet balance: If balance \geq deposit → proceed to step 5. If balance $<$ deposit → user is redirected to Add Funds. 		

	<p>5) System deducts deposit amount from wallet and records a transaction.</p> <p>6) System activates seller role and confirms registration success.</p>
Normal Sequence/Flow	<p>5) User navigates to My Orders page.</p> <p>6) System retrieves the list of orders linked to the user.</p> <p>7) User selects an order to view details.</p> <p>8) System displays the order details including: order ID, date, total amount, payment method, and current status (Paid, Processing, Completed, Refunded).</p>
Alternative Sequences/Flows	<p>AF-1: Insufficient balance</p> <ul style="list-style-type: none"> System shows “<i>Not enough balance</i>” and offers to top-up. <p>AF-2: User cancels deposit</p> <ul style="list-style-type: none"> If user cancels payment, registration is not completed. <p>AF-3: Payment failure</p> <ul style="list-style-type: none"> If wallet transaction fails, system shows error and keeps user as normal customer. <p>AF-4: Session expired</p> <ul style="list-style-type: none"> If session expires before payment, system redirects to Login.

2.11 Store management

2.11.1 Update Store information

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to update store information so that customers see accurate and up-to-date details about my store.		
Preconditions	Seller is logged in.		
Postconditions	Store information is updated and saved in the system.		
Normal Sequence/Flow	1. Seller navigates to <i>Store Management</i> page.		

	<p>2. System displays current store information.</p> <p>3. Seller edits the necessary fields (e.g., name, address, contact info).</p> <p>4. System validates input fields.</p> <p>5. System saves the changes and confirms update.</p>
Alternative Sequences/Flows	<p>AF-1: Invalid input</p> <p>System displays error and asks for re-entry.</p> <p>AF-2: Session expired</p> <p>Redirect to Login page, unsaved changes discarded.</p>

2.12 Product management

2.12.1 View product

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view all my products in the store so I can manage them effectively.		
Preconditions	Seller is logged in.		
Postconditions	Products are displayed.		
Normal Sequence/Flow	<p>1. Seller navigates to <i>Product Management</i>.</p> <p>2. System retrieves product list.</p> <p>3. Seller views details of all listed products.</p>		
Alternative Sequences/Flows	<p>AF-1: No products available</p> <p>System shows "No products found."</p>		

2.12.2 Add product

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to add new products to the store so I can expand my inventory.		
Preconditions	Seller is logged in.		
Postconditions	New product is saved in the system		

Normal Sequence/Flow	1.Seller selects <i>Add Product</i> . 2.System shows product entry form. 3. Seller inputs product details (name, category, price, stock). 4. System validates input. 5.System saves new product.
Alternative Sequences/Flows	AF-1: Invalid input System shows error. AF-2: Session expired Redirect to Login.

2.12.3 Update product

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to update product details so that product information is accurate.		
Preconditions	Seller is logged in, product exists.		
Postconditions	Product details updated.		
Normal Sequence/Flow	1. Seller selects a product from product list. 2. System shows current product details. 3. Seller edits fields. 4. System validates and saves changes.		
Alternative Sequences/Flows	AF-1: Invalid input Error displayed. AF-2: Session expired System notifies seller.		

2.12.4 Delete product

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to delete products I no longer sell.		
Preconditions	Seller is logged in.		

Postconditions	Product removed from system.
Normal Sequence/Flow	<ol style="list-style-type: none"> 1. Seller selects a product. 2. Seller clicks <i>Delete</i>. 3. System asks for confirmation. 4. Seller confirms. 5. System removes product
Alternative Sequences/Flows	<p>AF-1: Seller cancels deletion</p> <p>No changes.</p> <p>AF-2: Product already deleted</p> <p>System shows error.</p>

2.13 Stock management

2.13.1 View product in stock

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view current stock levels for my products.		
Preconditions	Seller is logged in.		
Postconditions	Product stock displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller navigates to <i>Stock Management</i>. • System retrieves stock data. • Seller views stock levels. 		
Alternative Sequences/Flows	<p>AF-1: No stock data available</p> <p>System notifies seller.</p>		

2.13.2 Update product quantity

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to update product quantity to keep stock accurate.		
Preconditions	Seller is logged in.		
Postconditions	Updated stock quantity saved.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller selects a product. 		

	<ul style="list-style-type: none"> • System displays current stock. • Seller inputs new quantity. • System validates input. • System saves and confirms update.
Alternative Sequences/Flows	AF-1: Invalid quantity System shows error.

2.14 Order management

2.14.1 View order list

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view a list of customer orders.		
Preconditions	Seller is logged in.		
Postconditions	Orders are displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller navigates to <i>Order Management</i>. • System retrieves all orders. • Seller views order list. 		
Alternative Sequences/Flows	AF-1: No orders available System shows empty list.		

2.14.2 View order details

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view detailed information about a customer order.		
Preconditions	Seller is logged in, order exists.		
Postconditions	Order details displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller selects an order from the list. • System retrieves order details (products, quantity, delivery address, status). • Seller reviews details. 		

Alternative Sequences/Flows	AF-1: Order not found System displays error.
-----------------------------	--

2.15 Reporting & Analytics

2.15.1 View top selling products

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to see top-selling products to track performance.		
Preconditions	Seller is logged in.		
Postconditions	Top selling products displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller navigates to <i>Reporting & Analytics</i>. • System generates sales report. • Seller views top selling list. 		
Alternative Sequences/Flows	AF-1: No sales data available System shows empty list.		

2.15.2 View stock-out products

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to see which products are out of stock		
Preconditions	Seller is logged in.		
Postconditions	Out-of-stock products displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller navigates to <i>Reporting & Analytics</i>. • System retrieves products with stock = 0. • Seller reviews out-of-stock list. 		
Alternative Sequences/Flows	AF-1: All products in stock System shows "No out-of-stock items."		

2.16 Financial Management

2.16.1 View revenue/escrow

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view my revenue and escrow balance.		
Preconditions	Seller is logged in.		
Postconditions	Revenue data displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none">• Seller navigates to <i>Financial Management</i>.• System retrieves revenue and escrow details.• Seller reviews financial data.		
Alternative Sequences/Flows	AF-1: No revenue data available System shows empty.		

2.16.2 Create a Withdrawal Request

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to request withdrawal of funds from my account.		
Preconditions	Seller is logged in, sufficient balance.		
Postconditions	Withdrawal request submitted.		
Normal Sequence/Flow	<ul style="list-style-type: none">• Seller navigates to withdrawal page.• Seller enters withdrawal amount and method.• System validates request.• System submits withdrawal request.		
Alternative Sequences/Flows	AF-1: Insufficient balance System displays error.		

2.16.3 View Withdrawal History

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view my past withdrawal transactions.		
Preconditions	Seller is logged in.		
Postconditions	History displayed.		

Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller navigates to <i>Withdrawal History</i>. • System retrieves withdrawal records. • Seller reviews past withdrawals.
Alternative Sequences/Flows	AF-1: No history found System shows “No records available.”

2.17 Dispute management

2.17.1 Chat with Buyers

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to chat with buyers to discuss orders or answer questions.		
Preconditions	Seller is logged in.		
Postconditions	Messages exchanged between seller and buyer.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller opens chat feature. • Seller selects a buyer. • System retrieves chat history. • Seller sends/receives messages. 		
Alternative Sequences/Flows	AF-1: Buyer offline System stores message for later.		

2.17.2 Handle refunds/exchanges

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to process refunds or exchanges for buyer requests.		
Preconditions	Seller is logged in, order exists.		
Postconditions	Refund or exchange processed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Buyer requests refund/exchange. • Seller reviews request. • Seller approves/declines. • System updates order status. 		

Alternative Sequences/Flows	AF-1: Invalid request Seller declines with reason.
-----------------------------	--

2.18 Notification

2.18.1 View notifications

Primary Actors	Seller	Secondary Actors	None
Description	As a seller, I want to view notifications so I can stay updated about system and order activities.		
Preconditions	Seller is logged in.		
Postconditions	Notifications displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Seller opens <i>Notifications</i>. • System retrieves latest notifications. • Seller views notification details. 		
Alternative Sequences/Flows	AF-1: No notifications available System shows “No new notifications.”		

2.19 Account Management

2.19.1 View All Accounts

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to view the list of all accounts (user, seller, admin) so that I can manage and perform actions such as lock/unlock or assign/remove roles.		
Preconditions	Admin is logged in with Account Management permission.		
Postconditions	The system displays the list of accounts with details (ID, name, role, status).		
Normal Sequence/Flow	<ul style="list-style-type: none"> • SAdmin opens the “Accounts” page. • The system retrieves account data from the database. • The system displays the list with filters and actions. 		

	<ul style="list-style-type: none"> Admin may select an account for further actions.
Alternative Sequences/Flows	AF-1: No accounts found At step 2, if no accounts exist or match the filters, the system shows “No accounts found.”

2.19.2 Lock Account

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to lock a user or seller account that violates platform policies so that the account cannot access the system.		
Preconditions	The account is in Active state and visible through Use Case 01.		
Postconditions	The account status changes to Locked, and the reason is stored in the system log.		
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin selects an account from the list. Admin clicks “Lock” and provides a reason. The system updates account status to Locked. The system records the action in audit logs. Confirmation message is displayed. 		
Alternative Sequences/Flows	<ul style="list-style-type: none"> AF-1: Insufficient permission System shows “Unauthorized” error. AF-2: Account already locked System shows “Already locked.” 		

2.19.3. Unlock Account

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to unlock a locked account after review so that the account regains access to the system.		
Preconditions	The account is in Locked state and visible through Use Case 01.		
Postconditions	The account status changes to Active, and the action is recorded in the system log.		
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin selects a locked account. Admin clicks “Unlock” and enters a note. The system updates the account status to Active. The system records the action in audit logs. Confirmation message is displayed. 		

Alternative Sequences/Flows	<ul style="list-style-type: none"> • AF-1: Insufficient permission System shows “Unauthorized” error. • AF-2: Account already active System shows “Already unlocked.”
-----------------------------	---

2.19.4 Add Role to Account

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to add a role to an existing account so that the user can gain additional permissions (e.g., seller, sub-admin).		
Preconditions	The account exists and is visible through Use Case 01.		
Postconditions	The selected role is added to the account, and the update is logged in the system.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects an account. • Admin clicks “Add Role” and chooses a role from the list. • The system validates the new role (no duplication/conflict). • The system updates the account and logs the action. • Confirmation message is displayed. 		
Alternative Sequences/Flows	<ul style="list-style-type: none"> • AF-1: Role already assigned System shows “Role already exists.” • AF-2: Role conflict detected System shows error and cancels the action. 		

2.19.5 Remove Role from Account

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to remove a role from an account so that the account only retains valid roles.		
Preconditions	The account has at least one role assigned.		
Postconditions	The selected role is removed, and the update is logged.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects an account. • Admin clicks “Remove Role” and chooses the role to remove. • The system validates that removing this role is allowed. • The system updates the account and logs the action. • Confirmation message is displayed. 		
Alternative Sequences/Flows	<ul style="list-style-type: none"> • AF-1: Attempt to remove the last mandatory role System shows “Cannot remove mandatory role.” • AF-2: Insufficient permission System shows “Unauthorized.” 		

2.20 Product Moderation

2.20.1 Manage Product

Primary Actors	Admin / Moderator	Secondary Actors	None
Description	As an admin, I want to hide products that violate platform policies so that customers cannot see them.		
Preconditions	Products exist in the system catalog.		
Postconditions	Products can be updated, reviewed, or hidden.		
Normal Sequence/Flow	<ul style="list-style-type: none">Admin opens Manage Product.The system displays a list of all products.Admin selects a product and performs management actions (review, edit, hide).The system applies changes.The system logs the action.		
Alternative Sequences/Flows	AF-1: No products exist → The system shows <i>"No products found."</i>		

2.20.2 Hide Violating Product

Primary Actors	Admin / Moderator	Secondary Actors	None
Description	As an admin, I want to hide products that violate policies so customers cannot see them.		
Preconditions	Product exists in the catalog.		
Postconditions	Product status changes to <i>Hidden</i> .		
Normal Sequence/Flow	<ul style="list-style-type: none">Admin searches for a product.Admin clicks Hide Product and provides a reason.The system updates product status to <i>Hidden</i>.The system logs the action.		
Alternative Sequences/Flows	AF-1: Product already hidden → The system shows <i>"Already hidden."</i>		

2.21 Wallet Management

2.21.1 Wallet System Management

Primary Actors	Admin (Finance/Dispute Team)	Secondary Actors	Payment Gateway
Description	As an admin, I want to manage the wallet system to ensure secure money flow between users, sellers, and the platform.		
Preconditions	Wallet system is active.		
Postconditions	Wallet operations are successfully managed.		
Normal Sequence/Flow	<ul style="list-style-type: none">Admin selects Wallet System Management.The system shows all wallet-related features.		

	<ul style="list-style-type: none"> Admin performs actions such as deposit confirmation, transfers, withdrawal approvals. The system applies updates and logs them.
Alternative Sequences/Flows	AF-1: Wallet system error → The system shows error and aborts the operation.

2.21.2 Add Money to User Wallet

Primary Actors	Admin	Secondary Actors	Payment Gateway
Description	As an admin, I want to add money to a user's wallet after deposit confirmation.		
Preconditions	User has made a deposit request.		
Postconditions	User wallet balance is updated.		
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin selects Add Money to Wallet. Admin enters deposit details. The system validates deposit information. The system updates user's wallet balance. The system logs the action. 		
Alternative Sequences/Flows	AF-1: Invalid deposit details → The system shows "Invalid deposit".		

2.21.3 Confirm Successful Deposit

Primary Actors	Admin	Secondary Actors	Payment Gateway
Description	As an admin, I want to confirm successful deposits so that the user's wallet balance can be updated.		
Preconditions	A pending deposit exists.		
Postconditions	<ul style="list-style-type: none"> Deposit status changes to <i>Confirmed</i>. User's wallet balance is increased. 		
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin selects a pending deposit. Admin clicks Confirm Deposit. The system validates the transaction. The system marks deposit as confirmed. The system logs the action. 		
Alternative Sequences/Flows	AF-1: Deposit already confirmed → The system shows "Deposit already processed."		

2.21.4 Transfer Money to Seller Wallet

Primary Actors	Admin	Secondary Actors	None
----------------	-------	------------------	------

Description	As an admin, I want to transfer funds from escrow to the seller's wallet after a successful order.
Preconditions	<ul style="list-style-type: none"> Order status = Completed. Escrow balance is available.
Postconditions	<ul style="list-style-type: none"> Seller wallet balance is updated. Escrow balance decreases accordingly.
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin selects a completed order. Admin clicks Transfer to Seller Wallet. The system validates the order and escrow balance. The system updates seller's wallet balance. The system logs the transaction.
Alternative Sequences/Flows	AF-1: Escrow balance insufficient → The system shows <i>"Not enough funds in escrow."</i>

2.21.5 Withdrawal Request Approva

Primary Actors	Admin	Secondary Actors	none
Description	As an admin, I want to approve or reject withdrawal requests so that sellers can receive funds securely.		
Preconditions	A withdrawal request exists.		
Postconditions	Request is marked as Approved or Rejected.		
Normal Sequence/Flow	<ul style="list-style-type: none"> Admin opens Withdrawal Requests. The system displays pending requests. Admin selects a request and clicks Approve/Reject. The system updates request status. The system logs the action 		
Alternative Sequences/Flows	AF-1: Withdrawal request already processed → The system shows <i>"Request already handled."</i>		

2.22 Complaint Management

2.22.1 Refund Processing

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to process refunds so that customers are compensated when transactions fail or are invalid.		
Preconditions	Refund request exists.		

Postconditions	<ul style="list-style-type: none"> • Customer wallet is credited. • Transaction status is updated.
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects Refund Requests. • The system shows pending refund cases. • Admin selects a case and clicks Process Refund. • The system updates user's wallet. • The system logs the refund.
Alternative Sequences/Flows	AF-1: Refund already issued → The system shows <i>"Refund already processed."</i>

2.22.2 Complaint Details

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to view detailed information of a complaint to decide on further actions.		
Preconditions	Complaint exists.		
Postconditions	Complaint details are displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin opens Complaint List. • Admin selects a complaint. • The system shows detailed complaint information (user, order, reason, evidence). 		
Alternative Sequences/Flows	AF-1: Complaint not found → The system shows <i>"Complaint record missing."</i>		

2.22.3 View List of Complaints

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to view all complaints so that I can investigate user issues.		
Preconditions	Complaints exist in the system.		
Postconditions	A list of complaints is displayed.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects Complaint List. • The system retrieves complaint records. • The system displays complaint list with basic details. 		
Alternative Sequences/Flows	AF-1: No complaints exist → The system shows <i>"No complaints found."</i>		

2.23 Financial Management

2.23.1 Complaint Handling (Refund / No Refund)

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to handle complaints by deciding whether to issue a refund or reject the complaint.		
Preconditions	Complaint details exist in the system.		
Postconditions	<ul style="list-style-type: none">Complaint status is updated (Refunded / Not Refunded).If refunded, user's wallet balance increases.		
Normal Sequence/Flow	<ul style="list-style-type: none">Admin views complaint details.Admin reviews complaint evidence and transaction history.Admin selects Refund or Reject Complaint.The system updates complaint status.If refunded, the system credits the user's wallet.The system logs the action.		
Alternative Sequences/Flows	AF-1: Complaint already processed → The system shows <i>"Complaint already handled."</i>		

2.23.2 Transaction Management (+/- Money)

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to manage transactions by adjusting balances (increase/decrease) when necessary.		
Preconditions	Transaction record exists.		
Postconditions	Transaction log is updated. User or seller wallet balance changes.		
Normal Sequence/Flow	<ul style="list-style-type: none">Admin opens Transaction Management.The system shows all transactions.Admin selects a transaction and chooses + / – Money.Admin enters adjustment details.The system updates transaction and wallet.The system logs the action.		
Alternative Sequences/Flows	<ul style="list-style-type: none">AF-1: Invalid adjustment → The system shows <i>"Invalid transaction update."</i>		

2.23.3 Commission Rate Report

Primary Actors	Admin	Secondary Actors	None
Description	As an admin, I want to view commission rate reports so that I can monitor platform earnings.		
Preconditions	Commission policy and transactions exist.		

Postconditions	A commission report is generated.
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects Commission Rate Report. • The system retrieves transaction and commission data. • The system calculates commission rates. • The system displays a commission report.
Alternative Sequences/Flows	AF-1: No commission data available → The system shows “No commission data found.”

2.23.4 Floor Revenue Report

Primary Actors	Admin / Analyst	Secondary Actors	None
Description	As an admin, I want to generate revenue reports for the platform so I can analyze business performance.		
Preconditions	Financial transaction data exists.		
Postconditions	A revenue report is generated and available for viewing.		
Normal Sequence/Flow	<ul style="list-style-type: none"> • Admin selects Floor Revenue Report. • The system retrieves financial data. • The system calculates revenue for the selected period. • The system displays a revenue report. 		
Alternative Sequences/Flows	AF-1: No data available → The system shows “ <i>No financial data for the selected period.</i> ”		

3. Functional Requirements

3.1 Authentication

3.1.1 Register

MMOMarketSystem

Sign Up

* Name:

* Email:

Mobile

Gender

☐ Male ☐ Female

* Password:

* Re-type password:


☐ I agree to the [Terms of Use](#) and [Privacy Policy](#).


Sign up

[Learn more](#)

MMOMarketSystem

VISA





Enter Email

Subscribe

This screen allows the **User** to:

- **View Registration Form:** see all required fields for creating a new account (e.g., username, email, password, confirm password, phone number).
- **Enter User Information:** fill in personal details such as full name, email, phone number, and password.
- **Validate Input:** system checks for required fields, correct email format, password strength, and whether confirmation matches the password.
- **Agree to Terms:** user must check the box to agree with the Terms & Conditions and Privacy Policy.
- **Submit Registration:** click the **Register** button to create a new account.

On the screen, s/he can also:

- **Clear Form:** reset all entered information to start again.
- **Navigate to Login Screen:** click on the **Already have an account? Login here** link to move to the login page.
- **Receive Feedback:** system shows success message when registration is completed, or error messages if validation fails (e.g., email already exists, weak password).

Field Description

Field Name	Description
Full Name	Data Type: String Min Length: 3 Max Length: 100 Valid Characters: Alphabets, spaces, hyphens Initial Data: Empty Validation: Must not be empty, must contain at least one space.
Email Address	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be in valid email format and end with @gmail.com (e.g., user@gmail.com).
Password	Data Type: String Min Length: 8 Max Length: 20 Valid Characters: Alphanumeric, special characters (!, @, #, \$, %, etc.) Initial Data: Empty Validation: Must contain at least one uppercase letter, one lowercase letter, one number, and one special character.
Mobile	Data Type: String Min Length: 10 Max Length: 15 Valid Characters: Digits, optional "+" for international format Initial Data: Empty Validation: Must be a valid phone number format (e.g., +84123456789 or 0123456789).
Gender	Data Type: Enum (Radio Buttons) Options: Male, Female, Other Initial Data: None selected Validation: One option must be selected.

3.1.2 Login

MMOMarketSystem

Login

Email:

Password:

☒ Remember Me [Forgot password?](#) [Sign Up](#)

Login

MMOMarketSystem

VISA

AM EX

Enter Email

Subscribe

Field Description

Field Name	Description
Email	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be in valid email format and end with @gmail.com (e.g., user@gmail.com).
Password	Data Type: String Min Length: 8 Max Length: 20 Valid Characters: Alphanumeric, special characters (!, @, #, \$, %, etc.) Initial Data: Empty Validation: Must contain at least one uppercase letter, one lowercase letter, one number, and one special character.

Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.
Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.1.3 Forgot Password



Forgot Password

Email:

Get new password



Field Description

Field Name	Description
Email	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be in valid email format and end with @gmail.com (e.g., user@gmail.com).
Get new password	Data Type: Button Action: On click, sends password reset link to provided email if valid.

3.2 Product List

3.2.1 Search products

MMOMarketSystem

Sản Phẩm | Nạp Tiền

OVND

Filters

Clear All

Tài Khoản Gmail

Mới Nhất

CATEGORY

☒ Email
 ☐ Phần mềm
 ☐ Tài Khoản
 ☐ Khác

Gmail 1

VND20.000

Gmail 2

VND20.000

Gmail 3

VND20.00

OneTwoThree

MMOMarketSystem

Enter Email

Subscribe

Field Description



Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.
Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.


3.2.2 View product details




MMOMarketSystem

[Sản Phẩm](#) | [Nap Tiền](#)

0VND







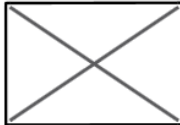




Gmail VND 20.000

Số Lượng:




Thanh Toán

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut

Related Products



MMOMarketSystem



Field Description

Field Name	Description
Product Image	Data Type: Image Validation: Must be a valid image file (JPG, PNG).
Product Name	Data Type: String Validation: Display only, product title cannot be empty.
Product Price	Data Type: Currency Validation: Display only, cannot be negative.
Quantity	Data Type: Integer Min Value: 1 Max Value: 99 Initial Data: 1 Validation: Cannot be 0 or negative.

Thanh Toán (Checkout)	Data Type: Link Action: Redirects to password recovery page.
--------------------------	--

3.3 Profile management

3.3.1 View profile

MMOMarketSystem

Sản Phẩm
Nạp Tiền

0VND

Purchased products

View transaction

Register for sell

Profile

Email: abc@gmail.com

Full Name: Nguyen Van A

Phone: 0900000000

DOB: 10/02/2004

Gender: Male

Update

MMOMarketSystem

Enter Email

Subscribe



Field Name	Description
Email	Data Type: String Validation: Display only, must be valid email format.


Full Name	Data Type: String Validation: Display only, must not be empty and contain at least one space.
Phone	Data Type: String Validation: 10-15 digits, can start with + for international format.
DOB (Date of Birth)	Data Type: Date Format: DD/MM/YYYY Validation: Must be a valid date, user must be ≥ 13 years old.
Gender	Data Type: Enum Options: Male, Female, Other Validation: Display only.
Update Button	Data Type: Button Action: Redirects to edit profile screen.


3.3.2 Update profile


MMOMarketSystem


[Sản Phẩm](#) | [Nap Tiền](#)


OVND  

 Purchased products

 View transaction

 Register for sell

 Profile



Email

abc@gmail.com

Full Name


Nguyen Van A

Phone

0912345678

DOB

10/15/2011



Avatar

Browse...

Gend

☒ Mal ☐ Fem

Update

MMOMarketSystem

Enter Email

Subscribe

Field Description

Field Name	Description
Email	Data Type: String Validation: Display only, must be valid email format.
Full Name	Data Type: String Validation: Display only, must not be empty and contain at least one space.
Phone	Data Type: String Validation: 10-15 digits, can start with + for international format.

DOB (Date of Birth)	Data Type: Date Format: DD/MM/YYYY Validation: Must be a valid date, user must be ≥ 13 years old.
Gender	Data Type: Enum Options: Male, Female, Other Validation: Display only.
Update Button	Data Type: Button Action: Redirects to edit profile screen.
Avatar	Data Type: File Upload Valid Formats: JPG, PNG Validation: Optional, max size 2MB.

3.4 Wallet management

3.4.1 View wallet balance

MMOMarketSystem

Sản Phẩm | Nạp Tiền

OVND

Filters

Clear All

Q search

Mới Nhất

CATEGORY

☒ Email
 ☐ Phần mềm
 ☐ Tài Khoản
 ☐ Khác

Product Title

VND20.000

Register

Product Title

VND20.000

Register

Product Title

VND20.00

Register

Product Title

VND20.00

Register

Product Title

VND20.000

Register

Product Title

VND20.000

Register

One

Two

Three

MMOMarketSystem

VISA

Enter Email

Subscribe

Field Description

Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Sort Dropdown	Data Type: Dropdown Options: Mới Nhất, Giá Cao → Thấp, Giá Thấp → Cao Initial Data: Default is "Mới Nhất".
Product Name	Data Type: String Validation: Display only, product title cannot be empty.
Product Price	Data Type: Currency Validation: Must be greater than 0, formatted in VND.

3.4.2 View transaction history

MMOMarketSystem

Sản Phẩm | [Nạp Tiền](#)

OVND

Purchased products

View transaction

Register for sell

Profile

Ngày	Loại	Số Tiền	Lý Do
11/02/2025	Nạp Tiền	+50.000	Nạp tiền vào ví
12/02/2025	Mua Hàng	-50.000	Thanh toán đơn hàng id=5

1

2

3

4

5

6

7

8

9

10

MMOMarketSystem

VISA

AM EX

Enter Email

Subscribe


Field Description

Field Name	Description
Ngày (Date)	Data Type: Date Format: DD/MM/YYYY Validation: Must be a valid date.
Loại (Type)	Data Type: Enum Options: Nạp Tiền, Mua Hàng.
Số Tiền (Amount)	Data Type: Currency Validation: Display only, cannot be negative.
Lý Do (Reason)	Data Type: String Validation: Optional, explains the transaction.

3.4.3 Add funds to wallet

MMOMarketSystem

[Sản Phẩm](#) | [Nạp Tiền](#)


0VND  

STK:0000
Người Nhận: Nguyen Van
Nội Dung Chuyển Khoản:XXXXX


Nhập Số Tiền:

VND:

Tạo QR



MMOMarketSystem

Enter Email

Subscribe

Field Description

Field Name	Description
VND (Amount)	Data Type: Currency Min Value: 10,000 Max Value: 100,000,000 Initial Data: Empty Validation: Must be numeric and greater than 0.
Tạo QR (Generate QR)	Data Type: Button Action: Generates QR code for the entered amount.

3.5 Order management

3.5.1 View purchased item

MMOMarketSystem

[SẢN PHẨM](#) | [NẠP TIỀN](#)

OVND

Purchased products

View transaction

Register for sell

Profile

Mã đơn hàng	Ngày mua	Mặt hàng	Người bán	Số lượng	Tổng tiền	Khiếu nại	Trạng thái	Rate Product	Rate shop
1	12/11/2024	Gmail	ABC	3	60.000	Khiếu nại	Đã Thanh Toán	<div>Rate</div>	<div>Rate</div>
2	13/11/2024	Gmail	ABC	2	40.000		Hoàn Thành	<div>Rate</div>	<div>Rate</div>

1

2

3

4

5

6

7

8

9

10

MMOMarketSystem

VISA

AM EX

Enter Email

Subscribe

Field Description

Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.

Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.6 Report product

3.6.1 Report product's issues

MMOMarketSystem

Sản Phẩm | Nạp Tiền

OVND

Khiếu Nại

Mã Đơn Hàng:1

Lý do:

Upload Ảnh:

Gửi

MMOMarketSystem

Enter Email


Subscribe

Field Description



Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.
Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.7 Rating system

3.7.1 Rate product

 MMOMarketSystem

[Sản Phẩm](#) | [Nap Tiền](#)

OVND  

Review Product




Sản Phẩm: Gmail

Đánh Giá:

Rất Tốt

Gửi

MMOMarketSystem

Enter Email


Subscribe



Field Description

Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.

Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.7.2 Rate seller





MMOMarketSystem
[Sản Phẩm](#) | [Nạp Tiền](#)

0VND



Review Shop

Tên Shop: ABC

Đánh Giá:

MMOMarketSystem




Field Description

Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.
Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.8 Buy product

3.8.1 Checkout

MMOMarketSystem

[Sản Phẩm](#) | [Nạp Tiền](#)

0VND

Xác Thực Đơn Hàng

Mặt Hàng: Gmail

Số lượng: 1

Tổng giá tiền: 20.000 VND

Hủy

Thanh Toán

MMOMarketSystem

VISA

AM EX

Enter Email

Subscribe

Field Description

Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.

Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.


3.9 Seller registration

3.9.1 Register for sell


MMOMarketSystem
[Sản Phẩm](#) | [Nạp Tiền](#)

0VND



 Purchased products
 View transaction
 Register for sell
 Profile

Tên Shop:

Số tiền đặt cọc: 5.000.000 VND

Avatar:



MMOMarketSystem




Field Description

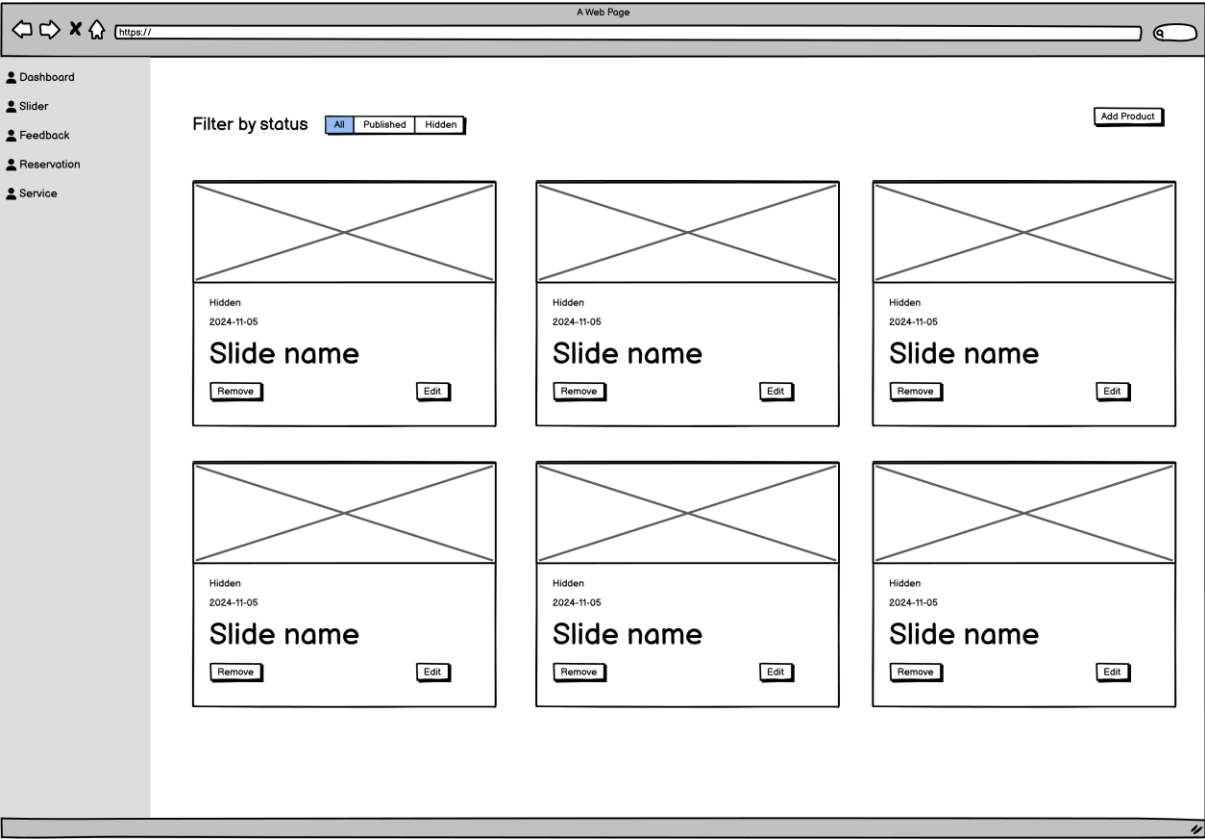
Field Name	Description
Search Box	Data Type: String Min Length: 1 Max Length: 100 Valid Characters: Alphanumeric, spaces Initial Data: Empty Validation: Optional, used to search for products by keyword.
Filter Category	Data Type: Checkbox List Options: Email, Phần mềm, Tài Khoản, Khác Initial Data: None selected Validation: Optional, can filter by multiple categories.
Remember Me	Data Type: Boolean (Checkbox) Initial Data: Unchecked Validation: Optional, if checked the system will remember user login for the next session.
Login Button	Data Type: Button Action: On click, validate all fields and attempt to log in if valid.
Forgot Password	Data Type: Link Action: Redirects to password recovery page.
Sign Up	Data Type: Link Action: Redirects to new account registration page.
Enter Email (Subscribe)	Data Type: String Min Length: 5 Max Length: 255 Valid Characters: Alphanumeric, @, dot (.) Initial Data: Empty Validation: Must be a valid email format to subscribe successfully.

3.10 Store management

3.10.1 Update Store Information

3.11 Product management

3.11.1 View products (trong view có nút add, update, delete)



3.11.2 Update products

3.11.3 Add products

Dashboard

Slider

Feedback

Reservation

Service

A Web Page

https://

ADD NEW

Product Name

Title:

Description *

B

I

U

Upload image

Choose file

Category *

Category xx

Category xx

Category xx

Category xx

Status *

Published

Hidden

Create

3.12 Stock management

3.12.1 View product in stock

MMOMARKETSYSTEM

Stock

	Product Name	Product ID	Price
	<input type="text"/>	<input type="text"/>	<input type="text"/>
		<input type="text" value="3"/>	<input type="button" value="Delete Product"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
		<input type="text" value="3"/>	<input type="button" value="Delete Product"/>

3.13 Order management


3.13.1 View orders

The wireframe illustrates the 'Order List' interface within the 'MMO MARK SYSTEM'. At the top, a header bar contains navigation icons (back, forward, close, home), a search input field, and a magnifying glass icon. Below the header, the main content area features the title 'Order List' on the left and a '+ Add Order' button on the right. A table with six columns—Order ID, Customer Name, Date, Total Amount, Status, and View Details—is positioned below the title. The table currently displays three empty rows. The interface is enclosed in a window-like frame with a footer bar at the bottom right corner.

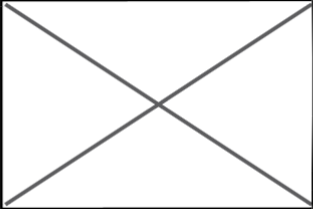
Order ID	Customer Name	Date	Total Amount	Status	View Details


3.13.2 View order details

MMO MARK SYSTEM



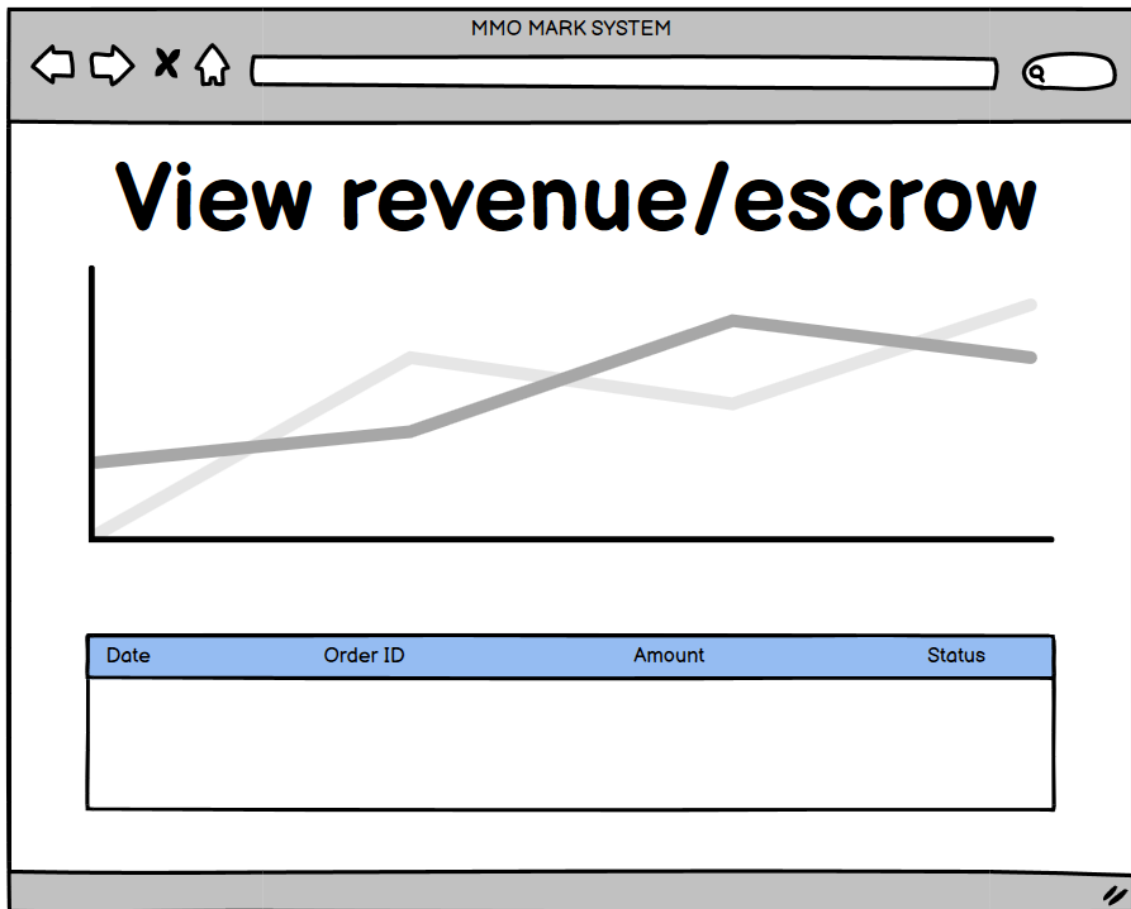
Order Details

	Order ID
	Customer info
	Shipping method, Payment method
	Total + shipping fee + tax (if any)

	Product name	Quantity	Price	Subtotal

3.14 Financial management

3.14.1 View revenue/escrow



3.14.2 Create a withdrawal request

The screenshot shows a web browser window with the title "MMO MARK SYSTEM". The browser's address bar is empty. The main content area displays a form titled "Create a withdrawal request". The form consists of three input fields, each with a placeholder "...":

- Amount**: A text input field.
- Payment Method**: A dropdown menu with a small downward arrow on the right.
- Account**: A text input field.

Below the input fields is a large "Submit" button. The browser window has a standard toolbar with back, forward, and home icons, and a search icon.

3.14.3 View withdrawal history


The screenshot shows a web browser window titled "MMO MARK SYSTEM". The browser's address bar is empty, and the page content displays the heading "Withdrawal History" in a large, bold, black font. Below the heading is a table with two columns: "Date" and "Amount". The table has a blue header row and seven empty white data rows. The browser window includes standard navigation icons (back, forward, stop, home) and a search icon on the left, and a search input field on the right. A small double-slash icon is visible in the bottom right corner of the browser window.

Date	Amount

3.15 Dispute management

3.15.1 Handle refunds/exchanges

MMO MARK SYSTEM



Dispute Management

Order ID	Customer Name	Reason	Date Created	Status

Order ID:
ORD1234

Customer Name:

Reason

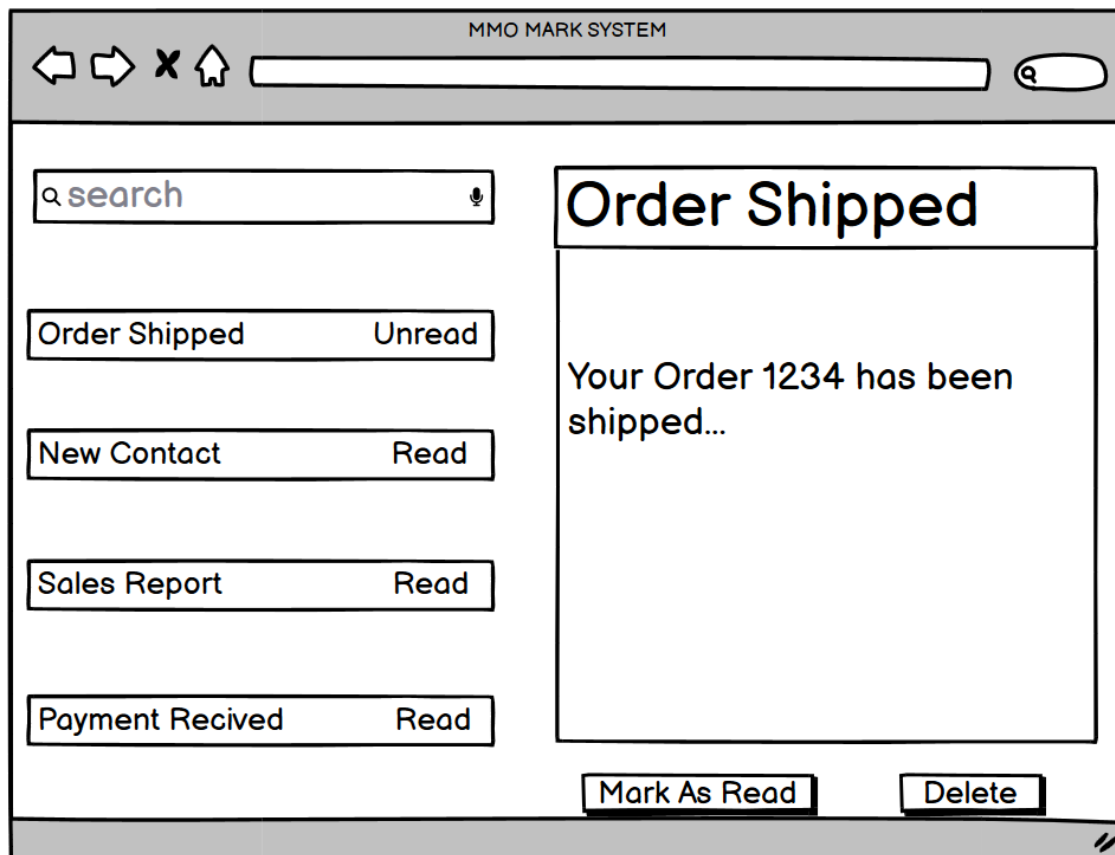
Approve

Reject

Message

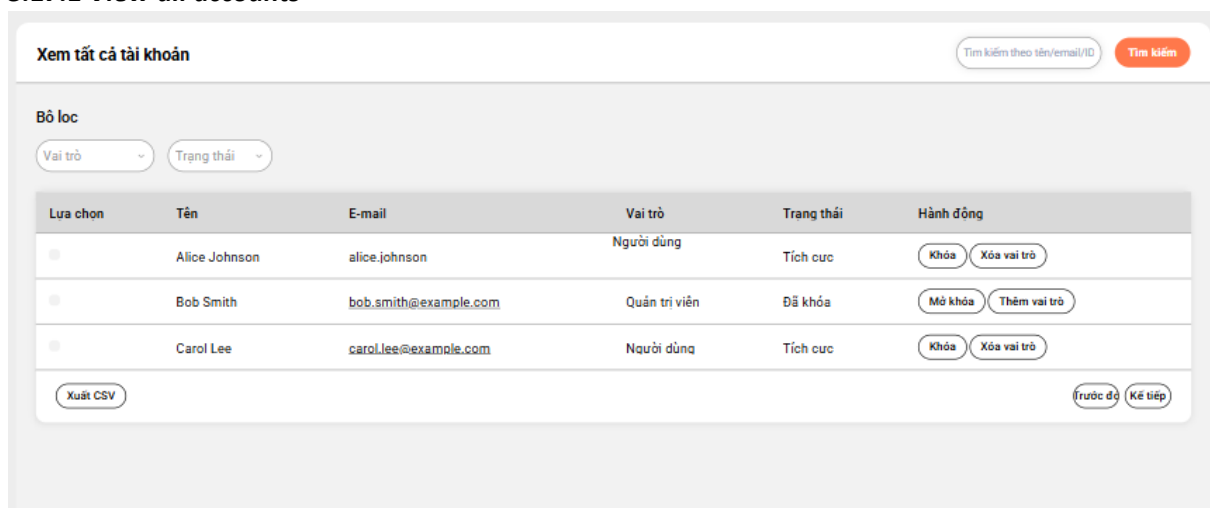
3.16 Notifications

3.16 View notifications



3.17 Account management

3.17.1 View all accounts



3.17.2 Lock Account

Tổng Quan

Tài Khoản

Cài Đặt

CÔNG CỤ

Báo Cáo

Nhật Ký

Quản lý Tài khoản Người dùng

Danh sách tài khoản người dùng

Nguyễn Văn A vana@example.com	Quản trị viên	Hoạt động	Khóa
Trần Thị B thib@example.com	Người dùng	Đã khóa	Mở khóa
Lê Văn C vanc@example.com	Biên tập viên	Hoạt động	Khóa
Phạm Thị D thid@example.com	Người dùng	Hoạt động	Khóa
Hoàng Văn E vane@example.com	Quản trị viên	Đã khóa	Mở khóa
Đào Thị F thif@example.com	Người dùng	Hoạt động	Khóa

Nhật ký kiểm toán

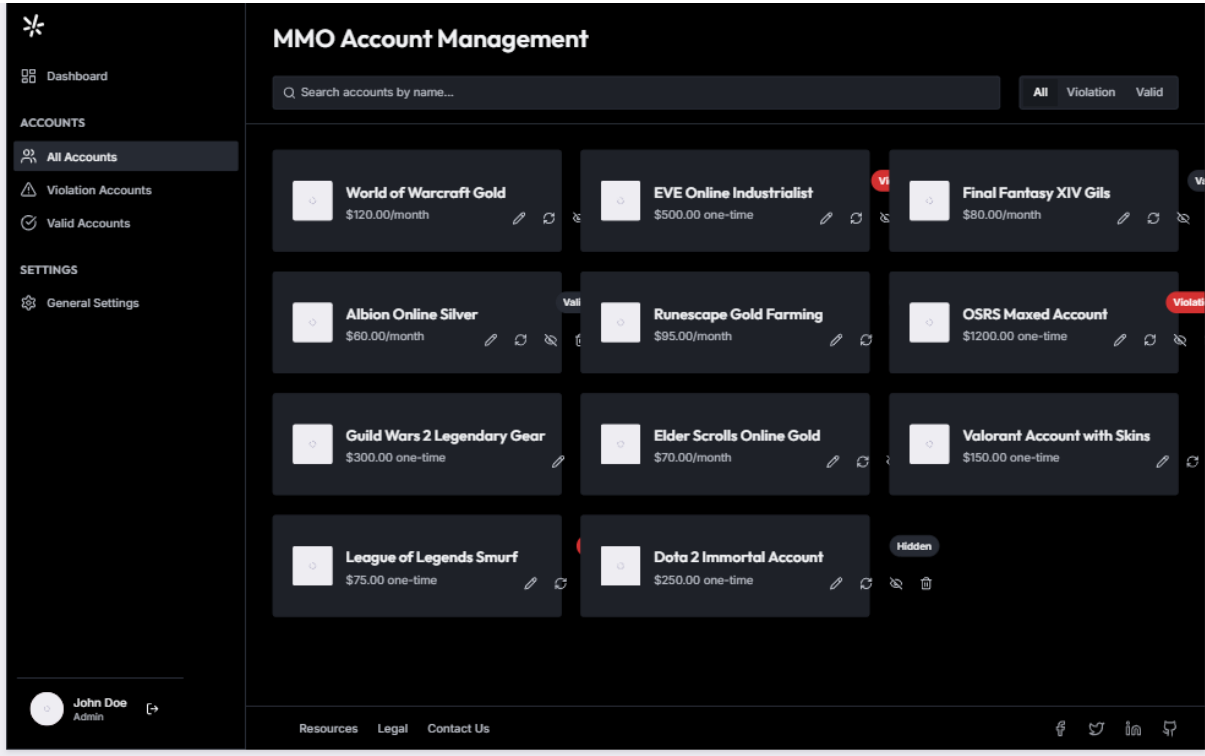
Khóa tài khoản "Trần Thị B" Lý do: Vi phạm chính sách sử dụng.	2024-07-20 10:30:00
Mở khóa tài khoản "Nguyễn Văn A" Lý do: Khắc phục sự cố kỹ thuật.	2024-07-19 14:15:00
Khóa tài khoản "Hoàng Văn E" Lý do: Hoạt động đáng ngờ được phát hiện.	2024-07-18 09:00:00

3.17.2 Add Role to Account

3.17.2 Remove Role from Account

3.18 Manage products

3.18.1 View all products



3.18.2 Hide Violating Product



3.19 Wallet Management

3.19.1 Wallet System Management

Tổng quan

Tài khoản của tôi

Thẻ & Ngân hàng

Giao dịch

Cài đặt

Tổng quan ví

Số dư hệ thống

12.345.678,99

VND

Giao dịch gần đây

Xuất báo cáo

Tất cả

Nạp tiền

Chuyển khoản

Rút tiền

Hoàn tiền

ID GIAO DỊCH	NGÀY	MÔ TẢ	LOẠI	SỐ TIỀN	TRẠNG THÁI	HÀNH ĐỘNG
TXN7890123	2024-07-28	Nạp tiền vào ví điện tử	Nạp tiền	5.000.000 VND	Đã hoàn thành	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890124	2024-07-27	Chuyển khoản đến Nguyễn	Chuyển khoản	2.500.000 VND	Đã hoàn thành	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890125	2024-07-26	Rút tiền mặt tại ATM	Rút tiền	1.000.000 VND	Đang chờ	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890126	2024-07-26	Hoàn tiền mua sắm trực tuyến	Hoàn tiền	500.000 VND	Đã hoàn tiền	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890127	2024-07-25	Thanh toán hóa đơn điện nước	Chuyển khoản	850.000 VND	Đã hủy	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890128	2024-07-24	Nạp tiền từ ngân hàng	Nạp tiền	3.000.000 VND	Đã hoàn thành	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890129	2024-07-23	Rút tiền về tài khoản ngân hàng	Rút tiền	1.500.000 VND	Đã hoàn thành	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>
TXN7890130	2024-07-22	Chuyển khoản cho đối tác	Chuyển khoản	7.000.000 VND	Đang chờ	<div>Phê duyệt</div> <div>Từ chối</div> <div>Hoàn tiền</div>

3.19.2 Add Money to User Wallet

Tổng quan

Ví của tôi

Giao dịch

Cài đặt

Hỗ trợ

Số dư Ví

1.250.001 đ

Giao dịch cuối: Nạp tiền 200.000 VND vào 22/07/2024

Xem chi tiết

Nạp tiền vào ví

Số tiền

Nhập số tiền

ID người dùng

Nhập ID người dùng

Thêm tiền

Lịch sử giao dịch

ID Giao dịch	Loại	Số tiền	Ngày	Trạng thái
TXN001	Nạp tiền	500 đ	2024-07-25	Hoàn tất
TXN002	Chuyển khoản	121 đ	2024-07-24	Hoàn tất

Xác nhận giao dịch

Vui lòng kiểm tra chi tiết giao dịch trước khi xác nhận.

Số tiền: 0 đ

ID người dùng:

Hủy

Xác nhận

ProjectCode - SRS Document

Page 88/18

3.19.3 Confirm Successful Deposit

Overview

Deposits

Withdrawals

Transactions

Settings

Deposit Transactions

Wallet Balance

\$5000.00

Pending Deposits

6

Confirmed Today

\$0.00

Deposits Awaiting Confirmation

Transaction ID: TXN001

Pending

\$150.00

Date: 2024-07-23

From: Alice Johnson

Confirm Deposit

Transaction ID: TXN002

Pending

\$320.50

Date: 2024-07-19

From: Bob Williams

Confirm Deposit

Transaction ID: TXN003

Pending

\$80.75

Date: 2024-07-19

From: Charlie Brown

Confirm Deposit

Transaction ID: TXN004

Pending

\$500.00

Date: 2024-07-18

From: Dana White

Confirm Deposit

Transaction ID: TXN005

Pending

\$210.00

Date: 2024-07-17

From: Eve Adams

Confirm Deposit

Transaction ID: TXN006

Pending

\$100.00

Date: 2024-07-17

From: Frank White

Confirm Deposit

ProjectCode - SRS Document

Page 89/18

3.19.4 Transfer Money to Seller Wallet

Dashboard

Active Orders

Completed Orders

Reports

Settings

Help & Support

Legal Information

Completed Orders

View All

ORDER ID	DATE	ITEMS	TOTAL AMOUNT	STATUS	ACTION
ORD001	2023-11-01	3	\$125.50	Completed	Transfer to Seller
ORD002	2023-10-28	1	\$49.99	Completed	Transfer to Seller
ORD003	2023-10-25	5	\$240.00	Completed	Transfer to Seller
ORD004	2023-10-20	2	\$75.25	Completed	Transfer to Seller
ORD005	2023-10-18	4	\$180.75	Completed	Transfer to Seller

Transfer History

View Full Log

TRANSACTION ID	ORDER ID	AMOUNT	DATE	STATUS
TXN001	ORD001	\$125.50	2023-11-02	Completed
TXN002	ORD002	\$49.99	2023-10-29	Completed
TXN003	ORD003	\$240.00	2023-10-26	Completed
TXN004	ORD004	\$75.25	2023-10-21	Completed
TXN005	ORD005	\$180.75	2023-10-19	Pending

Support

Legal

3.19.5 Withdrawal Request Approva

Bảng Điều Khiển

Yêu Cầu Rút Tiền

Cài Đặt

Yêu Cầu Rút Tiền

Q. Tìm kiếm theo tên hoặc ID yêu cầu...

Đang Chờ

Đã Chấp Thuận

Đã Từ Chối

Nguyễn Văn A

ID: WR-001-A • Ngày: 2024-07-29

Đang Chờ

1.500.000 đ

Chấp Thuận

Từ Chối

Phạm Minh C

ID: WR-003-C • Ngày: 2024-07-27

Đang Chờ

2.500.000 đ

Chấp Thuận

Từ Chối

Đặng Quốc E

ID: WR-005-E • Ngày: 2024-07-25

Đang Chờ

1.200.000 đ

Chấp Thuận

Từ Chối

Võ Thanh G

ID: WR-007-G • Ngày: 2024-07-23

Đang Chờ

700.000 đ

Chấp Thuận

Từ Chối

Tài nguyên

Pháp lý

Liên hệ

3.20 Complaint Management

3.20.1 Refund Processing

Dashboard

Refund Requests

Wallet

Analytics

Settings

Wallet Balance

\$15230.55

Current Balance

Pending Refunds

3

Processed Today

127

Refund Activity Log

Order ORD-2024004 Approved

by Admin User 1 at 2024-07-21 10:30 AM

Order ORD-2024005 Rejected

by Admin User 2 at 2024-07-21 09:15 AM

Order ORD-2024006 Approved

by Admin User 1 at 2024-07-20 04:00 PM

Refund Trends

Date	Refunds
Jul 15	5
Jul 17	10
Jul 18	8
Jul 19	12
Jul 20	9
Jul 21	14

Pending Refund Requests

Wireless Headphone x1

Order ID: ORD-2024001

\$199.99

2024-07-20

Customer Name: Alice Wonderland

Customer Email: alice@example.com

Reason for Refund: Defective product, charging port not working as expected.

Status: Pending

Process Refund

Smartwatch Ultra x1

Order ID: ORD-2024002

\$349.00

2024-07-19

Customer Name: Bob The Builder

Customer Email: bob@example.com

Reason for Refund: Incorrect size delivered, ordered large, received small.

Status: Pending

Process Refund

Ergonomic Office Chair x1

Order ID: ORD-2024003

\$450.00

2024-07-18

Customer Name: Charlie Chaplin

Customer Email: charlie@example.com

Reason for Refund: Changed mind, no longer need the item.

Status: Pending

Process Refund

Support

Legal

3.20.2 Complaint Details

Trang chủ

Khấu nại

Tất cả khiếu nại

Khấu nại của tôi

Chi tiết khiếu nại

Báo cáo

Cài đặt

Chi tiết khiếu nại

ID: MMD-SALS-20240715-001

Đang xử lý

SA

Ngày tạo: 15/07/2024 10:30

Cập nhật cuối: 17/07/2024 02:45

CH

Quay lại danh sách

Xử lý khiếu nại

Thông tin người gửi

Tên: Nguyễn Văn A

Email: nguyenvana@example.com

Điện thoại: 0901234567

ID NMMO: MMD_GAMER_XYZ123

Nội dung khiếu nại

Khấu nại về việc mua bán dữ liệu tài khoản game trái phép

Tôi viết thư này để khiếu nại về một giao dịch mua bán dữ liệu tài khoản game mà tôi tin là đã bị xâm phạm quyền riêng tư. Vào ngày 14/07/2024, tôi phát hiện tài khoản game "Epic Adventure" của tôi trên nền tảng "Epic Adventures" đã bị truy cập trái phép và một số vật phẩm có giá trị đã bị chuyển đi. Sau khi điều tra, tôi nhận thấy thông tin đăng nhập của tôi có thể đã bị rò rỉ thông qua một trang web bán dữ liệu game trực tuyến. Tôi đã thay đổi mật khẩu và bật xác thực hai yếu tố cho tài khoản của mình. Tôi yêu cầu điều tra vụ việc này, khôi phục các vật phẩm đã mất và ngăn chặn việc mua bán dữ liệu tài khoản game bất hợp pháp. Tôi cũng đã đính kèm các ảnh chụp màn hình về lịch sử đăng nhập bất thường và trang web mà tôi nghi ngờ đã rò rỉ thông tin của mình.

Bảng chứng

lich_du_dang_nhap_bat_thuong.png

trang_web_ro_rui_du_lieu.png

thong_tin_giao_dich_vat_pham.png

Đính kèm bằng chứng mới

Tải lên

Đòng thời gian khiếu nại

15/07/2024 10:30 SA

Khấu nại được tạo và gửi lên hệ thống.

Người thực hiện: Nguyễn Văn A

16/07/2024 11:00 SA

Khấu nại được tiếp nhận bởi đội ngũ hỗ trợ.

Người thực hiện: Hệ thống

17/07/2024 09:15 SA

Yêu cầu cung cấp thêm bằng chứng liên quan đến giao dịch.

Người thực hiện: Hỗ trợ viên B

17/07/2024 02:00 CH

Đã nhận được bằng chứng bổ sung từ người gửi.

Người thực hiện: Hệ thống

17/07/2024 02:45 CH

Đã điều tra chi tiết về lịch sử truy cập tài khoản và giao dịch vật phẩm.

Người thực hiện: Chuyên viên C

3.20.3 View List of Complaints

Tổng quan

Báo cáo

QUẢN LÝ KHIẾU NẠI

Tất cả khiếu nại

Khiếu nại mới

Đang xử lý

Đã giải quyết

CÀI ĐẶT

Cấu hình hệ thống

Người dùng & Quyền

Danh sách khiếu nại

Q. Tìm kiếm theo ID hoặc người dùng...

Lọc theo trạng thái:

Tất cảMớiĐang xử lýĐã giải quyết

Lọc theo ưu tiên:

Tất cảCaoTrung bìnhThấp

Lọc theo danh mục:

Tất cảKỹ thuậtThanh toánDịch vụLogisticsBảo mậtSản phẩm

Khiếu nại mới (4)

Nguyễn Văn A
#COMP001

Mới

Lỗi đăng nhập không thành công

Ưu tiên: Cao

Danh mục: Kỹ thuật

Ngày: 2024-07-20

Trần Thị B
#COMP002

Mới

Yêu cầu hoàn tiền đơn hàng #12345

Ưu tiên: Trung bình

Danh mục: Thanh toán

Ngày: 2024-07-19

Đào Thị F
#COMP006

Mới

Không nhận được email xác nhận

Ưu tiên: Thấp

Danh mục: Kỹ thuật

Ngày: 2024-07-15

Cao Minh I
#COMP009

Mới

Yêu cầu thay đổi địa chỉ

Ưu tiên: Thấp

Danh mục: Dịch vụ

Ngày: 2024-07-12

< Previous

1

2

3

...

10

Next >

Nguyễn Thị Hoa

hoa.nt@example.com

Tài nguyên

Pháp lý

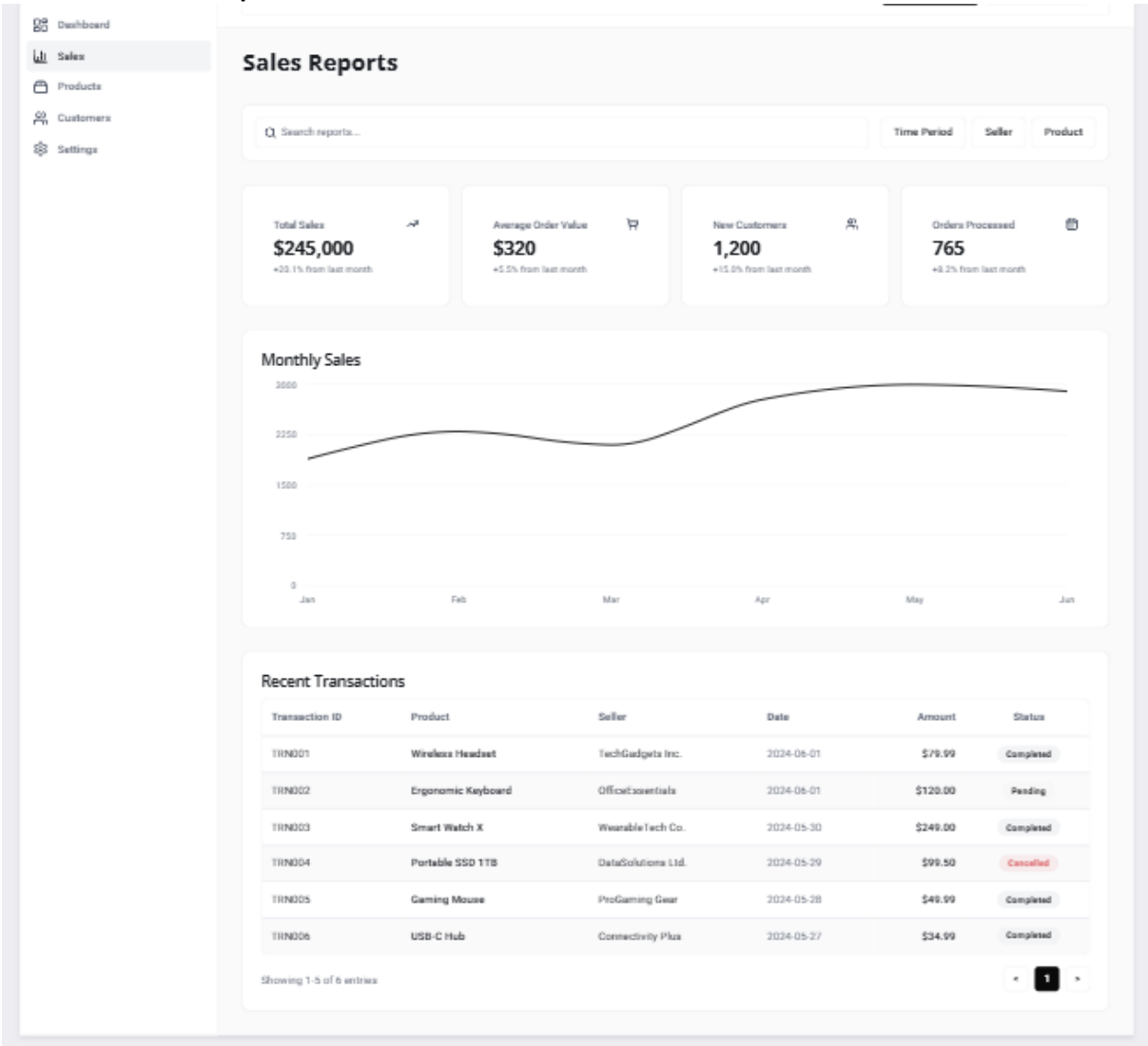
Liên hệ

ProjectCode - SRS Document

Page 93/18

3.21 Financial Management

3.21.1 View Sales Reports



3.21.2 Floor Revenue Report

3.21.3 Transaction Management (+/- Money)

3.21.4 Transaction Management

4. Non-Functional Requirements

3.1 External Interfaces

3.1.1 User Interface (UI)

- **Objective:** Provide a consistent user interface across web (Desktop/Tablet/Mobile) and mobile app (iOS/Android).
- **Standards/Principles:**
 - Responsive design (≥ 360 px), dark/light mode; support i18n (vi-VN, en-US).
 - Adhere to **WCAG 2.1 AA** for accessibility.
- **Acceptance Criteria:**
 - 100% of main screens (landing, listing, product detail, checkout, wallet, seller console) render correctly on the latest versions of Chrome, Edge, Safari, Firefox; iOS ≥ 15 , Android ≥ 9 .
- **Measurement/Testing:**
 - UI snapshot testing, visual regression; Lighthouse accessibility score ≥ 90 .

3.2 Quality Attributes

3.2.1 Usability

- **Objective:** Ensure the system is intuitive and easy to use for all user types (end-users, sellers, admins).
- **Standards:**
 - Interface designed with a user-centered approach (UI/UX principles).
 - Minimum user training required for admin panel usage.
- **Acceptance Criteria:**
 - User satisfaction $\geq 80\%$ in usability surveys.
 - Task completion time for new users should not exceed 3 minutes for primary tasks (e.g., product search, purchase, order placement).
- **Measurement/Testing:**
 - Conduct usability testing (tasks, surveys); record time taken for key tasks.

3.2.2 Performance

- **Objective:** Ensure the system can handle expected load and provide a smooth experience for users.
- **Standards:**
 - Average page load time ≤ 2 seconds; peak page load time ≤ 5 seconds.
 - System must handle $\geq 10,000$ concurrent users with $\leq 5\%$ failure rate.
- **Acceptance Criteria:**
 - 95% of users experience page load within 3 seconds.
 - Response time for API requests should be ≤ 2 seconds under normal load, ≤ 5 seconds under peak load.
- **Measurement/Testing:**
 - Load testing using tools like Apache JMeter or LoadRunner.
 - Monitor system performance in production with tools like New Relic or Datadog.

3.2.3 Availability

- **Objective:** Ensure high availability of the system, minimizing downtime.
- **Standards:**
 - 99.9% uptime for the platform (excluding scheduled maintenance).
 - Auto-scaling for peak traffic; distributed databases for fault tolerance.
- **Acceptance Criteria:**
 - Platform should be available for use 24/7 with no more than 4 hours of downtime per month.
- **Measurement/Testing:**
 - Monitor uptime with services like Pingdom or UptimeRobot.
 - Automatic failover tests for critical services.

3.2.4 Scalability

- **Objective:** Ensure the system can scale to accommodate growing traffic and users.
- **Standards:**
 - Horizontal scaling for web servers, databases, and caches.
 - Use cloud infrastructure (AWS, GCP, Azure) for scaling.
- **Acceptance Criteria:**
 - System should handle an increase of 100% in traffic without affecting performance.
- **Measurement/Testing:**
 - Stress testing with increasing load (e.g., doubling the number of users or transactions).
 - Simulate various scaling scenarios using cloud auto-scaling features.

3.2.4 Security

- **Objective:** Protect the system and users from unauthorized access, data breaches, and other security threats.
- **Standards:**
 - Use HTTPS with TLS for all communications.
 - Adhere to OWASP Top 10 security practices.
 - Implement secure password policies (e.g., bcrypt hashing).
- **Acceptance Criteria:**
 - 100% of sensitive data must be encrypted at rest and in transit.
 - No critical security vulnerabilities identified in annual penetration tests.
- **Measurement/Testing:**
 - Conduct regular security audits and penetration testing (e.g., using tools like OWASP ZAP).
 - Use automated vulnerability scanners (e.g., Qualys, Nessus).

3.2.6 Maintainability

- **Objective:** Ensure the system is easy to maintain, update, and troubleshoot.
- **Standards:**
 - Use version control for all code (Git).

- Modular design for ease of updates.
- Comprehensive logging for error tracking (e.g., ELK Stack).
- **Acceptance Criteria:**
 - System updates should not exceed 4 hours for routine patching.
 - Codebase should have > 80% test coverage for critical modules.
- **Measurement/Testing:**
 - Review codebase for modularity, documentation, and test coverage.
 - Monitor system logs for any recurring issues.

5. Requirement Appendix

[Provide business rules, common requirements, or other extra requirements information here]

5.1 Business Rules

[Provide common business rules that you must follow. The information can be provided in the table format as the sample below]

ID	Rule Definition
BR-01	Sellers must deposit a minimum of 5 million VND to open a shop.
BR-02	Sellers can only list products with a total value up to 1/10 of their deposit.
BR-03	When a customer purchases a product, the payment will be held by the platform for 3 days. If no complaints are made within this period, the payment will be transferred to the seller's wallet.
BR-04	The platform may charge a commission fee on each sale made. The commission percentage is defined by the platform and is deducted from the seller's earnings.
BR-11	Refunds or order cancellations must be requested within 7 days of purchase. If no issues are reported, the sale is final.
BR-12	If a shop receives 3 successful complaints from customers, the shop will be suspended. The deposit will not be refunded, and the shop will be permanently banned from selling on the platform.
BR-24	
BR-33	
BR-86	
BR-88	

5.2 System Messages

#	Message code	Message Type	Context	Content
1	MSG01	In line	There is not any search result	<i>No search results.</i>

2	MSG02	In red, under the text box	Input-required fields are empty	<i>The * field is required.</i>
3	MSG03	Toast message	Updating asset(s) information successfully	<i>Update asset(s) successfully.</i>
4	MSG04	Toast message	Adding new asset successfully	<i>Add asset successfully.</i>
5	MSG05	Toast message	Confirming email of asset hand-over is sent successfully	<i>A confirmation email has been sent to {email_address}.</i>
6	MSG06	Toast message	Resetting asset information successfully	<i>Return asset(s) successfully.</i>
7	MSG07	Toast message	Deleting asset information successfully	<i>Delete asset(s) successfully.</i>
8	MSG08	In red, under the text box	Input value length > max length	<i>Exceed max length of {max_length}.</i>
9	MSG09	In line	Username or password is not correct when clicking sign-in	<i>Incorrect user name or password. Please check again.</i>
10	..			

5.3 Other Requirements...