

E-Commerce Platform - Business Flows & Use Cases

Part 1: ADMIN USER FLOWS & USE CASES

1. Admin User Profile & Capabilities

Who is the Admin?

The admin is a **product seller or business owner** who wants to showcase their products to customers and communicate with them in real-time. The admin manages the entire product catalog and engages directly with interested customers.

Admin Goals

- Quickly list and organize products
- Reach interested customers without delay
- Understand which products attract the most interest
- Communicate directly with customers asking questions
- Manage product inventory and information

Admin Pain Points

- Wants simple tools, not complex systems
- Needs immediate notifications when customers show interest
- Wants to know which products are most popular
- Wants fast, real-time communication with customers

2. Admin Use Case 1: Create Product Categories

Use Case Title

Admin Creates and Organizes Product Categories

Actors

- Admin (Primary)
- System (Secondary)

Preconditions

- Admin is logged in
- Admin has admin role permissions

Main Flow

Step	Actor	Action	System Response
1	Admin	Clicks "Create Category" button	System displays category creation form
2	Admin	Enters category name (e.g., "Electronics")	Form validates input in real-time
3	Admin	Enters category description (optional)	Form accepts text input
4	Admin	Clicks "Save Category" button	System saves category to database
5	System	Validates category doesn't already exist	Category is created successfully
6	System	Displays success message	Admin sees confirmation: "Category created successfully"
7	Admin	Views category in category list	Category appears in admin dashboard

Postconditions

- Category is created and saved
- Category is ready for products to be added
- Admin can see category in the list

Alternative Flows

Alternative 1: Category Already Exists

- At Step 5, if category name already exists
- System shows error: "Category with this name already exists"
- Admin must enter a different name

Alternative 2: Admin Cancels

- At any step, admin clicks "Cancel"
- Form closes without saving
- No category is created

Business Rules

- Category name is required
- Category name must be unique
- Description is optional
- Admin can create unlimited categories

Example Scenarios

Scenario 1: Electronics Store Owner

- Admin creates categories: "Laptops", "Phones", "Accessories", "Tablets"
- Each category organizes related products
- Customers can browse by category

Scenario 2: Clothing Store Owner

- Admin creates categories: "Men", "Women", "Children", "Accessories"
- Subcategories can be created for better organization
- Customers find products more easily

3. Admin Use Case 2: Add Product to Category

Use Case Title

Admin Adds a New Product with Details and Images

Actors

- Admin (Primary)
- System (Secondary)

Preconditions

- Admin is logged in
- At least one category exists
- Admin has admin role permissions

Main Flow

Step	Actor	Action	System Response
1	Admin	Clicks "Add Product" button	System displays product creation form
2	Admin	Selects category from dropdown	Form shows selected category
3	Admin	Enters product name	Form validates input
4	Admin	Enters product description (detailed)	Form accepts long text input
5	Admin	Enters product price	Form validates price format (numeric)
6	Admin	Enters stock quantity	Form validates quantity is numeric
7	Admin	Uploads product images (multiple)	System stores images and shows preview
8	Admin	Reorders images (drag & drop)	First image becomes main product image
9	Admin	Adds optional product specifications	Form accepts additional details
10	Admin	Clicks "Save as Draft" button	System saves product as DRAFT

			(not visible to customers)
11	System	Validates all required fields	Product is saved successfully
12	System	Displays success message	Admin sees: "Product saved as draft"
13	Admin	Views product in draft list	Product appears in admin dashboard with DRAFT status

Postconditions

- Product is saved as DRAFT
- Product is NOT visible to customers yet
- Admin can edit or publish the product
- Images are stored and organized

Alternative Flows

Alternative 1: Admin Publishes Immediately

- At Step 10, instead of "Save as Draft", admin clicks "Publish"
- Product is saved and immediately becomes LIVE
- Product appears in customer browsing immediately

Alternative 2: Admin Adds More Details Later

- At Step 10, admin saves as draft
- Later, admin can click "Edit" to add more information
- Admin can add more images, update description, change price

Alternative 3: Admin Cancels

- At any step, admin clicks "Cancel"
- Form closes without saving
- No product is created

Business Rules

- Product name is required
- Category is required
- Price is required and must be positive number
- At least one image is required for published products
- Draft products can have incomplete information
- Published products must have all required fields

Example Scenario

Scenario: Electronics Store Admin Adds Laptop

Plain Text

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Step 1: Admin clicks "Add Product"
Step 2: Selects category "Electronics"
Step 3: Enters name "Dell XPS 13 Laptop"
Step 4: Enters description: "High-performance laptop with Intel i7, 16GB
RAM, 512GB SSD. Perfect for professionals and students. Lightweight design,
13-inch display, 10-hour battery life."
Step 5: Enters price: $999.99
Step 6: Enters stock: 25 units
Step 7: Uploads 4 images:
    - Image 1: Front view of laptop (becomes main image)
    - Image 2: Side view
    - Image 3: Screen display
    - Image 4: Keyboard detail
Step 8: Reorders images (front view first)
Step 9: Adds specs: "Processor: Intel i7, RAM: 16GB, Storage: 512GB SSD,
Display: 13-inch FHD"
Step 10: Clicks "Save as Draft"
```

Result: Product saved as DRAFT, not visible to customers yet

4. Admin Use Case 3: Publish Product

Use Case Title

Admin Publishes Draft Product to Make It Visible to Customers

Actors

- Admin (Primary)

- System (Secondary)
- Customers (Tertiary - will see the product)

Preconditions

- Admin is logged in
- Product exists in DRAFT status
- Product has all required information (name, category, price, image)

Main Flow

Step	Actor	Action	System Response
1	Admin	Views draft product in admin dashboard	System shows list of draft products
2	Admin	Clicks "Publish" button on draft product	System validates product completeness
3	System	Checks all required fields are filled	Validation passes
4	System	Changes product status from DRAFT to LIVE	Product status is updated
5	System	Makes product visible in customer browsing	Product appears in category and search
6	System	Displays success message	Admin sees: "Product published successfully"
7	Admin	Sees product status changed to LIVE	Product now shows LIVE badge
8	Customers	Browse the category	Product appears in customer browsing

Postconditions

- Product is now LIVE and visible to all customers

- Product appears in category browsing
- Product appears in search results
- Customers can view product details
- Customers can interact with the product (like, contact admin)

Alternative Flows

Alternative 1: Product Missing Required Information

- At Step 3, validation fails
- System shows error message: "Product is missing required fields: [list fields]"
- Admin must complete missing information before publishing

Alternative 2: Admin Unpublishes Product

- After publishing, admin can click "Unpublish"
- Product changes from LIVE to DRAFT
- Product is no longer visible to customers

Business Rules

- Only DRAFT products can be published
- All required fields must be filled before publishing
- Once published, product is immediately visible to customers
- Admin can unpublish at any time
- Published products can still be edited

Example Timeline

Plain Text

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10:00 AM - Admin creates product as DRAFT
10:15 AM - Admin reviews product details
10:20 AM - Admin clicks "Publish"
10:20 AM - Product becomes LIVE
10:21 AM - First customer sees product in browsing
10:22 AM - Second customer views product details
10:25 AM - Customer likes the product

```

5. Admin Use Case 4: Monitor Product Performance

Use Case Title

Admin Views Dashboard to See Which Products Are Getting Attention

Actors

- Admin (Primary)
- System (Secondary)

Preconditions

- Admin is logged in
- At least one product is published
- Customers have been browsing

Main Flow

Step	Actor	Action	System Response
1	Admin	Clicks "Dashboard" or "Analytics"	System displays admin dashboard
2	System	Retrieves product performance data	Dashboard loads with metrics
3	System	Shows top performing products	Admin sees list ranked by views/likes
4	Admin	Views product metrics:	System displays for each product:
		- Total views	Number of times viewed
		- Total likes	Number of times liked
		- Chat inquiries	Number of customers who chatted
		- Average view duration	How long customers spend viewing

5	Admin	Clicks on specific product	System shows detailed product analytics
6	System	Displays product details page	Shows all metrics for that product
7	Admin	Sees engagement data	Understands which products attract interest
8	Admin	Uses insights to make decisions	Decides to promote, improve, or restock products

Postconditions

- Admin has visibility into product performance
- Admin understands customer interest patterns
- Admin can make data-driven decisions

Business Value

Metric	What It Means	Admin Action
High Views	Product is visible and attracts clicks	Keep product promoted
Low Views	Product is not getting attention	Improve product images/description
High Likes	Customers are interested	Ensure stock is available
Low Likes	Product details don't appeal	Rewrite description or improve photos
High Chat Inquiries	Customers have questions	Prepare to answer questions quickly
Low Chat Inquiries	Customers aren't engaging	Add more product details

Example Dashboard View

Plain Text

ADMIN DASHBOARD - PRODUCT PERFORMANCE

TOP PERFORMING PRODUCTS

1. Dell XPS 13 Laptop
Views: 342 | Likes: 45 | Chats: 12
Avg View Time: 4.5 minutes
2. Wireless Headphones
Views: 298 | Likes: 52 | Chats: 8
Avg View Time: 3.2 minutes
3. USB-C Hub
Views: 156 | Likes: 18 | Chats: 3
Avg View Time: 2.1 minutes
4. Laptop Bag
Views: 89 | Likes: 5 | Chats: 1
Avg View Time: 1.8 minutes

INSIGHTS:

- Dell XPS is your top product (high views + likes)
- Wireless Headphones have high likes (customers love them)
- USB-C Hub needs better description (low like rate)
- Laptop Bag needs promotion (low visibility)

6. Admin Use Case 5: Receive and Respond to Customer Chat

Use Case Title

Admin Receives Notification When Customer Wants to Chat and Responds in Real-Time

Actors

- Admin (Primary)
- Customer (Secondary)
- System (Tertiary)

Preconditions

- Admin is logged in
- Customer has initiated chat (see Customer Use Case 4)
- Real-time connection is established

Main Flow

Step	Actor	Action	System Response
1	Customer	Clicks "Contact Admin" button	Chat window opens on customer side
2	System	Creates new conversation	Conversation is created in database
3	System	Sends real-time notification to admin	Admin receives notification immediately
4	Admin	Sees notification badge	Badge shows "New message from [Customer Name]"
5	Admin	Clicks notification	Chat window opens showing conversation
6	System	Displays customer info	Admin sees customer name and product they're interested in
7	System	Shows chat history	Admin can see any previous messages
8	Admin	Reads customer's message	Admin understands customer's question/interest
9	Admin	Types response message	Admin composes answer to customer
10	Admin	Clicks "Send" button	Message is sent in real-time

11	System	Sends message to customer immediately	Customer receives message instantly
12	Customer	Sees admin's response	Customer reads admin's message
13	Customer	Types follow-up message	Customer continues conversation
14	Admin	Sees typing indicator	Admin sees "Customer is typing..."
15	Admin	Receives customer's message	Message appears in real-time
16	Admin	Continues conversation	Admin and customer exchange messages

Postconditions

- Conversation is established
- Both parties can communicate in real-time
- Messages are saved in conversation history
- Admin can see customer's browsing history for context

Alternative Flows

Alternative 1: Admin is Not Online

- At Step 3, admin is not logged in
- Notification is queued
- When admin logs in, they see pending notifications
- Admin can respond when they return

Alternative 2: Admin Suggests a Product

- During conversation, admin can suggest a related product
- Admin shares product link in chat
- Customer can view the suggested product

Alternative 3: Conversation Ends

- Either party can end the conversation
- Conversation history is saved
- Both parties can review conversation later

Business Rules

- Chat is real-time (messages appear instantly)
- Typing indicators show when someone is typing
- Messages are saved in conversation history
- Admin can see customer's browsing history
- Conversations can be reopened later

Example Conversation

Plain Text

REAL-TIME CHAT CONVERSATION

10:15 AM

Customer: "Hi, I'm interested in the Dell XPS 13 laptop.
Does it come with warranty?"

[Admin is typing...]

10:16 AM

Admin: "Hi! Thanks for your interest in the Dell XPS 13.
Yes, it comes with a 2-year manufacturer's warranty
covering hardware defects. We also offer an extended
3-year warranty option for an additional fee."

Customer: "That's great! What about the battery life?"

[Admin is typing...]

10:17 AM

Admin: "The Dell XPS 13 has a 10-hour battery life under
normal usage. With light browsing and document editing,
you can get 12+ hours. Heavy video editing or gaming
will reduce it to 6-8 hours."

Customer: "Perfect! One more question - can I upgrade the RAM?"

10:18 AM

Admin: "Unfortunately, the RAM is soldered to the motherboard"

and cannot be upgraded. However, the 16GB configuration we have is sufficient for most professional tasks."

Customer: "Thanks for the detailed answers! I'm very interested now."

Admin: "Great! Feel free to reach out if you have any other questions. I'm here to help!"

Part 2: CUSTOMER USER FLOWS & USE CASES

1. Customer User Profile & Capabilities

Who is the Customer?

The customer is a **product browser** who visits the platform to discover products, learn about them, and potentially engage with the admin for more information. The customer is looking for products that meet their needs.

Customer Goals

- Find products that match their interests
- Learn detailed information about products
- Get quick answers to questions
- Discover related or recommended products
- Feel supported in their decision-making

Customer Pain Points

- Doesn't want to waste time browsing irrelevant products
- Wants quick answers to questions
- Appreciates personalized recommendations
- Wants to feel supported, not ignored

2. Customer Use Case 1: Browse Product Categories

Use Case Title

Customer Explores Available Product Categories

Actors

- Customer (Primary)
- System (Secondary)

Preconditions

- Customer is on the platform (logged in or browsing as guest)
- At least one category has been created by admin
- At least one product has been published

Main Flow

Step	Actor	Action	System Response
1	Customer	Opens platform homepage	System displays available categories
2	System	Retrieves all published categories	Categories are displayed as tiles/list
3	Customer	Views category names and descriptions	Customer sees category options
4	Customer	Clicks on category (e.g., "Electronics")	System loads category page
5	System	Retrieves all products in category	Products are displayed
6	System	Shows product count	Customer sees "12 products in Electronics"
7	Customer	Sees list of products in category	Each product shows image, name, price
8	System	Tracks category view	System records customer viewed this category

Postconditions

- Customer is viewing products in selected category
- System has recorded category view
- Customer can click on individual products to see details

Business Value

- **System learns:** Customer is interested in this category
- **Admin benefits:** Knows which categories attract interest
- **Customer benefits:** Finds products organized by type

Example Flow

Plain Text

CUSTOMER BROWSING JOURNEY

Step 1: Customer opens homepage
Sees categories: Electronics, Accessories, Clothing, Books

Step 2: Customer is interested in electronics
Clicks on "Electronics" category

Step 3: System shows 12 products in Electronics:
- Dell XPS 13 Laptop
- Wireless Headphones
- USB-C Hub
- Monitor Stand
- Keyboard
- Mouse
- Laptop Bag
- Phone Case
- Screen Protector
- Power Bank
- USB Cable
- Laptop Cooling Pad

Step 4: System tracks: Customer viewed Electronics category

Step 5: Customer is interested in laptops
Clicks on "Dell XPS 13 Laptop" to see details

3. Customer Use Case 2: View Product Details

Use Case Title

Customer Views Detailed Information About a Specific Product

Actors

- Customer (Primary)
- System (Secondary)

Preconditions

- Customer is browsing products
- Product is published and visible
- Product has at least one image

Main Flow

Step	Actor	Action	System Response
1	Customer	Clicks on product from category list	System loads product detail page
2	System	Retrieves product information	Product page displays
3	System	Shows product images	Main image displays, thumbnails available
4	Customer	Views product images	Customer can see all product photos
5	Customer	Clicks on thumbnail images	Main image changes to selected image
6	System	Displays product information	Shows: name, price, description, specs
7	Customer	Reads product description	Customer learns about product features
8	Customer	Reads product specifications	Customer sees detailed technical info

9	System	Shows stock availability	"In Stock: 25 units available"
10	System	Tracks product view	Records customer viewed this product
11	System	Starts tracking view duration	Measures how long customer spends on page
12	Customer	Spends time reading details	Customer reviews information
13	System	Continues tracking time	Records view duration
14	Customer	Sees action buttons	Customer sees "Like", "Contact Admin" buttons

Postconditions

- Customer has viewed product details
- System has recorded view and duration
- Customer can like the product or contact admin
- Customer can go back to browse more products

Business Value

- **System learns:** Customer viewed this product for X minutes
- **System learns:** Customer is interested (if they spend long time)
- **Admin benefits:** Knows which products get attention
- **Customer benefits:** Has all information needed to make decision

Example Product Detail Page

Plain Text
<p>PRODUCT DETAIL PAGE</p> <hr/> <p> DELL XPS 13 LAPTOP </p>

[MAIN IMAGE] [Thumbnails]
[Large laptop photo] [Thumb 1]
[Thumb 2]
[Thumb 3]
[Thumb 4]

PRICE: \$999.99
STOCK: In Stock (25 units available)

DESCRIPTION:
High-performance laptop with Intel i7, 16GB RAM,
512GB SSD. Perfect for professionals and students.
Lightweight design, 13-inch display, 10-hour battery
life. Ideal for productivity, coding, and creative
work.

SPECIFICATIONS:

- Processor: Intel Core i7-12700H
- RAM: 16GB DDR5
- Storage: 512GB NVMe SSD
- Display: 13.3" FHD (1920x1200)
- Graphics: Intel Iris Xe Graphics
- Battery: 10 hours (typical usage)
- Weight: 2.8 lbs (1.27 kg)
- Ports: 2x Thunderbolt 4, 1x USB 3.1, 1x Headphone
- OS: Windows 11 Pro

[LIKE] [CONTACT ADMIN] [SHARE]

SYSTEM TRACKING:

- View recorded at 10:22 AM
- View duration: 4 minutes 30 seconds
- Customer interest level: HIGH (long view time)

4. Customer Use Case 3: Like/Favorite a Product

Use Case Title

Customer Marks a Product as Favorite to Show Interest

Actors

- Customer (Primary)
- System (Secondary)
- Admin (Tertiary - will see the like)

Preconditions

- Customer is viewing product details
- Product is published
- Customer has not already liked this product

Main Flow

Step	Actor	Action	System Response
1	Customer	Views product detail page	Product page is displayed
2	Customer	Clicks " LIKE" button	Button is highlighted
3	System	Records customer like	Like is saved to database
4	System	Updates like counter	Like count increases by 1
5	System	Changes button appearance	Heart icon becomes filled/highlighted
6	System	Displays confirmation	Button shows "Liked" or heart is filled
7	System	Tracks behavior	Records: Customer liked this product
8	System	Increases customer intent score	Customer's interest level increases
9	System	Checks engagement triggers	Evaluates if help prompt should be shown

Postconditions

- Product is marked as liked by customer
- Like count is updated
- System has recorded the like behavior
- Customer's intent score has increased
- System may trigger help prompt if conditions are met

Alternative Flows

Alternative 1: Customer Unlike Product

- If customer clicks like button again
- Like is removed
- Like count decreases
- Button returns to normal state

Alternative 2: Help Prompt Triggered

- After like, if customer has liked 2+ products
- System shows: "Do you need any help finding what you're looking for?"
- Customer can click YES to chat or NO to continue browsing

Business Value

- **System learns:** Customer is interested in this product
- **System learns:** Customer has clear preference
- **Admin benefits:** Sees which products customers like
- **Customer benefits:** Can easily find liked products later

Example Scenario

Plain Text

CUSTOMER LIKES PRODUCT FLOW

10:22 AM - Customer views Dell XPS 13 laptop
Spends 4 minutes reading details

10:26 AM - Customer clicks " LIKE" button
Heart icon becomes filled ()

Like count changes from 44 to 45

10:27 AM - System tracks: Customer liked Dell XPS 13

10:28 AM - Customer continues browsing
Clicks back to category list
Sees other products

10:30 AM - Customer views Wireless Headphones
Spends 3 minutes reading details

10:33 AM - Customer clicks "❤️ LIKE" button
Heart icon becomes filled
Like count changes from 51 to 52

10:34 AM - System tracks: Customer liked Wireless Headphones

10:35 AM - TRIGGER: Customer has liked 2 products
System shows help prompt:
"Do you need any help finding what you're looking for?"

Customer can:

- Click YES → Chat opens with admin
- Click NO → Prompt disappears
- Ignore → Prompt disappears after 10 seconds

5. Customer Use Case 4: Contact Admin via Chat

Use Case Title

Customer Initiates Real-Time Chat with Admin to Ask Questions

Actors

- Customer (Primary)
- Admin (Secondary)
- System (Tertiary)

Preconditions

- Customer is viewing a product or sees help prompt
- Customer wants to ask a question or get more information
- Real-time connection is available

Main Flow

Step	Actor	Action	System Response
1	Customer	Clicks "💬 CONTACT ADMIN" button	Chat window opens on customer side
2	System	Creates conversation	New conversation is created
3	System	Associates customer with product	System links customer to product they're interested in
4	System	Sends real-time notification to admin	Admin receives notification immediately
5	Customer	Sees chat window	Chat interface opens with input field
6	Customer	Types question/message	Customer composes message
7	Customer	Clicks "Send" button	Message is sent in real-time
8	System	Sends message to admin immediately	Admin receives message instantly
9	Admin	Receives notification	Admin sees "New message from [Customer Name]"
10	Admin	Opens chat window	Admin sees conversation
11	Admin	Reads customer's message	Admin understands customer's question
12	Admin	Types response	Admin composes answer
13	Customer	Sees typing indicator	Customer sees "Admin is typing..."
14	Admin	Sends response	Message is sent in real-time

15	Customer	Receives message immediately	Customer reads admin's response
16	Customer	Sees answer to question	Customer gets the information they needed
17	Customer	Can ask follow-up questions	Conversation continues

Postconditions

- Real-time conversation is established
- Both parties can communicate instantly
- Messages are saved in conversation history
- Admin can provide information and support
- Customer can make informed decisions

Alternative Flows

Alternative 1: Help Prompt Initiated Chat

- Customer clicks YES on help prompt
- Chat opens automatically
- Admin receives notification
- Admin can greet customer proactively

Alternative 2: Customer Closes Chat

- Customer can close chat window
- Conversation is saved
- Customer can reopen chat later
- Conversation history is preserved

Alternative 3: Admin is Offline

- If admin is not online when customer initiates chat
- Notification is queued
- When admin logs in, they see pending chats
- Admin can respond when available

Business Value

- **Customer benefits:** Gets answers immediately
- **Admin benefits:** Can help interested customers
- **System learns:** Customer has high engagement
- **Conversion:** Real-time support increases likelihood of positive outcome

Example Chat Conversation

Plain Text

CUSTOMER-ADMIN REAL-TIME CHAT

10:35 AM - Customer clicks "Do you need any help?" prompt
Chat window opens

10:35 AM - System notifies admin
Admin sees: "New chat from Sarah - interested in Dell XPS 13"

10:36 AM - Admin opens chat window
Sees customer's browsing history

10:36 AM - Customer: "Hi, I'm interested in the Dell XPS 13.
Is it good for programming?"

[Admin is typing...]

10:37 AM - Admin: "Hi Sarah! Yes, the Dell XPS 13 is excellent for
programming. The Intel i7 processor and 16GB RAM
handle most development tasks smoothly. Many
developers use it for web development, Python,
JavaScript, and even light machine learning work."

Customer: "Great! What about the display quality for long coding sessions?"

[Admin is typing...]

10:38 AM - Admin: "The 13.3" FHD display is crisp and clear. However,
some developers prefer larger screens for coding.
The good news is you can easily connect external
monitors via Thunderbolt 4. Many developers use it
as a portable machine and dock it at home with a
larger monitor."

Customer: "Perfect! That's exactly what I need. Thanks for the help!"

10:39 AM - Admin: "You're welcome! Feel free to reach out if you have any other questions. I'm here to help!"

Customer: "Will do. Thanks again!"

[Conversation continues or customer closes chat]

6. Customer Use Case 5: Receive Automatic Help Prompt

Use Case Title

System Automatically Offers Help When Customer Shows Interest

Actors

- Customer (Primary)
- System (Secondary)
- Admin (Tertiary - will receive notification)

Preconditions

- Customer is browsing products
- Customer has shown engagement signals (likes, long views, multiple products viewed)
- System has detected high intent

Main Flow

Step	Actor	Action	System Response
1	Customer	Likes first product	System records like
2	Customer	Views second product for 3+ minutes	System records extended view
3	Customer	Likes second product	System records second like
4	System	Evaluates engagement signals	System checks: 2 likes + extended views

5	System	Determines high intent	Customer shows clear interest
6	System	Triggers help prompt	Conditions are met
7	System	Displays help message	Prompt appears on screen: "Do you need any help finding what you're looking for?"
8	Customer	Sees help prompt	Prompt is visible but non-intrusive
9	Customer	Has three options	Customer can: YES, NO, or Ignore
10	Customer	Clicks "YES"	Customer accepts help
11	System	Opens chat window	Chat interface opens
12	System	Notifies admin	Admin receives: "Customer wants help"
13	Admin	Receives notification	Admin can respond immediately

Postconditions

- Chat conversation is initiated
- Admin is aware customer wants help
- Customer has access to real-time support
- Conversation history is saved

Alternative Flows

Alternative 1: Customer Clicks NO

- Customer declines help
- Prompt disappears
- Customer continues browsing
- System may show another prompt later if conditions are met again

Alternative 2: Customer Ignores Prompt

- Prompt disappears after 10 seconds
- Customer continues browsing
- No chat is opened
- System may try again later

Alternative 3: Customer Already Chatting

- If customer already has open chat
- Prompt doesn't appear (to avoid interruption)
- System waits for chat to end

Help Prompt Triggers

The system shows help prompts based on these conditions:

Condition	Trigger	Message
2+ likes in same category	Customer clearly interested	"Do you need any help finding what you're looking for?"
3+ products viewed without likes	Customer browsing but undecided	"Can I help you narrow down your options?"
5+ minutes on single product	Customer seriously considering	"Have any questions about this product?"
Same product viewed 2+ times	Customer very interested	"Ready to learn more? Chat with us!"
5+ products viewed in category	Customer shopping seriously	"Let's find the perfect product for you!"

Example Help Prompt Trigger

Plain Text

HELP PROMPT TRIGGER TIMELINE

10:20 AM - Customer enters Electronics category
System starts tracking behavior

10:22 AM - Customer views Dell XPS 13 laptop
Spends 4 minutes reading details
Clicks LIKE
Intent Score: +25 points

10:26 AM - Customer views Wireless Headphones
Spends 3 minutes reading details
Clicks LIKE
Intent Score: +25 points
TOTAL: 50 points

10:29 AM - TRIGGER CONDITION MET:
✓ 2 likes in Electronics category
✓ Extended view times (4 + 3 minutes)
✓ Clear engagement pattern

10:29 AM - HELP PROMPT APPEARS:

Do you need any help finding
what you're looking for?

[YES] [NO] [Close]

Customer Options:

1. Click YES → Chat opens, admin is notified
2. Click NO → Prompt disappears, browsing continues
3. Ignore → Prompt disappears after 10 seconds

7. Customer Use Case 6: Receive Product Recommendations

Use Case Title

System Recommends Products Based on Customer's Browsing Behavior

Actors

- Customer (Primary)
- System (Secondary)

Preconditions

- Customer has been browsing products

- System has collected behavior data
- Recommendation engine has analyzed patterns
- At least 3 products are available

Main Flow

Step	Actor	Action	System Response
1	Customer	Browses products in Electronics category	System tracks browsing
2	System	Analyzes customer behavior	System identifies patterns
3	System	Identifies customer interests	Customer likes laptops and accessories
4	System	Generates recommendations	System selects relevant products
5	System	Ranks recommendations	System prioritizes by relevance
6	System	Displays recommendations	"You might also like..." section appears
7	Customer	Sees recommended products	Customer views suggestions
8	Customer	Clicks on recommendation	Customer views recommended product
9	System	Tracks recommendation click	Records which recommendations customer is interested in
10	Customer	Sees more details	Customer can like or contact admin about recommendation

Postconditions

- Recommendations are displayed
- Customer can explore suggested products
- System learns which recommendations are effective
- Customer may discover new products they like

Recommendation Strategies

The system uses multiple strategies to recommend products:

Strategy	How It Works	Example
Category Affinity	Recommend products from categories customer browses	If customer views electronics, recommend more electronics
Similar Products	Recommend products similar to ones customer likes	If customer likes laptop, recommend laptop accessories
Frequently Viewed Together	Recommend products other customers viewed together	If many view laptop + mouse together, recommend both
Trending Products	Recommend popular products across all customers	If 100+ customers viewed gaming laptop, recommend it
Price-Based	Recommend products in similar price range	If customer views \$500-\$1000 laptops, recommend in that range

Example Recommendation Display

Plain Text

PRODUCT DETAIL PAGE WITH RECOMMENDATIONS

DELL XPS 13 LAPTOP
[Product details...]

YOU MIGHT ALSO LIKE

[Image] Wireless Headphones

\$149.99
★ Popular with laptop buyers
[View Details]

[Image] USB-C Hub
\$49.99
★ Frequently bought with laptops
[View Details]

[Image] Laptop Bag
\$79.99
★ Recommended for you
[View Details]

[Image] Screen Protector
\$19.99
★ Trending this week
[View Details]

Summary: Complete Customer Journey

Timeline of Customer Interaction

Plain Text

COMPLETE CUSTOMER JOURNEY - WITHOUT PURCHASE

10:00 AM - Customer opens platform
Sees available categories

10:02 AM - Customer clicks "Electronics" category
Browses 12 products in category
System tracks: Category view

10:05 AM - Customer clicks "Dell XPS 13 Laptop"
Reads product details for 4 minutes
System tracks: Product view, 4-minute duration

10:09 AM - Customer clicks "❤️ LIKE"
Likes the laptop
System tracks: Product like
Intent Score: +25 points

10:10 AM - Customer goes back to category
Sees other products

10:12 AM - Customer clicks "Wireless Headphones"
Reads product details for 3 minutes
System tracks: Product view, 3-minute duration

10:15 AM - Customer clicks "❤️ LIKE"
Likes the headphones
System tracks: Product like
Intent Score: +25 points (Total: 50)

10:16 AM - TRIGGER: Help prompt appears
"Do you need any help finding what you're looking for?"

10:17 AM - Customer clicks "YES"
Chat window opens
System notifies admin

10:18 AM - Admin receives notification
Admin opens chat
Admin greets customer

10:19 AM - Customer: "Is the laptop good for programming?"
Admin: "Yes, absolutely! The i7 processor and 16GB RAM..."

10:20 AM - Conversation continues
Customer gets answers to questions
Customer feels supported

10:25 AM - Conversation ends
Customer has all information needed
Customer is satisfied with support

10:26 AM - Customer sees recommendations
"You might also like..."
Sees USB-C Hub, Laptop Bag, Screen Protector

10:28 AM - Customer clicks on USB-C Hub recommendation
Reads product details
System tracks: Recommendation click

10:30 AM - Customer leaves platform
Satisfied with experience
Likely to return

Key Differences: Admin vs Customer

Aspect	Admin	Customer
Primary Goal	Sell products, engage customers	Find products, get information
Actions	Create, edit, publish products	Browse, like, chat
Notifications	Chat requests, product performance	Help prompts, recommendations
Focus	Product management, analytics	Product discovery, support
Engagement	Proactive (respond to chats)	Reactive (browse and engage)
Timeline	Manage products over time	Single session browsing
Success Metric	Customer engagement, inquiries	Finding what they need

Conclusion

This business flow document describes how the e-commerce platform works from both the **Admin** and **Customer** perspectives, without any purchase operations. The focus is on:

1. **Admin:** Creating categories, managing products, monitoring performance, and engaging with customers in real-time
2. **Customer:** Discovering products, learning about them, showing interest through likes, and getting real-time support through chat
3. **System:** Tracking behavior, triggering help prompts, generating recommendations, and facilitating real-time communication

The platform creates a **direct connection** between sellers and buyers through intelligent engagement mechanisms and real-time communication.