

DAY 1: LAYING THE FOUNDATION FOR YOUR MARKETPLACE JOURNEY

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First published: PKT 11:08 AM, January 15, 2025

Document Revision Information

Version	Date	Amendment	Author
1.0	11:08 AM, January 15, 2025	Initial release	Ameen Alam
1.1	03:00 PM, January 15, 2025	Added Examples	Ameen Alam

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Day 1: Introduction to E-Commerce, Q-Commerce, and Rental E-Commerce

Welcome to Day 1 of the **Marketplace Builder Hackathon 2025!** Embark on an exciting journey where creativity meets technology, enabling you to build and launch your very own marketplace. This experience is designed to help you master critical concepts and tools, preparing you to thrive in real-world challenges and opportunities. This is the starting point of an exciting journey where you'll learn, build, and launch your own marketplace. By the end of this hackathon, you'll have gained hands-on experience in designing a fully functional platform, prepared to handle real-world challenges and opportunities. Today marks the beginning of your journey toward creating a fully functional, live e-commerce marketplace. This session is designed to lay a robust foundation by diving deep into the concepts of different marketplace models, familiarizing yourself with essential business terminology, and getting started on the structural blueprint for your project.

Objective

By the end of today, you will:

1. Understand the key differences between **e-commerce**, **q-commerce**, and **rental e-commerce**.
2. Learn the essential business jargon used in these domains.
3. Define your marketplace type and write down your business goals and initial ideas.
4. Start brainstorming your data schema on paper and identify core business entities.

1. What is E-Commerce?

E-commerce (Electronic Commerce) refers to the buying and selling of goods or services through online platforms. It has revolutionized how businesses operate by offering a virtual storefront accessible to global audiences.

Over the last decade, global e-commerce sales have grown exponentially, with total sales reaching over \$5 trillion in 2021 and projected to exceed \$7 trillion by 2025. This growth is driven by advancements in technology, increasing internet penetration, and changing consumer preferences for online shopping. The rise of mobile commerce (m-commerce) has further accelerated this trend, making e-commerce accessible anytime, anywhere.

Key Features of E-Commerce:

- **Product Catalog:** Displays products with descriptions, images, pricing, and stock availability.
- **Order Fulfillment:** Handles the journey of an order from placement to delivery.
- **Payment Systems:** Facilitates secure transactions via payment gateways (e.g., PayPal, Stripe).
- **Customer Management:** Tracks user data, order history, and preferences.
- **Shipment and Tracking:** Ensures timely delivery with real-time logistics updates.

Examples of E-Commerce Businesses:

- **General E-Commerce:** Amazon, Daraz.
- **Niche E-Commerce:** Stores specializing in specific categories, like tech gadgets or handmade crafts.

Why Build an E-Commerce Marketplace?

- **Scalability:** Scale your business to reach a global audience without geographical constraints.
- **Convenience:** Provides customers with a seamless shopping experience.
- **Profitability:** Leverage online visibility to increase revenue streams through direct sales and services.

2. What is Q-Commerce?

Q-Commerce (Quick Commerce) is a fast-paced subset of e-commerce focused on rapid delivery. It addresses urgent consumer needs by offering items within a short timeframe, typically under an hour.

Key Features of Q-Commerce:

- **Streamlined Inventory:** Focus on high-demand essentials like groceries, medicine, and snacks.
- **Localized Delivery:** Operates within small geographical areas to maximize efficiency.
- **Optimized Logistics:** Uses smart routing and delivery algorithms to reduce delays.
- **Customer Engagement:** Provides live order tracking and instant updates to enhance transparency.

Examples of Q-Commerce Businesses:

- **Food Delivery:** Foodpanda, Uber Eats.
- **Grocery Delivery:** Instacart, Airlift.
- **Pharmaceutical Delivery:** Dawaai.

Impactful Scenarios for Q-Commerce:

- **Emergencies:** Delivering critical items like medicine or baby formula during unexpected situations. For example, during a city-wide lockdown, Q-Commerce platforms ensured timely delivery of essential medicines to patients unable to visit pharmacies.
- **Last-Minute Needs:** Catering to urgent requirements such as forgotten groceries or event supplies. An instance could be a customer realizing they need a key ingredient for dinner and receiving it within 30 minutes.
- **On-Demand Convenience:** Supporting busy individuals with rapid access to essentials without leaving their homes. For example, working professionals can order snacks or beverages during breaks and have them delivered directly to their workplace.

Why Build a Q-Commerce Marketplace?

- **Consumer Convenience:** Meets immediate needs for fast delivery of essentials.
- **Competitive Advantage:** Differentiates your business from traditional e-commerce.
- **Higher Retention Rates:** Faster service fosters customer loyalty and repeat purchases.

3. What is Rental E-Commerce?

Rental E-Commerce focuses on providing consumers with access to products and services on a rental basis, allowing short-term use instead of outright ownership. This model is highly sustainable and cost-effective.

Key Features of Rental E-Commerce:

- **Inventory Management:** Tracks product availability and condition.
- **Reservation Systems:** Offers booking options for specific dates and times.
- **Return Policies:** Manages the return process seamlessly.
- **Pricing Models:** Includes flexible rates like hourly, daily, or weekly fees.

Examples of Rental E-Commerce Businesses:

- **Car Rentals:** Hertz, Enterprise.
- **Event Rentals:** Party supplies, wedding decor.
- **Equipment Rentals:** High-end cameras, construction tools.

Why Build a Rental E-Commerce Marketplace?

- **Resource Sharing:** Promotes a sustainable model that reduces waste.
- **Cost Efficiency:** Provides affordable access to expensive products.
- **Market Potential:** Attracts diverse customers looking for flexible ownership options.

4. Key Business Jargon to Know

Understanding these terms will enhance your ability to design and manage a marketplace effectively. During the hackathon, you will encounter these terms as you define product catalogs, calculate customer acquisition costs, or analyze conversion rates. Mastery of this jargon will help align your technical solutions with core business objectives. These concepts form the backbone of efficient marketplace operations and decision-making, helping you align technical implementation with business objectives:

Understanding these terms will enhance your ability to design and manage a marketplace effectively:

- **SKU (Stock Keeping Unit):** Unique identifiers for inventory tracking.
- **Sub-SKU:** The variety of a product with different Product Options
- **Stock Level:** The available quantity of an item in the warehouse. Maintaining optimal stock levels ensures orders are dispatched without stockouts.
- **Warehousing:** The process of safely storing goods before distribution.
- **Warehouse:** A facility for receiving, storing, and tracking goods, including their locations and storage duration.
- **3PL (Third-Party Logistics):** Outsourced services managing storage, shipping, and fulfilment activities for businesses.
- **Order Fulfilment:** Managing the end-to-end process of delivering orders.
- **Delivery SLA (Service Level Agreement):** Commitment to a specific delivery timeframe.
- **Churn Rate:** The percentage of customers who discontinue using a service.
- **Inventory Turnover:** The speed at which products are sold and restocked.
- **Dynamic Pricing:** Adapting prices based on demand, competition, or availability.

- **Customer Acquisition Cost (CAC):** The cost associated with acquiring a new customer.
- **Lifetime Value (LTV):** The total revenue a business expects to earn from a customer over their relationship.
- **Net Promoter Score (NPS):** A metric that measures customer loyalty and satisfaction.
- **Cart Abandonment Rate:** The percentage of customers who add items to their cart but do not complete the purchase.
- **Gross Merchandise Value (GMV):** The total sales value of merchandise sold through a marketplace.
- **Average Order Value (AOV):** The average amount spent per order.
- **Retention Rate:** The percentage of customers who continue to use your services over a period.
- **Bounce Rate:** The percentage of visitors who leave your website without interacting.
- **Conversion Rate:** The percentage of visitors who complete a desired action, like making a purchase.
- **Upselling:** Encouraging customers to purchase higher-end products or add-ons.
- **Cross-Selling:** Suggesting related products or services to customers.
- **Wholesale Pricing:** Offering products in bulk at discounted rates.
- **Markup:** The difference between the cost price and selling price of a product.
- **Margin:** The percentage of profit earned on a product.
- **Omnichannel Strategy:** A seamless shopping experience across multiple channels, like online, mobile, and in-store.
- **Supply Chain:** The network involved in producing and delivering a product to the customer.
- **Drop Shipping:** Selling products without holding inventory by shipping directly from suppliers.
- **Affiliate Marketing:** Promoting products and earning a commission for sales generated through your referrals.
- **Landing Page:** A standalone web page designed to capture leads or convert visitors.
- **Heatmap Analysis:** A visual representation of user interactions on a webpage.
- **User Experience (UX):** How a user interacts with and experiences a website or application.
- **Personalization:** Customizing content, offers, or experiences based on user data.
- **Localization:** Adapting your marketplace for a specific region or audience.
- **Lead Time:** The time it takes to fulfill an order from placement to delivery.
- **Backorder:** Allowing customers to order products that are currently out of stock.

- **Flash Sale:** A limited-time sale to drive urgency and increase sales.
- **Bundling:** Offering multiple products together at a discounted price.
- **Customer Segmentation:** Dividing customers into groups based on shared characteristics.
- **A/B Testing:** Comparing two versions of a webpage or app to determine which performs better.
- **Predictive Analytics:** Using data and machine learning to forecast future trends and behavior.
- **Logistics:** The planning, execution, and management of transportation and delivery.
- **Reorder Rate:** The frequency at which customers make repeat purchases.
- **Inventory Shrinkage:** Loss of inventory due to theft, damage, or errors.
- **Freemium Model:** Offering basic services for free while charging for premium features.
- **SaaS (Software as a Service):** A subscription-based software delivery model.
- **Net Revenue:** Total revenue minus returns, discounts, and allowances.
- **SEO (Search Engine Optimization):** Optimizing a website to improve its visibility in search engine results.
- **PPC (Pay-Per-Click):** An advertising model where advertisers pay for each click on their ads.
- **ROAS (Return on Advertising Spend):** A metric to measure the effectiveness of advertising campaigns.
- **Shipping Zones:** Geographic areas where specific shipping rates and rules apply.
- **White-Labeling:** Selling products or services under your own brand while another company produces them.
- **Dark Store:** A warehouse set up for online order fulfillment instead of in-store shopping.
- **Smart Inventory:** Using data and AI to optimize inventory levels and reduce waste.
- **Zero Inventory Model:** A model where businesses hold no stock, relying entirely on third-party suppliers.
- **Minimum Viable Product (MVP):** The simplest version of a product that meets the needs of early adopters and provides feedback for future development.
- **Profit Margin:** The percentage of revenue that exceeds the cost of production.
- **Business-to-Business (B2B):** Transactions between businesses, such as wholesalers selling to retailers.
- **Business-to-Consumer (B2C):** Transactions directly between a business and consumers.

- **Freight Forwarding:** A service used to transport goods from one destination to another using multiple carriers.
- **Economic Order Quantity (EOQ):** The optimal quantity of stock a business should order to minimize costs.
- **Just-In-Time (JIT) Inventory:** A strategy to increase efficiency by receiving goods only as they are needed.
- **Payment Gateway:** Technology that captures and transfers payment data securely between the customer and merchant.
- **Break-Even Point:** The stage where total revenue equals total costs, resulting in no net loss or gain.

5. Your Task for Day 1

Step 1: Choose Your Marketplace Type

- Options:
 - General E-Commerce
 - Q-Commerce
 - Rental E-Commerce
- Document your choice and describe its primary purpose.

Step 2: Define Your Business Goals

Answer these guiding questions:

- What problem does your marketplace aim to solve?
For example:
 - If customers find it hard to get groceries delivered quickly, your marketplace could solve this by offering a Q-Commerce platform for rapid grocery delivery.
 - If people struggle to afford expensive tools they only need temporarily, your marketplace could provide a rental option to make these tools accessible and affordable.
- Who is your target audience?
For example:
 - A Q-Commerce platform might target busy professionals in urban areas who need quick delivery of daily essentials.
 - A rental marketplace for party supplies might target event planners or families organizing special occasions.

- What products or services will you offer?

Examples for Different Marketplaces:

1. **General E-Commerce Marketplace:**

Products: Electronics, clothing, household items, beauty products, groceries, etc.

Example: Your marketplace could offer a wide range of everyday products similar to Amazon or Daraz.

2. Q-Commerce Marketplace:

Products: Groceries, medicine, snacks, or urgent items.

Example: A grocery delivery platform providing fresh produce and packaged goods within 30 minutes.

3. Rental E-Commerce Marketplace:

Services: Short-term rentals of cars, party supplies, cameras, or construction tools.

Example: A platform where event organizers can rent tables, chairs, and decorations for weddings or parties.

4. Niche E-Commerce Marketplace:

Products: Specialized items like handmade crafts, eco-friendly products, or tech gadgets.

Example: An eco-friendly marketplace selling reusable bottles, biodegradable packaging, and solar-powered devices.

- What will set your marketplace apart (e.g., speed, affordability, customization)?

For example:

- **Speed:** Will your marketplace deliver products faster than competitors (e.g., within an hour)?
- **Affordability:** Will your prices be lower or offer better value for money?
- **Customization:** Will your platform allow users to personalize products or services according to their preferences?

Step 3: Create a Data Schema

1. Identify the Entities in Your Marketplace:

- Start by listing the main components of your marketplace that interact with each other. These are the "entities."

Examples include:

- **Products:** Items available for sale or rent.
- **Orders:** Records of transactions between customers and your platform.

- **Customers:** Individuals or businesses purchasing or renting products.
- **Delivery Zones:** Areas covered by your logistics or service providers.
- **Shipment:** Tracks the movement of items from warehouse to customer.
- **Payments:** Tracks transactions and payment statuses.

2. Draw Relationships Between Entities:

- Use a diagram to visualize how these entities interact. Below is an enhanced example:

[Product]

- ID
- Name
- Price
- Stock

|

|

[Order] -----> [Customer]

- | | |
|--------------|----------------|
| - Order ID | - Customer ID |
| - Product ID | - Name |
| - Quantity | - Contact Info |

|

|

[Shipment] <----- [Delivery Zone]

- | | |
|---------------|-------------------|
| - Shipment ID | - Zone Name |
| - Order ID | - Coverage Area |
| - Status | - Assigned Driver |

- This example shows:

- Products linked to orders.
- Orders associated with customers.
- Shipments and delivery zones integrated to track logistics.

3. Focus on Key Fields for Each Entity:

- **Products:**

- ID: Unique identifier for each product.
- Name: Name of the product.
- Price: Cost per unit.
- Stock: Quantity available.
- Category: Classification of the product (e.g., Electronics, Clothing).
- Tags: Keywords for search (e.g., "New Arrival").

- **Orders:**
 - Order ID: Unique identifier for each order.
 - Customer Info: Name, contact details, and address.
 - Product Details: List of products, quantities, and prices.
 - Status: Order status (e.g., Pending, Shipped, Delivered).
 - Timestamp: Date and time of order placement.
- **Customers:**
 - Customer ID: Unique identifier.
 - Name: Full name of the customer.
 - Contact Info: Phone number and email address.
 - Address: Delivery address.
 - Order History: Past orders placed by the customer.
- **Delivery Zones:**
 - Zone Name: Name or identifier of the delivery zone.
 - Coverage Area: List of postal codes or cities served.
 - Assigned Drivers: Details of drivers or couriers.
- **Shipment:**
 - Shipment ID: Unique identifier for tracking.
 - Order ID: Linked order.
 - Status: Current status (e.g., In Transit, Delivered).
 - Delivery Date: Expected or actual delivery date.

4. Keep It Simple Yet Comprehensive:

- Avoid overloading your schema with unnecessary details at this stage.
- Focus on capturing the core functionality and key relationships that will drive your marketplace.
- Ensure the schema is flexible enough to accommodate future growth or changes.

5. Test Your Schema:

- Cross-check your schema with your marketplace's business goals.
- Validate if the schema supports critical operations like inventory management, order tracking, and customer engagement.

Step 4: Submit Your Work

- Take a photo or scan your business goals and data schema. (**Deadline: Thursday, January 16th, 12:00PM.**)
- Submission is not required immediately. Instead:
 - Post your work on LinkedIn to showcase your progress.
 - Keep it for personal reference; we will review it in the next interview.
 - Alternatively, create a 'notes' folder in your NextJS Design JAM 2024 hackathon template repository and upload all images there for easy access.

FAQs

Q1: Can I switch my marketplace type later?

- Yes, but it is recommended to finalize your choice early to streamline your planning.

Q2: Do I need technical knowledge to create a data schema?

- No, focus on the business logic. Technical implementation comes later.

Q3: What if I have trouble defining my business goals?

- Use the examples provided for inspiration and consult with mentors for clarity.

Q4: Do I need software to create my diagram?

- No, a hand-drawn diagram is sufficient for now.
- **Use paper pencil only**

Q5: How detailed should my data schema be?

- Include essential fields for each entity but avoid overcomplicating it at this stage.

End Note

Day 1 is all about understanding your marketplace and laying a strong foundation for the rest of the hackathon. Today's activities—choosing your marketplace type, defining business goals, and creating a data schema—are critical to aligning your technical implementation with real-world business needs. As you progress through the hackathon, these initial steps will guide you in building a functional, efficient, and innovative marketplace. Keep your focus on clarity, simplicity, and practicality.

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Great work today and get ready for the challenges ahead! 🚀