MERCADO LIBRE

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BUSINESS MODEL

The business model that "Mercado Libre" handles is based on the following points:

- Brokerage platform
- Comprehensive ecosystem
- Income diversification
- Fintech Expansion

REQUIRED INFO

User Stories: Allows to develop based on the user necessities

Functionalities: Consequence of the User Histories, describes what it will do the app

USER STORIES

User stories focus on an e-commerce application where its reach is maximum, with functionalities that improve the user experience.

One of the stories is:

- As a buyer, I want to add items to my shopping cart, so that I can review and purchase multiple products at once.

FUNCTIONALITIES

What the app will do based on the user stories such as

- Shopping cart
- Purchase history
- Favorites
- Product ratings
- Product posting

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STEP 1 (COMPONENTS)

The components we were able to identify in this first step are the following:

- Transactions
- Client Service
- Products to Buy
- Delivery Service
- Sale of products

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STEP 2 (ENTITIES)

The entities we were able to identify in this first step are the following:

- User
- Account Status User
- Delivery
- Delivery Provider
- Status Delivery
- Product
- Product Status
- Shopping Car
- Status car
- Transaction
- Payment Method
- Transaction Status
- Receipt
- Favorites List
- Seller
- Store
- Client Report
- Report Category
- Status Report
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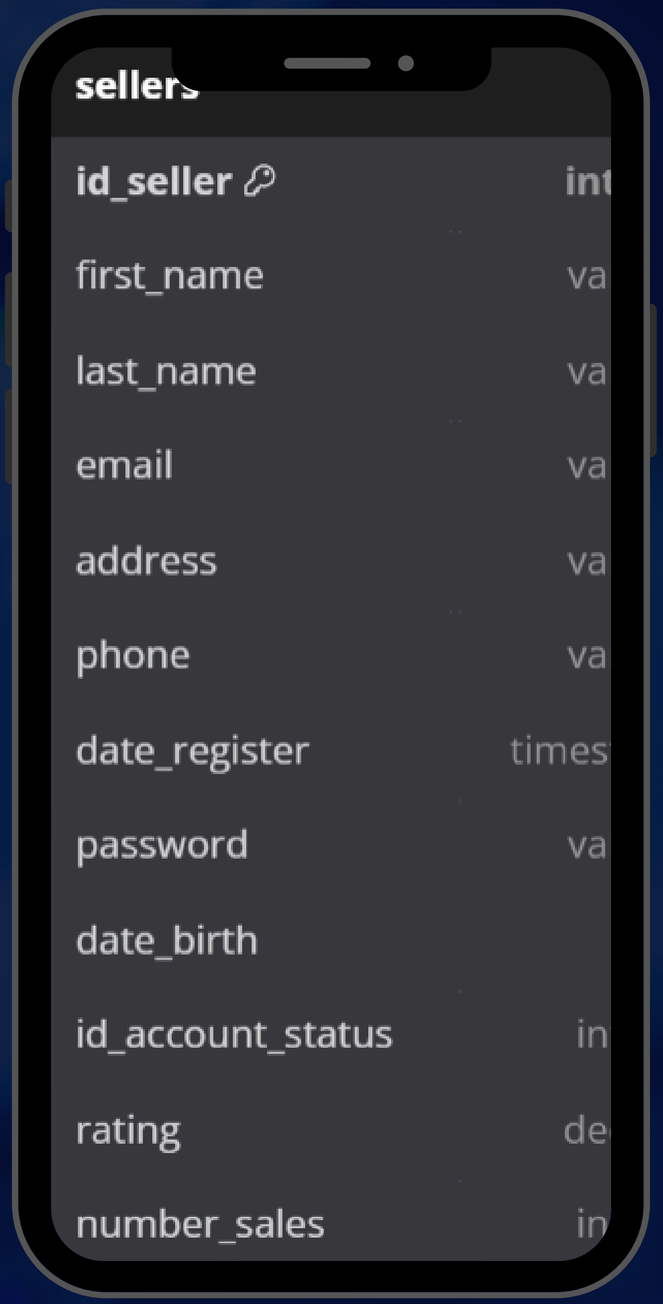
STEP 3 (ATTRIBUTES)

An in-depth analysis was performed on each entity to extract its components, taking into account their primary keys. Due to the large number of entities, we will only include the image with the attributes of the "Seller" entity.



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STEP 4 (RELATIONSHIPS)

To establish the relationships between the entities, we created an Excel spreadsheet and organized all possible relationships between the entities.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1		✓	✓		✓		✓		✓			✓	✓	✓		✓		
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STEP 5 (DEFINE RELATION)

After compiling a list of all the relationships, we proceeded to identify what type of relationships are being managed (Below we leave the "small" list of relationships):

- User – Delivery (One – Many)
- User – Delivery Provider (Many – Many)
- User – Product (One – Many)
- User – Shopping Car (One – One)
- User – Transaction (One – Many)
- User – Receipt (One – Many)
- User – Favorites List (One – Many)
- User – Seller (Many – Many)
- User – Client Report (One – Many)
- Delivery – Delivery Provider (One – Many)
- Delivery – Status Delivery (Many – One)
- Delivery – Product (Many – Many)
- Delivery – Receipt (One – Many)
- Delivery – Seller (Many – One)
- Product – Product Status (Many – One)
- Product – Shopping Car (Many – One)
- Product – Transaction (Many – One)
- Product – Receipt (Many – One)
- Product – Favorites List (Many – One)
- Product – Seller (Many – One)
- Product – Store (Many – One)
- Product – Client Report (One – Many)
- Shopping Car – Status Car (Many – One)
- Shopping Car – Seller (One – Many)
- Transaction – Payment Method (Many – One)
- Transaction – Transaction Status (Many – One)
- Transaction – Receipt (One – One)
- Payment Method – Receipt (One – Many)
- Receipt – Seller (Many – One)
- Favorites List – Seller (Many – Many)
- Seller – Store (One – Many)
- Seller – Client Report (One – Many)
- Store – Client Report (One – Many)
- Client Report – Report Category (Many – One)
- Client Report – Status Report (Many – One)

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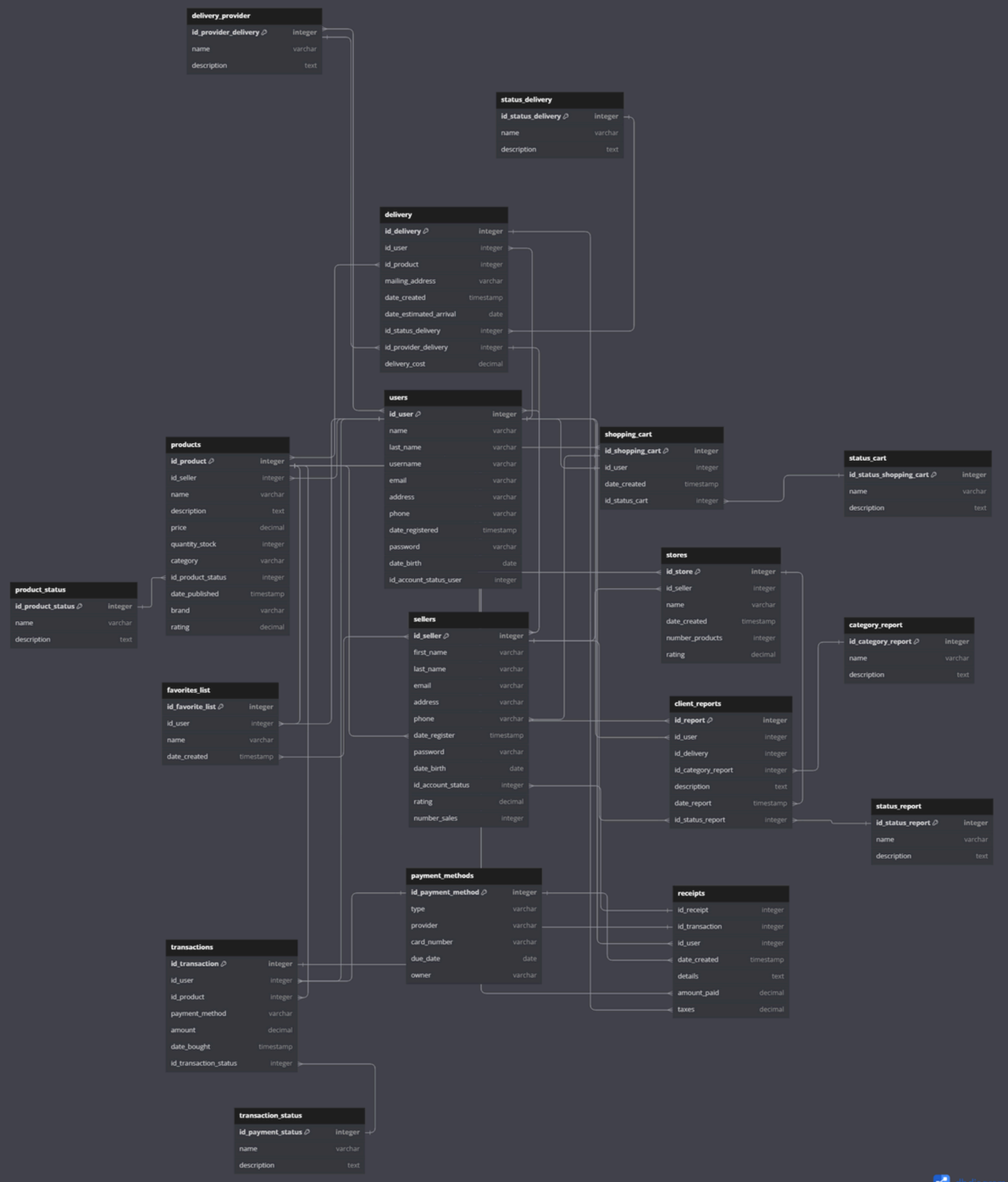
STEP 6 (FIRST DESIGN)

With the data already collected, we proceeded to create the first Entity-Relationship-Model diagram.



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STEP 7 (MANY-MANY CONSIDERATION)

These are the entities with those relationships:

- User – Delivery Provider
- User – Seller
- Delivery – Product
- Favorites List – Seller

New entities:

- User/Delivery Provider
- User/Seller
- Delivery/Product
- Favorites List/Seller

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STEP 8 (FINAL DESIGN)

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STEP 9 (GET DATA-STRUCTURED)

To accelerate the process of creating the final design, we identified the data type for each attribute. (As there are many attributes and consequently many data types for each entity, we will provide an example of what we documented.)

Delivery

- ID_Delivery: int (Unique identifier for the delivery, PK)
- ID_User: int (FK to User)
- ID_Product: int (FK to Product)
- Mailing_Address: varchar (Delivery mailing address)
- Date_Created: timestamp (Date the delivery was created)
- Date_Estimated_Arrive: date (Estimated delivery arrival date)
- ID_Status_Delivery: int (FK to Status Delivery)
- ID_Provider_Delivery: int (FK to Delivery Provider)
- Delivery_Cost: decimal (Cost of the delivery)

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STEP 10 (CONSTRAINTS AND PROPERTIES)

Finally, we identified the constraints and properties of each attribute, similar to the data structure. Due to the large number of attributes and entities, we will provide an example of how we structured it.

Delivery Provider

- ID_Provider_Delivery: int
  - Constraints: PRIMARY KEY, NOT NULL, AUTO_INCREMENT
  - Properties: Must be unique, automatically generated.
- Name: string
  - Constraints: NOT NULL, VARCHAR(100)
  - Properties: Must contain only alphabetic characters and spaces, minimum length of 2 characters.
- Description: text
  - Constraints: NULL
  - Properties: Optional description of the provider.

THANKS