

# Modelo de datos

## users

- `_id`: ObjectId
- `username`: String (index)
- `email`: String (único)
- `role`: String ("admin" | "cashier" | "manager", default "cashier")
- `password`: String
- `createdAt`: Date (default now)

## customers

- `_id`: ObjectId
- `name`: String (index)
- `email`: String
- `phone`: String
- `address`: String
- `createdAt`: Date (default now)

## products

- `_id`: ObjectId
- `name`: String (index)
- `price`: Number (min 0)
- `category`: String
- `createdAt`: Date (default now)

## stock

- `_id`: ObjectId
- `product`: ObjectId (ref products)

- quantity: Number (min 0, default 0)

## sales

- \_id: ObjectId
- date: Date (default now)
- customer: ObjectId (ref customers, opcional)
- items: Array de objetos:
  - product: ObjectId (ref products)
  - qty: Number (min 1)
  - price: Number (precio unitario al momento de la venta)
- total: Number ( $\geq 0$ , suma de  $qty * price$ )