

USER_TABLE			
bigserial	user_id	PK	
varchar	username		UNIQUE, NOT NULL
varchar	email		UNIQUE, NOT NULL
varchar	password_hash		NOT NULL
varchar	role		NOT NULL, CHECK: CUSTOMER or ADMIN
boolean	is_active		NOT NULL, DEFAULT true
timestamp	created_at		NOT NULL
timestamp	updated_at		NOT NULL

CUSTOMER			
bigserial	customer_id	PK	
bigint	user_id	FK	UNIQUE, NOT NULL
varchar	first_name		NOT NULL
varchar	last_name		NOT NULL
varchar	mobile		NOT NULL
timestamp	created_at		NOT NULL
timestamp	updated_at		NOT NULL

ADDRESS			
bigserial	address_id	PK	
bigint	customer_id	FK	NOT NULL
varchar	address_type		NOT NULL, CHECK: HOME/WORK/BILLING/SHIPPING
varchar	street_address		NOT NULL
varchar	city		NOT NULL
varchar	state		NOT NULL
varchar	postal_code		NOT NULL
varchar	country		NOT NULL
boolean	is_default		NOT NULL, DEFAULT false
timestamp	created_at		NOT NULL
timestamp	updated_at		NOT NULL

ORDER_TABLE			
bigserial	order_id	PK	
bigint	customer_id	FK	NOT NULL
bigint	shipping_address_id	FK	NOT NULL
bigint	created_by_user_id	FK	NOT NULL
decimal	total_amount		NOT NULL, CHECK >= 0
varchar	order_status		NOT NULL, DEFAULT PENDING
timestamp	order_date		NOT NULL
timestamp	updated_at		NOT NULL

PRODUCT			
bigserial	product_id	PK	
varchar	product_name		NOT NULL
text	description		
decimal	price		NOT NULL, CHECK >= 0
integer	stock_quantity		NOT NULL, CHECK >= 0
varchar	category		
timestamp	created_at		NOT NULL
timestamp	updated_at		NOT NULL

INVOICE			
bigserial	invoice_id	PK	
bigint	order_id	FK	UNIQUE, NOT NULL
varchar	invoice_number		UNIQUE, NOT NULL
decimal	invoice_amount		NOT NULL, CHECK >= 0
decimal	tax_amount		DEFAULT 0, CHECK >= 0
decimal	total_amount		NOT NULL, CHECK >= 0
timestamp	invoice_date		NOT NULL
varchar	invoice_status		NOT NULL, DEFAULT GENERATED

ORDER_ITEM			
bigserial	order_item_id	PK	
bigint	order_id	FK	NOT NULL
bigint	product_id	FK	NOT NULL
integer	quantity		NOT NULL, CHECK > 0
decimal	unit_price		NOT NULL, CHECK >= 0
decimal	subtotal		NOT NULL, CHECK >= 0