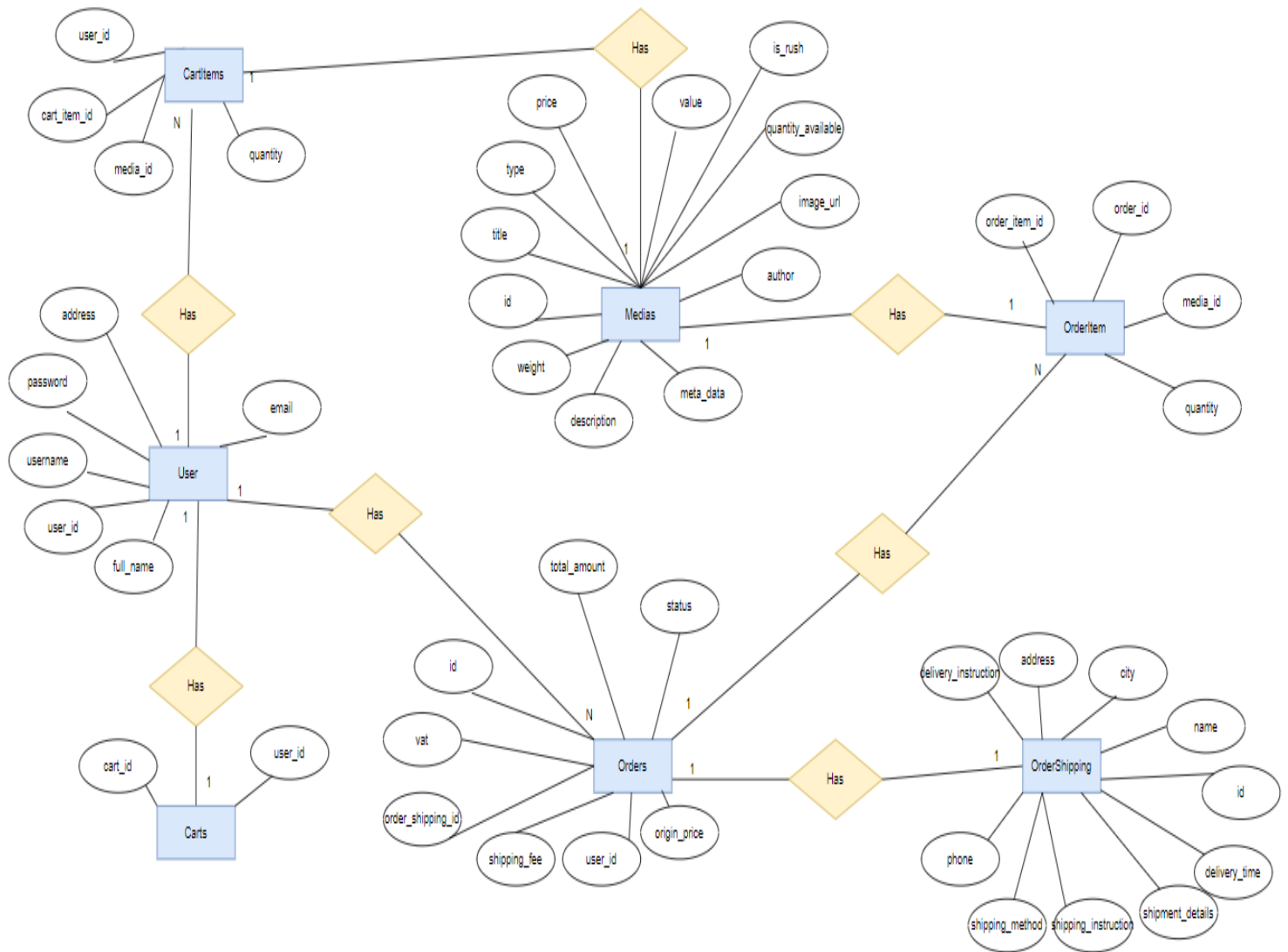
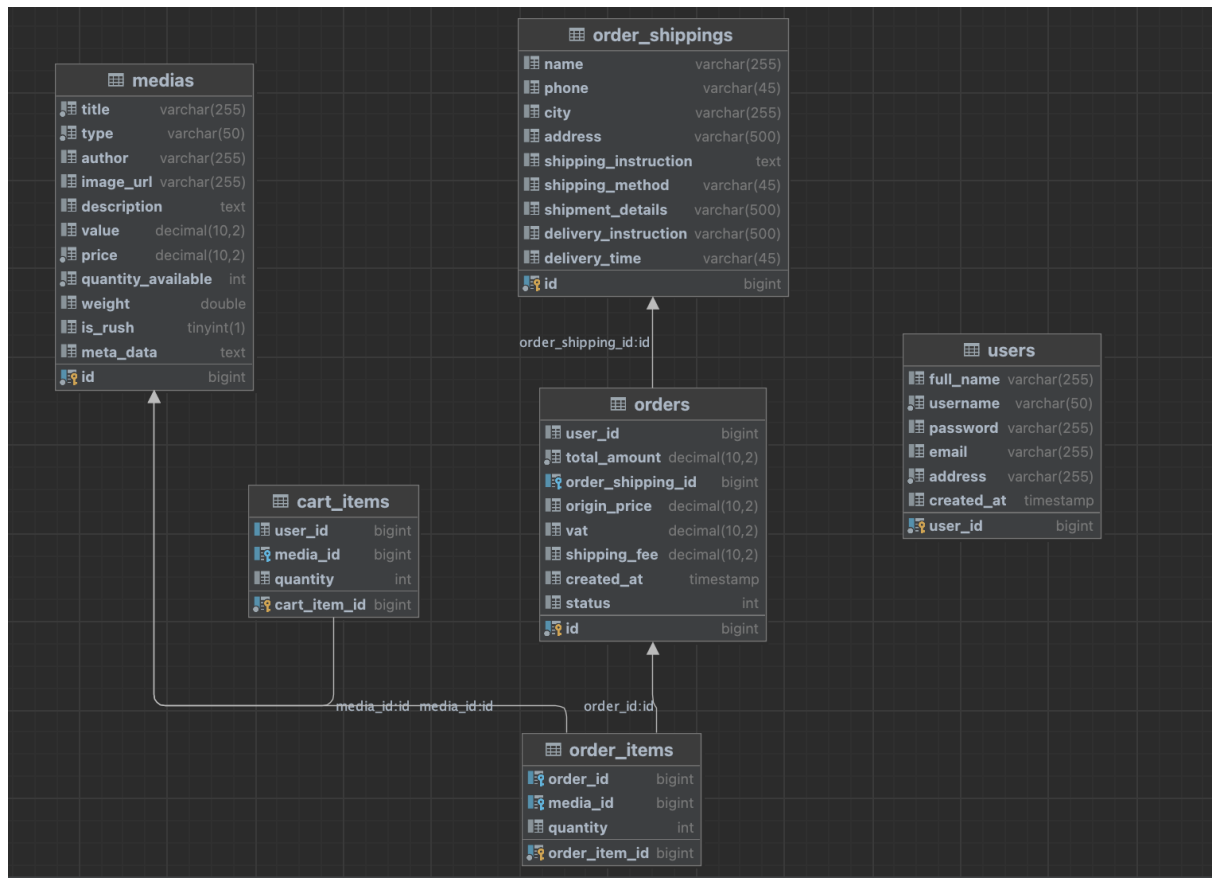


# DATA - MODELING

## 1. Conceptual data model: Entity-Relation Diagram (ERD)



## 2. Logical data model: Database Design Diagram



### 3. Physical data model:

#### 3.1. Table medias

ST T	PK	FK	Column Name	Data Type	Mandator y	Description
1	x		id	BIGINT	Yes	ID, auto increment
2			title	VARCHAR(25 5)	Yes	Title of Media
3			type	VARCHAR(50 )	Yes	Type
4			author	VARCHAR(25 5)	No	Author

<b>5</b>			image_url	VARCHAR(255)	No	Image
<b>6</b>			value	DECIMAL(10,2)	No	Origin price
<b>7</b>			price	DECIMAL(10,2)	No	Final price
<b>8</b>			quantity_availability	INT	No	Quantity can buy
<b>9</b>			weight	DECIMAL(10,2)	No	Weight of media
<b>10</b>			is_rush	boolean	No	Is support rush shipping
<b>11</b>			meta_data	LONGTEXT	No	Custom field

### 3.2. Table cart\_items

<b>ST T</b>	<b>PK</b>	<b>FK</b>	<b>Column Name</b>	<b>Data Type</b>	<b>Mandator y</b>	<b>Description</b>
<b>1</b>	x		cart_item_id	BIGINT	Yes	ID, auto increment
<b>2</b>			user_id	BIGINT	Yes	User of cart
<b>3</b>			media_id	BIGINT	Yes	Media in cart

<b>4</b>			quantity	INT	Yes	Quantity of media in cart
----------	--	--	----------	-----	-----	---------------------------

### 3.3. Table order\_items

ST T	PK	FK	Column Name	Data Type	Mandator y	Description
<b>1</b>	x		order_item_id	BIGINT	Yes	ID, auto increment
<b>2</b>			order_id	BIGINT	Yes	Order Id
<b>3</b>			media_id	BIGINT	Yes	Media in order
<b>4</b>			quantity	INT	Yes	Quantity of media in order

### 3.4. Table orders

ST T	P K	F K	Column Name	Data Type	Mandator y	Description
<b>1</b>		x	id	BIGINT	Yes	ID, auto increment
<b>2</b>			user_id	BIGINT	Yes	User of order
<b>3</b>			total_amount	DECIMAL(10, 2)	Yes	Final price

<b>4</b>			order_shipping_id	BIGINT	Yes	Shipping address
<b>5</b>			origin_price	DECIMAL(10, 2)	Yes	Origin price
<b>6</b>			vat	DECIMAL(10, 2)	Yes	VAT
<b>7</b>			shipping_fee	DECIMAL(10, 2)	Yes	Fee of shipping

### 3.5. Table order\_shippings

<b>ST T</b>	<b>PK</b>	<b>FK</b>	<b>Column Name</b>	<b>Data Type</b>	<b>Mandator y</b>	<b>Description</b>
<b>1</b>		x	id	INT	Yes	ID, auto increment
<b>2</b>			name	VARCHAR(255)	No	Customer's name
<b>3</b>			phone	VARCHAR(255)	No	Customer's phone
<b>4</b>			city	VARCHAR(255)	No	Customer's city

<b>5</b>			address	VARCHAR(500)	No	Customer's address
<b>6</b>			shipping_instruction	TEXT	No	Shipping Instruction
<b>7</b>			shipping_method	VARCHAR(45)	No	Method of shipping
<b>8</b>			shipping_details	VARCHAR(500)	No	Detail of shipping
<b>9</b>			delivery_instruction	VARCHAR(500)	No	How to delivery
<b>10</b>			delivery_time	VARCHAR(45)	No	Time to delivery

### 3.6. Table users

<b>ST T</b>	<b>PK</b>	<b>FK</b>	<b>Column Name</b>	<b>Data Type</b>	<b>Mandator y</b>	<b>Description</b>
<b>1</b>		x	user_id	BIGINT	Yes	ID, auto increment
<b>2</b>			full_name	VARCHAR(255)	No	User's name
<b>3</b>			username	VARCHAR(50)	Yes	Username
<b>4</b>			password	VARCHAR(45)	No	

5			email	VARCHAR(255)	No	
6			address	VARCHAR(255)	Yes	

· **Database Script from Logical Data Model**

```
CREATE DATABASE `tkxdpm` /*!40100 DEFAULT CHARACTER SET utf8mb4
COLLATE utf8mb4_0900_ai_ci */ /*!80016 DEFAULT ENCRYPTION='N' */;
```

create table if not exists carts

```
(
    id          bigint auto_increment
    primary key,
    user_id     bigint                                null,
    created_at  timestamp default CURRENT_TIMESTAMP null
);
```

create table if not exists medias

```
(
    id          bigint auto_increment
    primary key,
```

```
title          varchar(255) not null,

type           varchar(50)  not null,

author         varchar(255) null,

image_url      varchar(255) null,

description    text          null,

value          decimal(10, 2) null,

price          decimal(10, 2) not null,

quantity_available int      not null,

weight         double        null,

is_rush        tinyint(1)    null,

meta_data      text          null

);
```

create table if not exists cart\_items

```
(

    cart_item_id bigint auto_increment

    primary key,

    user_id       bigint null,

    media_id      bigint null,

    quantity      int     null,
```



```
constraint cart_items_ibfk_2  
  
foreign key (media_id) references medias (id)  
  
);
```

```
create index cart_id  
  
on cart_items (user_id);
```

```
create index media_id  
  
on cart_items (media_id);
```

```
create table if not exists order_shippings  
(  
  
    id          bigint auto_increment  
  
    primary key,  
  
    name        varchar(255) null,  
  
    phone       varchar(45) null,  
  
    city        varchar(255) null,  
  
    address     varchar(500) null,  
  
    shipping_instruction text null,  
  
    shipping_method varchar(45) null,
```

```
shipment_details    varchar(500) null,  
  
delivery_instruction varchar(500) null,  
  
delivery_time       varchar(45) null  
  
);
```

create table if not exists orders

```
(  
  
    id          bigint auto_increment  
  
    primary key,  
  
    user_id      bigint          null,  
  
    total_amount decimal(10, 2)    not null,  
  
    order_shipping_id bigint          null,  
  
    origin_price decimal(10, 2)    null,  
  
    vat          decimal(10, 2)    null,  
  
    shipping_fee decimal(10, 2)    null,  
  
    created_at   timestamp default CURRENT_TIMESTAMP null,  
  
    status       int              null,  
  
    constraint orders_order_shippings_id_fk  
  
    foreign key (order_shipping_id) references order_shippings (id)  
  
);
```

create table if not exists order\_items

```
(  
    order_item_id bigint auto_increment  
    primary key,  
    order_id      bigint null,  
    media_id      bigint null,  
    quantity      int     null,  
    constraint order_items_ibfk_1  
    foreign key (order_id) references orders (id),  
    constraint order_items_ibfk_2  
    foreign key (media_id) references medias (id)  
);
```

create index media\_id

on order\_items (media\_id);

create index order\_id

on order\_items (order\_id);

create table if not exists users

(

user\_id        bigint auto\_increment

primary key,

full\_name varchar(255)                null,

username varchar(50)                not null,

password varchar(255)                null,

email varchar(255)                null,

address        varchar(255)                not null,

created\_at timestamp default CURRENT\_TIMESTAMP null

);