DATABASE MANAGEMENT SYSTEMS PROJECT

PART 2

By Group 20

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"On my honor, as a Mississippi State University student, I have neither given nor received unauthorized assistance on this academic work."

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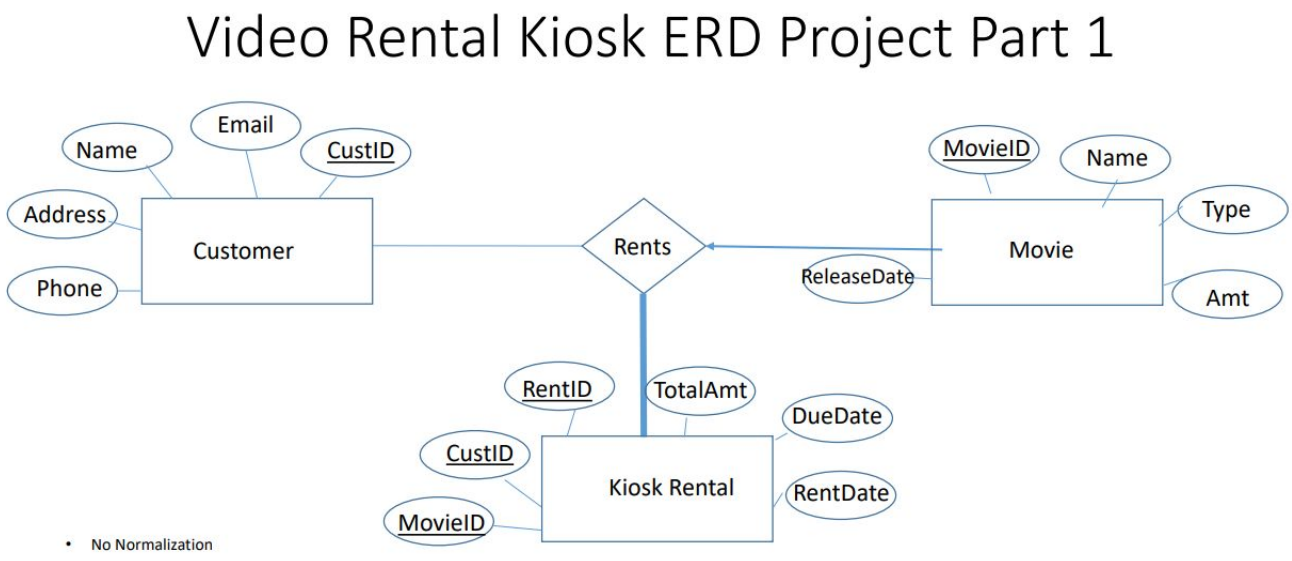
Video Rental Kiosk

1. Entity-Relationship Diagram



2. Relational Schema

Kiosk_rental(rent_id:integer, cust_id: integer, movie_id:integer, TotalAmt:integer, DueDate:date, RentDate:date)

Customer_rental(rent_id:integer, cust_id: integer)

Rental_dates(rent_id:integer, RentDate:date)

Total_amounts(rent_id:integer, TotalAmt:integer)

Rent_due_date(Rent_date:date, Due_date:date)

Movie(movie_id:integer, movie_name:varchar, movie_type:integer, Amt:integer)

Movie_data(Movie_id:integer, Movie_name:varchar, Release_date:date, Movie_type:integer)

Movie_cost(Type:integer, Amt:integer, Release_date:date)

Customer(cust_id:integer, email:varchar, cust_name:varchar, address:varchar, phone:integer)

Cust_names(Cust_id:integer, Cust_name:varchar)

Cust_details(Cust_name:varchar, Phone:integer, Email:varchar, Address:varchar)

3. SQL CREATE TABLE Statements

```
Create Database rents;

/*Kiosk Rental */

Create table kiosk_rental (
rent_id int NOT NULL,
cust_id int NOT NULL,
movie_id int NOT NULL,
TotalAmt int,
DueDate date NOT NULL,
RentDate date NOT NULL,
UNIQUE (rent_id, cust_id),
PRIMARY KEY (rent_id, cust_id, movie_id),
FOREIGN KEY(cust_id) REFERENCES Customer(cust_id),
FOREIGN KEY(movie_id) REFERENCES movie(movie_id));

Create table customer_rental (
rent_id int NOT NULL,
cust_id int NOT NULL,
Primary Key (rent_id),
Foreign key(rent_id) REFERENCES kiosk_rental(rent_id),
Foreign key(cust_id) References Customer(cust_id));

Create table rental_dates(
rent_id int NOT NULL,
RentDate date Not NULL,
Primary key (rent_id),
Foreign key (rent_id) References kiosk_rental(rent_id),
foreign key (RentDate) references kiosk_rental(RentDate));
```

```
Create table total_amounts (
rent_id int Not null,
TotalAmt int,
Primary key (rent_id),
foreign key (rent_id) references kiosk_rental(rent_id),
foreign key (TotalAmt) references kiosk_rental(TotalAmt));

Create table rent_due_date (
Rent_date date not NULL,
Due_date date not null,
Primary Key (Rent_date),
Foreign Key (Rent_date) references kiosk_rental(Rent_date),
Foreign Key (Due_date) references kiosk_rental(Due_date));


/* movie */

Create table movie (
movie_id int NOT NULL,
movie_name varchar(20), movie_type int, Amt int,
Unique (movie_id), Primary Key (movie_id));

Create table movie_data (
Movie_id int Not null,
Movie_name varchar(20),
Release_date date,
Movie_type int,
Primary Key (movie_id),
Foreign key (movie_id) references movie(movie_id),
Foreign key(movie_name) references movie(movie_name),
Foreign key (release_date) references movie(release_date),
Foreign key(movie_type) references movie(movie_type));

Create table movie_cost (
Type int not null,
Amt int,
Release_date date,
Primary key (type),
```

```
Foreign key (type) references movie(Type),
Foreign key (amt) references movie(amt),
Foreign key(release_date) references movie(release_date));


/*customer */

Create Table customer (
cust_id int Not Null,
email varchar(20),
cust_name varchar(20),
address varchar(20),
phone int,
UNIQUE (cust_id, email, phone),  Primary Key (cust_id));

Create table cust_names (
Cust_id int not null,
Cust_name varchar(20),
Primary key (cust_id),
Foreign key (cust_id) references customer(cust_id),
Foreign key(cust_name) references customer(cust_name));

Create table cust_details (
Cust_name varchar(20) not null,
Phone int,
Email varchar(20),
Address varchar(20),
Primary key (cust_name),
Foreign key (cust_name) references customer(cust_name),
Foreign key (phone) references customer (phone),
Foreign key (email) references customer(email),
Foreign key (address) references customer(address));
```

References

Gehrke, Johannes. (2002). *Database Management Systems*, 3rd Edition. New York, NY: McGraw-Hill.