Project X Movie Database

Dawit Y Abera | Reshma Maduri Sivakumar | Haimanot Zerkel | Lok Him Tam

Introduction

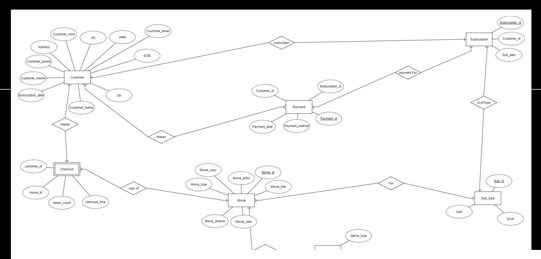
The application area of the database we worked on is movie store that has a collection of different kinds of movies and customer information. The database allows the video store to manage the rental of videos, keep track of inventory and provide enhanced service to their customers. Some of the things we would like to do once the database is up and running are

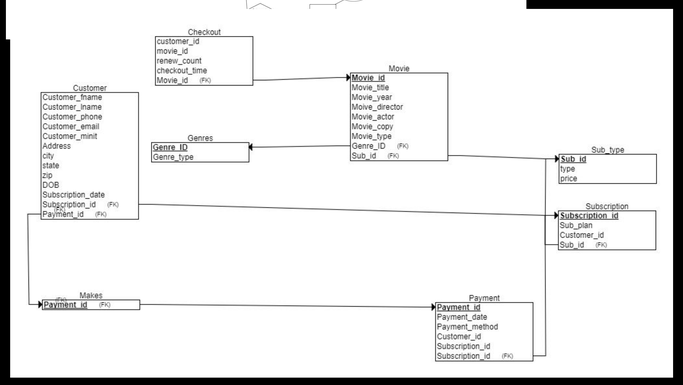
1. Search for customers by last name or phone number

2. Keep track of which movies customers rented, on what dates, and how much they spent on each date and in total

3. Search for movies by movie name or type of movie

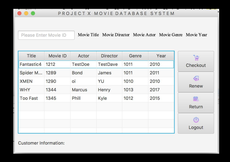
4. Search for movies that have a certain actor





Aplication

Our database is presenting with JAVA interface. Here are the screenshot of the interface with our database:



Payment

- Each transaction/payment is uniquely identified by the payment ID
- Only the credit card type is stored in the database ** due project limitation
- Each payments credit card may belong to exactly one customer
- The payment due date is stored in database. Payments will be due after 29 days of subscription

Methodology

Design Pattern:

Data Access Object design es
an abstract interface to some type of database
handles all the database operations and communicates with the domain
Easy to make changes without altering the domain layer
Software and Database Development approach:
spiral and agile software development methods
Testing:
White Box Testing

examine SQL program and Java at a time

Motivation

Most of the operations were done manually (a new customer will have to manually fill out an application form before a clerk enters the information into the system) this results in a lot of mistakes being made.
The manual movement and distribution of paper-based transactions resulted in substantial delays within the process and significantly limited the company's ability to prioritize and improve performance

There is no centralized repository, hence change in data by one department may not reflect in another department.
Customer transactions (i.e. requests for statements, incorrect information, address changes, etc.) were frequently lost due to the mobility of information from one department to the other.
Tracking and evaluating the rental process by management to determine areas that need improvement is almost impossible.

CUSTOMER

- Each customer's will have a first name, middle initial and last name
- Each customer has unique ID number provided by the store. The unique ID is 6 digits total.
- Each customer's will have an address comprising of street, city, state and zip code.
- Each customer's subscription date will be stored
- Each customer's phone and email address is stored
- Each customer has a date of birth
- Each customer must have a credit card that can be used to pay for the subscription

Subscription

- Each subscription is uniquely identified by the subscription ID
- Each subscription offers three types of subscription-plan: HD, Non-HD and Tv-shows
- Each subscription package has it's own price.

Conclusion

- - movie database helps movie stores to save a lot of time in organization and service
- - easy to search movie form our movie store with our movie database
- our database have all features that are required for movie store
-

Movie

- Each movie has a unique ID
- Each movie has a title,genre,actors name,director's name, release date,movie type(HD/Non-HD)
- Each movie has a copy (1-20). A movie copy does not exist if the corresponding movie does not exist

Checkout

- A checkout is a unique transaction occurring any particular time a customer checks out a movie
- A customer makes a rental, the customer he/she is at least one copy, any may rent up to 5 copies.
- Each rental is made by exactly one customer
- A customer can renew their rental and submit their rental