

QwikTix.ai Description

Problem Overview

The mission of QwikTix.ai is to use state-of-the-art AI methods to disrupt the movie tickets industry. The vision: Fandango meets IMDB meets Apple's TV app. In order to accomplish this, a database is needed that can support the following interactions:

- Register a new user
- Record that a user loved a new movie
- Order a ticket from a local movie theatre
- Credit an existing actress for a movie
- Provide a ranked list of revenue generated from the top-10 studios
- Find all movies directed by a person (supplied via last name)
- Load the cover images and names of movies ordered by a particular user
- Find all movies released this year that a user loves but has not ordered
- Find all people (name, picture, and role) credited for a particular movie (supplied by name)
- Provide a ranked list of revenue generated from the top-3 movie genres

In order to accomplish these tasks, we've designed a database with the following entities:

- SiteUser
- SiteUserPhone
- LovedMovies
- Movie
- MovieOrder
- StreamingOrder
- TheatreOrder
- TheatreOrderSeats
- Vendor
- StreamingVendor
- TheatreVendor
- Professional
- Credit
- CreditCharacter
- MoviePictures

Entity Descriptions

SiteUser

A SiteUser consists of a UserID, FirstName, LastName, Email, ProfilePicture, StreetAddress, City, PostalCode, Country, Password. This entity is the main source of user data, and the UserID is the key for linking across multiple entities. In order to represent the various contact phone numbers for a user it can relate to multiple SiteUserPhones in order to obtain a listing of contact numbers through UserID. A SiteUser also relates to LovedMovies by matching a User

to a Movie in order to get a listing of movies that are loved through UserID. A SiteUser is also related to a MovieOrder through UserID in order to match a user to their order.

SiteUserPhone

A SiteUserPhone consists of a UserID and PhoneNumber. This creates a listing of phone numbers related to a SiteUser via the SiteUser's UserID.

LovedMovies

A LovedMovies consists of a MovieID and a UserID. This creates a listing of the relationship between SiteUsers and Movies allowing for a lookup of the movie's that a user has loved or of the user's that have loved a specific movie. This is done by using the SiteUser's UserID and the Movie's MovieID to pair the two keys.

Movie

A Movie consists of a MovieID, Name, Genre, ReleaseDate, Studio, and CoverPicture. The MovieID is the key for linking across multiple entities. It relates to LovedMovies by allowing linking to a specific UserID in order to show the relationship between users loving movies. It also relates to a MovieOrder in order to match a purchase with the particular movie. It relates to a MoviePictures in order to have a listing of all photos for a particular movie. Lastly, it relates to a Credit so that Professionals can be credited to a specific movie.

MovieOrder

A MovieOrder consists of a ConfirmationNumber, OrderTime, DollarAmount, VendorID, UserID, and MovieID. This houses the bulk of the information related to a User purchase of movie tickets or a rental. The ConfirmationNumber is the main key for relating to other order related entities. VendorID is used for accessing vendor information from a Vendor. UserID is used for accessing user information from a User. MovieID is used for accessing movie specific information from a Movie. A Movie order is one of two types, a StreamingOrder or a TheatreOrder which contains additional information about the order by linking through the ConfirmationNumber.

StreamingOrder

A StreamingOrder consists of a ConfirmationNumber and an Expiration. This relates to a MovieOrder through the ConfirmationNumber in order to add the additional info to the MovieOrder.

TheatreOrder

A TheatreOrder consists of a ConfirmationNumber and a ticketCount. This relates to a MovieOrder through the ConfirmationNumber in order to add the additional info to the MovieOrder. The ConfirmationNumber is also used to relate to TheatreOrderSeats in order to have a listing of the specific seats purchased.

TheatreOrderSeats

A TheatreOrderSeats consists of an OrderSeatId, ConfirmationNumber, and SeatId. This is related to a TheatreOrder through the ConfirmationNumber. This provides a listing of the specific seat information purchased from a TheatreOrder.

Vendor

A Vendor consists of a VendorID and a Name. This provides information about a specific vendor that MovieOrders can be purchased from. It is either a StreamingVendor or a TheatreVendor which provides additional details through the VendorID.

StreamingVendor

A StreamingVendor consists of a VendorID and a Url. This provides access information for the specific streaming service. It relates to a Vendor through the VendorID.

TheatreVendor

A TheatreVendor consists of a VendorID and Location. This provides information for the specific theatre location. It relates to a Vendor through the VendorID.

Professional

A Professional consists of a PersonID, FirstName, LastName, Picture, and a DOB. A Professional is any Hollywood actor, director, or other production role that could be credited in a movie. This allows for a professional to have many credits. It relates to a Credit through the PersonID.

Credit

A Credit consists of a CreditID, Role, PersonID, and a MovieID. This allows a Professional to be linked to a specific Movie through MovieID and optionally a CreditCharacter if the role was actor/actress through CreditID.

CreditCharacter

A CreditCharacter consists of a CreditID, a CharacterID, a Picture, and a Name. This provides more detailed information about a Credit for actor/actress roles. It relates to a Credit via CreditID.

MoviePictures

A MoviePictures consists of a PictureID, a MovieID, and a Picture. A MoviePictures allows for a listing a pictures related to a specific Movie via the MovieID. It allows a Movie to access the list of pictures.