DISCIPLINE OF INFORMATION SYSTEMS AND TECHNOLOGY
SCHOOL OF MANAGEMENT, IT AND GOVERNENCE

ISTN212 PROGRAMMING AND DATABASES

PROJECT 2019

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

On the Reel
Cinema

Contents

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Section A (Introduction)

On the Reel Cinema offers a system that incorporates the purchasing of movie tickets as well as a point of sales system when an individual would like to purchase snacks. The name *On the Reel* is a play on words implying the serious nature with which the business conducts its bookings and point of sales ensuring that customers remain happy. "Reel" derived from the meaning- "section of a movie".

The member of staff has the ability to select a movie, select a screening time for that particular movie, be able to remove seats and output the ticket and appropriate receipt. The form writes to the database to update the seats available and reads the currently available movies and its details.
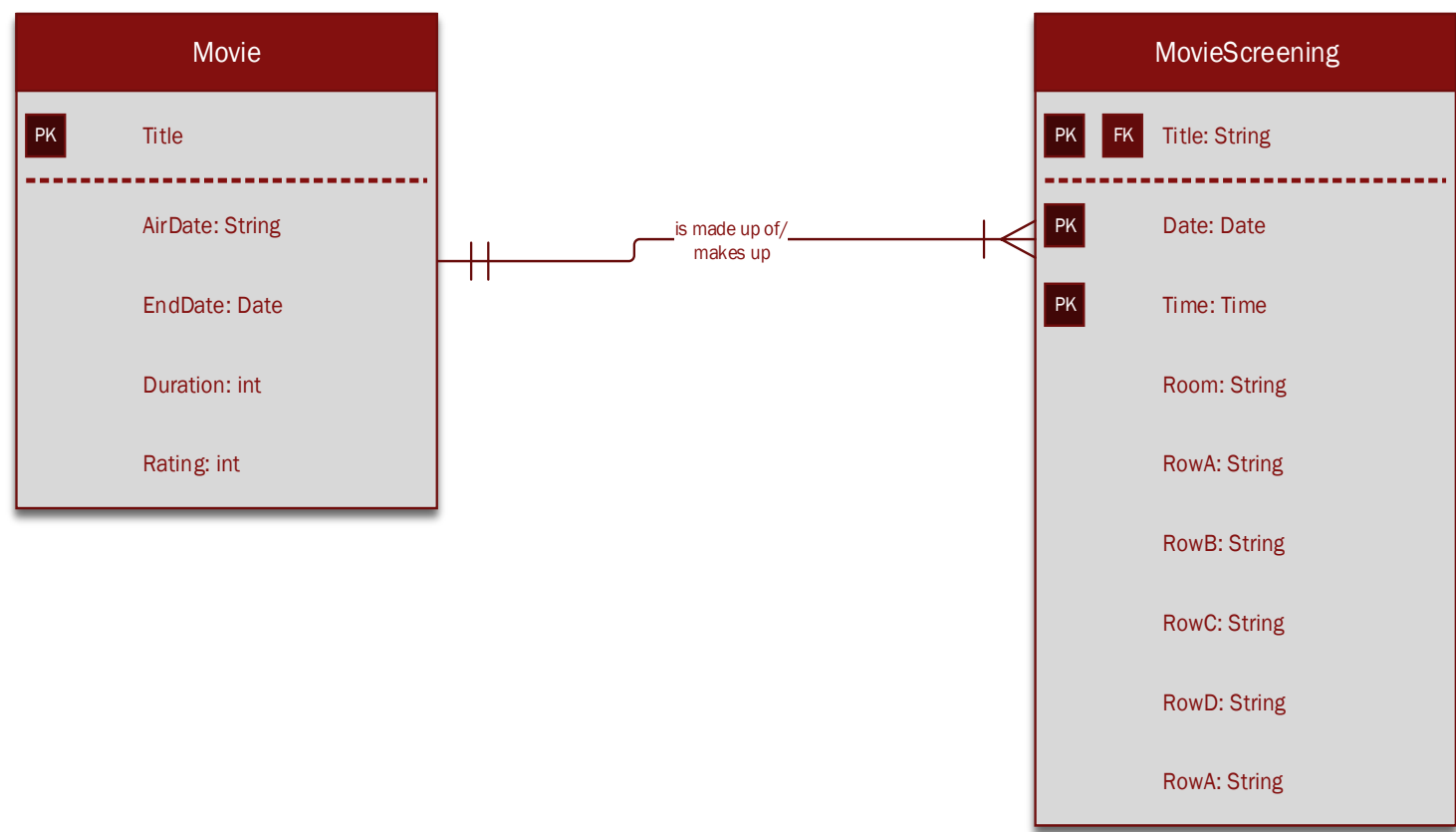
The purchasing of snacks is optional and therefore was introduced separately from the booking forms. It entails a simple point of sales system where an individual can view, create, update delete items from a database and then use this information from the database to generate simple checkout details such as the total balance and items that had been requested.

Booking systems are vital to movie theatres as it avoids confusion between customers and results in quick and smooth ordering of movie houses.
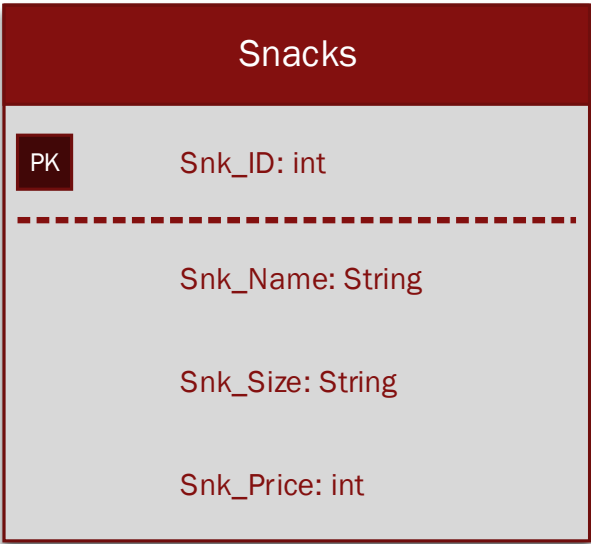
Point of sales ensures that the customer receives the correct total for their order and also acts as a form of confirmation between the business and the customer.

Section B(Entity Relationship Diagram)

Movies

Movie	
PK	Title
	AirDate: String
	EndDate: Date
	Duration: int
	Rating: int

is made up of/
makes up

MovieScreening	
PK FK	Title: String
PK	Date: Date
PK	Time: Time
	Room: String
	RowA: String
	RowB: String
	RowC: String
	RowD: String
	RowA: String

Snacks

Snacks	
PK	Snk_ID: int
	Snk_Name: String
	Snk_Size: String
	Snk_Price: int

Section C (Databases)

To access databases please enter the following details:

Username: ist2bj

Password: kwiy54

Databases of interest are: Movies, MOVIESCREENINGS and Snacks

Section D (SQL Statements)

a)

SELECT * FROM movies

This statement would return all the movie records currently in the table. This would be useful for the movie manager to view the titles that are in the system.

SELECT * FROM Snacks

This statement would return all the snack records currently in the table. This would be useful for management to view what items are already in the catalogue in case they decide to add newer items to their catalogue. Snacks catalogues tend to change over time as people may get tired of ordering the same items every time.

b)

UPDATE movies SET EndDate = 'dd-mm-yyyy' WHERE Title = 'Desired Title'

The purpose of the above statement would be to change the end date of the specified movie. This would be used to alter the final date of when the theatre would be airing that movie. If it is a popular movie, management may decide to extend the end date.

c)

1) **SELECT * FROM SCREENINGS WHERE Title = 'Desired Title'**

This statement would return all the screening records for a particular title. It could be used when the system or manager would like to return all the screening records of a movie.

2)

SELECT * FROM SCREENINGS WHERE DateOfScreening = 'dd-mm-yyyy' AND Title = 'Desired Title'

This could be used to return screening records for a particular title, given the date of the screening as well. Would be useful to view the screenings of a certain movie on a given day.

3)

SELECT * FROM movies WHERE airDate > 'dd-mm-yyyy' AND AirDate < 'dd-mm-yyyy'

The above would be used for returning movie records between two dates. This would be useful as a tool to filter movies for a given time period.

EXTRA)

SELECT * FROM Snacks WHERE SNK_SIZE='Mdm' AND SNK_NAME='Whispers'

At times individuals would like to purchase combos. The above statement is not just limited to the size medium and snack name Whispers. It can be replaced with small or large and other snack of the individuals choice. This saves the user time instead of manually selecting each item size and snack.

d)

1)

SELECT Rating FROM movies WHERE Title = (SELECT Title FROM SCREENINGS WHERE DateOfScreening = 'dd-mm-yyyy')

This could be used for giving the rating of movies that are showing today. Would be beneficial to help customers choose a movie if they are undecided.

2) **UPDATE movies SET EndDate = (SELECT TOP 1 DateOfScreening FROM SCREENINGS WHERE Title = 'Desired Title' ORDER BY DateOfScreening DESC) WHERE Title = 'Desired Title'**

This statement would be useful for ensuring that the EndDate in the movies record matches the last screening date of that movie, when given a movie title.

e)

1)

SELECT COUNT(*) FROM SCREENINGS WHERE Title= 'Desired Title'

This returns the number of screenings for a movie, given the title. Would be handy for management to see how many screenings there are of a movie.

2)

SELECT * FROM movies WHERE Rating = (SELECT MIN(Rating) FROM movies)

The above would return the record of the lowest rated movie(s). Management could use this to see which titles are the least popular