

CSC 675 Milestone Three: Movie Ticket Booking System Enhanced Entity Relationship Diagram (ERD)

By: Miguel Antonio Logarta

Student ID	GitHub Username
923062683	Miguel-Antonio-Logarta

Version History	
Checkpoint 1 (Version 1)	2/20/2024
Checkpoint 2 (Version 2)	3/8/2024
Checkpoint 3 (Version 3)	3/22/2024

Database Constraints

Table	FK	ON UPDATE	ON DELETE	Comment
Ticket	fk_ticket_bought_by	CASCADE	CASCADE	If the user no longer exists, then this ticket will be deleted
	fk_ticket_movie_id	CASCADE	CASCADE	If the movie no longer exists, then this ticket will be deleted
	fk_ticket_seat_id	CASCADE	CASCADE	If the seat no longer exists, then this ticket will be deleted
	fk_ticket_showing_time_id	CASCADE	CASCADE	If the showing no longer exists, then this ticket will be deleted
	fk_ticket_status_id	CASCADE	RESTRICT	If a ticket status is deleted, then this ticket's status must be updated to something valid
	fk_ticket_theatre_id	CASCADE	CASCADE	If the theater no longer exists, then this ticket will be deleted
	fk_ticket_ticket_type_id	CASCADE	RESTRICT	If a ticket type is

	d			deleted, then this ticket's type must be updated to something valid
Movie	fk_movie_film_rating_id	CASCADE	RESTRICT	Before a film rating is deleted, we have to update the movie's film rating first
	fk_movie_language_id	CASCADE	RESTRICT	Before a film's language is deleted, we have to update the movie's language first.
Showing	fk_showing_dubbing_id	CASCADE	RESTRICT	Before a dubbing is deleted, the movie's dubbing needs to be updated first
	fk_showing_movie_id	CASCADE	CASCADE	If a movie deleted, then the showing is deleted too
	fk_showing_resolution_id	CASCADE	RESTRICT	Before a resolution type is deleted (e.g. 4K is deleted), the showing's resolution has to be updated first
	fk_showing_sound_type_id	CASCADE	RESTRICT	Before a sound type is deleted (e.g. THX Surround Sound is deleted), the showing's sound

				system has to be updated first.
	fk_showing_subtitle_id	CASCADE	RESTRICT	Before a subtitle is deleted, the showing's subtitle has to be updated first
Seat	fk_seat_seat_type_id	CASCADE	RESTRICT	Before a seat type is deleted, the seat's type has to be updated to something else first.
	fk_seat_theatre_id	CASCADE	CASCADE	If a theater is deleted, then that means all the seats inside that theater are also deleted.
User	fk_user_account_id	CASCADE	SET NULL	A user can have zero or one account
	fk_user_status	CASCADE	RESTRICT	Before a user status is deleted, the user's user status has to be updated to something else first.
Account	fk_account_role	CASCADE	RESTRICT	Before an account's role is deleted, the current account's role has to be updated to something else first.

	fk_account_user_id	CASCADE	CASCADE	If a user deletes itself, then the account belonging to the user is deleted too.
Guest	fk_guest_user_id	CASCADE	CASCADE	If a user is deleted, then the guest account is also deleted.
Member	fk_member_account_id	CASCADE	CASCADE	If an account is deleted, then the member account is deleted too.
	fk_member_user_id	CASCADE	CASCADE	If a user is deleted, all accounts belonging to the user are deleted as well.
Employee	fk_employee_account_id	CASCADE	CASCADE	If an account is deleted, then the employee account is deleted too
	fk_employee_user_id	CASCADE	CASCADE	If a user is deleted, all accounts belonging to the user are deleted as well.
Admin	fk_admin_account_id	CASCADE	CASCADE	If an account is deleted, then the employee account is deleted too.

	fk_admin_employee_id	CASCADE	CASCADE	If an employee account is deleted, then that means that the admin is no longer an employee.
	fk_admin_user_id	CASCADE	CASCADE	If a user is deleted, all accounts belonging to the user are deleted as well.
PaymentInformation	fk_payment_information_user_id	CASCADE	CASCADE	If a user is deleted, then their payment information is also deleted.
Dubbing	fk_dubbing_language_id	CASCADE	CASCADE	If a language is deleted, that would cause the dubbing's language to be invalid.
Subtitle	fk_subtitle_language_id	CASCADE	CASCADE	If a language is deleted, that would cause the subtitle's language to be invalid.