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**BRISTOL**

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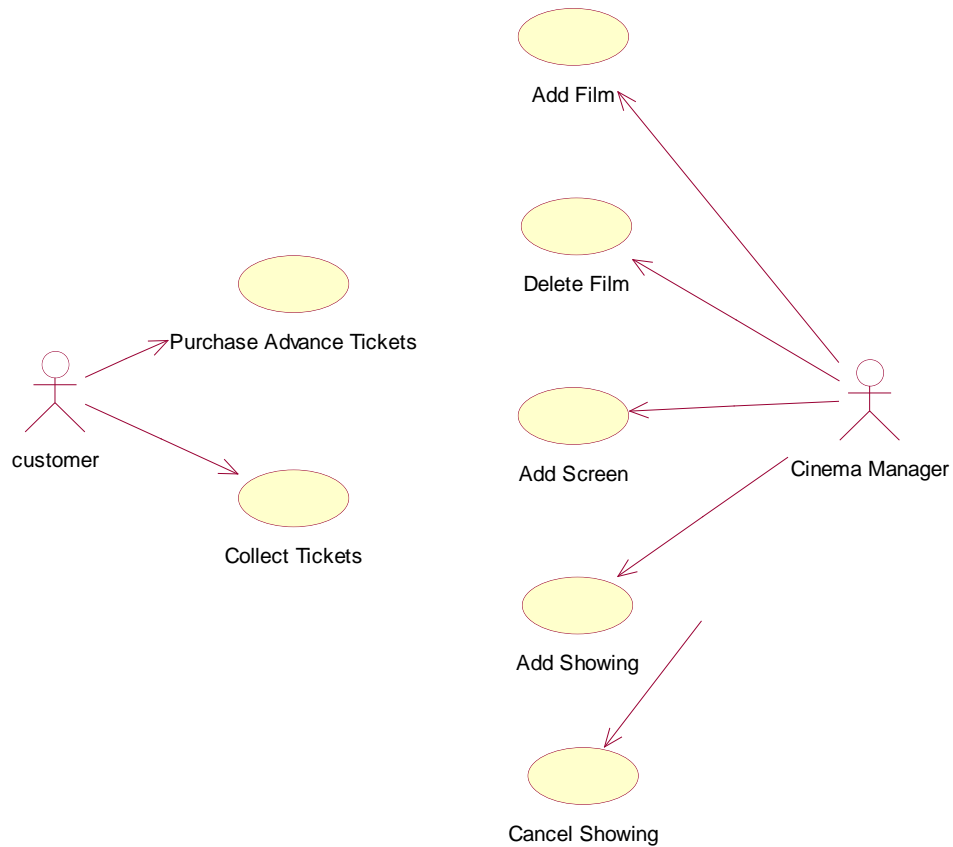
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## APPENDIX G

### USE CASE SPECIFICATIONS for CINEMA BOOKING SYSTEM

#### Use Case Diagram



#### Use case descriptions, with Actions and Data

Use case: *“Purchase Advance Tickets”*

Actor requests to view Showings for a DateTime  
System retrieves a list of Showings, including  
DateTime, Film Title for each Showing

Actor selects a Film Title  
System retrieves Film Details, including  
Film Title, Age Rating, Duration, Short Trailer

Actor specifies Ticket Type required (student, child, adult )

Actor supplies Quantity of Tickets required

If insufficient seats available, System cancels Booking

Otherwise, System calculates Cost

If Actor not satisfied with Cost, System cancels Booking

Otherwise, Actor supplies Payment Card Details, including Card Type  
(Credit/Debit), Card Number, Expiry Date

System transacts Payment

Actions:

RetrieveShowingsList

uses: DateTime, ShowingNumber

RetrieveFilmDetails

uses: Title, AgeRating, Duration, Trailer

CheckSeatAvailability

uses: ShowingNumber, Seats

CalculateCost

uses: BookingNumber, Quantity, TicketType, Cost

CancelBooking

uses: BookingNumber

TransactPayment

uses: CardType, CardNumber, ExpiryDate

Data:

DateTime

ShowingNumber

Title

AgeRating

Duration  
Trailer  
Seats  
TicketType  
BookingNumber  
Quantity  
Cost  
CardNumber  
CardType  
ExpiryDate

Use case: “*Collect Tickets*”

Actor provides Payment Card Details  
System looks up Booking Details  
System prints Tickets for Booking

Actions:

LookUpPayment  
Uses: CardNumber, BookingNumber

PrintTickets  
Uses: CardNumber, BookingNumber, TicketType

Data:

CardNumber  
CardType  
CardExpiry

Use case: “*Add Film*”

Actor supplies Film Details, including Title, Age Rating, Duration, Short Trailer  
System creates Film Details

Actions:

CreateFilm

Uses: Title, AgeRating, Duration, Trailer

Data:

Title

AgeRating

Duration

Trailer

Use case: *"Delete Film"*

Actor requests a list of current Titles

System retrieves a list of current Titles

Actor selects Title

System deletes Film Details

Actions:

RetrieveFilmList

Uses: Title

DeleteFilm

Uses: Title, AgeRating, Duration, Trailer

Data:

Title

AgeRating

Duration

Trailer

Use case: *"Add Screen"*

Actor provides Screen Details, including Screen Number and Capacity

System creates Screen Details

Actions:

CreateScreen

Uses: ScreenNumber, Capacity

Data:

ScreenNumber

Capacity

Use case: *“Add Showing”*

Actor requests to add a showing

System retrieves a list of current Titles

System retrieves a list of current Screens

Actor supplies Showing Details, including Date and Time, Title, Screen Number

System creates Showing Details

Actions:

RetrieveFilmList

Uses: Title

RetrieveScreenList

Uses: ScreenNumber, Capacity

CreateShowing

Uses: DateTime, Title, ScreenNumber

Data:

DateTime

FilmTitle

ScreenNumber

Capacity

Use case: *“Cancel Showing”*

Actor requests to cancel a Showing

System retrieves a list of current Showings  
Actor selects a ShowingNumber  
System cancels Showing

Actions:

RetrieveShowingsList

Uses: ShowingNumber, DateTime

CancelShowing

Uses: ShowingNumber, DateTime

Data:

ShowingNumber

SUMMARY

Number of actions is: 15

Number of data is: 16

Number of uses is: 39