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