

City: cityId, name, location (lat, long)

Theatre: theatreId, totalScreens, cityId, theatreName, <Other meta data like when this theatre got onboard to app>

Screen: screenId, theatreId, capacity <Other metadata>

Movie: movieId, name, GENRE, releaseData, <Other meta data>

Show: showId, startTime, duration, screenId, <Other meta data>

ScreenSeat: seatId, seatNumber, type -> (T1, T2,.....), <meta data>

ShowSeat: showSeatId, showId, screenSeatId, price, status -> (BOOKED, AVAIL, PROCESSING), **bookingId**, <meta data>

User: userId, name, mobile <meta data>

PS-SQL Oracle

Booking: bookingId, transactionId, date(epoch), status, **showId**, userId, |seatId<vector>|

transaction: transactionId, <other meta data>

status -> IN\_PROGRESS, COMPLETED, FAILED, CANCELLED,

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APIs:

v1/search(location, movie, date, 1 mile around city) ->

v2/search(theatre, movie, time)

dataInsertion: post /  
{movie}  
put /  
{movie}  
delete /  
{movie}

GET /seatView (userToken, showId)  
POST /booking (userToken, vector<seatIds>, showId)  
/payment (userToken, MODE, bookingId)

## HIGH LEVEL DESIGN:

Concurrency handling?  
Passimistic lock  
Optimistic lock  
2 phase commit protocol

Transaction begin  
res = SELECT \* FROM SHOW WHERE SHOWID='\$showId AND  
'SEATID IN (s1,s2,s3)  
if res.size()!=3:  
    rollback throw error  
UPDATE SHOW SET s1=UNDER\_PROCESS, s2=\_, s3=\_  
do payment  
if payment succ:

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        UPDATE SHOW SET s1=SUCCESS, s2=_, s3=_  
do payment  
    commit  
else:  
    ROLLBACK  
commit
```