# Part 3

select Title from Titles where Author='Simmons'

select Serial from Titles natural join Inventory where Author='Simmons'

select Title from CheckedOut natural join Patrons natural join Inventory natural join Titles where Patrons.Name='Joe'

select Phone from CheckedOut natural join Phones natural join Inventory natural join Titles where Title='The Lorax'

# Part 4

select Title from (select \* from Titles natural join Inventory order by Serial asc limit 3) as T

select Name from (Patrons natural join CheckedOut natural join (select \* from (select \* from Titles natural join Inventory order by Serial desc limit 1) as T) as T2 )

select Phone from Phones where CardNum not in (select CheckedOut.CardNum from CheckedOut)

select distinct ISBN, Title from Inventory natural join Titles

# Part 5

select distinct Name from Players where Elo>=2850

select distinct Name from Players join Games G on Players.pID = G.WhitePlayer

select distinct Name from Players join Games G on Players.pID = G.WhitePlayer and G.Result = 'W'

select distinct Name from Players join (select whitePlayer, blackPlayer from (Events join Games G on Events.eID = G.eID and year(Date) = 2018)) as T where pID = T.BlackPlayer or pID = T.WhitePlayer

select distinct Name, Date from Events join (select eID from (Players join Games G on (pID = G.WhitePlayer and Result = 'B') or (pID = G.BlackPlayer and Result = 'W')) where Name = 'Carlsen, Magnus') as T where T.eID = Events.eID

select distinct Name from Players

join (

select BlackPlayer, WhitePlayer from (

Players join Games G on pID = G.WhitePlayer or pID = G.BlackPlayer

) where Name = 'Carlsen, Magnus') as T

where Name != 'Carlsen, Magnus' and (WhitePlayer=Players.pID or BlackPlayer=Players.pID)

# Part 6

select Name from Patrons natural join (

select CardNum from CheckedOut group by CardNum order by count(\*) desc limit 2

) as T

select Author from Titles group by Author having count(\*) > 1

select Author from Titles natural join Inventory group by Author having count(\*) > 1

select Name, *count*(Serial) as NoOfBooks,  
CASE  
 WHEN *count*(Serial) > 2 THEN 'Platinum'  
 WHEN *count*(Serial) = 2 THEN 'Gold'  
 WHEN *count*(Serial) = 1 THEN 'Silver'  
 WHEN *count*(Serial) = 0 THEN 'Bronze'  
END as LoyaltyLevel  
from Patrons left join CheckedOut CO on Patrons.CardNum = CO.CardNum group by Name