Zachary Taylor CSSE 333 3/23/2017

HW3

Ch8

8.18

a) how many copies of the lost tribe are owned by the library branch whose name is 'sharpstown'?

~~Select~~ Branch_id
~~From~~ Library_Branch
~~where~~ Branch_name = 'sharpstown'

~~Select~~ Branch_id
~~From~~ Library_Branch ;oin
~~where~~ Branch_name = 'sharpstown

Select: No_of_copies
From Book ;oin ~~(~~Library_Branch ;oin Book_copies ~~on~~ sBranch
Library_Branch.Branch_id = Book_copies.Branch_id
~~on~~ Book.Book_id = ~~Library=Bran~~ sBranch.Book_id
where: Title = 'The lost tribe' ~~and~~
and Branch_name = 'Sharpstown'

b)

Select: no_of_copies, Branch_Name
From Book ;oin (Library-Branch ;oin
Book_copies on Library Branch_id = Book_copies.Branch_id)
sBranch on Book.Book_id = sBranch.Book_id
where: Title = 'The lost tribe'

c) ~~Select: name~~
~~From (Borrower join Book_Loans on~~
~~Borrower.Card_no = Book_Loans.Card_no) od~~
~~where Borrower (select * From Borrower where Borrower:~~

Select name
From Borrower
where Not exist (Select *
From Borrower ;oin Book_Loans
on Borrowers.Card_no = Book_Loans.Card_no)

d) Select title, name, address
From (Borrower ;oin Book_Loans on Borrower.Card_no
= Book_Loans.Card_no) step1 ;oin (
Select Branch_id
From Library-Branch
where Branch_name = 'Sharpstown') step2
on step1.Branch_id = step2.Branch_id) step3
;oin Book on Book.Book_id = step3.Book_id)ss
where ss.Due_Date = today

e)
```
Select branch_name, Count(Branch_Book_id) as Loaned
From (Library_Branch join Book_Loans
    on Library_Branch.Branch_id = Book_Loans.Branch_id)
Group by branch_name
```

f)
```
Select name, address, Count(card_no) as total
From (Borrower join Book_Loans on Borrower.Card_no
    = Book_Loans.Card_no)
group by name
having total > 5
```

g)
```
Select title, no_of_copies
From ((Select title, Book_id
    From (Book join Book_Authors on
        Book.Book_id = Book_Authors.Book_id) a
    where a.Author_name = 'Stephan King') b
join Book_copies on b.book_id = Book_Copies.book_id
c join (Select branch_id
    From Library_Branch
    where Branch_name = 'Central') d
on c.branch_id = d.branch_id
```

2) a)

```
Select course_number, semester, year,
    Count(section_identifier) as [number of students]
From Section join Grade_Report on
    section.student_number = Grade_Report.student_number
Group by section_identifier
where instructor = 'King'
```

b)

```
Select name, Major,
From Student
Where Not exist (Select *
                 From Grade_report
                 where grade_report.student_number
                 = student.student_number and
                 grade <> 'A')
```

c)

```
Select name, Major
From Student
where not exist (select *
                 From Grade_report
                 where grade_report.student_number
                 = student.student_number
                 and Grade = 'A')
```

3)
6.13

a) Insert into Student
Values ('Johnson', 25, 1, 'Math')

b) Update student
set class = 2
where name = 'Smith'

c) Insert Course
Values ('Knowledge Engineering', 'cs4390', 3, 'cs')

d) Delete from student
where name = 'Smith' and student_number = '17'

4)
7.7

a) Select Fname, Minit, Lname
From Employee
Where Employee.Salary = (select Max(Salary)
From Employee))

ssn → ssn → super

b)
```
select Fname, minit, Lname
From Employee
where Employee.super_ssn exists
    (select ssn
     From Employee
     where Employee.super_ssn = '888665555')
```

c)
```
Select Fname, Minit, Lname
From employee
where employee.salary >=
    ((Select Max salary)
     From employee) + 10,000)
```