

## lab 2 Part2

November 3, 2016

### Problem 1

Write a query that will return the count of elements in the Entry columns of the Alz table .

*soulution:* select count(entry) from Alz;  
3389

### Problem 2

Write a query that will return the distinct count elements in the Entry column of the Alz table.

*soulution:* select count(distinct(entry)) from Alz;  
3389

yes it is a good primary key because there is no similar values therefore it would be a good idea to make it a primary key.

### Problem 3

Discuss: From the above two queries, is this column a good primary key for the Alz table? why or why not? (if not, then what column would you recommend, instead?)

*soulution:* Yes it is a good primary key because there is no similar values therefore it would be a good idea to make it a primary key.

### problem 4

Write a query that will return the number of records associated with the organism Zea mays (Maize) in the Alz and Park tables.

*soulution:*  
sqlite select count(entry) from Alz where Organism == "Zea mays (Maize)";  
0

```
sqlite select count(entry) from Park where Organism == "Zea mays (Maize)";
9
```

## problem 5

```
soultion select count(a.Organism ) from Apop a ; 100082 sqlite; select count(a.Organism
) from Park a ; 127368 sqlite; select count(a.Organism ) from Alz a ; 3389
```

## Problem 6

```
soultion: Homo sapiens (Human)
Mus musculus (Mouse)
Rattus norvegicus (Rat)
Bos taurus (Bovine)
Pan troglodytes (Chimpanzee)
Danio rerio (Zebrafish) (Brachydanio rerio)
.....
select count(distinct( p.organism)) from Park p , Alz a where p.Organism ==
a.Organism; 21
```

## problem 7

```
Soultion: select a.entry from Apop a where a.Organism == "Bothrops brazili";
select a.entry from Park a where a.Organism == "Bothrops brazili";
C5H767
C5H755
select a.entry from Alz a where a.Organism == "Bothrops brazili";
```

It turns out the Park table was the only one that had any matches.

## Problem 8

```
Soultion: select count(distinct(p.gene_names)) from Alz a, Park p where a.gene_names
== p.gene_names;
30
```

## Problem 9

```
Soultion: select distinct(a.gene_names) from Apop a, Alz al where a.Organism
== al.Organism limit 10; TP53 P53
Bcl2 Bcl-2
BCL2
BAX BCL2L4
```

PYCARD ASC CARD5 TMS1  
FAS APT1 FAS1 TNFRSF6  
BIRC5 API4 IAP4  
Bax  
XIAP API3 BIRC4 IAP3  
BIRC2 API1 MIHB RNF48