**Part 1:**

Load the ‘1994-census-summary.sql’ data into SQLite (use **.read** 1994-census-summary.sql) Write SQL to answer the following questions:

1. what ‘relationship’ values appear in the data?

select distinct relationship from census;

Not\_in\_family

Husband

Wife

Own\_child

Unmarried  
Other\_relative

1. what are the minimum and maximum number of years of education?
   1. sqlite> select max(education\_num) from census; 16
   2. sqlite> select min(education\_num) from census; 1
2. which native countries end with “a”?
   1. select distinct native\_country from census where substr(native\_country,-1)

Cuba

Jamaica

India

Canada

Columbia

Cambodia

Guatemala

China

Yugoslavia  
Nicaragua

1. which native countries do not have “a” anywhere in their name?
   1. select ct distinct native\_country from census where native\_country NOT LIKE '%a%';

Mexico

South

Puerto\_Rico

Philippines

Peru

Greece

Hong Kong

1. what is the average age of people who have never worked?
   1. select avg(age) from census where occupation = 'NA';  
      40.8827997829626
2. Show the workclass and education of people under 20?
   1. select workclass,education from census where age < 20;
3. Show the sex of people who are over 80 and have never married?
   1. select sex from census where(age > 80 and marital\_status = 'Never\_married');
4. show the sex, age, and marital status for people in the armed forces?
   1. select sex,age,marital\_status from census where occupation = 'Armed\_Forces';
5. show the marital status of people of age 50 with relationship 'Not\_in\_family'?
   1. select marital\_status from census where(age = 50 and relationship = 'Not\_in\_family');
6. show the occupation of women under the age of 40 with a Doctorate degree?
   1. select distinct(occupation) from census where(sex = 'Female' and age < 40 and education = 'Doctorate');
7. show all columns for people under the age of 21 with a Masters degree?
   1. Not sure if this includes Doctorate since PhD usually have Masters first if I’m not mistaken, so I will NOT include PhDs…
   2. select \* from census where(age<21 and education='Masters');
8. show the age of females with either a bachelors or a masters degree?
   1. select distinct(age) from census where( education ="Masters" or education = "Bachelors" and sex = 'Female');

Read the ‘courses-ddl.sql’ and ’courses-small.sql’ files into SQLite. Write SQL to answer the following questions:

1. Show the names of all students who have taken course “CS-190”, as well as the year in which they took the course?
   1. select student.name from student natural join takes where takes.course\_id = 'CS-190');
2. For every course taught by an instructor, show the instructor’s name and the course that is taught?
   1. select name, course\_id from instructor natural join teaches;
3. Do the same as in the previous question, but do not show duplicates and sort by instructor name?
   1. select distinct(name), course\_id from instructor natural join teaches order by name;