STAT:5400, Computing in Statistics
Fall 2018, Homework 6

Due: Mon. 10/22

1. Do the root-finding problem listed on Homework 5.

2. The following fields are contained in a flat file kept by a piano teacher to store information about her students, who are children.

   (a) Responsible parent's name
   (b) Home address
   (c) Phone
   (d) Email address
   (e) Monthly lesson fee (single number covering all kids in family)
   (f) Child 1 name
   (g) Child 1 birthdate
   (h) Child 1 date started lessons
   (i) Child 1 school
   (j) Child 2 name
   (k) Child 2 birthdate
   (l) Child 2 date started lessons
   (m) Child 2 school
   (n) Child 3 name
   (o) Child 3 birthdate
   (p) Child 3 date started lessons
   (q) Child 3 school
   (r) Child 4 name
   (s) Child 4 birthdate
   (t) Child 4 date started lessons
   (u) Child 4 school

   Put this data into third normal form (which implies first and second normal forms as well). Write down what tables would be needed, and for each one indicate:

   - all fields (including any new ones you add)
   - primary key
   - foreign key(s) if any

   You may assume that each child has only one responsible parent, but one parent may have many children.

Create a LibreOffice Base (or SQL) database to hold data of this kind. You need only to create the database with appropriate tables and relational links. You do not have to create queries and reports.

To submit this problem, upload a text file with the table descriptions. **You do not need to upload your Base database.**