

# BCIS 4620 Introduction to Database Processing

## HOMEWORK #7: SPECIAL INSTRUCTIONS

### GENERAL HINTS & TIPS for ALAMEDA Relations/Tables

1. Pay close attention to the relations detailed in Figure 4C-2 of the case. The Employee Object should be divided into the Employee and Next of Kin object.
2. In Figure 4C-2 the Skills Information Object is looks very good; but you will need to use codes for some of the data. Also, note the Primary Key for Skills should be: IDNumber, SkillCode, Date or IDNumber, SkillCode, TrianCode
3. WORK HISTORY is NOT a required object. There may be some extra credit for this object and other HISTORY objects in the final project. With regard to possible bonus points, especially note the Salary Review Report listed in Figure 4C-1.
4. NOTE: Skill Information Object could be an Association Object (intersection table) if you link to two or more other tables
5. Be sure to include the data from Project file (on the website in the Project Table on page 148 in Appendix. C. In essence you just need to at the Start Date column. The PK (primary key) for this table should be ProjID and EmpNum
6. Note that the Salary Table uses Skill Codes for Salary Codes... be aware of possible naming confusion.
7. Code tables in general could be created for Traing, Skills, Education, Citizenship, Race/Ethnicity, Zipcodes, Gender, Primary/Secordary, etc. You only need 4 tables, but you may find others to be helpful in shortening data entry drudgery
8. If you have EmpNum as a Primary Key for a table--you do NOT need to have it again as a foreign key. The one column may be used for both purposes. Likewise... DO NOT include CitizenshipDescription and CitizenshipID in the same table, unless it is the Code table itself. This applies to all coded data values.
9. Address fields MUST be divided into Street, City, State, Zip.
10. For the NextOfKin Table ... CREATE a new NextOfKin ID that is the EmpID + 1 (e.g., Joan Kern will be DepID 0002, and her husband's ID is 0001). Include the Relatives ID (EmpNum) as a foreign key in this relation.
11. REMOVE any "ID\_" columns from your tables, UNLESS you decide to replace a multi-value primary key by your own surrogate key.

12. It is NOT necessary to use the name generated by TableDesigner exactly as produced in the SQL Gen file. For example:  
    Instead of Citizenship\_CodeID\_FK" you may abbreviate this as "CitizenID" and use it as a foreign key.

13. NOTE: Every item of data in Appendix C (and the data in the Salary and Project tables listed on my website) MUST find its way into one or more tables in your project. You may construct additional data, if you wish.

14. If you have around 10-12 tables you are probably OK.

15. If you want me to review your RELATIONS after you make these corrections... please send me your Relation List page.

Yours,  
Dr. B.