This problem illustrates the concept of relational databases by linking (or relating) three database tables, based on common fields. You have been provided with an *Access* database file named *hw10db2k* (or *HW10DB*) that contains the following database tables.

**COUNTY (AREACODE, NAME)**
where AREACODE is a 4-digit code representing counties of origin for students, and NAME is the county name corresponding to that code

**ECODES (ETHNICCODE,NAME)**
where ETHNICCODE is a 1-character code representing student race/ethnicity, NAME is the corresponding race or ethnicity for that code

**ERSS (SSN, SEXCODE, ETHNICCODE, AREACODE, STULEVEL, MAJORCODE...)**
where each row of this table represents enrollment information for one student for Fall 2000 (note that all student data are fictitious)

This assignment consists of a series of 7 tasks: 4 tasks involve creating and printing a query and 3 tasks involve creating/printing a query and a report. The point value for each task is specified. Your answer to tasks 1 through 4 is a series of 4 printed queries; your answer to tasks 5 through 7 is a series of 3 printed reports that are based on queries. See the attached sheet containing sample screens for more information. Include the query number and your name in the title of each query and report.

1. (10 points) Use the *Group By* feature to find the number of freshmen students for each county of residence, sorted in ascending order by COUNTY.NAME

2. (10 points) Use the *Group By* feature to find the number of students in each grade level (i.e., STULEVEL) whose MAJORCODE is ‘04011’ and sorted in descending order by STULEVEL

3. (10 points) Use the *Group By* feature to find the number of students for each race/ethnicity and gender, sorted in descending order by ECODES.NAME and then by SEXCODE

4. (10 points) Use the *Group By* feature to find the number of African-American students who are juniors (STULEVEL=’3’) and whose county of residence was Stanislaus, Merced, San Joaquin, or Tuolumne. Sort in ascending order by COUNTY.NAME. Hint: For the criteria in the AREACODE field, use the “in” operator as follows:
in (’0050’,'xxxx','xxxx','xxxx')

5. (20 points) Create a query and a report titled “Q5 - Native American Student Analysis by Your Name” to display information about all such students (i.e., all counties, all student levels, and both genders). Submit a printout of your report for this task. Display the following columns: ssn, county.name, sexcode, stulevel, ecodes.name

6. (20 points) Create a query and a report titled “Q6 - Hispanic/Latino Student Analysis by Your Name” to display information about male students whose county of residence is San Joaquin (open table COUNTY to get the county AREACODE). Submit a printout of your report for this task. Display the following columns: ssn, county.name, sexcode, stulevel, ecodes.name
   Hint: Use the following codes in the criteria portion of the ethniccode field:
in (’A’, ’B’, ’P’, ’Q’, ’3’, ’4’)

7. (20 points) Create a query and a report titled “Q7 - Students Taking an Excess Number of Units by Your Name” and print the following fields: SSN, ECODE.NAME, SEXCODE, STULEVEL, UNITS (where UNITS>18; UNITS is derived from another query). To get started, create a query titled “Total Units Attempted (all students)” which is derived from table ERSS and consists of two columns: SSN and UNITS which is created as follows:

   **UNITS**: attemptld+attemptud+attemptgr
Design of Sample Query on Database hw10db2k (or HW10DB)

Design of Sample Report on Database hw10db2k (or HW10DB)