DATABASE DESIGN & APPLICATIONS

# SKILLS TESTING
STUDY GUIDE

GEORGIA FBLA
2008-2009

General Information

You have been asked to develop a small, departmental project hours tracking database. Key entities are Contractors who do the work, Jobs to which work hours are allocated, and Reports where Contractors indicate the time they have worked on various projects.

Job 1: Create database from design (25 points)

Create database tables and relationships that match the relationship diagram at right and meet these requirements:

1. Contractors are uniquely identified by a 8 character ContractorID assigned by the company; this field should be the primary key of the Contractor table.
2. Jobs are uniquely identified by a 7 character Job assigned by the company; this field should be the primary key of the Jobs table.
3. ReportID and ProjectID are autonumber or integer identity fields that uniquely define records and act as primary keys in the Reports and Projects tables, respectively.
4. 'Name' fields should allow for 40 characters; 'Date' fields should allow for only date(time)s; **WorkHours is a required number in the 0- to 50-hour range (your development must ensure this) and allow for at least two decimal places (that is, 8.25 hours is allowed)**.
5. Relationships shown must ensure referential integrity though cascading rules (and triggers) are unspecified.
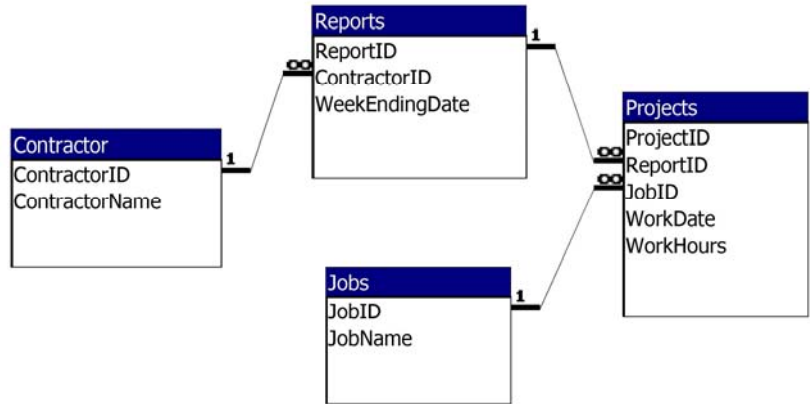
Print Job 1-A. Print the database relationships. Label each page with your competitor code and "1-A". Do not include your name or school on any of your printouts. Note: If you have come back to this job after having worked ahead to Job 3, it is ok if this diagram includes the requirements from Job 3 as well; what is important is that the requirements diagrammed above are present.

Print Job 1-B. Print the Projects table definition so that details of the WorkHours field definition are evident.

Job 2: Populate database with sample data (15 points)

Create records in your tables to reflect the following timesheets. As a hint, each line with Work Hours is a Projects record with its ReportID foreign key pointing back to the appropriate Reports record.

Contractor Name:	Rob Manley		Contractor ID:	GHE12843
ReportID:	Auto#	Week Ending Date:	December 12, 2008	

JobID	Job Name	WorkDate	WorkHours
AJC2348	Cox Special Projects	December 8, 2008	7.50
WSB9934	Television Audit	December 9, 2008	3.15
COX1182	Cox Assigned Project	December 11, 2008	7.25
WSB9934	Television Audit	December 11, 2008	6.00

Contractor Name:	Kateau James		Contractor ID:	PWC23821
ReportID:	Auto#	Week Ending Date:	December 12, 2008	

JobID	Job Name	WorkDate	WorkHours
WSB9934	Television Audit	December 9, 2008	4.25
COX1182	Cox Assigned Project	December 10, 2008	5.00
AJC2348	Cox Special Projects	December 12, 2008	7.50

Print Job 2-A. Print the contents (not the definitions) of the Reports table.
Print Job 2-B. Print the contents (not the definitions) of the Projects table.

Job 3: Design database for new requirement (15 points)

Create a time card report that best represents the data shown in the table below. Name the report Contractor Status Report.

Contractor Name:	Kateau James		Contractor ID:	PWC23821
ReportID:	Auto#		Week Ending Date:	December 12, 2008

JobID	Job Name	WorkDate	WorkHours
WSB9934	Television Audit	December 9, 2008	4.25
COX1182	Cox Assigned Project	December 10, 2008	5.00
AJC2348	Cox Special Projects	December 12, 2008	7.50

Print Job 3-A. Print the updated database relationships, showing tables, fields, and relationships. Label each page with your competitor code and "3-A". Do not include your name or school on any of your printouts.

Job 4: Develop a simple select query (15 points)

Create a query (e.g., name it qryJob4) that selects all Reports showing the Contractor ID, Contractor Name, Report ID, and WeekEndingDate.

Print Job 4-A. Print the query definition in design view
Print Job 4-B. Print the query

Job 5: Develop a select query with criteria (15 points)

Create a query (e.g., name it qryJob5) that selects all "full day" Projects records (these are records that show more than 6 or more hours were worked), showing the Contractor ID, Contractor Name, Job ID, Job Name, WeekEndingDate (for the Report), WorkDate, and the WorkHours.

Print Job 5-A. Print the query definition in design view.
Print Job 5-B. Print the query.

Job 6: Develop a select query that summarizes (15 points)

Create a query (e.g., name it qryJob6) that totals all hours spent by employees on Jobs. There should be one line for each Job showing the JobID, JobName, and the total hours spent on the project.

Print Job 6-A. Print the query definition in design view.
Print Job 6-B. Print the query.