CPSC203 – Introduction to Problem Solving and Using Application Software

Fall 2009

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Introduction

- Query analysis example
- Databases review

Query Analysis Example (1)

1. Import data from the Excel file into a table called **SurveyData**.
2. Create 5 queries from the imported **SurveyData** as follows:
   I. One query selects websites of Rank1 (called **loadqry3a_selWebsite1**)
   II. One query selects websites of Rank2 (called **loadqry3a_selWebsite2**)
   III. One query selects websites of Rank3 (called **loadqry3a_selWebsite3**)
   IV. One query selects websites of Rank4 (called **loadqry3a_selWebsite4**)
   V. One query selects websites of Rank5 (called **loadqry3a_selWebsite5**)
3. Create a union query that groups data from the 5 queries created in step 2 (called **loadqry3f_unionWebsiteInformation**).
4. Create a new table called **WebsiteRankings** and keep it empty.

Query Analysis Example (2)

1. Create an append query that would use the data from the union query (in step 3) to populate that table. (called **loadqry3i_loadWebsiteRankings**).
2. Create a query to calculate the scores for the different websites (called **analysisqry1_calcWebsiteScore**).
3. Create a query to summarize the calculated website scores (called **analysisqry2_summarizeWebsiteScores**).

Databases Review (1)

tblDepartment

DepartmentID	DepartmentName	Faculty	Address	DateFounded
124	Computer Science	Science	2500 University Dr. NW	10 Jan 1972
387	Chemistry	Science	2500 University Dr. NW	5 Mar 1968
503	Management	Business	2500 University Dr. NW	18 Feb 1967

tblProfessor

ProfessorID	FirstName	LastName	DepartmentID	Rank	Sex	Age	Office
1002398	Jalal	Kawash	124	Instructor	Male	41	ICT 706
1003490	Katherine	White	503	Associate Professor	Female	35	SH 487
1004891	Frank	Maurer	124	Professor	Male	45	ICT 550
1010338	Scott	Radford	503	Assistant Professor	Male	37	SH 492
1020087	Belinda	Heyne	387	Assistant Professor	Female	34	SB 419

Databases Review (2)

1. Create two tables *tblDepartment* and *tblProfessor* in Microsoft Access 2007. Set field names and data types. Data types should match the values given above (i.e. Text, Date, Number, etc.)
2. In *tblDepartment* set *DepartmentID* as the primary key and set the primary value address *Address* to “2500 University Dr. NW”.
3. In *tblProfessor* set *ProfessorID* as the primary key, set the default value for *Rank* to “Associate Professor” and the default value for *Age* to 45.
4. Enter data in previous slide into tables.

Databases Review (3)

5. Do a query that combines all the data from both tables. Include the field *ProfessorID* only once. Name this query: *qry1_DepartmentProfessor.*
6. Do a query that combines data from both tables, but only for members from "Computer Science" department. Name this query: *qry2_DepartmentProfessor_ComputerScience.*
7. Do an aggregate query where groups are defined by the field *Faculty* and that averages the field *Age*. Call this query: *qry3_Faculty_AverageAge.*

Databases Review (4)

8. Do a query similar to the one above, but now listing *Age* average data only for professors from the department of "Computer Science". Name this query: *qry4_AverageAge_ComputerScience.*
9. Using the **Crosstab Query Wizard**, and selecting *qry1_DepartmentProfessor* as your data source, do a crosstab query where rows are from the field *Faculty*, columns are from the field *Rank* and the data is from the field *Age*. Choose **Min** as the function used to summarize the data. Name this query: *qry5_DepartmentProfessor_CrosstabMinAge.*

Databases Review (5)

10. Do a query on *tblProfessor* that creates a new field, *FullName* which combines data from the fields: *Sex*, *FirstName* and *LastName*. For example the data in this new field for the first two records would be “Mr. Jalal Kawash” and “Mrs. Katherine White” respectively. Name this query: *qry6_FullName.*