



Course No.:

Course Name: *Database Query Language*

Academic Year: 2015-2016 (2)

Time Division: *Lecture: 3*
Lab : 2

Course Description

(3 credit hours)

History and motivation for database query language, use of Structure query language, Concepts of object query language and XML languages.

Course Intended Outcomes:

At the end of the course, students are expected to learn:

- Distinguish the database query language,
- Identify major DBMS Query Language,
- Describe the components of a Structured Query Language and give examples of their use,
- Concepts of object query language and XML languages.

Course Outline:

Week	Description depends on the Timing table(Theoretical & Practical)
1	Database language, DBMSs languages, structured query language.
2	SQL data definition and data types (Create table command, Attribute data types).
3	Specifying constraints in SQL (not null, unique, check, primary key, foreign key);
4	Retrieval queries in SQL (Select-from-where structure of SQL queries).
5	Ambiguous attribute names, aliasing and unspecified where clause.
6	Tables as sets in SQL, substring pattern matching and arithmetic operators, ordering of query results.
7	Insert, Delete statements in SQL, Update statement in SQL, Additional features of SQL.
8	Comparisons involving Null and three-values logic, Nested (Queries, Tuples , and set), Multiset comparisons.
9	Correlated nested queries, Existing and Unique functions in SQL.
10	Explicit sets and renaming of attributes in SQL, Joined tables in SQL and Outer joins.
11	Aggregate functions in SQL, Grouping: the Group By and Having clauses.
12	Specifying constraints as assertions and actions as triggers.
13	Views in SQL, Schema change statements in SQL (Drop, Alter).
14	Object query language (OQL)
15	XML languages.
16	Final Exam

Textbooks:

1. Fundamentals of Database Systems, sixth editions,2011

By: Ramez Elmasri, Shamkant B. Navathe

Suggested references:

- 1. Advanced Database Query Systems: Techniques, Applications and Technologies,2011

By: Li Yan, Zongmin Ma

Marking:

First Semester				Second Semester				Final Exam
1st exam	2nd exam	Practical	Activity	1st exam	2nd exam	Practical	Activity	
5	5	7	3	5	5	7	3	60
6	6		3	6	6		3	70

Assignments and/or Projects:

Assignment/Project	Description	Due Date	Marking

Instructor information:

Lecture Room: []

Time: *Lecture: 3*
Lab : 2

Instructor's Name: *Narjis m. shati*

Office No.:

E-Mail:

NOTES:

- *Office Hours: Other office hours are available by appointment.*
- *The content of this syllabus not be changed during the current semester.*

Lecturer Signature

Chairman Signature