

## REVIEW LESSON

MTA Course: Database Administration Fundamentals

Lesson name: Database Fundamentals 3.1b

Topic: Select data. (One 50-minute class period)

File name: DBAdminFund\_RL\_3.1b

### **Lesson Objective:**

**3.1:** Select data. *This objective may include but is not limited to:* queries to extract data from one table; extracting data by using joins; combining result sets by using UNION and INTERSECT.”

### **Preparation Details**

#### **Prerequisite student experiences and knowledge**

An understanding of managing database objects and the SELECT command is required for this review. The primary focus of this review is on the applied use of SELECT command queries with nested queries and the use of UNION and INTERSECT command queries with multiple tables.

This MTA Certification Exam Review lesson is written for students who have learned about database administration. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the Microsoft® resources and Web links at the end of this review lesson.

#### **Instructor preparation activities**

None

**Resources, software, and additional files needed for this lesson:**

- Microsoft PowerPoint viewer and projector
- DBAdminFund\_PPT\_3.1b
- DBAdminFund\_SA\_3.1b
- DBAdminFund\_SA\_3.1b\_Key

**Teaching Guide****Essential vocabulary:**

**UNION**—in general, UNION combines two or more SELECT statements with an OR function and each SELECT statement must have the same number of columns and the data types in the columns must be compatible.

**JOIN**—a command used to query data from two or more related tables. (i.e. at least one column in the tables to be joined should have the same meaning”.

**subquery**—a query nested inside another query that can return either a scalar or multiple values.

**INTERSECT**—a command that compares the result sets from two or more SELECT statements and provide a subset of the information.

**Lesson Sequence****Activating prior knowledge/lesson staging (5 minutes)**

1. *Say:* During our previous reviews, we looked at different uses of the SELECT command with basic functions. During today’s review, we once again look at the SELECT command with focus on advanced functions. We will examine subqueries, as well as JOIN, UNION, and INTERSECT commands.

**Lesson activity (35 minutes)**

1. Present the DBAdminFund\_PPT\_3.1b PowerPoint® slideshow.
2. Involve the students in role-playing the concepts of this lesson. Divide the class into groups of about 8–10 students. Ask them to create their own queries demonstrating the concepts of the lesson by physically arranging themselves into “databases” and selecting subgroups based upon criteria that they establish. They

should also write the syntax of their queries. Each group could be assigned specific commands to work with and to demonstrate for the rest of the class.

For example, they may demonstrate a query based upon hair and eye color:

```
SELECT student_name  
FROM our_class  
WHERE haircolor = 'brown'  
OR eyecolor = 'brown'
```

3. Distribute Student Activity Worksheet 3.1b for further review. The samples in this document will serve as a guide for students to create their own statements in Lessons 3.2 and 3.3.
4. Monitor student progress on the activity to guide the practice and to correct misunderstandings.

#### **Assessment/lesson reflection (10 minutes)**

1. There are three questions for the class on the last slide of the presentation. This provides the opportunity for a class discussion of the lesson or a formal assessment with a written quiz. The use of small student whiteboards works very well here as a lesson reflection tool.
2. Collect the student activity for assessment if desired.

#### **Microsoft resources and Web links**

##### **Faculty Connection Academic Resource Center**

(<http://www.microsoft.com/education/facultyconnection/ARC/ResourceCenter.aspx?c1=en-us&c2=0>)