

LAB 6a

Your activity is to learn about databases using Microsoft Access. You will work through exercises from Computer Skills Workbook for Fluency with Information Technology, Fifth Edition

Learning Objectives

1. Understand fundamental concepts including database, table, record, field, field name, and primary key
2. Understand the uses of simple data types including text, number, and date
3. Create a table in Access using Design view
4. Add records to a table using Datasheet view
5. Find data using the Find feature
6. Delete a record from a table
7. Sort a table on one field

Assessment

To get full credit, you will need to:

1. Work through the activities in *Database Concepts Using Microsoft Access.pdf* (pages 211-227)
2. Complete Exercises 5-7 (pages 227-228)

Task 1: Learn about databases using Microsoft Access

1. To get started, open: [Database Concepts Using Microsoft Access.pdf](#)
2. Work through pages 211-227

1. Creating a Database Table
2. Data Types
3. **Inserting Records**

1. Data entry is boring! I will help you by generating random data.
2. Create 20 new student ID entries (1-20)
3. Enter 1, press the down arrow. Enter 2, press the down arrow
4. Click on link: <https://tools.bilimedtech.com/random/>
5. Copy the Random ID numbers
6. Select the entire StudentID column (click on the StudentID column header)
7. Paste the data (press Ctrl V or right-click and choose Paste)
8. Repeat for LastName and FirstName
9. Manually enter the gender, dates, and grades

4. Finding a Record

5. Deleting Records
6. Sorting Records
3. When completed show your document to your instructor
4. Move on to Task 2

Task 2: Complete Access DB Exercises

5. Complete exercises 5-7 on pages 227-228
6. You can use your own data for exercises 6 and 7. Or, you can use data from <https://tools.bilimedtech.com/random/> if you want to use random names (refresh the page so you can get new data)
7. When completed show or submit your document to your instructor

Lab 6b: Advanced Database Concepts

Introduction

Your activity is to learn about advanced database concepts using Microsoft Access. You will work through exercises from Computer Skills Workbook for Fluency with Information Technology, Fifth Edition

Learning Objectives

1. Understand database terminology, including database, table, record, field, and field name
2. Understand data integrity issues and the importance of storing only one copy of data items
3. Create a query using the Design view and multiple tables
4. Create a query using multiple criteria
5. Add tables to a query
6. Create a relationship between tables in a query
7. Generate a report from a query

Assessment

To get full credit, you will need to:

1. Work through the activities in *Advanced Database Concepts Using Microsoft Access.pdf* (pages 229-252)
2. Generate a report with your name

Task 1: Learn about advanced concepts using Microsoft Access

1. To get started, open: [Advanced Database Concepts Using Microsoft Access.pdf](#)
2. Download [academic_records.accdb](#)
3. Work through pages 229-252
 1. Database Terminology
 2. Data Integrity
 3. Primary Key
 4. Creating a Query
 5. Criteria in a Query
 6. Database Relationships
 7. Creating a Report
4. When completed, submit or show your data to your instructor
5. Move on to Task 2

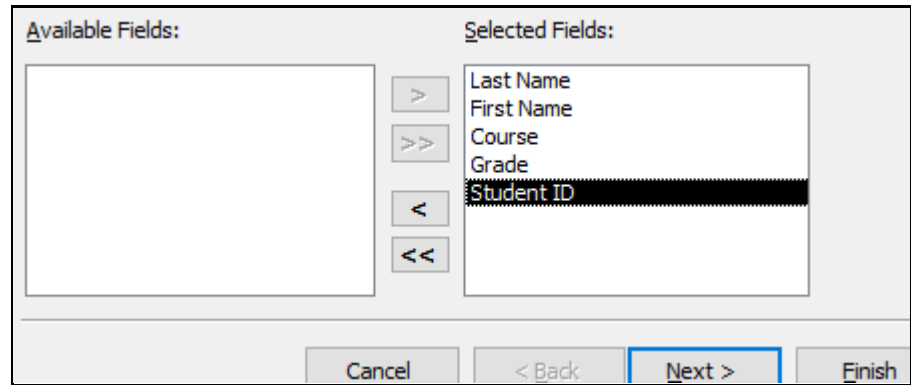
Task 2: Generate a Grade Report

6. Add a new record to the *Faculty* table
 1. Use your instructor's name
 2. Enter the next number for the Faculty ID
7. Add new record to the *Student Personal* table with
 1. Your name, a fake student ID, and a fake birthday
8. Add 2 new records to the *Grades* table for your ICT course
 1. Course = ICT Lab
 2. Course = ICT Lecture
 3. Student ID = same as above
 4. Faculty ID = same as above
 5. Enter values for your grades
9. Modify the query in in Figure 10.20 (page 243) to match the course names you added (ICT Lab and ICT Lecture)

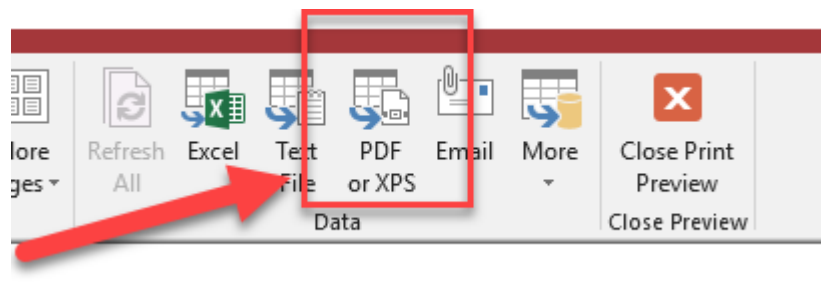
	Course	Grade
Personal	Grades	Grades
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	"ICT Lab"	
	"ICT Lecture"	

10. Generate a report for your course grades using the query.

1. Select all fields



2. Save the report as PDF



11. When completed show or submit your document to your instructor