



Topics

- Use results from another query in a new query
- Copy an existing query
- Use wildcards in query criteria
- Display unique values in query results
- Use a parameter query
- Create a query to update records
- Create a query to delete records

Background Information

This project includes information on West Virginia K-12 schools from 2012 to 2020.

Instructions

IMPORTANT: This assignment requires the Windows version of Microsoft 365. macOS users can access a ready-to-use version through Windows Virtual Desktop by following the instructions at <https://cs101.wvu.edu/wvd>.

IMPORTANT: Complete the steps below in the order they are given. Completing the steps out of order may complicate the assignment or result in an incorrect result.

1. Download and extract the provided Data Files ZIP file. It contains the following file for use in this assignment:
 - a. **education_ppq4_wvkep.accdb** – Information on West Virginia K-12 schools [1], [2].

Table: <i>Districts</i>		
Field Name	Type	Description
District	Short Text	Primary key. Name of the district.
Region	Short Text	Region where the district is located.

Table: <i>DistrictStatistics</i>		
Field Name	Type	Description
District	Short Text	Part of composite key. Name of the district.
SchoolYear	Short Text	Part of composite key. School year for the data.
Population	Number	Population of the district.
DropoutRate	Percentage	Percentage of students who dropped out of school in the district.



Queries IV

WV K-12 Education Problem

Table: Schools		
Field Name	Type	Description
SchoolID	Short Text	State-assigned identifier for the school.
SchoolName	Short Text	Name of the school.
County	Short Text	County where the school is located.
Closed	Yes/No	If yes, school is closed as of 2020-2021 school year.

Table: SchoolStatistics		
Field Name	Type	Description
ID	AutoNumber	Primary key. Unique identifier for the school statistics.
SchoolID	Short Text	State-assigned identifier for the school.
SchoolYear	Short Text	School year for the data.
ManagingDistrict	Short Text	Name of district that managed the school.
GradesServed	Short Text	Grades served by the school.
SchoolTypeAbbrv	Short Text	Abbreviation of the school type.
Enrollment	Number	Number of students enrolled in the school.
AttendanceRate	Percentage	Average daily attendance rate for the school.
GraduationRate	Percentage	For high schools, percentage of students who received a regular diploma in four years.
StudentsTested	Number	Number of students who took state proficiency tests.
MathProficiency	Percentage	Percentage of students who tested proficient in math.
ReadingProficiency	Percentage	Percentage of students who tested proficient in reading.

Table: SchoolTypes		
Field Name	Type	Description
SchoolTypeAbbrv	Short Text	Primary key. Abbreviation of the school type.
SchoolTypeName	Short Text	Name of the school type.

Table: AnalysisQuestions		
Field Name	Type	Description
QuestionNumber	Short Text	Primary key. Question being answered.
Response	Long Text	Response to the analysis question prompt.

- Open the **education_ppq4_wvkep.accdb** database in Microsoft Access.



Queries IV

WV K-12 Education Problem

3. We must add additional records to the *Schools* table.
 - a. Enter records for all schools below.

HINT: The *Schools* table will contain 735 records.

School ID	School Name	County	Closed
060901	Steve Harvey Elementary School	McDowell	Yes
051902	Bob Denver Middle School	Mercer	Yes

4. There is nothing to do for this step. Please proceed to the next step.
5. There is nothing to do for this step. Please proceed to the next step.
6. Create separate queries to provide the information requested below. Name each query after the step in which it appears (e.g., the name the query in Step 6a as *Query6A*).

HINT: Run your queries to test them. Make sure that they display all and only the records that you would expect to appear.

Use results from another query in a new query

- a. Expanding upon the results from the *Query3D* query, we would like to display districts where dropout rate was greater than 1.5%. All data for this query will come from *Query3D*.

Create a query listing each district, school year, and the number of schools.

Only display records where the dropout rate was greater than 1.5% (> 0.015). Do not show the dropout rate field in the results.

HINT: This query will show 27 records and 3 fields.

Copy an existing query

- b. We wish to view counties where the dropout rate was less than 0.5%. Copy the *Query6A* query and save it as a new query.

Modify the query to only display records where the dropout rate was less than 0.5% (< 0.005). Do not show the dropout rate field in the results.

HINT: This query will show 119 records and 3 fields.



Use wildcards in query criteria

- c. We wish to create a new query to list schools which have Pre-Kindergarten. Create a new query listing the managing district, school name, school year, and grades served.

Only display records for schools whose grades served begin with PK (Pre-Kindergarten).

NOTE: When selecting the records to include, use a wildcard and the text "PK" in your criteria.

HINT: This query will show 3,122 records and 4 fields.

Display unique values in query results

- d. We wish to list all the different grades served combinations. Create a new query that lists the grades served.

Only display unique values. Sort by grades served in ascending order.

HINT: This query will show 33 records and 1 field.

Use a parameter query

- e. Parameter queries are a type of query which asks for criteria when they are run. This allows the same query to be used repeatedly without having to manually edit the query criteria in Design View.

We want to create a query to view school statistics by school year. Create a query listing the managing district, school name, school year, enrollment, attendance rate, and graduation rate.

The query must prompt the user for the school year to use. Only display records where the school year matches the entered value.

IMPORTANT: Do not include a period (.) or exclamation point (!) in the message to be displayed when prompting the user for their desired criteria.

HINT: This query will show 652 records with 6 fields when school year 2019-2020 is entered.



Create a query to update records

- f. We want to correct school records. Create a query to update the *Schools* table. Set the county to *Kanawha* on records where the School IDs are 060901 or 051902.

HINT: This query will update 2 records.

Create a query to delete records

- g. Create a query to delete school records. Delete records where the School IDs are 060901 or 051902.

HINT: This query will delete 2 records.

7. In the *AnalysisQuestions* table, answer the analysis question below. Respond to one question per record.
- b. When students drop out of school, there are negative consequences which impact their learning and their physical, mental, and social development. What do you think is a good way to reduce dropout rates for schools?
8. Run the Compact and Repair Database utility on your database. Ignore any errors you receive when running the utility.

Grading Rubric

This assignment is worth 8 points. It will be graded by your instructor using this rubric:

Standard	Meets Requirements (8 points)	Does Not Meet Requirements (0 points)
Student made reasonable effort in correctly completing assignment.	Assignment is at least 70% complete and correct, or student contacted instructor for help on incorrect or incomplete items.	Assignment is less than 70% complete and correct, and student did not contact instructor for assistance on incorrect or incomplete items.

This rubric will be used for peer evaluation of this assignment:

Standard	Excellent	Satisfactory	Needs Improvement
Assignment is correct and complete.	Assignment is at least 90% complete and correct.	Assignment is 70%-89% complete and correct.	Assignment is less than 70% complete and correct.



Queries IV

WV K-12 Education Problem

The analysis question in Step 7b will be evaluated using this rubric:

Standard	Meets Requirements	Does Not Meet Requirements
Answer is reasonable.	Answer addresses the question prompt and is factually correct or a reasonable interpretation of available data.	Answer does not address the question prompt, is factually incorrect, or is an unreasonable interpretation of available data.
Answer is supported.	Logical rationale is provided to support the given answer.	Logical rationale is not provided to support the given answer.

References

- [1] "ZoomWV Data Dashboard," *West Virginia Department of Education*. Available: <https://zoomwv.k12.wv.us/>.
- [2] "County Population Totals: 2010-2019," U.S. Census Bureau, Washington, DC, Jun. 2020. Available: <https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html>.