Reports
WV K-12 Education Problem

Topics

- Create a report using the Report tool
- Modify report fields
- Create a report using the Report Wizard

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_ppr_wvkep.accdb** – Information on West Virginia K-12 schools [1], [2].

Table: *Districts*		
Field Name	**Type**	**Description**
District	Short Text	Primary key. Name of the school district.
Region	Short Text	Region where the school district is located.

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

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 school district that manages 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 has received a regular diploma in four years.
StudentsTested	Number	Number of students who took state proficiency tests.
MathProficiency	Percentage	Percentage of students that tested proficient in math.
ReadingProficiency	Percentage	Percentage of students that 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.

2. Open the **education_ppr_wvkep.accdb** database in Microsoft Access.

Create a report using the Report tool

3. We wish to create a report to display information on overall performance of schools in each district.

   a. Using the Report tool, create a new report based on the *Query5A* query. Name the report *DistrictPerformanceSummary*.

Modify report fields

   b. Change the column titles as necessary to use descriptive English words rather than the database column names.

   c. Resize the field widths and heights as necessary so that all fields are visible on a single printed page. Ensure that no text is cut-off when the fields are resized.

Create a report using the Report Wizard

4. We wish to create a report to list each school with a high graduation rate.

   a. Using the Report Wizard, create a report to show the results of the *Query4B* query. Display all fields from the query.

   View by school statistics, group by grades served, and sort by school name and then by school year, both in ascending order. Use a stepped layout and landscape page orientation. Name the report *HighGraduationRateSchools.*

   Ensure the full widths of all columns are visible on the report.

5. In the *AnalysisQuestions* table, answer the analysis question below. Respond to one question per record.

   c. The average attendance rate for schools with a high graduation rate is 94.3%. Do you think that good attendance leads to a high graduation rate? Explain your answer.

6. 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.

The analysis question in Step 5c 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*.