



# Access Basics

## WV Senate Problem

### Topics

- Add, edit, and delete records
- Use Datasheet and Design views for tables
- Use Datasheet, Design, and SQL views for queries
- View query results
- View forms
- View reports
- Compact and repair the database

### Background Information

This project includes information on West Virginia Senate elections from 2000 to 2014.

### Instructions

**IMPORTANT:** This assignment requires the Windows version of Microsoft Office.

**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. **senate\_ppab\_wvsp.accdb** – Information on West Virginia Senate elections [1]–[5].

<b>Table: Candidates</b>		
<b>Field Name</b>	<b>Type</b>	<b>Description</b>
<b>CandidateID</b>	AutoNumber	Primary. Unique identifier for the candidate.
<b>District</b>	Number	Number of State Senate district.
<b>Year</b>	Number	Year of election.
<b>PartyAbbrv</b>	Short Text	Political party abbreviation.
<b>CandidateFirst</b>	Short Text	First name of candidate.
<b>CandidateLast</b>	Short Text	Last name of candidate.
<b>Raised</b>	Currency	Amount of funds raised by candidate.
<b>VotesReceived</b>	Number	Votes received by candidate.



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<b>Table: <i>Districts</i></b>		
<b>Field Name</b>	<b>Type</b>	<b>Description</b>
<b>RedistrictingCycle</b>	Number	Part of composite key. Census data year used for redistricting.
<b>District</b>	Number	Part of composite key. Number of State Senate district.
<b>Counties</b>	Short Text	List of counties or parts of counties in the district.
<b>Population</b>	Number	Population of district.

<b>Table: <i>Elections</i></b>		
<b>Field Name</b>	<b>Type</b>	<b>Description</b>
<b>RedistrictingCycle</b>	Number	Redistricting cycle this election used.
<b>District</b>	Number	Part of composite key. Number of State Senate district.
<b>Year</b>	Number	Part of composite key. Year of election.
<b>IncumbentFirstName</b>	Short Text	First name of incumbent.
<b>IncumbentLastName</b>	Short Text	Last name of incumbent.
<b>IncumbentRetired</b>	Yes/No	Indication if the incumbent was not running.
<b>WinnerFirstName</b>	Short Text	First name of the winner.
<b>WinnerLastName</b>	Short Text	Last name of the winner.
<b>WinnerPctg</b>	Number	Percentage of the total vote received by the winner.

<b>Table: <i>Parties</i></b>		
<b>Field Name</b>	<b>Type</b>	<b>Description</b>
<b>PartyAbbrv</b>	Short Text	Primary key. Abbreviation of party name.
<b>PartyName</b>	Short Text	Full text of political party name.

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

2. Open the **senate\_ppab\_wvsp.accdb** database in Microsoft Access.



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### Add, edit, and delete records / Use Datasheet and Design views for tables

3. We need to add some additional records to the *Parties* table.
  - a. Enter records for all parties below.

**HINT:** The *Parties* table will contain 11 records.

Party Abbreviation	Party Name
PRO	Prohibition Party
FUS	Fusion Party
SQD	Square Deal Party

4. We wish to modify records in the *Candidates* table.
  - a. Change Shirley Love's first name to Mr. Shirley for the 2000 and 2004 elections.
  - b. Change Jeff Kessler's party to Mountain Party for the 2008 election.
  - c. Attempt to change Walter Bish's district to 100 for the 2000 election. You will be unable to complete the change because it would violate referential integrity.
5. We wish to delete records from the *Parties* table.
  - a. Delete the record for the Square Deal Party.
  - b. Attempt to delete the record for the Mountain Party. You will be unable to complete the deletion because it would violate referential integrity.
6. Each table contains several fields, each with its own properties. Open the following tables in Design View and look at the properties for each field:
  - a. *AnalysisQuestions*
  - b. *Candidates*
  - c. *Districts*
  - d. *Elections*
  - e. *Parties*



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### Use Datasheet, Design, and SQL views for queries / View query results

7. Queries are used to extract information from a database. Open the following queries in Design View and look at how the queries are designed, then run each query to view its results:
  - a. *CandidatesQuery*
  - b. *WinnersQuery*
  - c. *DistrictsQuery*
  - d. *PluralityWinnersQuery*
  - e. *SelfFundedWriteInQuery*
  - f. *CandidatesFieldedQuery*

### View forms

8. Forms provide a user-friendly way to edit data. Open the following forms, then look at them in Layout View:
  - a. *PartyData*
  - b. *PartyCandidateData*, a subform associated with *PartyData*

### View reports

9. Reports provide a structured way to view the contents of tables or results of queries. Open the following report, then look at it in Layout View:
  - a. *SelfFundedCandidates*

### Compact and repair the database

10. Run the Compact and Repair Database utility on your database. Ignore any errors you receive when running the utility

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## 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.



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

<b>Standard</b>	<b>Excellent</b>	<b>Satisfactory</b>	<b>Needs Improvement</b>
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.

## References

- [1] D. E. Holmes, *West Virginia Blue Book 1999*, vol. 81. Charleston, West Virginia: West Virginia Legislature, 1999.
- [2] D. E. Holmes, *West Virginia Blue Book 2008*, vol. 90. Charleston, West Virginia: West Virginia Legislature, 2008.
- [3] D. E. Holmes, *West Virginia Blue Book 2012*, vol. 90. Charleston, West Virginia: West Virginia Legislature, 2012. Available:  
<http://www.legis.state.wv.us/legisdocs/2012/bluebook/bluebook2012.pdf>.
- [4] "Elections - History & Data," *West Virginia Secretary of State*. Available:  
<http://www.sos.wv.gov/elections/history/Pages/default.aspx>.
- [5] "Campaign Finance Reporting System," *West Virginia Secretary of State*. Available: <http://cfrs.wvsos.com/#/home>.