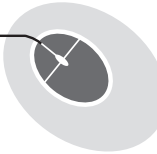




# More on MS Access 2013



## LEARNING OUTCOMES

**After the lesson, students will be able to:**

- » Recall the introduction to Access 2013.
- » Perform basic mathematical calculations with MS Access 2013.
- » Define and create database objects.
- » Sort and filter data with MS Access 2013.
- » Search data.
- » Create a query using the Query Wizard.
- » Create a form in MS Access 2013.
- » Create a report in MS Access 2013.

## WARM UP

Which fields of a database containing the marks of students would you like to sort?

**Ans.** Do it yourself.

## CHAPTER NOTES

- » MS Access 2013 permits basic mathematical calculations like Sum, Average, Maximum, Minimum, count, etc., on numeric fields.
- » This special feature is called 'Totals' and is present in the Records group under the Home tab.
- » The 'Total' row adds up an entire column of numbers, just like in a ledger or on a receipt.

- » The resulting sum appears in a special row at the bottom of the table, called the 'Total' row.
- » A DBMS serves the need of organisations by logically arranging data so that it is easy to access and hides various difficult procedures from the users.
- » Tables: They are the collection of records organised under fields.
- » Queries: Data can be filtered out from one or more tables based on a criterion using queries.
- » Forms: They are the interfaces that facilitate easy data entry for users.
- » Reports: Data from tables and queries can be presented in a printable format called reports.
- » MS Access gives you the ability to work with enormous amounts of data. Sorting and filtering are two tools that let you customise how you organise and view your data, making it more convenient to work with.
- » When you sort records, you are putting them into a logical order, with similar data grouped together. As a result, sorted data is often simpler to read and understand than unsorted data.
- » By default, Access sorts records by their ID numbers. However, there are many other ways records can be sorted.
- » Filters allow you to view only the data you want to see. When you create a filter, you set criteria for the data you want to display. The filter then searches all of the records in the table, finds the ones that meet your search criteria, and temporarily hides the ones that don't.
- » Filters are useful because they allow you to focus on specific records without being distracted by the data you're uninterested in.
- » Quick search on data can be done in Access using the Record Navigation pane available at the bottom of MS Access screen, just above the status bar. This bar also provides a search box.
- » When you create a basic select query, you identify the table (or tables) with the data you want to find, name the fields to appear in the query results, and then save the query. The Query Wizard takes you through the process, making it easy to identify the tables and fields to appear in your query.

- » Creating forms for your database can make entering data more convenient. When you create a form, you can design it in a way that works with your database.
- » Access makes it easy to create a form from any table in your database. Any form you create from a table will let you view the data that's already in that table and add new data also. Once you've created a form, you can modify it by adding additional fields and design controls like combo boxes.
- » Reports organise and summarise data for viewing online or for printing. A detailed report displays all of the selected records. You can include summary data such as totals, counts, and percentages in a detailed report.
- » A summary report does not list the selected records but instead summarises the data and presents only totals, counts, percentages, or other summary of the data. Access has several report generation tools that you can use to create both detailed and summary reports quickly.

## **DEMONSTRATION**

- » Perform basic mathematical calculations with MS Access 2013
- » Define and create database objects
- » Sort and filter data with MS Access 2013
- » Search data
- » Create a query using the Query Wizard
- » Create a form in MS Access 2013
- » Create a report in MS Access 2013

## **LAB ACTIVITIES**

1. Your brother's teacher has told him to make a database of employees. The table should consist of the following fields: Name, SSN, address, job\_profile and salary.
  - (a) What can be the primary key for this table? Create the primary key.

- (b) Note that the job\_profile field should have a default value of manager in case no value is specified.
  - (c) Also note that the Name and SSN fields cannot be left empty.
  - (d) Help your brother in creating the database.
2. Create a database for your school canteen having the following fields: Item ID, Item Name, Price, Quantity, Purchase Date. Enter 15 records in the database.
- (a) Decide which data types will be appropriate for each field.
  - (b) Decide on the primary key for this table and create it.
  - (c) Filter the records such that the items whose quantity is less than 5 are collected separately.
  - (d) Display and print a report in the form of a table.

## **ASSESSMENT**

**Teacher can assess the students on the basis of the following questions.**

1. Create a database for any 20 randomly selected books in your school library. The fields in the table should be: Title, Author, HaveIReadIt, HaveMyFriendsReadIt.
2. Now, filter the books in such a way that books which neither you nor your friends have read, that is, the books for which HaveIReadIt and HaveMyFriendsReadIt are both no, are put separately whereas books only you have read are put separately.