
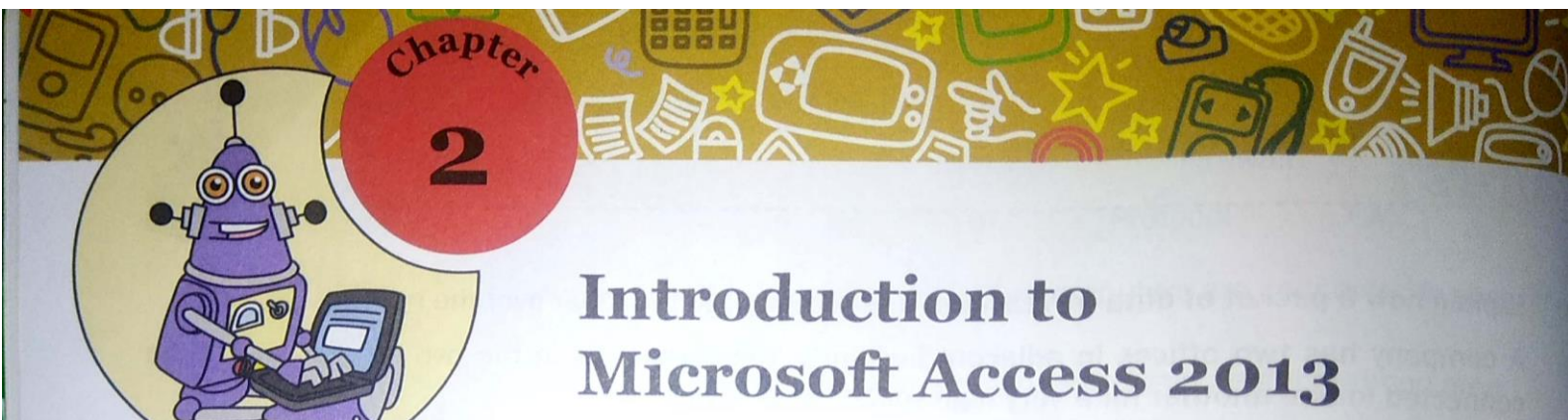


Class - Eighth

Subject -> Computer


Questions & Answers of Chapter 2nd

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Did You Know?

Some of the companies maintaining the largest databases are Google, Amazon, YouTube, Library of Congress and Central Intelligence Agency.



Did You Know?

The relational data model was invented by E.F. (Ted) codd in the year 1970. A language called SQL (Structured Query Language) can be used to work on any RDBMS.

Words to Know

- **Database:** An organised collection of related data.
- **Database Management System (DBMS):** A software program that enables creation and management of databases.
- **Relational Database Management System (RDBMS):** A DBMS that stores data in the form of tables.
- **Relation (or Table):** A database object that stores data in a database in row and column format.
- **Record:** Horizontal row in a table that stores complete information about an item or object.
- **Attribute (or Field):** Vertical columns in a table that stores one type of information about an item or object.
- **Form:** A database object that provides an interface that allows users to enter, change, and view the data in a database tables.
- **Report:** A database object that is used to present data from tables or queries in a format that can be printed.
- **Query:** A database object that is used to extract data based on one or more conditions from database tables.
- **Primary Key:** A primary key is a field or combination of fields that uniquely identifies the records in the table.

RECAP ZONE



- Access is an example of RDBMS. It is a part of the Microsoft Office suite.
- Various objects that can be created in Access are Tables, Queries, Forms and Reports.
- Field data type determines the type of values that can be stored in a field.
- Field properties let you have control on data that can be entered in a field.
- The Design view of a table is used to enter field names, their data types, properties and description.
- The Datasheet view of a table is used to enter data in a table.
- You can easily add, modify or delete records in the Datasheet view of a table.
- You can add or remove fields in the Design view of a table.



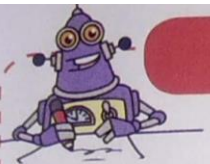
Practice Zone

Answer the following.

1. A software program that enables the user to create, modify and extract data from a database. _____
2. Duplication of data that is removed in database. _____
3. Objects that store data in the form of rows (records) and columns (fields). _____
4. Objects that display the data stored in database tables in a professional format. _____
5. Extension of Access 2013 database. _____

Answers of Practice Zone:

(1)- DBMS (2)- Reduced Data Redundancy (3)- Table
(4)- Reports (5)- .accdb



Practice Zone

Consider the table 'Patient' and answer the questions that follow.

Table: Patient

P_no	P_name	P_dob	P_ailment	P_history
P1	Mitali	12 Aug 1960	Joint pain	thyroid, diabetes, high blood pressure, anaemic, has undergone bypass surgery, problem of water retention in lungs
P2	Shivika	11 Jan 1955	Leg fracture	low blood pressure
P3	Raman	23 Apr 1965	Blocked arteries	high cholesterol, overweight, cataract operation on both eyes, has undergone angioplasty

1. Suggest suitable data types for various fields in the table 'Patient'.
2. Which view would you use to enter more records in the table?
3. You want to set the Field Size of the field P_name to 40. Which view of the table would you use?
4. What is the default field size for the Short Text data type?

Answers of Practice Zone:

(1)-


Field:	P_no	P_name	P_dob	P_ailment	P_history
Datatype	Short Text	Short Text	Date/Time	Short Text	Long Text

(2)- Datasheet View (3)- Design View (4)- 50

ASSESSMENT ZONE



A. Choose the correct answer.

1. Access is an example of
 - a) Word Processing software.
 - b) RDBMS.
 - b) Spreadsheet software.
 - d) Animation software.
2. Find the odd one out.
 - a) Date/Time
 - b) Field Size
 - c) Required
 - d) Allow Zero Length
3. DBMS helps in
 - a) reducing data redundancy.
 - b) ensuring data security.
 - c) enforcing standards.
 - d) All of these
4. A field that has a unique value for every record and cannot be left blank is called the
 - a) primary key.
 - b) unique key.
 - c) special key.
 - d) none of these
5. Which of the following field properties lets you specify the conditions on the data that can be entered in a table?
 - a) Field Size
 - b) Format
 - c) Validation Rule
 - d) Required
6.  is the icon for
 - a) Primary Key
 - b) Sorting
 - c) Design View
 - d) Datasheet View
7. Which of the following objects in Access lets you retrieve selective data based on a specific criteria?
 - a) Tables
 - b) Queries
 - c) Forms
 - d) Reports
8. Which property is used to specify a value that gets displayed automatically whenever a new record is inserted.
 - a) Caption
 - b) Format
 - c) Validation Rule
 - d) Default Value

Answers of Assessment Zone:

A. Choose the correct answer(Answers)

- (1)- (c) RDBMS (2)- (a) Date/Time (3)- (d) All of these
(4)- (a) primary key (5)- (c) Validation Rule (6)- (c) Design View
(7)- (b) Queries (8)- (d) Default Value

B. Fill in the blanks using the words given below.

Default value Design Long Text Tables Primary key *.accdb
Datasheet Format

1. In a relational database, data is stored in the form of _____.
2. The _____ view lets you enter data in a table.
3. You can set the field data types and their properties in the _____ view.
4. The _____ property is used to specify a value that is displayed automatically when the records are created.
5. The _____ field cannot contain duplicate values.
6. The extension of Access 2013 file is _____.
7. The _____ property of a field with Date/Time data type determines the manner in which date gets displayed.
8. A field with _____ data type can store more than 255 characters.

C. A table has to be created in Access to store details of students. The following table shows a sample of the data that needs to be stored in the table.

Table: Student

Sno	Sname	Saddress	Sdob	Sprofile
S1	Anurag	12-Kingsway Camp	12-Jan-1987	A sincere hardworking and meritorious student. A scholar for five years. Performs well in all Olympiads. Takes keen interest in all school activities such as annual day, environment club.....
S2	Sharang	Flat No-23, Green Field Apartments, Rohini	26-Sep-1988	Good at both academics and extracurricular activities.....

1. Suggest the data types that should be used for each of the fields in the above table (Field: Sprofile is used to store the profile of the student)
2. Suggest a field from the above table, which can be set as the primary key.

B. Fill in the blanks(Answers)

(1)- Tables (2)- Datasheet (3)- Design (4)- Default value (5)- Primary key (6)- *.accdb (7)- Format (8)- Long Text

C. (1)-

Field:	Sno	Sname	Saddress	Sdob	Sprofile
Datatype:	Short Text	Short Text	Short Text	Date/Time	Long Text

(2)- The field **Sno** can be set as the primary key.

D. Answer the following questions.

1. Define the following: i) Table ii) Database iii) DBMS
2. What are the advantages of using a DBMS?
3. Distinguish between the following pairs.
 - a) Record and Field
 - b) Number and AutoNumber data type
 - c) Short text and long text data type
 - d) Validation rule and Validation text
4. What is a primary key? How do we set primary key in MS Access?
5. What are the two areas of the Design view of a table?

D. Answer the following questions(Answers)

(1) Ans. - > **(i)Table:** Tables are used to store data in the form of rows (records) and columns (fields). A table is also referred to as a relation.

(ii)Database: A database is an organised collection of related data so that it can be easily accessed, managed and updated.

(ii)DBMS: A Database Management System (DBMS) is a software program that enables us to create, modify and extract data from a database.

(2) Ans. - > Some of the advantages of using a DBMS as compared to files are listed here.

Reduced Data Redundancy: The duplication of data is referred to as data redundancy. In contrast to non-database systems, which maintain multiple copies of the same data at different locations, DBMS stores data at a central place.

The user is not required to maintain multiple copies of the same data. Thus, DBMS prevents data duplication.

Reduced Update on Errors and Increased Consistency: When the data is stored at multiple locations, there are chances that modifications are not carried out at all the places. Multiple-mismatching copies of the same data are known as data inconsistency. DBMS ensures data consistency by storing data at one place and ensuring that there is no duplication of data.

Improved Data Access to Users: A DBMS stores data at a centralised location and facilitates sharing of data among multiple users according to their requirements. For example, users from all over the country access the database for booking railway tickets.

Improved Data Security: One of the most important advantages of DBMS is data security. In DBMS, user IDs can be created with various levels of security.

Users have limited rights and permissions. Only authorised users can access the data. Some may have the privilege of changing the data while others can only view the data.

Maintaining Standards: A DBMS ensures that the stored data follows the organisation's own standards or national/ international standards. This ensures greater data integrity. This also aids in sharing data between different systems.

(3) (a)Ans. -> The rows in a table are known as **records**. A record stores complete information about an object or an item.

Whereas, The columns in a table are known as **fields or attributes**. A field is a named unit of information. A field stores one type of information about all the objects or items.

(b)Ans. -> The fields with **Number** datatype can store numbers. Whereas, the fields with **AutoNumber** datatype store integers that are incremented automatically when a new row or record is added to a table.

(c)Ans. -> The fields with **Short text** datatype can store text or a combination of text and numbers such as names, addresses and postal codes. The fields with this datatype can have a maximum of 255 characters.

Whereas, The fields with **Long text** datatype can store lengthy texts, that is, up to 65,536 characters. It can be used for storing detailed information such as synopsis of a book or a patient's medical history.

(d)Ans. -> **Validation Rule** property is used to put conditions on the data that can be entered in a field. You cannot enter a value if it is not according to the Validation Rule.

Whereas, **Validation Text** property is used to display an error message when the Validation Rule gets violated.

(4) Ans. -> A **primary key** is a field or combination of fields that uniquely identifies the records in a table. A primary key field cannot have repetitive values and cannot be left blank.

To set primary key in MS Access, Place the cursor on the field to be set as the Primary key and click on the Primary Key option in the Tools group on the Design tab. You will notice that a key symbol appears next to the field.

(5) Ans. - > The two areas of the Design view of a table are—

- a. Field Grid Pane: Field Grid Pane is used for entering field names and their data types. We can also give an optional description about each field in this pane.
- b. Field Properties Pane: Field Properties Pane is used to set properties for the fields in the table.

You can also watch all the lecture videos of chapter-2: Introduction to Microsoft Access 2013 by clicking on images below:

Access 2016

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Chapter-2

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