



Database Systems I

Lecture 1 Practical

Introduction to MS Access

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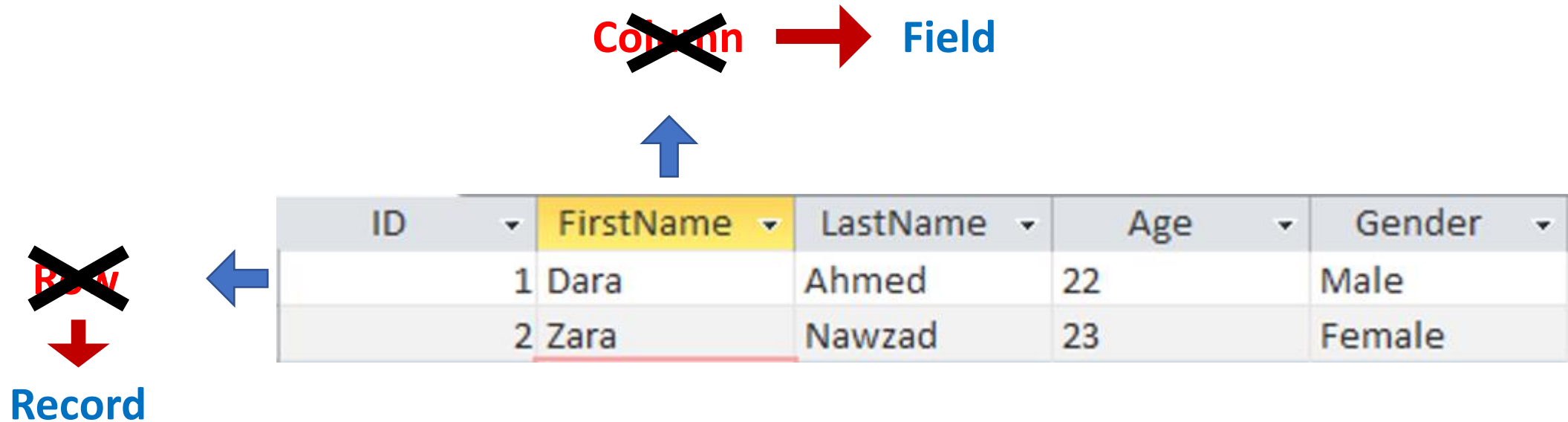
MS Access

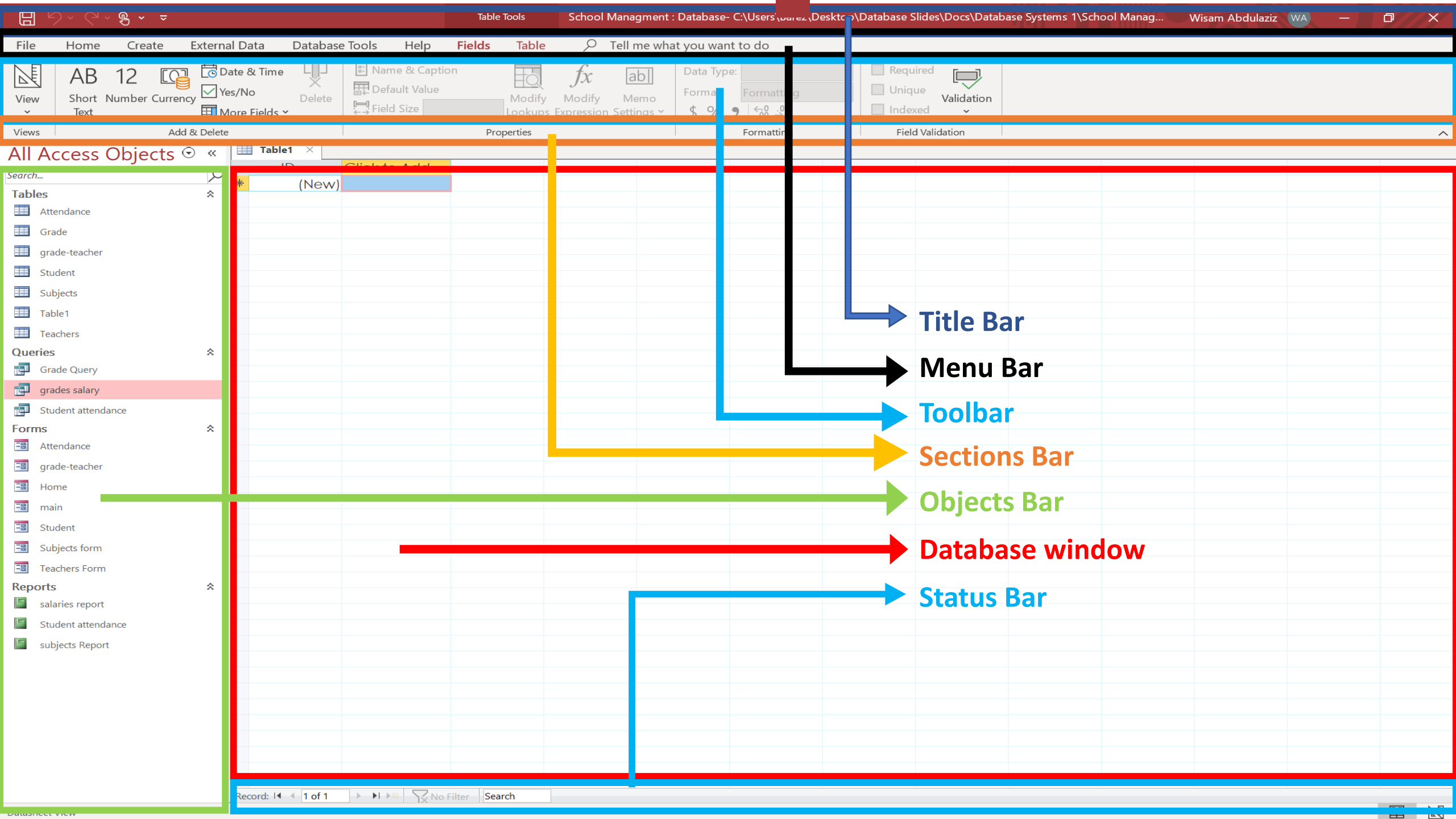


- MS Access is an easy-to-use tool for creating various kinds of applications.
- Access can help us create applications in a minimal amount of time.
- It is a Rapid Application Development Tool.



Database Terms





Title Bar

Menu Bar

Toolbar

Sections Bar

Objects Bar

Database window

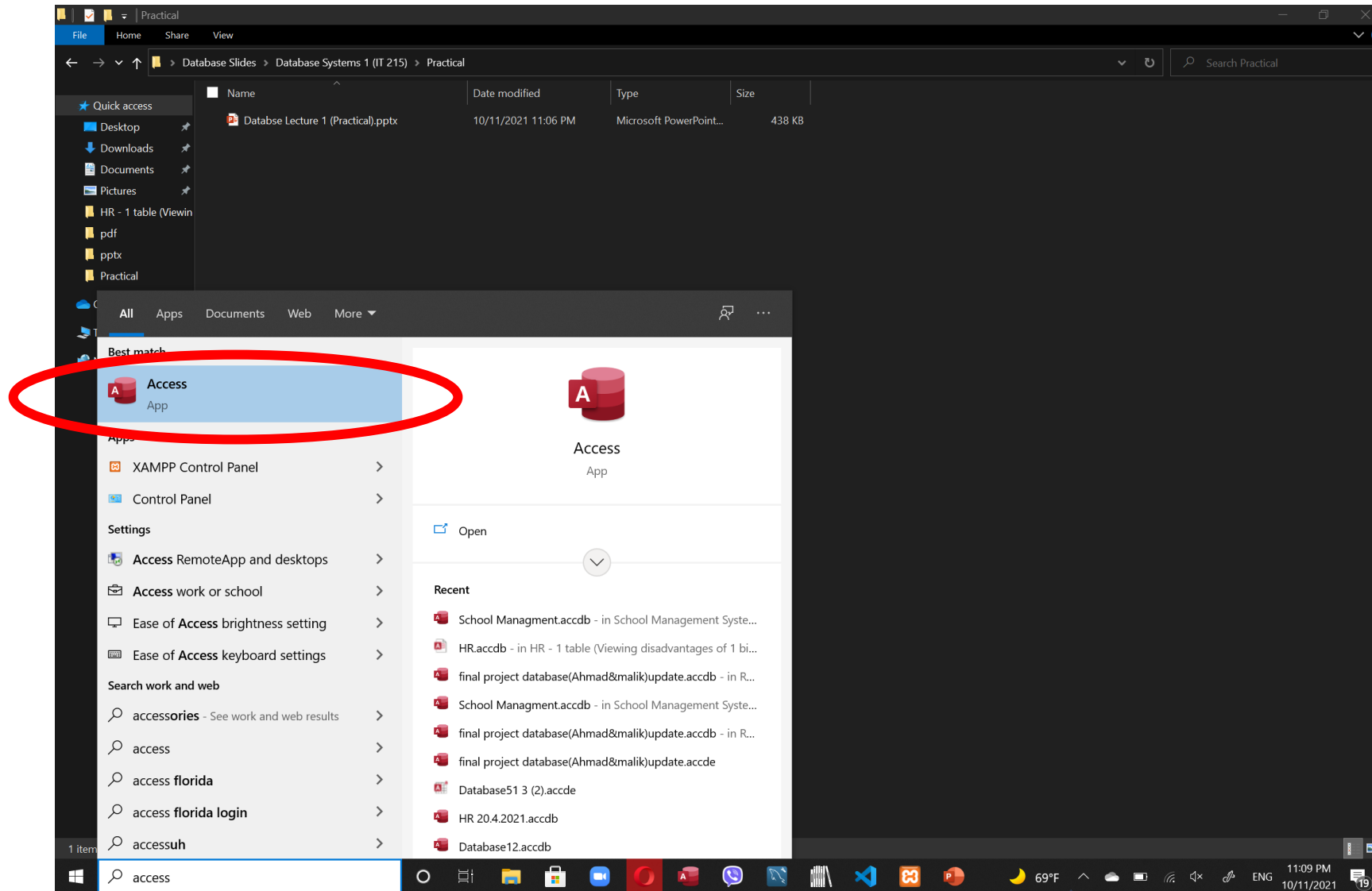
Status Bar

Start using MS Access



- As all other programs, there are some steps to get into and then use MS Access.
- In the next slides, we get through it step by step.

1. Windows > Open MS Access



2. Select Blank Database

The screenshot shows the Microsoft Access application interface. On the left is a dark red navigation pane with options: Home, New, Open, Account, Feedback, and Options. The main area displays a 'Good evening' message and a grid of database templates. The 'Blank database' template, represented by a document icon with a yellow cylinder, is circled in blue. Other templates include Asset tracking, Contacts, Students, Event management, Task management, and Nutrition tracking. Below the templates is a search bar and a 'Recent' list of database files.

Access

Good evening

Home

New

Open

Account

Feedback

Options

Blank database

Asset tracking

Contacts

Students

Event management

Task management

Nutrition tracking

More templates →

Search

Recent Pinned

Name	Date modified
HR.accdb Desktop » Database Slides » Docs » Database Systems 1 » HR - 1 table (Viewing disadvantages of 1 big-scale table)	Sat at 9:06 PM
HR.accdb Desktop » Database Slides » Docs » HR - 1 table » HR (15.03.2021) » HR (09.03.2021)	October 3
HR.accdb Desktop » Database Slides » Docs » HR - 1 table	October 3
HR.accdb Desktop » Database Slides » Docs » HR (19.04.2021)	October 3
School Managment.accdb Desktop » Database Slides » School Management System (Van Sinwan & Aras Kamaran)	October 3
School Management System.accdb Desktop » Database Slides » School Management System (Van & Araz)	October 3
School Managment.accdb Desktop » Database Slides » Database Systems 1 (IT 215) » Practical Project » Projects » Normal » Group A » School Management System (...)	October 3
final project database(Ahmad&malik)update.accde Desktop » Database Slides » Database Systems 1 (IT 215) » Practical Project » Projects » Normal » Group D » Real Estate System (Ahmad ar...	October 3
Database51 3 (2).accde Desktop » Database Slides » Database Systems 1 (IT 215) » Practical Project » Projects » Normal » Group A » Flight System (Andro Abdulja...	October 3

Type here to search

66°F

11:19 PM
10/11/2021

3. Specify a name and location of the Database, then click Create

The screenshot shows the Microsoft Access interface. The 'Access' ribbon is active, and the 'New' section is expanded. A 'Blank database' dialog box is open, allowing the user to specify the file name and location. The 'File Name' field contains 'University' and the location is 'C:\Users\...\.Documents\'. A blue circle highlights the 'Create' button. The background shows the 'New' section of the ribbon with various database templates like 'Blank database', 'HR management', and 'Nutrition tracking'. The 'Recent' section lists several databases, including 'HR.accdb', 'School Management System.accdb', and 'final project database(Ahmad&malik)update.accde'. The Windows taskbar is visible at the bottom, showing the time as 11:23 PM on 10/11/2021.

4. Ready to work

The screenshot displays the Microsoft Access interface for a new table. The ribbon is set to 'Fields' and 'Table'. The table 'Table1' is shown in Datasheet View with a single column 'ID' and a 'Click to Add' dropdown menu. The status bar at the bottom indicates 'Record: 1 of 1'.

ID
(New)

Important Notes



- Name the table at the very first with a meaningful name.
- Do not use (leave) space for naming of fields (columns).

Data Types in MS Access



Data Type	Usage	Size
AutoNumber	Unique value generated by Access for each new record.	4 bytes (16 bytes for ReplicationID).
Short Text	Alphanumeric data (names, titles, etc.)	Up to 255 characters.
Number	Numeric data.	4 bytes.
Large Number	Numeric data.	8 bytes
Currency	4 decimal places of precision.	8 bytes.

Data Types in MS Access



Data Type	Usage	Size
Date/Time	Dates and times.	8 bytes.
Date/Time Extended	Dates and times.	42 bytes

Difference between Date/Time and Date/Time Extended

	Date/Time	Date/Time Extended
Minimum Value	100-01-01 00:00:00	0001-01-01 00:00:00
Maximum Value	9999-12-31 23:59:59.999	9999-12-31 23:59:59.9999999
Accuracy	0.001 seconds	1 nanosecond

Data Types in MS Access



Data Type	Usage	Size
Yes/No	Boolean (true/false) data; Access stores the numeric value zero (0) for false, and -1 for true.	1 byte.
Lookup Wizard	The Lookup Wizard entry in the Data Type column in Design view is not actually a data type. When you choose this entry, a wizard starts to help you define either a simple or complex lookup field. A simple lookup field uses the contents of another table or a value list to validate the contents of a single value per row. A complex lookup field allows you to store multiple values of the same data type in each row.	Dependent on the data type of the lookup field.

Data Types in MS Access



Data Type	Usage	Size
Rich Text	You can store rich, formatted text in an Access database by using a Long Text field and setting the field's TextFormat property to RichText.	From 1 to 4000 characters
Long Text	Large amounts of alphanumeric data: sentences and paragraphs.	Up to about 1 gigabyte (GB)
Attachment	You can attach files such as pictures, documents, spreadsheets, or charts.	Up to about 2 GB.

Data Types in MS Access



Data Type	Usage	Size
Hyperlink	A link address to a document or file on the Internet, on an intranet, on a local area network (LAN), or on your local computer	
Calculated	You can create an expression that uses data from one or more fields.	Dependent on the data type of the Result Type property.