Samrat Academy

(An Institute of Engineering)

Introduction To MS Access 2016

In 2016, Microsoft Access remains a key relational database management system (RDBMS) for desktop-level data organization. Below are the detailed components of its core concepts, interface, and creation process.

1. Database Concepts

A database is a structured collection of interrelated data designed for efficient record keeping.

* **Relational Model:** Access uses a relational model where data is stored in **Tables** consisting of rows (records) and columns (fields).
* **Core Objects:**

  ◦ **Tables:** The primary building blocks that store raw data.
    Queries: Tools to filter, retrieve, and calculate data from tables.
  ◦ **Forms:** User interfaces for entering and viewing data.
  ◦ **Reports:** Formatted summaries used for printing and analysis.
  ◦

* **Data Integrity:** Concepts like **Primary Keys** (unique identifiers for records) and **Relationships** (linking tables via common fields) ensure data consistency.

2. Access Interface

The 2016 Access interface is designed to maximize usability on modern hardware, including support for wide monitors and form zooming.

* **The Ribbon:** Located at the top, it contains tabs like **File**, **Home**, **Create**, **External Data**, and **Database Tools**.
* **Backstage View:** Accessed via the **File** tab, this is where you manage database-level tasks such as opening, saving, and printing.
* **Quick Access Toolbar:** A customizable bar above the ribbon for frequent commands like Save and Undo.
* **Status Bar:** Found at the bottom, it displays information about current tasks and view modes.

3. Navigation Pane

The Navigation Pane is the primary tool for managing all objects within an Access database.

- **Function:** It displays a list of every table, query, form, and report in the current database.
- **Organization:** By default, objects are grouped by **Object Type**, but users can create custom groups or filter objects to find them quickly.
- **Controls:** It can be minimized or hidden using the **Shutter Bar Open/Close** button (or **F11** key) to increase work space.
- **Actions:** Right-clicking an object in the pane allows you to open it in **Datasheet View** (to see data) or **Design View** (to change its structure).

4. Creating a New Database

Users can create a database in three main ways in 2016:

- **From a Template:**

  1. Go to **File > New**.
  2. Select a built-in template (e.g., Inventory, Contacts) or search for one online.
  3. Enter a file name and click **Create**.

- **From Scratch (Blank Database):**

  1. Press **Ctrl + N** or go to **File > New > Blank desktop database**.
  2. Name the file and choose a save location using the **Browse** folder icon.
  3. Click **Create**. Access opens an empty "Table1" where you can begin defining fields and entering data.
- **Importing Data:** You can create a database by importing existing data from Excel, text files, or other databases via the **External Data** tab.