Software Training Plan Draft

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CIS 285 - End User Training and Support

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Microsoft Access Training Session for Adidas Company Employees

Introduction

Microsoft Access is an abundant in-features database management system that enables people and businesses to effectively arrange, store, retrieve, and evaluate data. It is an essential tool for data management, allowing users to build customized forms, create and manage structured databases, generate reports, and create relationships between data tables. We will examine Microsoft Access's features in this training session and provide participants with the knowledge and abilities to utilize this program fully.

Objective

- Provide participants with the knowledge and abilities to utilize Microsoft Access for database administration and application development.
- Creating and executing complex queries is just one way that staff members will be empowered to fully utilise Access's capabilities for effective data retrieval and analysis.
- Enhance participant's capacity to construct, maintain, and analyze databases effectively, resulting in increased productivity at work.
- Increase the participant’s ability to identify and resolve typical troubleshooting problems.

Outline

Designing a Database

- Creating a structured database for effective data storage, organization, and retrieval is a methodical process when designing a database in Microsoft Access. It starts with specifying the goals and parameters of the database, frequently by means of a concise requirements statement that describes the data the database will hold and the ways in which it will be utilized.

- Database designers create the database schema by organizing the tables, fields, and relationships that make up the data structure. Fields in these tables specify the characteristics or attributes of the various entities that are represented by tables.

Data Entry and Editing

- The basic steps in managing and preserving a database in Microsoft Access are data entry and editing. Users can efficiently create, store, and manipulate data with the help of Access, a robust database management system. While editing permits the modification of already-existing records, data entry involves integrating new information into the database.

- Access also has features that help maintain data consistency when editing records across different tables, such as cascading updates and deletes, referential integrity, and data relationships. Data integrity is maintained by ensuring that modifications made to one table automatically update related records in other tables.

Queries

- Microsoft Access queries are strong instruments for obtaining, examining, and modifying data from databases. Users can gain insights and solutions from the stored data by using these database queries to extract information from tables. Queries are particularly helpful

for generating reports, making informed decisions, and developing a deeper understanding of the content of databases because they filter records to retrieve only the relevant data by specifying criteria and conditions.

Forms and Reports

- Forms and reports are essential elements in Microsoft Access that let users engage with their databases and retrieve valuable data from them. Forms are easy-to-use interfaces that offer a structured method for entering, editing, and navigating through data.

- Reports are intended to present and summarise data, on the other hand. To present data in an understandable and expert manner, they provide a structured format.

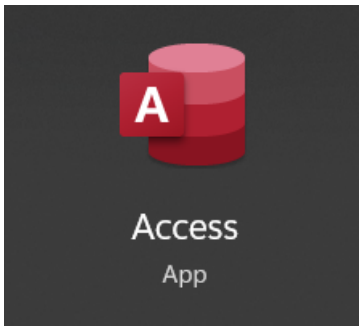
- In general, Microsoft Access's forms and reports simplify data management and reporting, enabling users to work with their databases quickly and effectively while presenting information in an understandable and structured way.

Action/Training

How to Launch Microsoft Access

To install Microsoft Access, follow the steps mentioned below:

- Install Microsoft Access from Microsoft official website: https://www.microsoft.com/en-in/microsoft-365/buy/compare-all-microsoft-365-products
- On the website it will show Microsoft 365 pack which is collection of Microsoft apps including Microsoft Access.
- The pack comes for free trial as well as premium subscription.
- For free trial click on try for free and “Download” it.
- After installing sign-in with your e-mail id.



Tutorial video for reference:

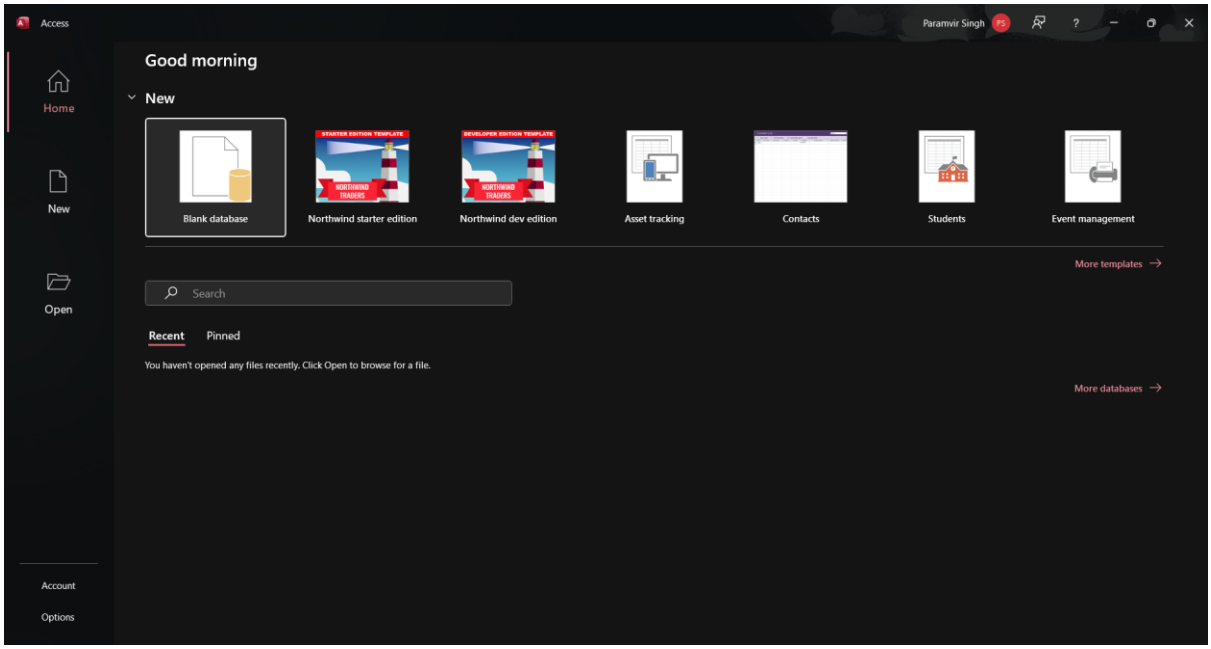
https://youtu.be/izqkKLCVviw

Creating Database and Tables

Here's a step-by-step guide to help you create a new database in Microsoft Access:

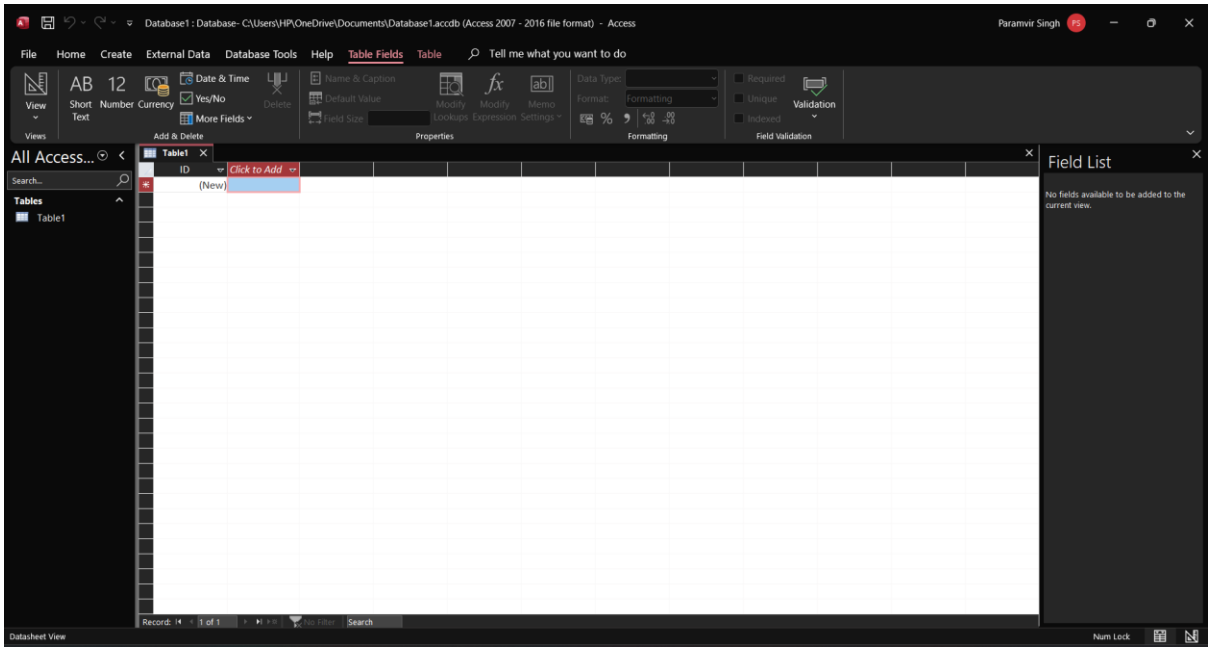
As mentioned earlier, follow the steps outlined in the previous response to launch Microsoft Access.

When you open Microsoft Access, you will see a list of database templates. You can choose a template if it fits your needs, or you can create a blank database. For this guide, we'll create a blank database. Click on "Blank Database" if you didn't choose a template.

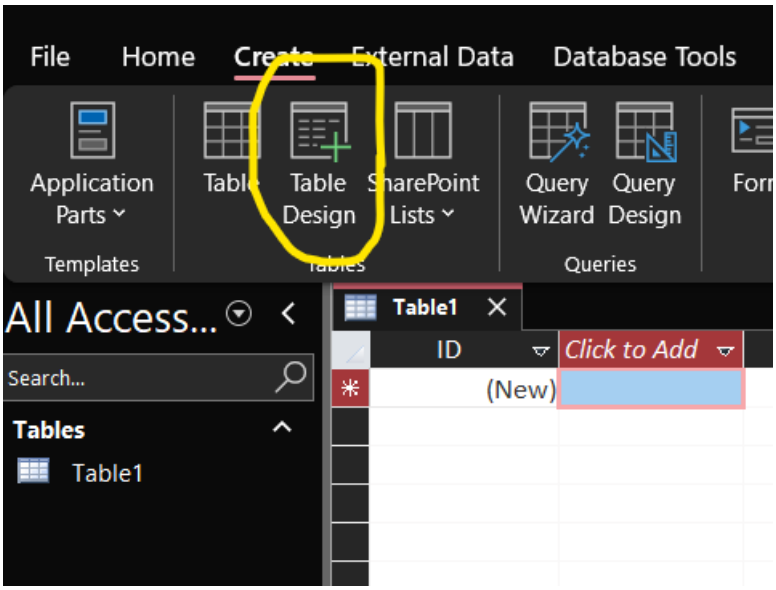


This will open a dialog box. In the dialog box, enter a name for your database in the File Name field. You can also specify a location where you want to save the database file. Click on Create to create the blank database.

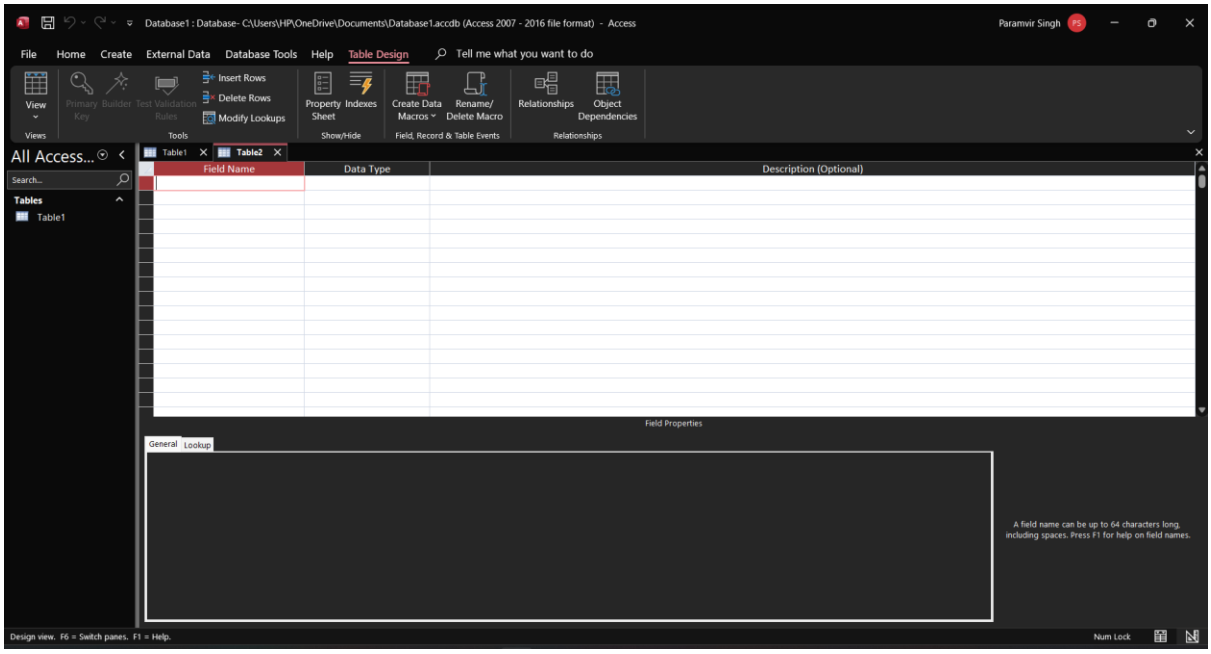
Now you have created a blank database, you can start designing its structure by creating tables. Access will open a new database file with a blank table named Table1. This is where you'll begin.



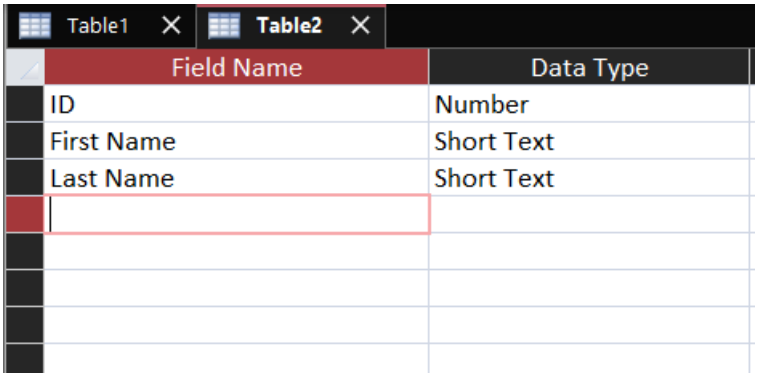
To create a new table, click on the Table Design button in the Tables group on the Create tab.



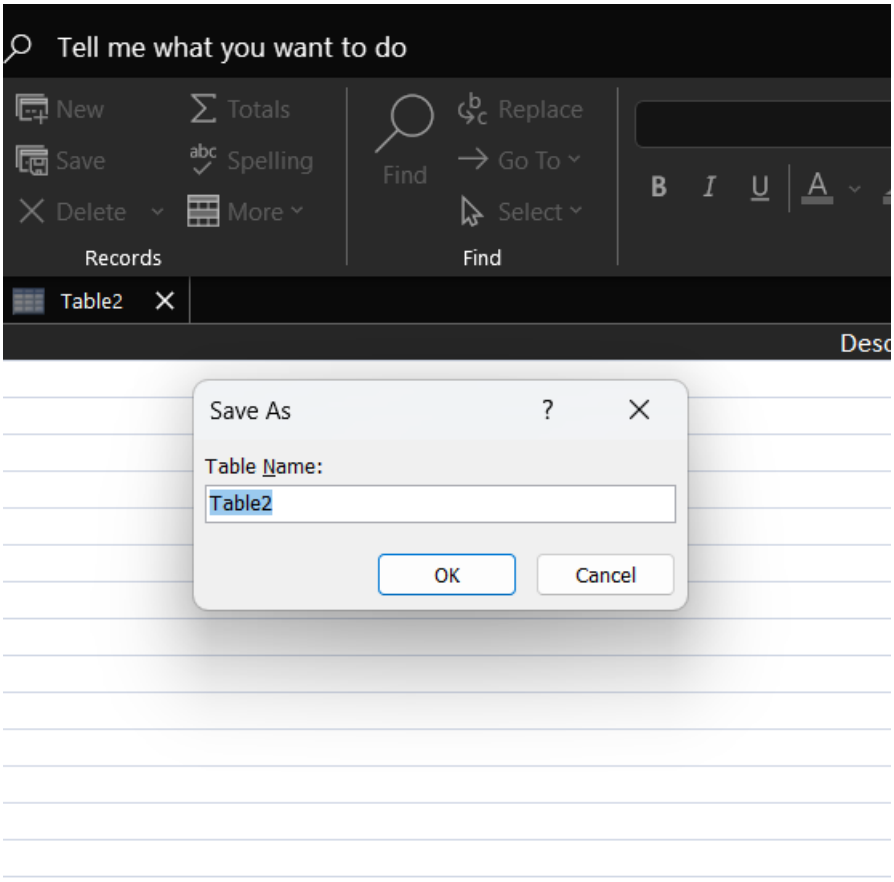
This opens the table design view.



In the table design view, define the fields (columns) for your table. Enter the field names, data types, and any additional properties as needed. For example, you might create a table for Contacts with fields like First Name, Last Name, Email, etc.



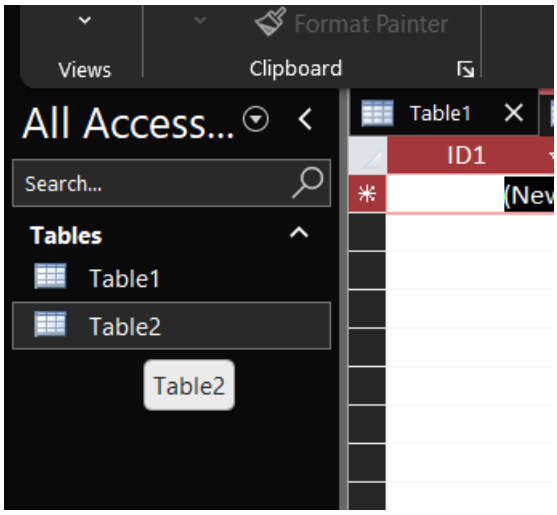
Save the table by Ctrl + S. You'll be prompted to name the table; provide a meaningful name.



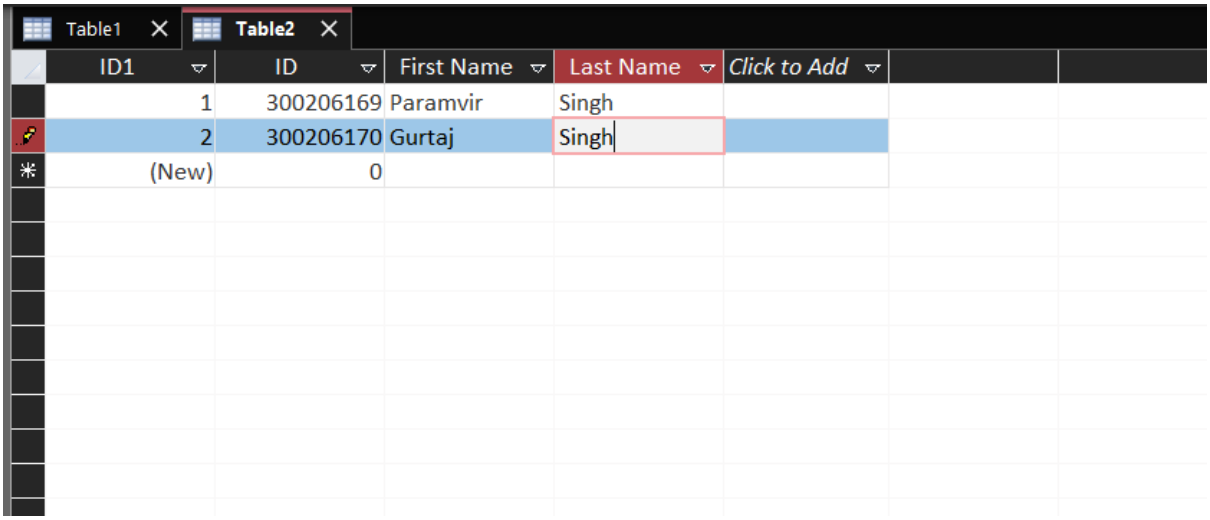
You can continue to create more tables by going back to the "Table Design" view, or you can set up relationships between tables if your database requires multiple tables.

After creating tables, you can start entering data into your database.

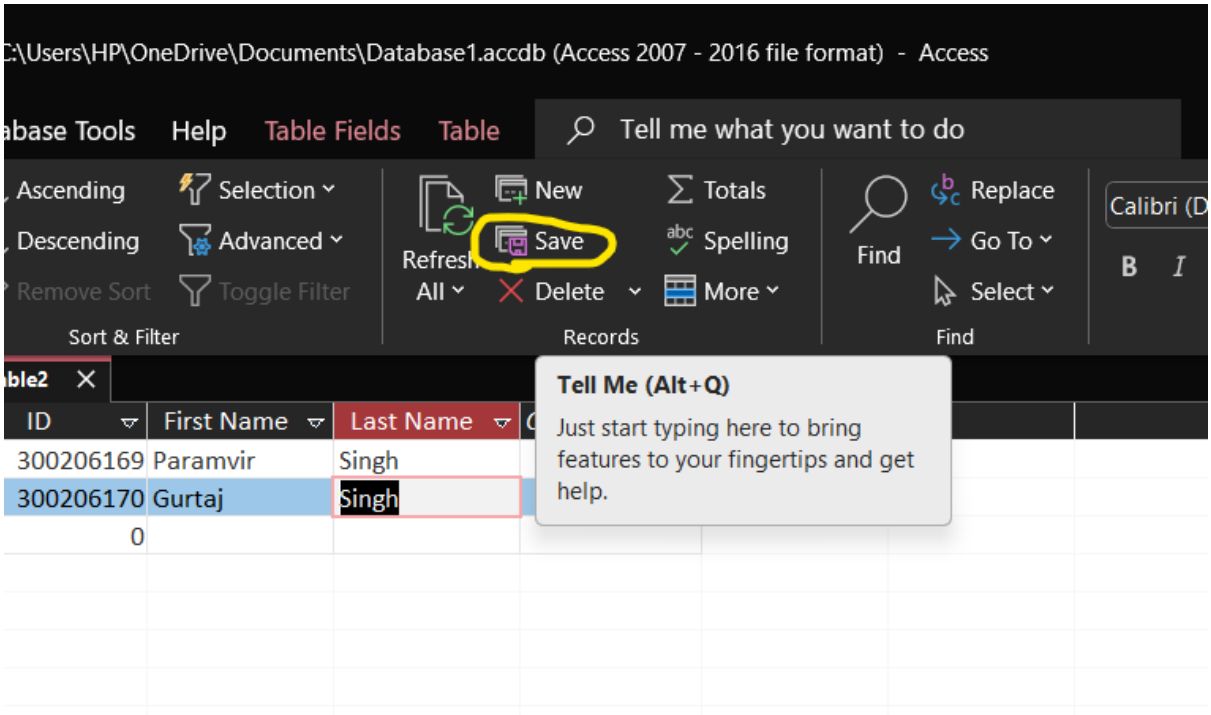
Double-click on the table name in the left navigation pane to open the datasheet view.



Enter data by typing it directly into the datasheet view.



Remember to save your database regularly to ensure your changes are preserved. Click the "Save" icon or use Ctrl + S to save the database file.

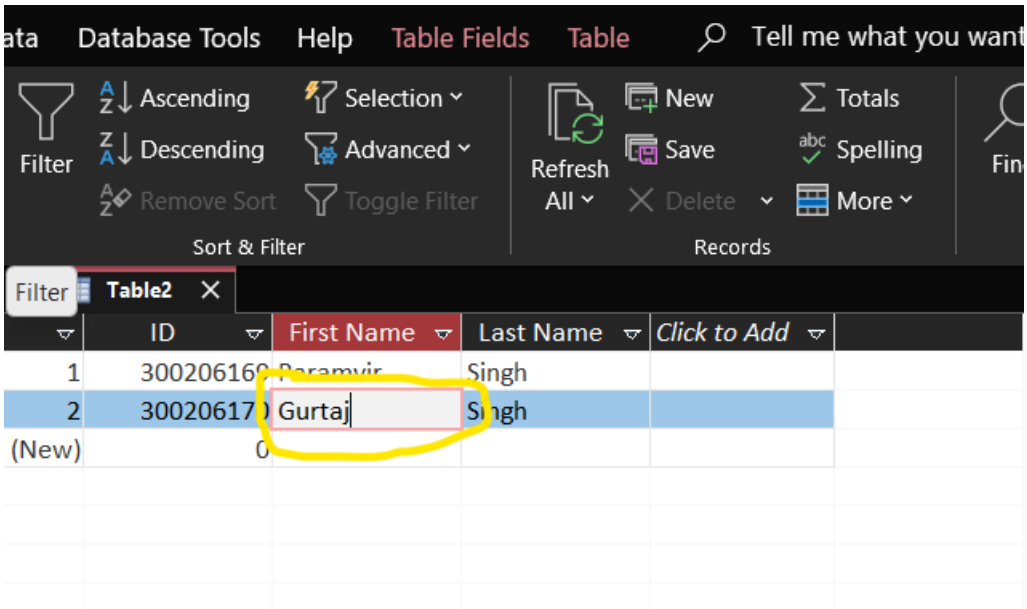


Data Editing

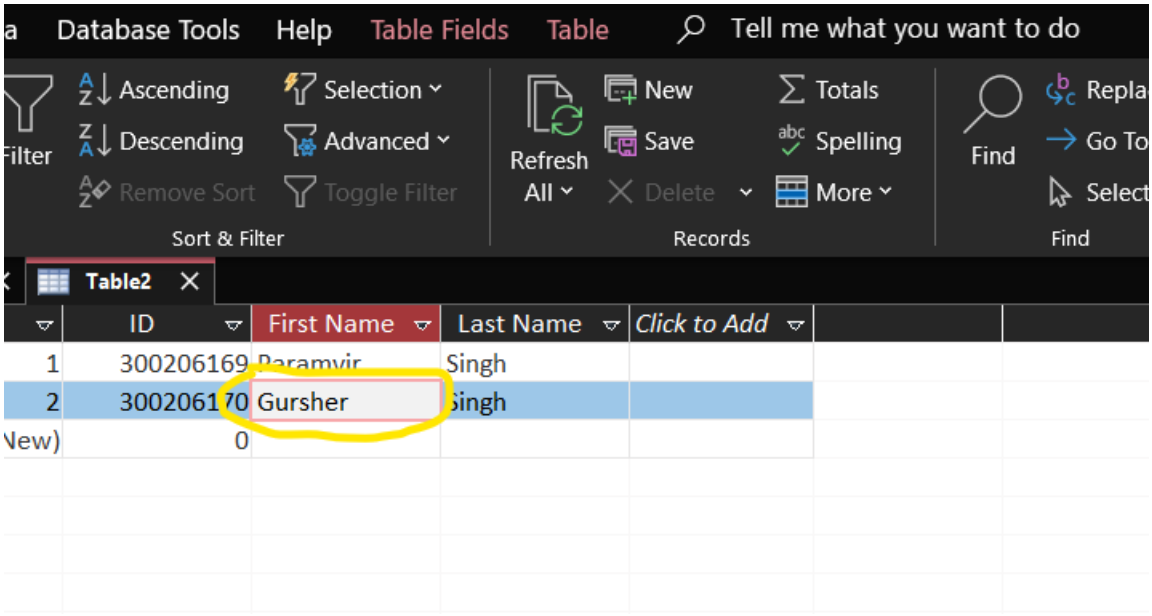
Modifying and Deleting Records

To Edit existing records:

In Datasheet View, click on the cell you want to edit.



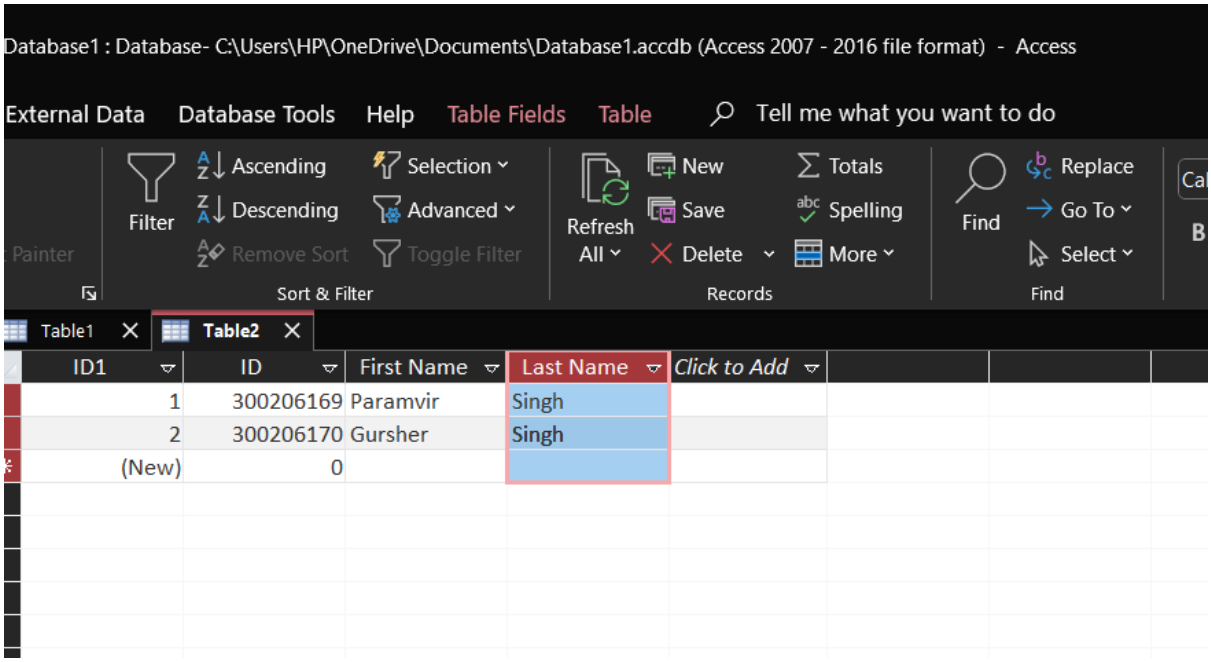
Modify the data in the cell.



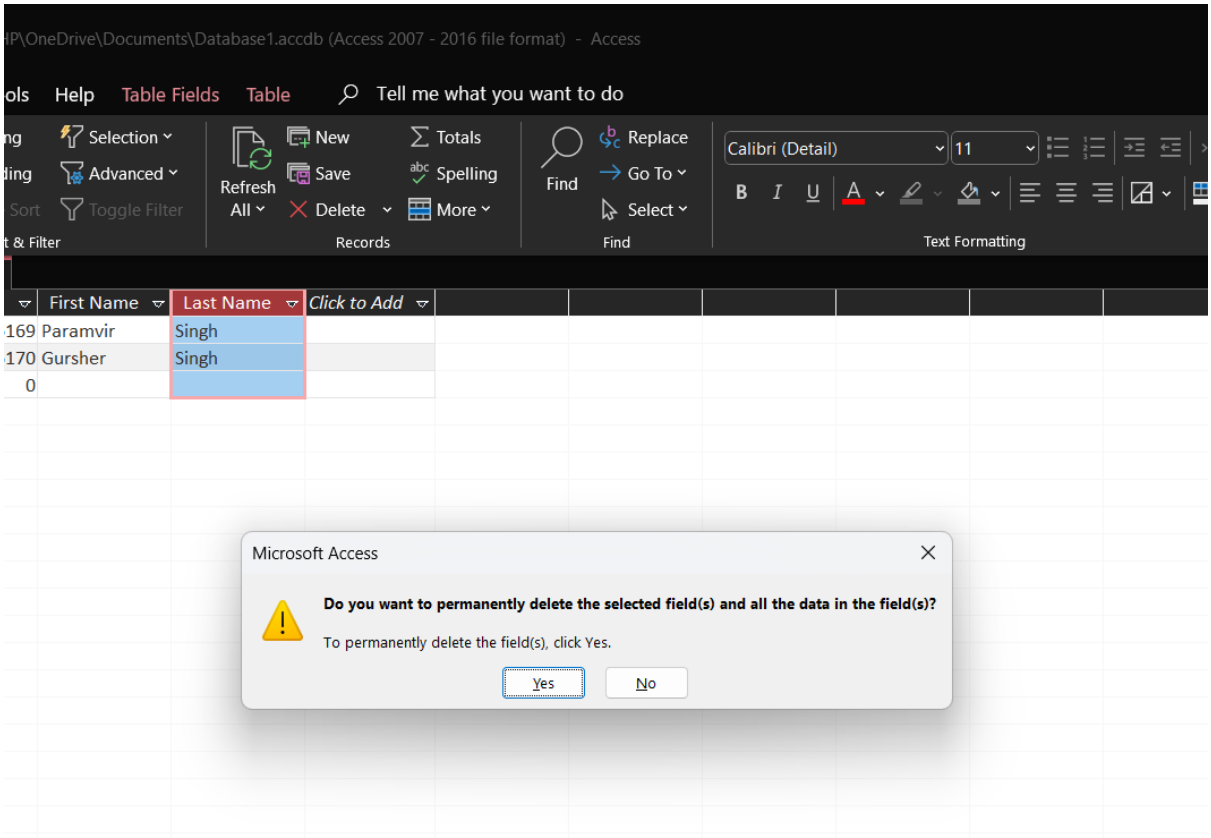
Press Enter to save your changes or press Esc key to cancel the edit.

To Delete records:

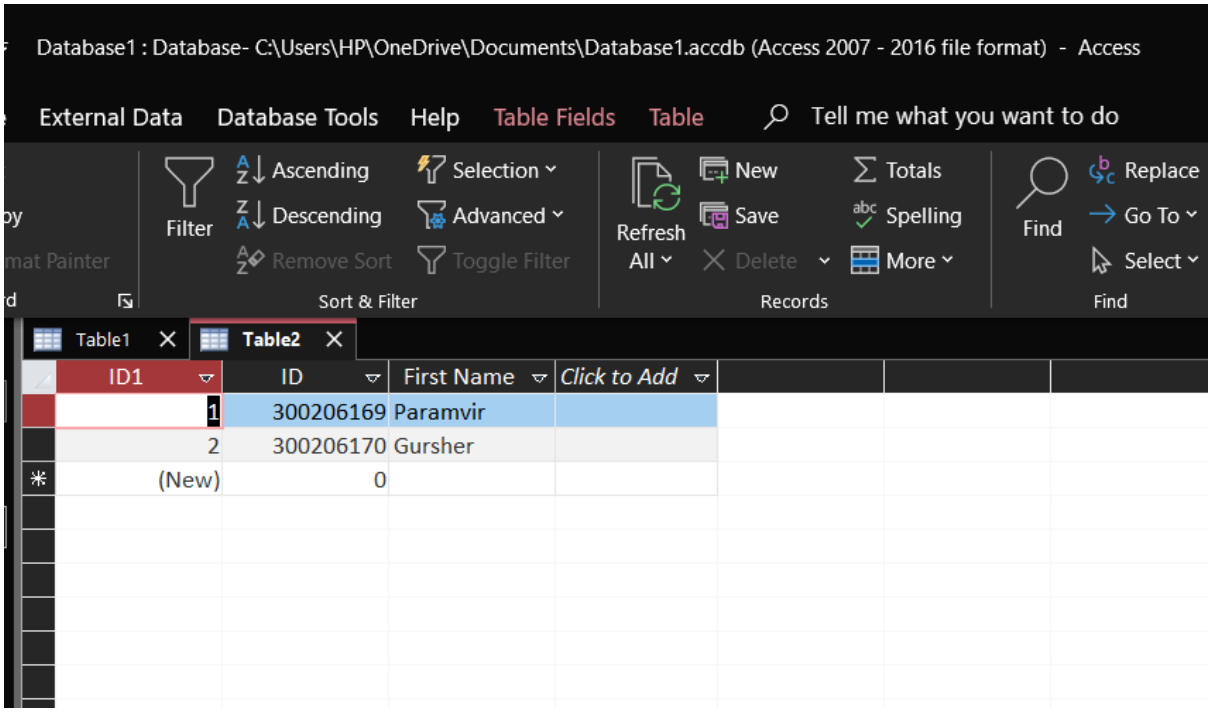
Select the entire row/column that you want to delete by clicking the row/column selector



Press the Delete key on your keyboard, it will ask for confirmation.



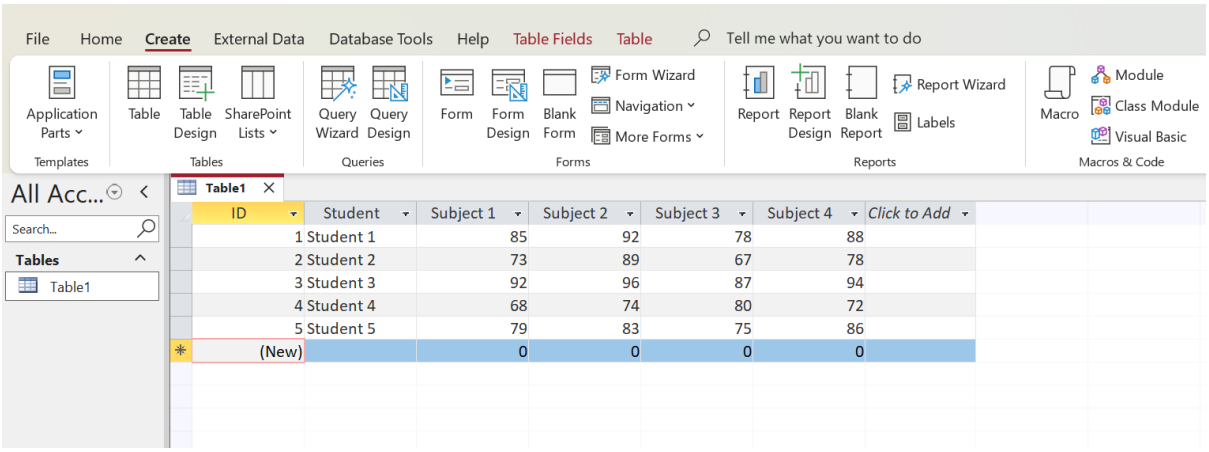
Click Yes to Delete the Row/Column, it will be deleted



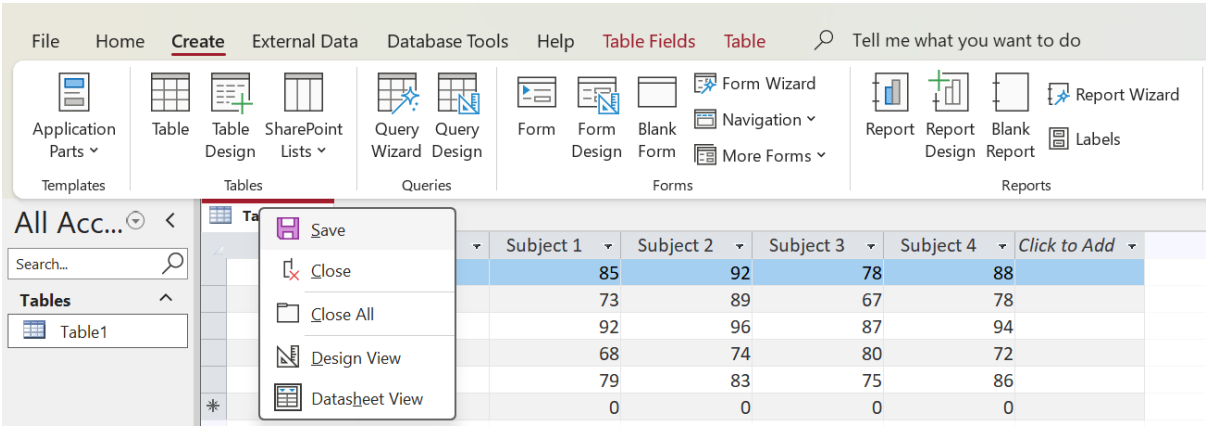
Queries

Creating a Simple Query

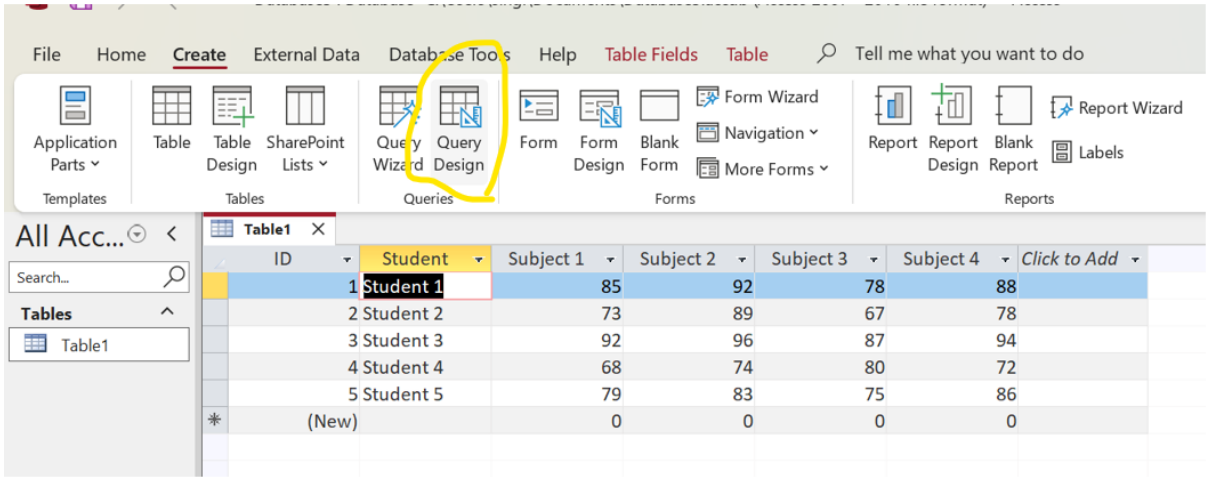
1. In Microsoft Access, in order to create a query open the database that contains data.



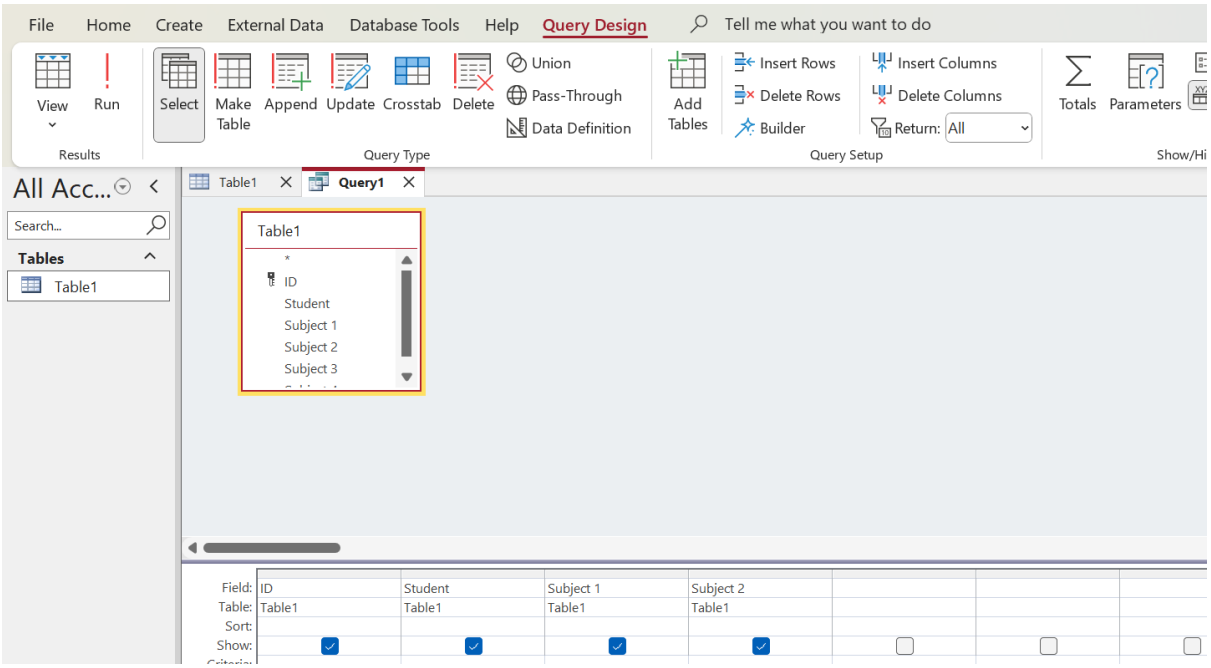
2. Now in the Navigation pane on the left, select the table for which you want to create a query then right click on the table save it and close it.



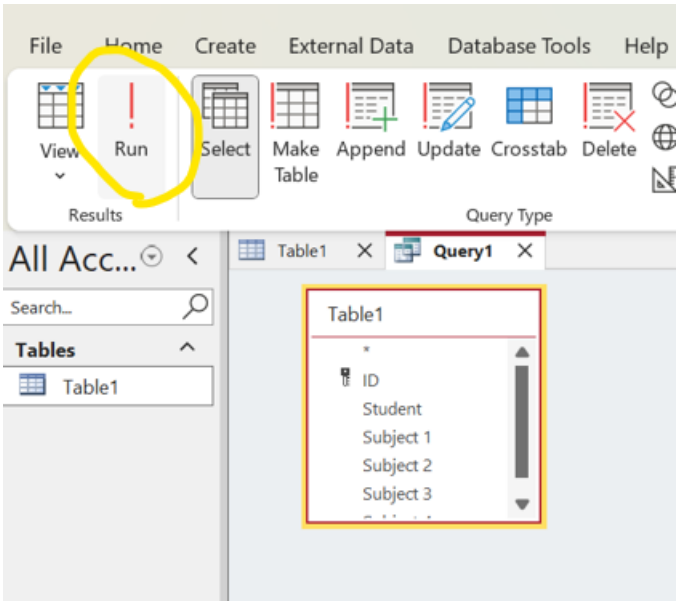
3. Now go to Create tab and select query design in queries group. This will open queries window.



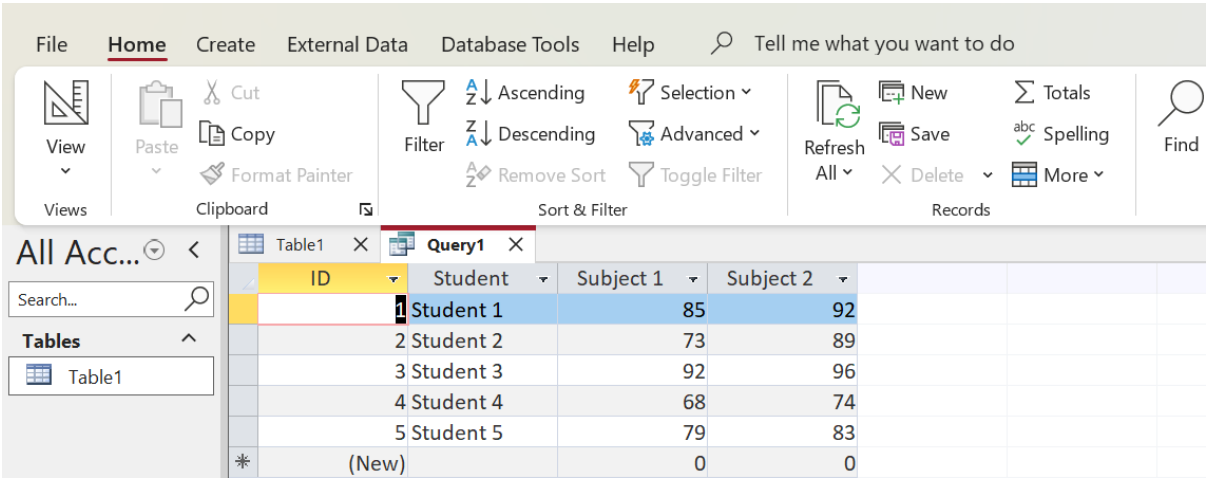
4. The chosen tables will be shown in a grid with a list at the top.
5. Now to add fields or columns to your query double-click on them. It will show up in the grid.



6. Click the "Run" button in the Query Design View (it appears as a red exclamation point) to start the query.

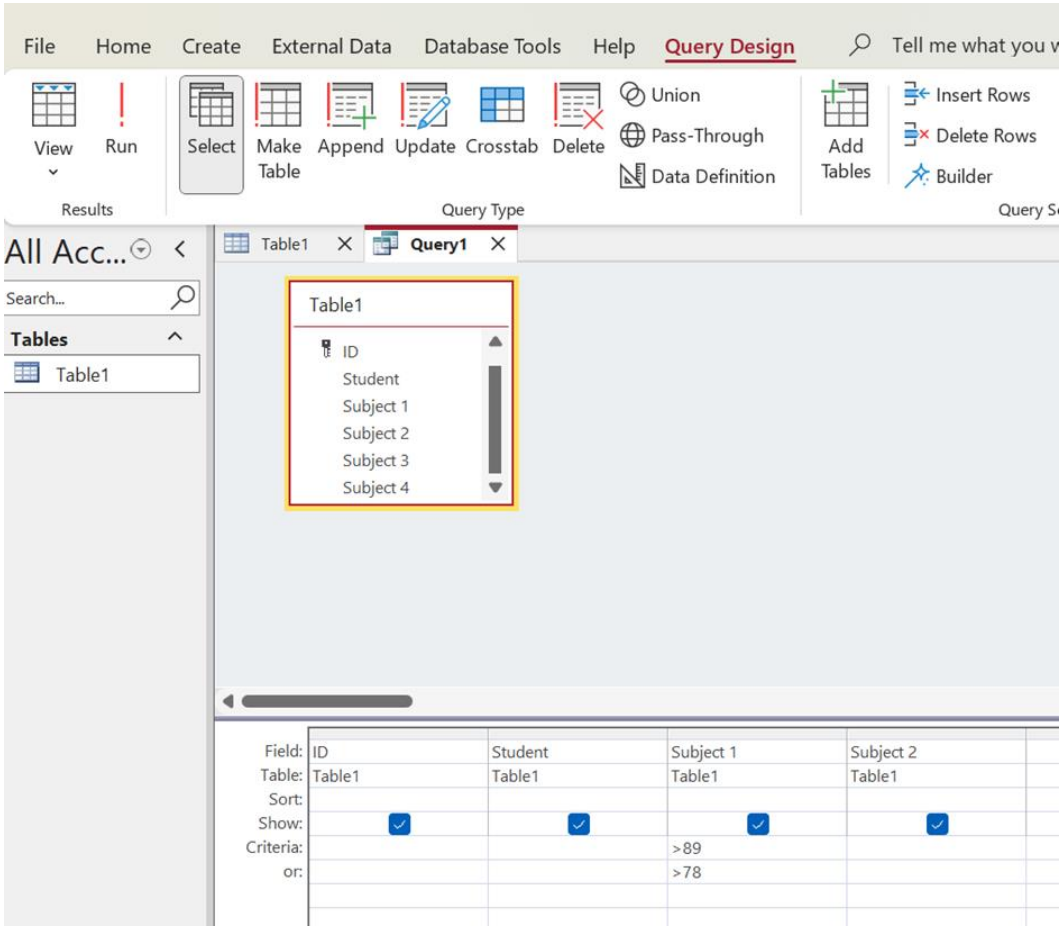


6. This will show a datasheet with the query's results.

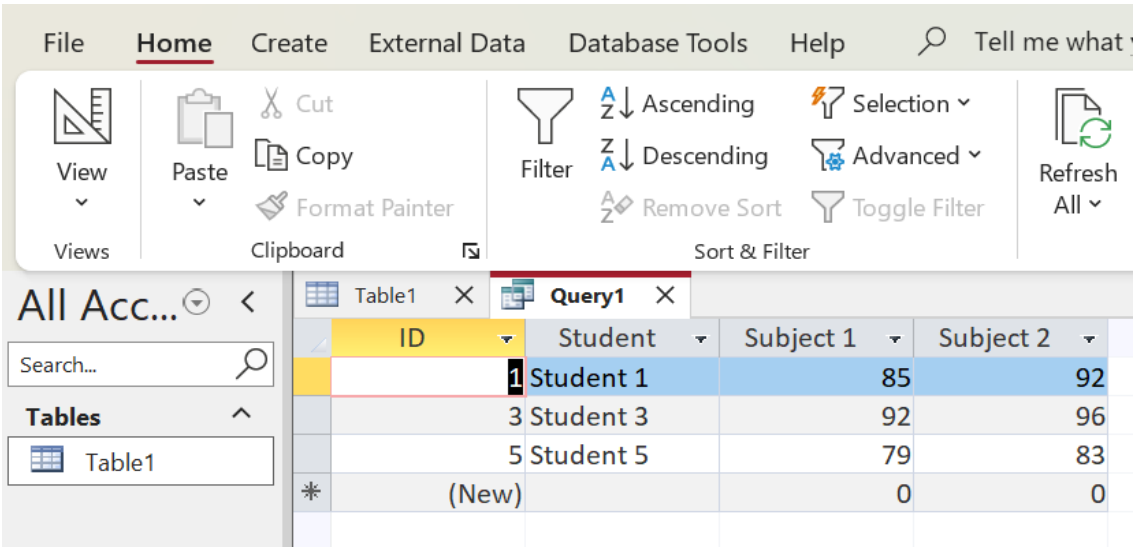


Using Query Criteria

1. Choose the field containing the student data in the Query Design View. In the corresponding field's "Criteria" row, apply criteria for marks like”>89”, ”>78”



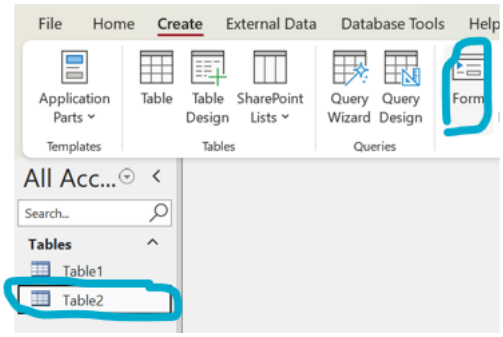
2. Run the query, and it will display only the records of the students for the criteria mentioned.



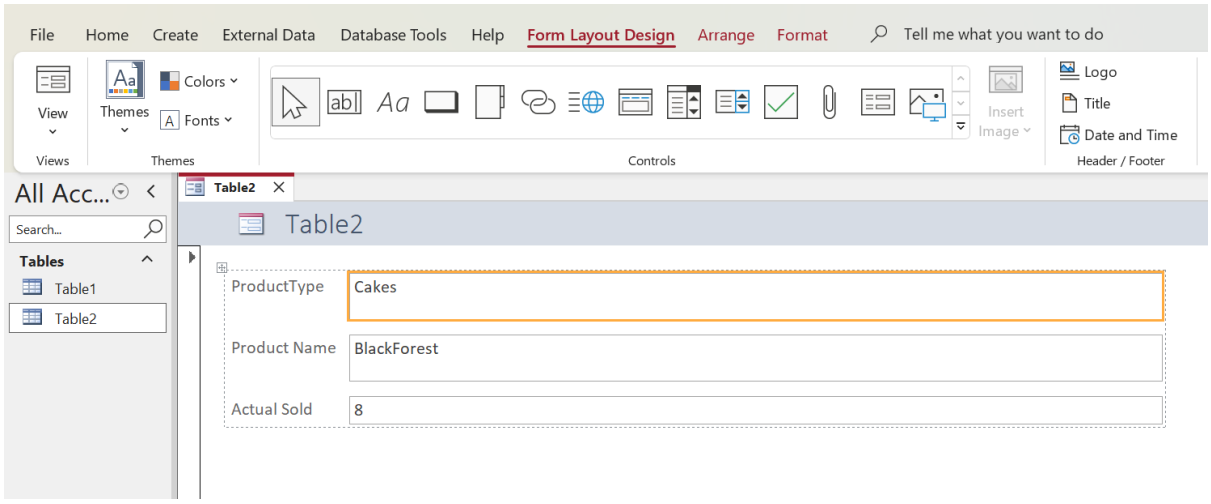
Forms and Reports

Design a basic form with the combo box

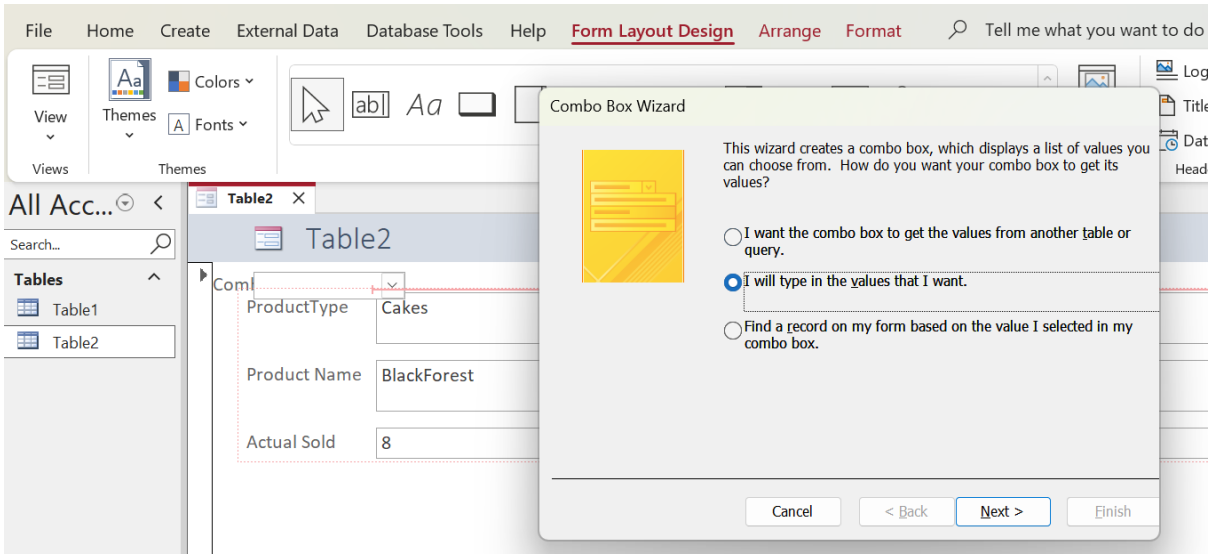
1. To create a form, select the table or query you want to work with from the Navigation Pane on the left then click on the Create tab and select the Forms option in the Forms group.



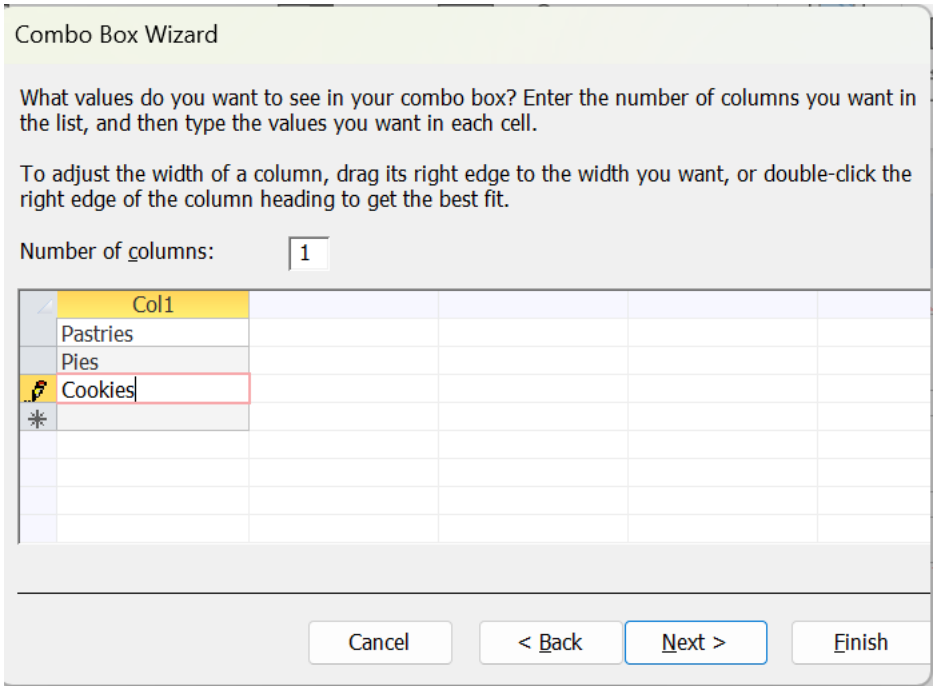
2. After clicking on the form a form will be generated.



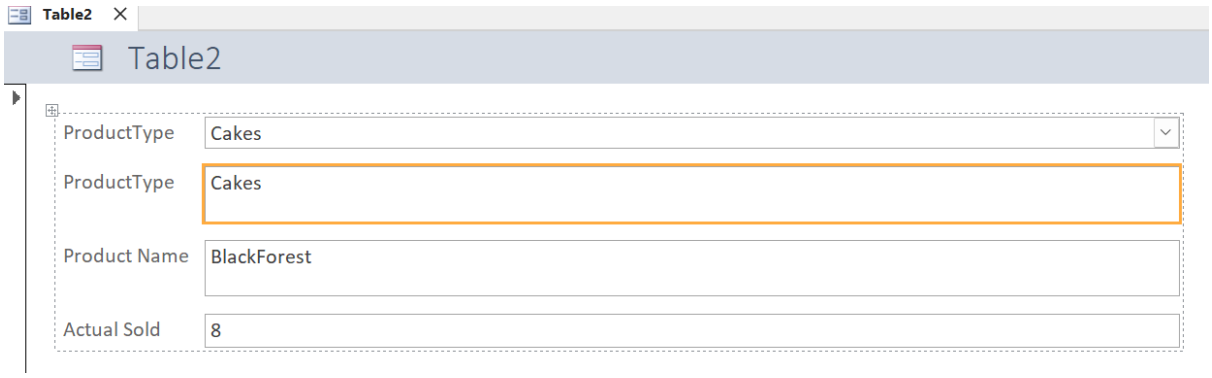
3. We can add various features in this form if you want to create a drop-down list in a particular field make it with the help of a combo box. Select the field and drag the combo box from form design.



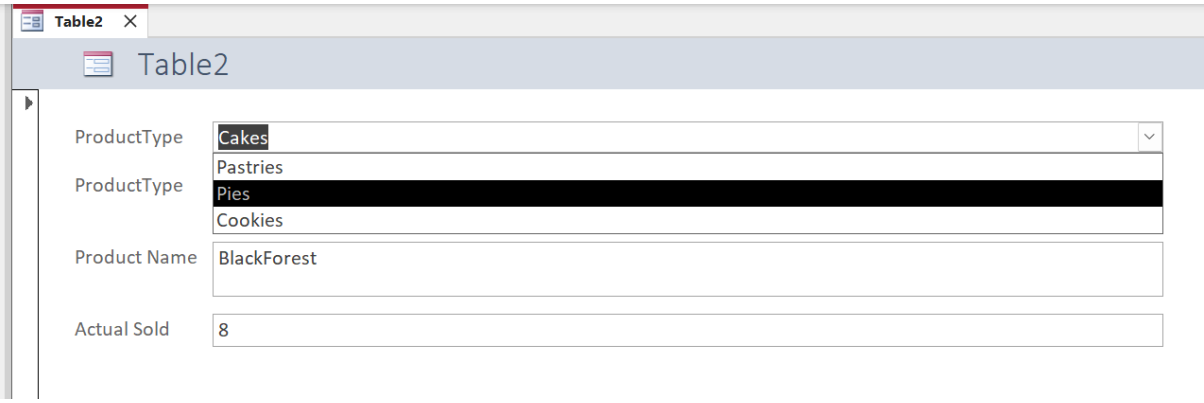
4. Enter the details you want in the drop-down menu and click on next.



7. After that it will ask where you want to store the details select the product type field and then rename the combo box.

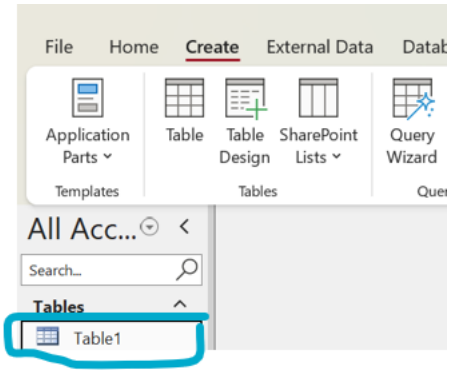


8. Then go to form view to check if drop-down list is added or not.

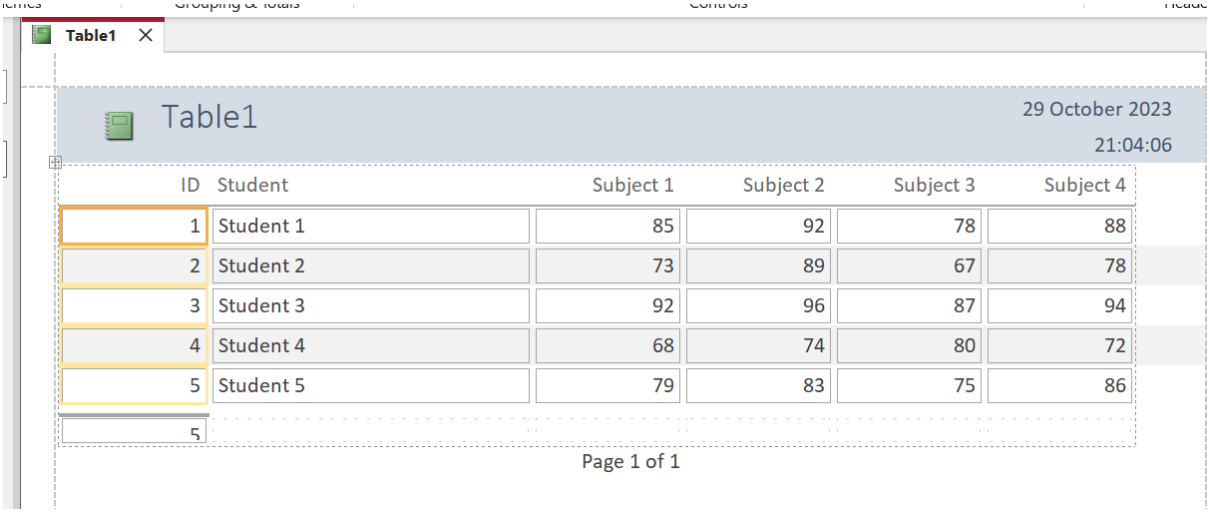


Create a Professional Report

1. Select the table for which you want to create a professional report then go Create tab and select on report in Reports group



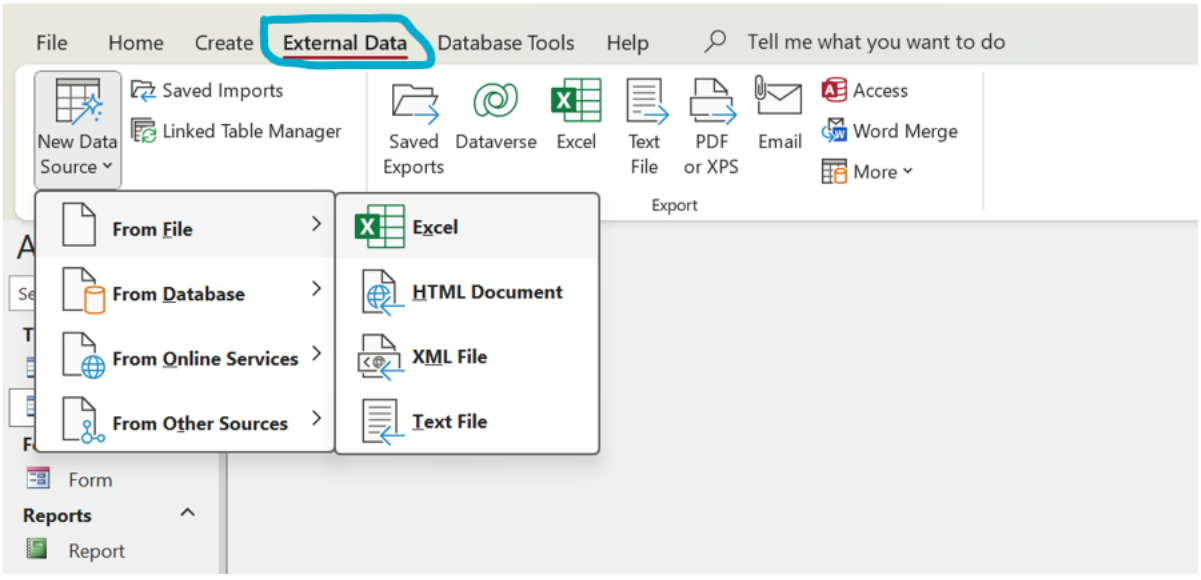
2. A report will be created with the database created in the table.



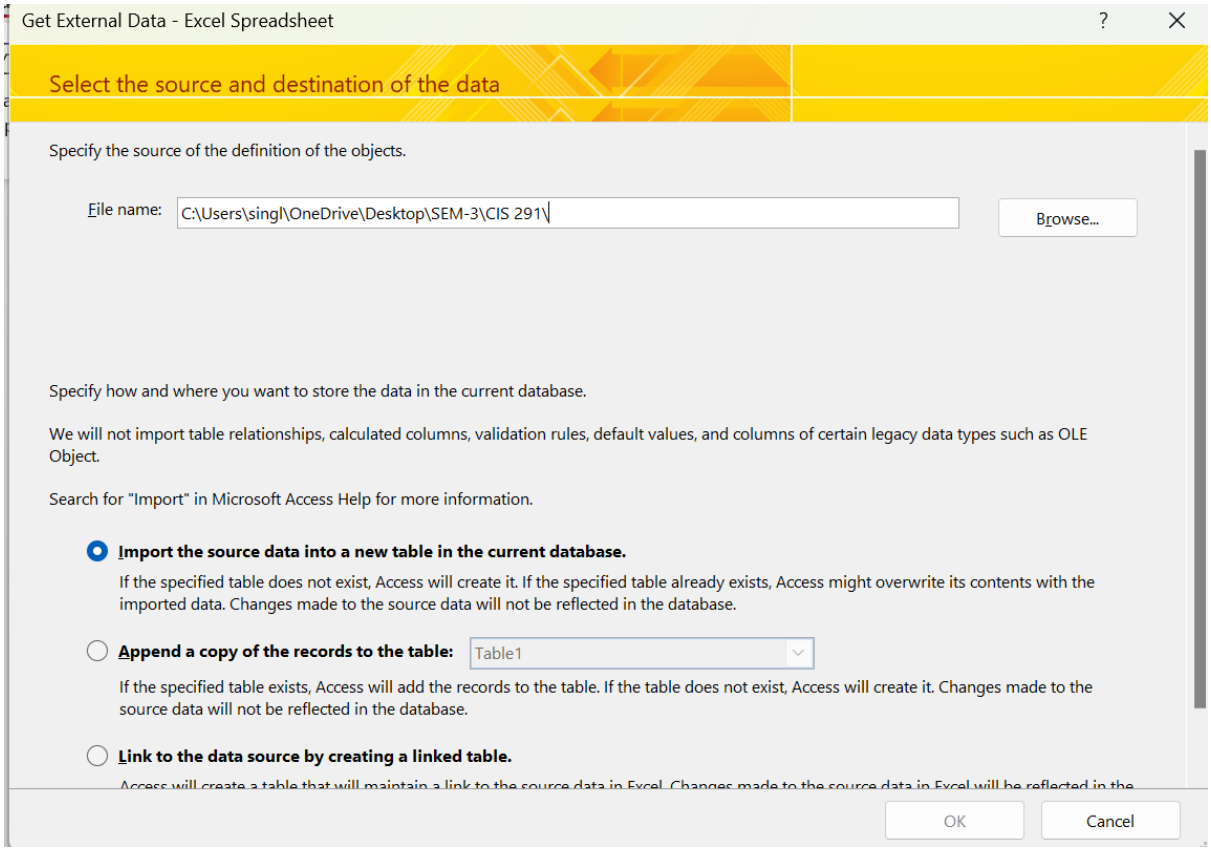
Importing and Exporting Data

How to import data from external sources

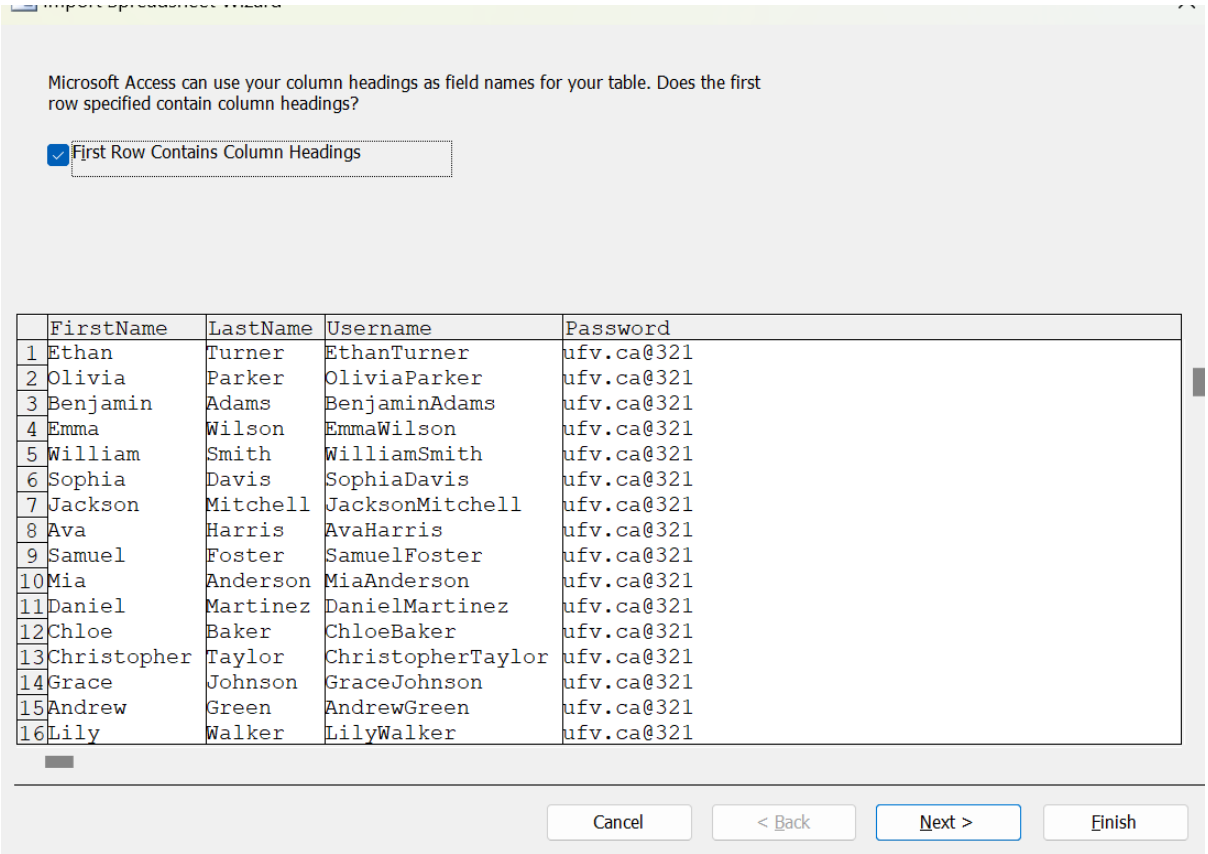
1. Click on External Tab and in Import&Export group select New Data Source from where select that option from where you would like to import data.



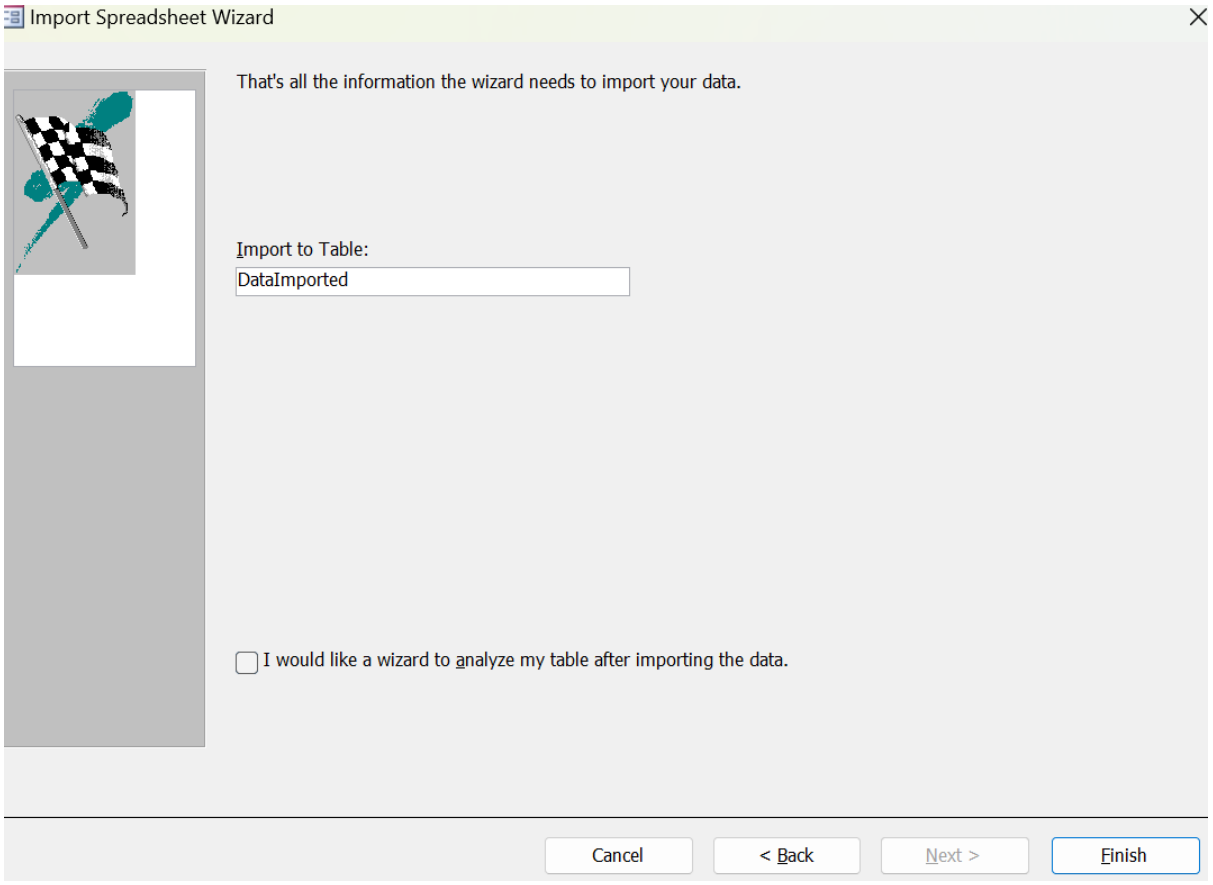
2. A dialog-box of Import wizard will open select the path of the saved Excel file and click on OK.

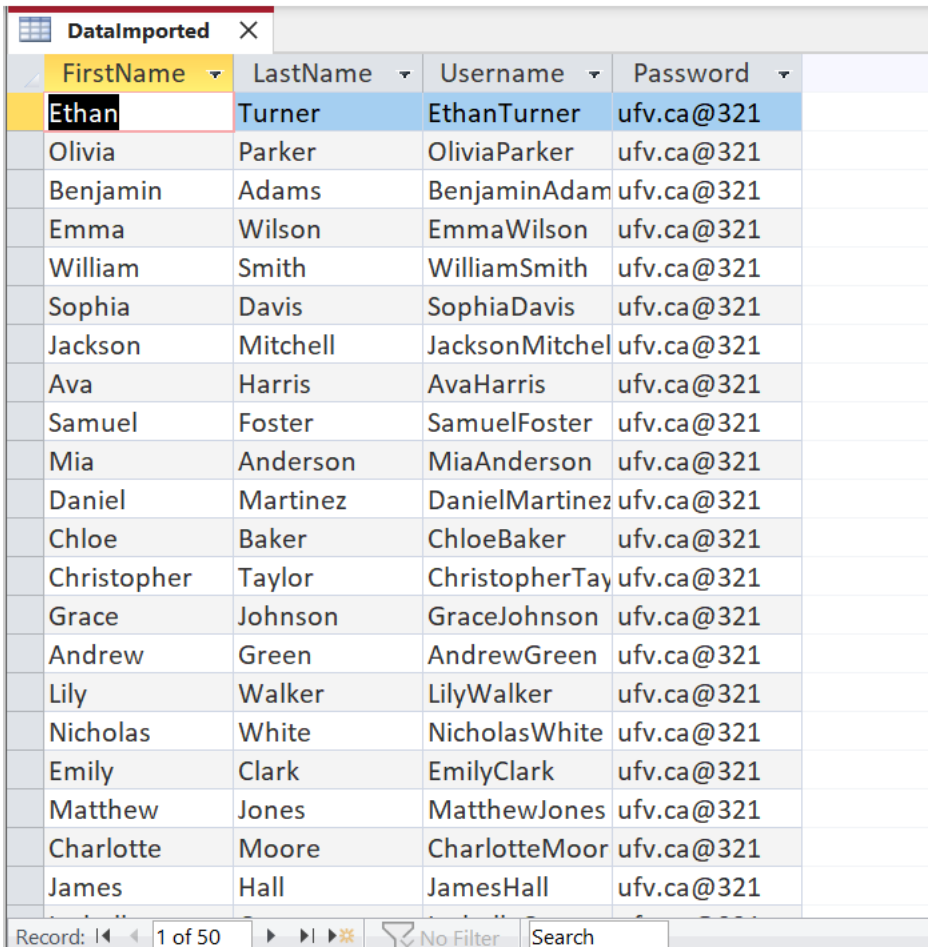


3. Then follow the steps click on Next.



	FirstName	LastName	Username	Password
1	Ethan	Turner	EthanTurner	ufv.ca@321
2	Olivia	Parker	OliviaParker	ufv.ca@321
3	Benjamin	Adams	BenjaminAdams	ufv.ca@321
4	Emma	Wilson	EmmaWilson	ufv.ca@321
5	William	Smith	WilliamSmith	ufv.ca@321
6	Sophia	Davis	SophiaDavis	ufv.ca@321
7	Jackson	Mitchell	JacksonMitchell	ufv.ca@321
8	Ava	Harris	AvaHarris	ufv.ca@321
9	Samuel	Foster	SamuelFoster	ufv.ca@321
10	Mia	Anderson	MiaAnderson	ufv.ca@321
11	Daniel	Martinez	DanielMartinez	ufv.ca@321
12	Chloe	Baker	ChloeBaker	ufv.ca@321
13	Christopher	Taylor	ChristopherTaylor	ufv.ca@321
14	Grace	Johnson	GraceJohnson	ufv.ca@321
15	Andrew	Green	AndrewGreen	ufv.ca@321
16	Lily	Walker	LilyWalker	ufv.ca@321


Import Spreadsheet Wizard
That's all the information the wizard needs to import your data.
Import to Table:
DataImported
I would like a wizard to analyze my table after importing the data.
Cancel
< Back
Next >
Finish



DataImported

FirstName	LastName	Username	Password
Ethan	Turner	EthanTurner	ufv.ca@321
Olivia	Parker	OliviaParker	ufv.ca@321
Benjamin	Adams	BenjaminAdam	ufv.ca@321
Emma	Wilson	EmmaWilson	ufv.ca@321
William	Smith	WilliamSmith	ufv.ca@321
Sophia	Davis	SophiaDavis	ufv.ca@321
Jackson	Mitchell	JacksonMitchel	ufv.ca@321
Ava	Harris	AvaHarris	ufv.ca@321
Samuel	Foster	SamuelFoster	ufv.ca@321
Mia	Anderson	MiaAnderson	ufv.ca@321
Daniel	Martinez	DanielMartinez	ufv.ca@321
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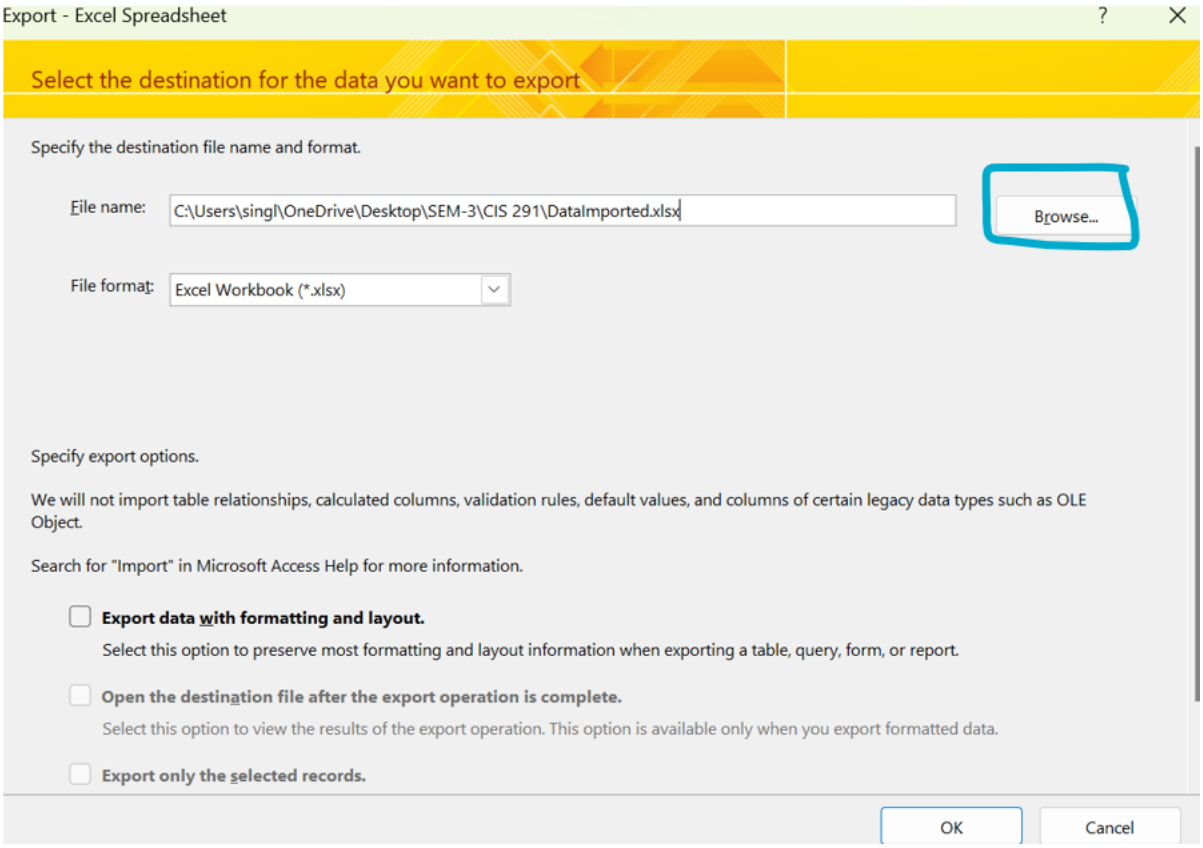
Lily	Walker	LilyWalker	ufv.ca@321
Nicholas	White	NicholasWhite	ufv.ca@321
Emily	Clark	EmilyClark	ufv.ca@321
Matthew	Jones	MatthewJones	ufv.ca@321
Charlotte	Moore	CharlotteMoor	ufv.ca@321
James	Hall	JamesHall	ufv.ca@321

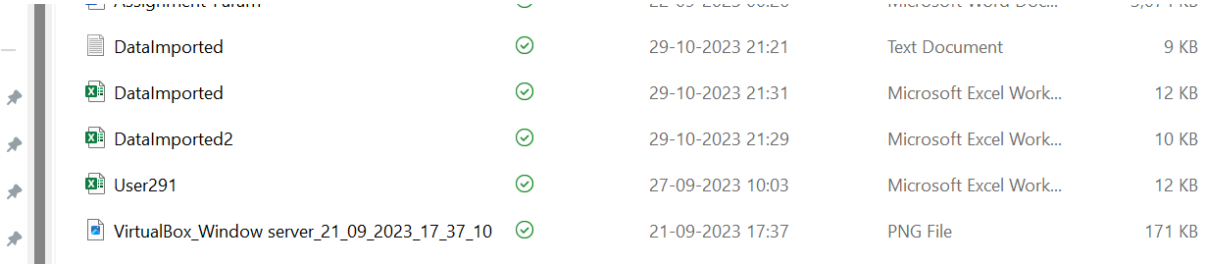
Record: 1 of 50 No Filter Search

How to export data to different formats

1. Click on External data and in Exports group click on Excel a dialog box will pop-up.



2. Then click on browse and save it with a different name “DataImported2”.



Advanced Topics

Introduce macros and demonstrate automation of tasks

- In Microsoft Access, macros are a means of automating repetitive processes. They consist of a sequence of actions that, when triggered, Access performs automatically.

- To construct macros, use the Macro Designer, which offers a graphical action definition interface. Macros might be straightforward, like opening a form, or they can be intricate, requiring several operations and conditional logic.

- You can utilize macros to automate data validation, report creation, and import. One way to do this would be to write a macro that executes many searches, exports the data to Excel, and then delivers the file as an attachment via email.

Structured Query Language (SQL)

- It is an effective programming language that is used for managing and querying data in Access and other database systems. To obtain, change, add, or remove data from your database, you can construct custom queries with it.

Securing and Sharing the Database

- Access offers user-level security so you can manage who has access to and can change the data in your database. To limit access to specific areas of the database, you can configure user accounts, permissions, and passwords.

- An Access database can be password-protected to increase security against unwanted access. This aids in safeguarding the database's contents and organization.

- Access databases that are shared across a network enable numerous users to work with the data at once. To avoid data conflicts and corruption, you need to take caution. One frequent method to do this is to use a backend/frontend database separation.

Data Validation and Integrity

- Field validation rules, data types, and table connections are some of the tools that Access offers to ensure data integrity.

- Validation rules let you make sure that any data that is entered into your database satisfies certain requirements.

- Database relationships provide referential integrity by guarding against differences in data and ensuring that linked data is always consistent.

Advanced Reporting and Data Visualization

Access has advanced reporting functionalities, including sub-reports, grouping, and computations. A visually appealing way to communicate data is through the creation of professional reports and dashboards.

Common Issues/Troubleshooting

Troubleshooting common errors such as data entry issues, query problems, and form/report design challenges.

Data Entry issues

Data Validation

Inadequate data validation is a common cause of data entry issues. Make sure the data types and validation rules in your database fields are appropriate to stop users from submitting inaccurate data.

Error Handling

Incorporate error management into your applications and forms. Provide concise error messages together with instructions on what went wrong and how to repair it.

Query Problems

Syntax Errors

Syntax mistakes are widespread problems with inquiries. Make sure your SQL statements are written appropriately and think about creating queries with the help of the Query Design or SQL View tools.

Performance Issues

Issues may arise from slow queries by indexing fields and making sure you're not pulling extraneous data; you can optimize your searches.

Form/ Report Design

Layout and Design

An alignment, space, font, or color issue is one example of a form or report design issue. Verify the graphical appeal and usability of your design.

Calculated Controls

When using calculated controls, make sure the expressions are accurate and think about utilizing the Expression Builder to prevent mistakes.

Addressing issues related to data import/export

File Formats

File formats are frequently involved in data import/export problems. Before importing or exporting, be sure the format is compatible with Access.

Data Transformation

Transforming data during import/export is occasionally necessary. Tools like the Import/Export Specifications are available in Access for data manipulation.

Providing guidance on database backup and recovery

Regular Backups

Make regular backups of your Access database to avoid losing data. This can be done manually or automatically with the use of VBA or other third-party programs.

Recovery from Backups

Recovering from a backup is frequently the best course of action if your database is corrupted or experiences significant problems.

Summary

Microsoft Access is imperative to the Adidas Company's operational framework, as illustrated by the following important lessons learned from the training session.

The participants in a recent Microsoft Access training session thoroughly explored this powerful database management system. The first part of the session covered installation, making sure that everyone in attendance had a basic understanding of how to install Microsoft Access on their own devices. Even though installation seems simple, it's a vital first step for anyone hoping to maximize this tool's potential. To get them up and running quickly, participants learned about Microsoft Access installation steps, compatibility, and system requirements.

The training focused on creating databases and tables after the software was successfully installed. Effective database management requires an understanding of Access's structural underpinnings. The course gave attendees a thorough understanding of the process of creating databases, emphasizing the definition of data types, primary keys, and table relationships. It was understood by the participants that properly formatted tables are essential for effective data management and retrieval.

Data editing became the second focus of the training. Trainees were instructed in the principles of data entry, manipulation, and management. Adding, modifying, and deleting records from tables were among the fundamental data editing techniques discussed in the session. More complex features like data integrity constraints and validation have been further investigated.

Microsoft Access queries, a crucial component, were covered in detail and practiced. The ability to create queries to pull data out of their databases was acquired by the participants. They were introduced to the SQL language, enabling the creation of more intricate and personalized queries. The creation of Forms and Reports, which are essential for presenting data in an understandable and instructive way, was the next topic covered in the training.

One effective method for presenting data in an organised and eye-catching manner is through reports, which have been studied extensively. Participants gained knowledge about creating reports, including how to include headers and footers, charts, and graphs for better data visualization.

Data integration from outside sources and data sharing between Access and other applications require the ability to import and export data. They also gained knowledge on exporting data to text files, Excel, PDF, and other formats that help with effective data sharing and stakeholder and team collaboration.

The session also focused on Access's integration capabilities, demonstrating how it can function with other Microsoft Office products with ease because of its cross-functionality, the organization can collaborate and share data more easily, which improves departmental efficiency and teamwork.

KPI (Key Performance Indicator)

To assess the effectiveness of the training, participants will be evaluated through a quiz. The KPIs for the training session will include:

Quiz performance

A key performance indicator (KPI) for evaluating participants' understanding of the training content is quiz performance. This KPI assesses how well they were able to put the information and abilities they learned in training to use.

The following elements should be considered when assessing quiz performance:

a) Determine the minimal acceptable performance level or passing score that test takers must meet. A specific percentage or a minimum number of right answers may be used to calculate this passing score.

b) Make sure the test questions are appropriate to the instruction. Important ideas, assignments, and abilities that participants were supposed to learn throughout the training should all be covered in the questions.

c) Select the quiz's format, such as multiple-choice, true/false, or open-ended questions. The format ought to be in line with the goals of the training as well as the participant knowledge evaluation.

d) Choose whether the test will have a time limit or not. The selection is reliant upon the complexity of the subject matter and the requirement to replicate actual situations.

Feedback from Participants

Receiving participant feedback is an important KPI for evaluating the overall success of the training session and highlighting areas that require improvement. Surveys, questionnaires, or interviews can be used to get this input. The following are important factors to think about:

a) To gather input, develop a well-organized survey or questionnaire. Remember to ask about the training's overall experience, delivery, materials, and content. Permit open-ended comments from participants to get deeper insights.

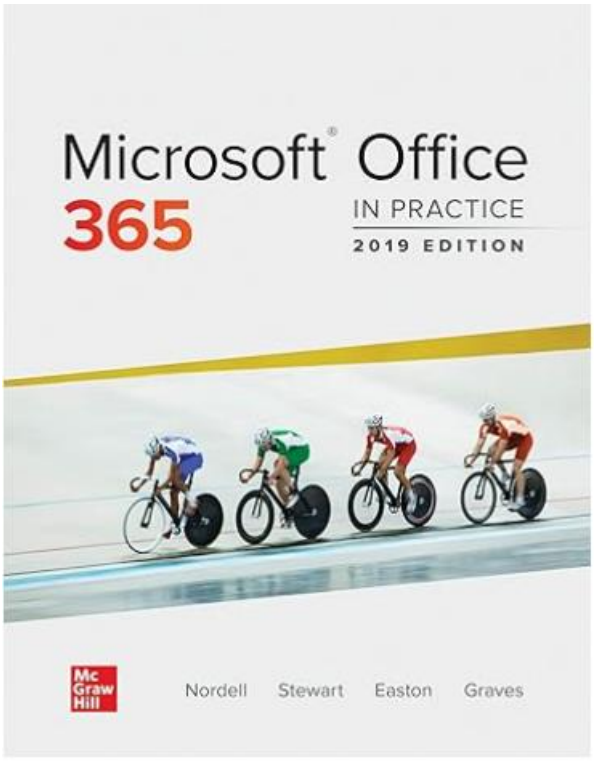
b) To evaluate participant satisfaction with different training components, use a rating scale (e.g., 1 to 5). Training materials, content relevance, trainer efficiency, and the overall impact of the training session are common areas to evaluate.

c) Ask open-ended questions to entice participants to provide detailed comments, recommendations for enhancements, and any difficulties they encountered while receiving the training.

d) Determine patterns, advantages, disadvantages, and areas in need of development by examining the input. Utilise this information to help you decide how best to improve training sessions in the future.

Additional Resources

- For Guidance during practice, you can take help from Microsoft Office 365 book which is mentioned below.



Link to buy the book:
https://www.amazon.in/Microsoft-Office-365-Practice-2019/dp/1260079902

- YouTube Playlist:
https://www.youtube.com/playlist?list=PLoyECfvEFOjZn3kXgpuEqaXge5HoCDvp7

- Microsoft Support Access Help & Learning: https://support.microsoft.com/en-us/access

- We will provide a booklet of notes which contains everything covered in today's training session to every trainee.

- A one-to-one session will be held with every trainee to clear their doubts and to get review of the Training Session

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References

- Nordell, R. (2019). *Microsoft Office 365: In Practice, 2019 Edition*. McGraw-Hill Education.

- YouTube Playlist: https://www.youtube.com/playlist?list=PLoyECfvEFOjZn3kXgpuEqaXge5HoCDvp7

- *Access help & learning*. (n.d.). https://support.microsoft.com/en-us/access