User Manual: TUP Data Filter System

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Introduction

The TUP Data Filter System is a web-based application built using Streamlit. It allows users to upload and filter Excel data, visualize the filtered data using bar graphs, and download the filtered data as a CSV file. This user manual provides a detailed guide on how to use the TUP Data Filter System effectively.

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1. System Requirements

Before using the TUP Data Filter System, ensure that your system meets the following requirements:

- Python 3.x installed
- Required packages installed (Streamlit, Pandas, Matplotlib, Seaborn, PIL, Base64, SQLite3)

2. Installation

To install the required packages, run the following command in your command prompt (in Administrator mode):

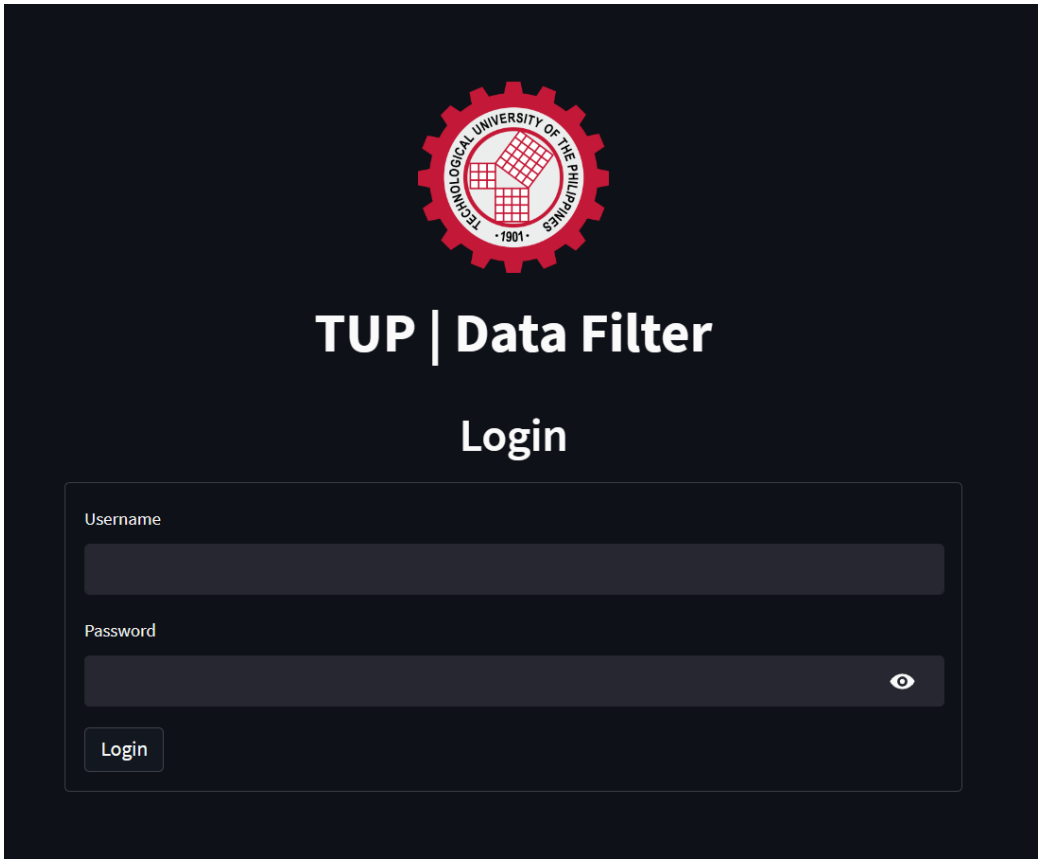
```
pip install streamlit pandas matplotlib seaborn pillow sqlite3
```

3. Login

- Open the command prompt or terminal.
- Navigate to the directory containing the TUP Data Filter System code.
- Run the following command to start the application:

```
streamlit run <filename>.py
```

Replace <filename>.py with the name of the file containing the TUP Data Filter System code.



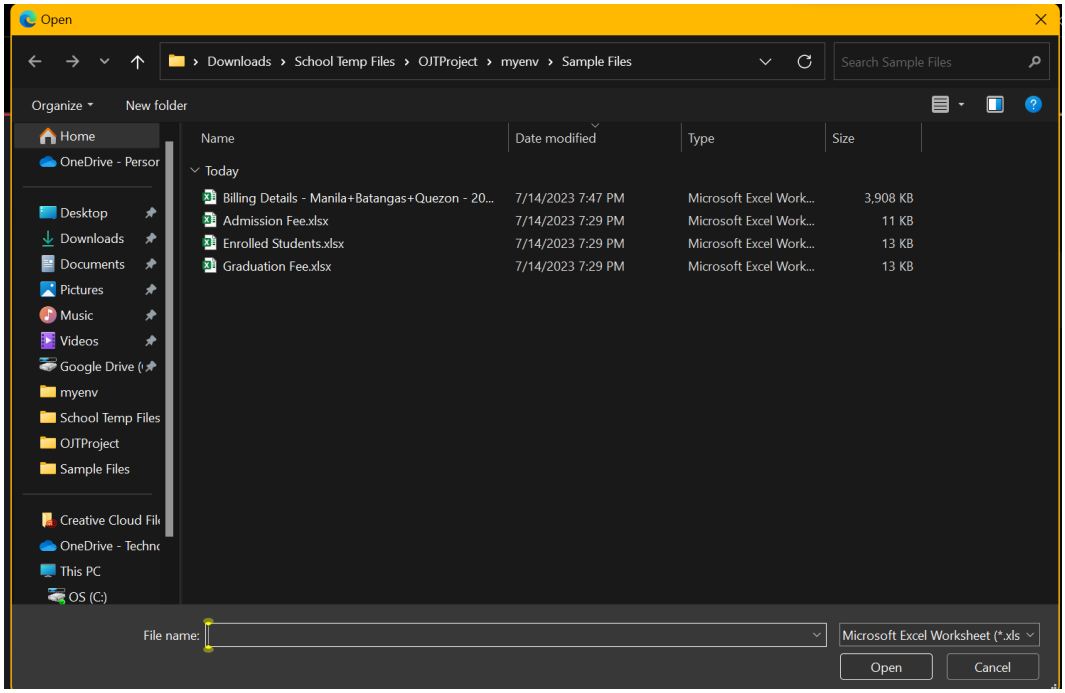
- The application will start, and you will see the login page.
- Enter your username and password in the provided fields.
- Click the "Login" button.

    - ➢ If the provided credentials are correct, you will be logged in and can proceed to use the system.
    - ➢ If the provided credentials are incorrect, an error message will be displayed. Please try again with the correct credentials.

4. Uploading Excel Data

- After logging in, you will see the main interface of the TUP Data Filter System.

- To upload an Excel file, click the "Upload Excel file" button.
- Select the desired Excel file from your local machine and click "Open".



- The supported file format is .xlsx.
- The uploaded file will be displayed, and data filtering options will be available.

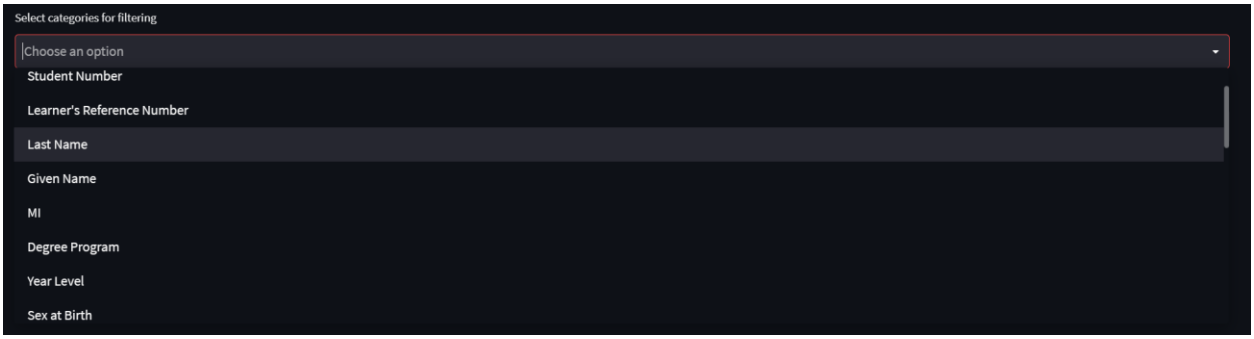
	Sequence Number	Student Number	Learner's Reference Number	Last Name	Given Name	MI	Degree Program	Year Level	Sex at Birth	E-mail address	Phone Number	Laboratory
9	TUPM-NCR-00010	TUPM-19-0653	107878060009	ALCAPARAZ	LANCE	R	AT	4	M	0alcaparazlance@gmail.com	+63 930-1540-694	
10	TUPM-NCR-00011	TUPM-19-6536	136755060019	ALCESTO	WEBBEINNDO JOH	B	CT-NS	4	M	Jbalcesto04@gmail.com	None	
11	TUPM-NCR-00012	TUPM-19-0080	407215150933	ALCOVA	SOPHIA CHLOE	G	AT	4	F	sophia.alcova@gmail.com	+63 908-8975-235	
12	TUPM-NCR-00013	TUPM-19-4077	136807060011	ALFONSO	RICHARD	B	CT	4	M	arichard57@yahoo.com	+63 906-8215-475	
13	TUPM-NCR-00014	TUPM-19-1794	None	ALIBADBARIN	JASPHET JOSHUA	M	AT	4	M	JjAlibadbarin19@gmail.com	None	
14	TUPM-NCR-00015	TUPM-19-0777	136888060036	ALVAREZ	ANGELO	O	AT	4	M	kruukruu05@gmail.com	+63 938-7795-693	
15	TUPM-NCR-00016	TUPM-19-7792	305409130135	ALVIOR	ERICA	P	CT-NS	4	F	ercalvior8@gmail.com	+63 995-9384-492	
16	TUPM-NCR-00017	TUPM-19-6501	None	AMIGABLE	ANDREA NICOLE	E	CT-NS	4	F	andreanicole.amigable1100@gmail.c	+63 926-5212-387	
17	TUPM-NCR-00018	TUPM-19-3260	136535060053	AMORCILLO	JHUSTINE	B	CT-NS	4	M	j.amorcillo1@gmail.com	+63 956-8417-101	
18	TUPM-NCR-00019	TUPM-19-3785	None	ANGIO	CHRISTIAN	M	BETCET	4	M	christian.angio21@gmail.com	+63 935-4805-219	

	Sequence Number	Student Number	Learner's Reference Number	Last Name	Given Name	MI	Degree Program	Year Level	Sex at Birth	E-mail address	Phone Number	Laboratory
10,000	TUPM-NCR-09751	TUPM-19-1738	108847060082	LEOGO	LORYVI GRACE		BSCS	4	F	lilyleogo@gmail.com	+63 956-5280-392	
10,001	TUPM-NCR-09752	TUPM-21-2605	118653080039	LEOLIGAO	MARIO ARCHELITO	C	BSIT-NS	2	M	mleoligao08@gmail.com	+63 976-0327-339	
10,002	TUPM-NCR-09753	TUPM-21-8939	129486070176	LEONA	LALAINE	P	BSIE-IA	2	F	lalaineleona4@gmail.com	+63 970-6914-120	
10,003	TUPM-NCR-09754	TUPM-19-3686	407041150647	LEONADO	ESTIFFANY	V	BSIE-HE	4	F	estiffany05@gmail.com	+63 960-6106-041	
10,004	TUPM-NCR-09755	TUPM-20-12638	136528070722	LEONARDO	AERON PAUL	M	BSEE	3	M	aeronpaul.leonardo@tup.edu.ph	+63 955-6273-019	
10,005	TUPM-NCR-09756	TUPM-21-1995	136762070214	LEONARDO	AYESSA MAE	T	ID	2	F	ayeleonardo29@gmail.com	+63 995-9349-572	
10,006	TUPM-NCR-09757	TUPM-21-0031	136777080272	LEONARDO	NYL RAEMON	S	BSIT-NS	2	M	raemonnyl@gmail.com	+63 995-4487-588	
10,007	TUPM-NCR-09758	TUPM-22-5119	136837090120	LEONARDO	SAM	D	BETMT-HVAC/R	1	M	samleonardo325@gmail.com	+63 949-8430-201	
10,008	TUPM-NCR-09759	TUPM-21-1177	104725070029	LEONARDO	THEA MARIZ	R	BSEN-ABM	2	F	leonardotamz1204@gmail.com	+63 920-8311-323	
10,009	TUPM-NCR-09760	TUPM-19-3090	136429060132	LEONCIO	VEREN DALE	L	BSIT-NS	4	F	lazoverendale@gmail.com	+63 918-3320-160	

5. Filtering Data

- The data from the selected sheet will be displayed in chunks.
- Use the scrollbar to navigate through the data.

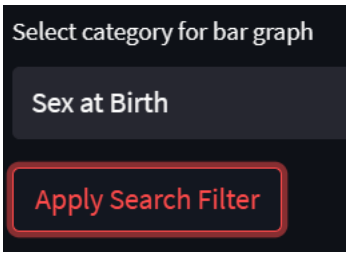
- Choose the categories for filtering by selecting them from the "Select categories for filtering" multi-select dropdown.

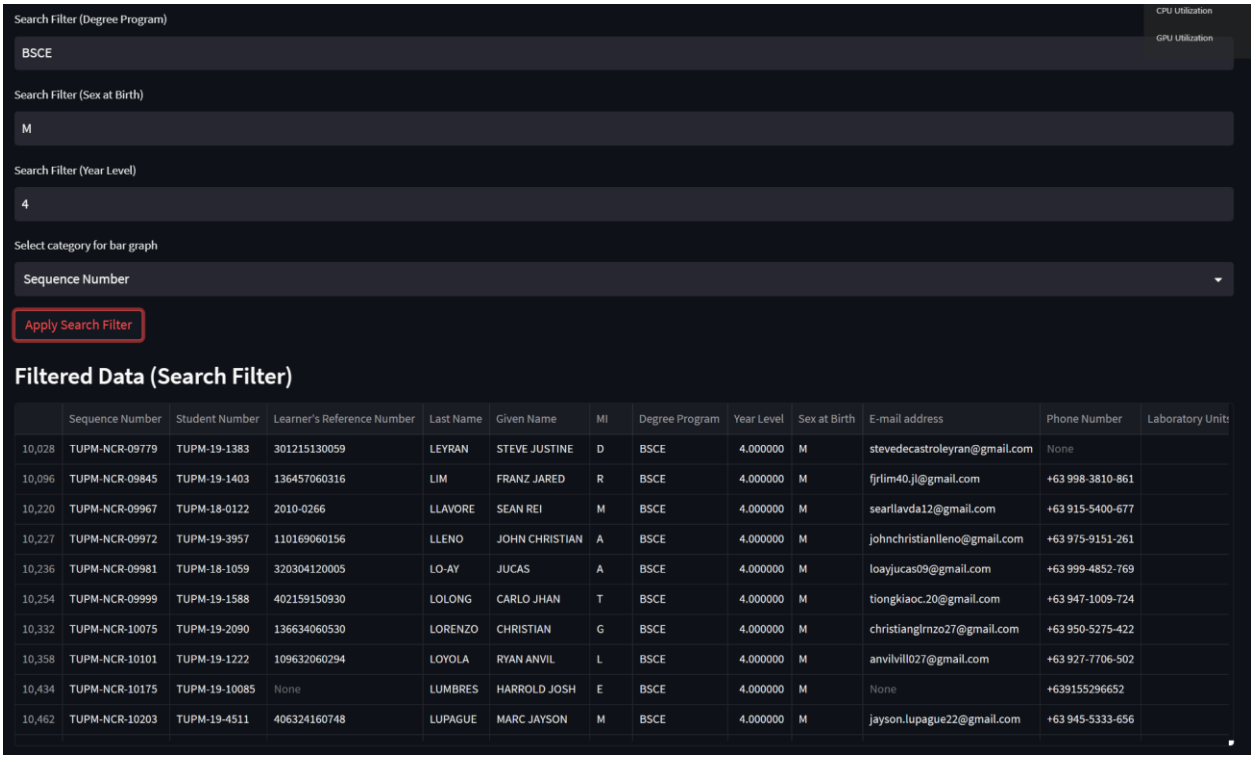


- Enter the search filters for each selected category in the provided text input fields.
- The search filters are case-insensitive and support partial matching.
- Select the category for the bar graph from the "Select category for bar graph" dropdown.
- Click the "Apply Search Filter" button to apply the filters and display the filtered data and bar graph.
- If no results are found, a message stating "No results found" will be displayed.
- Adjust the chunk size if needed by modifying the chunk_size variable in the code.
- Larger chunk sizes may require more system resources but allow for faster processing.

6. Visualizing Data

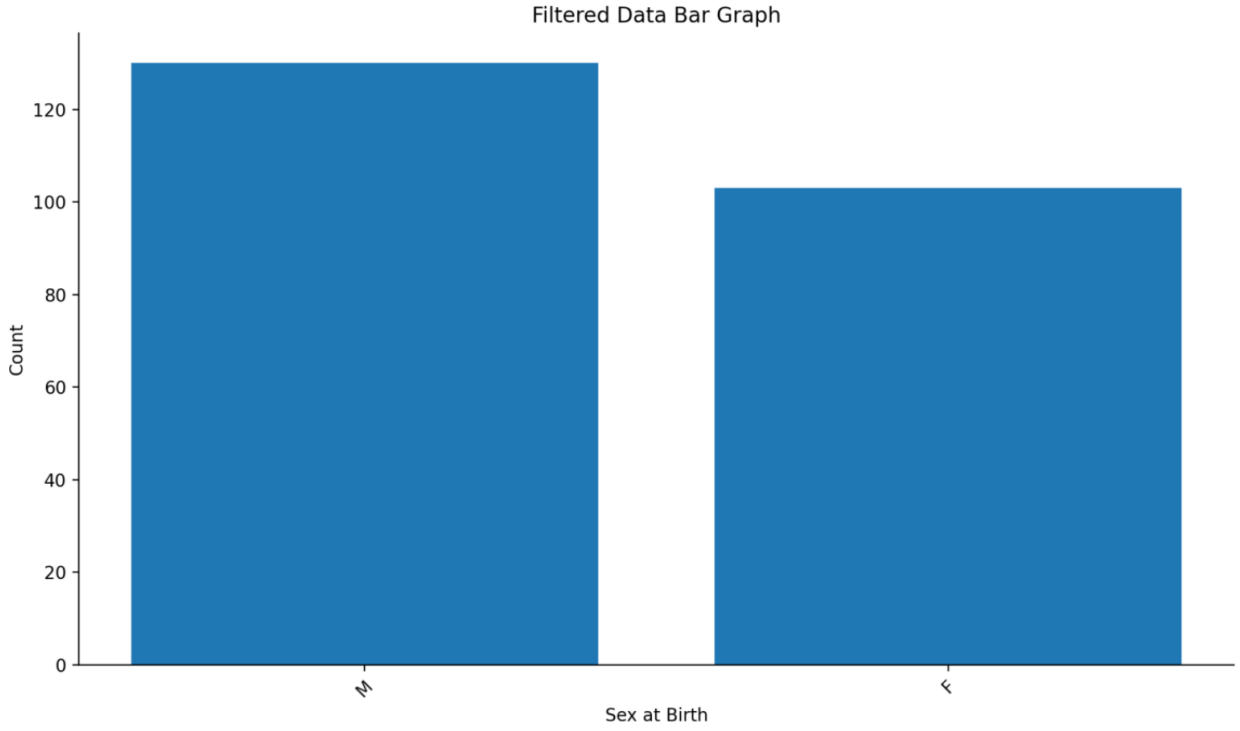
- After applying the search filters, the filtered data will be displayed below the search filters section.





	Sequence Number	Student Number	Learner's Reference Number	Last Name	Given Name	MI	Degree Program	Year Level	Sex at Birth	E-mail address	Phone Number	Laboratory Units
10,028	TUPM-NCR-09779	TUPM-19-1383	301215130059	LEYRAN	STEVE JUSTINE	D	BSCE	4.000000	M	stevedecastroleyran@gmail.com	None	
10,096	TUPM-NCR-09845	TUPM-19-1403	136457060316	LIM	FRANZ JARED	R	BSCE	4.000000	M	fjrlim40.jl@gmail.com	+63 998-3810-861	
10,220	TUPM-NCR-09967	TUPM-18-0122	2010-0266	LLAVORE	SEAN REI	M	BSCE	4.000000	M	searllavda12@gmail.com	+63 915-5400-677	
10,227	TUPM-NCR-09972	TUPM-19-3957	110169060156	LLENO	JOHN CHRISTIAN	A	BSCE	4.000000	M	johnchristianlleno@gmail.com	+63 975-9151-261	
10,236	TUPM-NCR-09981	TUPM-18-1059	320304120005	LO-AY	JUCAS	A	BSCE	4.000000	M	loayjucas09@gmail.com	+63 999-4852-769	
10,254	TUPM-NCR-09999	TUPM-19-1588	402159150930	LOLONG	CARLO JHAN	T	BSCE	4.000000	M	tiongkiaoc.20@gmail.com	+63 947-1009-724	
10,332	TUPM-NCR-10075	TUPM-19-2090	136634060530	LORENZO	CHRISTIAN	G	BSCE	4.000000	M	christianglrnzo27@gmail.com	+63 950-5275-422	
10,358	TUPM-NCR-10101	TUPM-19-1222	109632060294	LOYOLA	RYAN ANVIL	L	BSCE	4.000000	M	anvilvill027@gmail.com	+63 927-7706-502	
10,434	TUPM-NCR-10175	TUPM-19-10085	None	LUMBRES	HARROLD JOSH	E	BSCE	4.000000	M	None	+639155296652	
10,462	TUPM-NCR-10203	TUPM-19-4511	406324160748	LUPAGUE	MARC JAYSON	M	BSCE	4.000000	M	jayson.lupague22@gmail.com	+63 945-5333-656	

- Below the filtered data, a bar graph representing the filtered data will be displayed.



  - The x-axis represents the selected category for the bar graph.
  - The y-axis represents the count of each category value.
  - The bar graph can help visualize the distribution of data based on the selected category.

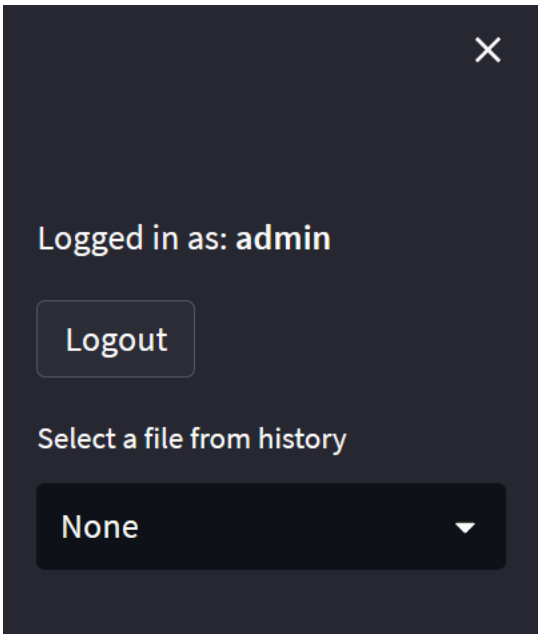
7. Download Filtering Data

- After applying the search filters, the filtered data will be available for download as a CSV file.
- Click the "Download CSV" button to download the filtered data.

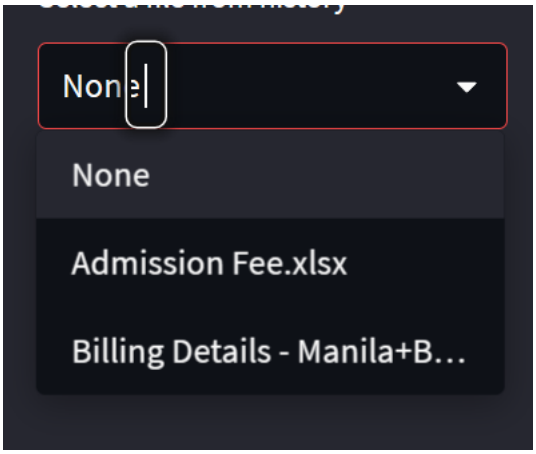
  - The filtered data will be downloaded as a CSV file named "filtered_data.csv".

8. File History

- The TUP Data Filter System maintains a history of uploaded files.
- The file history is displayed in the sidebar.

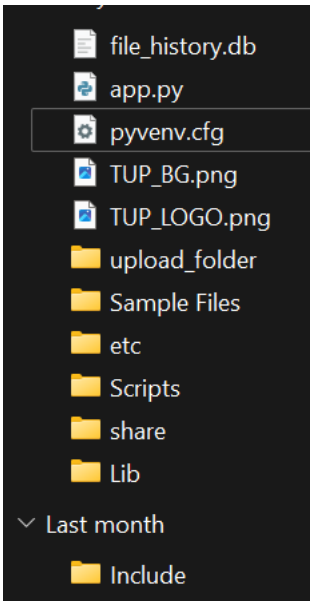


- To select a previously uploaded file from the history, click the file's name in the sidebar.



- The selected file will be displayed, and its data can be filtered and visualized as described in sections 5 and 6.
- The file history is stored in a SQLite database named "file_history.db".

    - ➢ The database is automatically created and maintained by the system.
    - ➢ No user intervention is required to manage the file history.



9. Logging out

- To log out of the TUP Data Filter System, click the "Logout" button in the sidebar.
- After logging out, you will be redirected to the login page.
- To log in again, follow the steps described in section 3.

Important Notes:

- **Tup Data Filtering System Only Supports xlsx files**
- **Make sure that the excel file does not have any custom header in it as the system reads the first column as your categories**