

CLOINT FUSION

A python package

Problem Statement-4

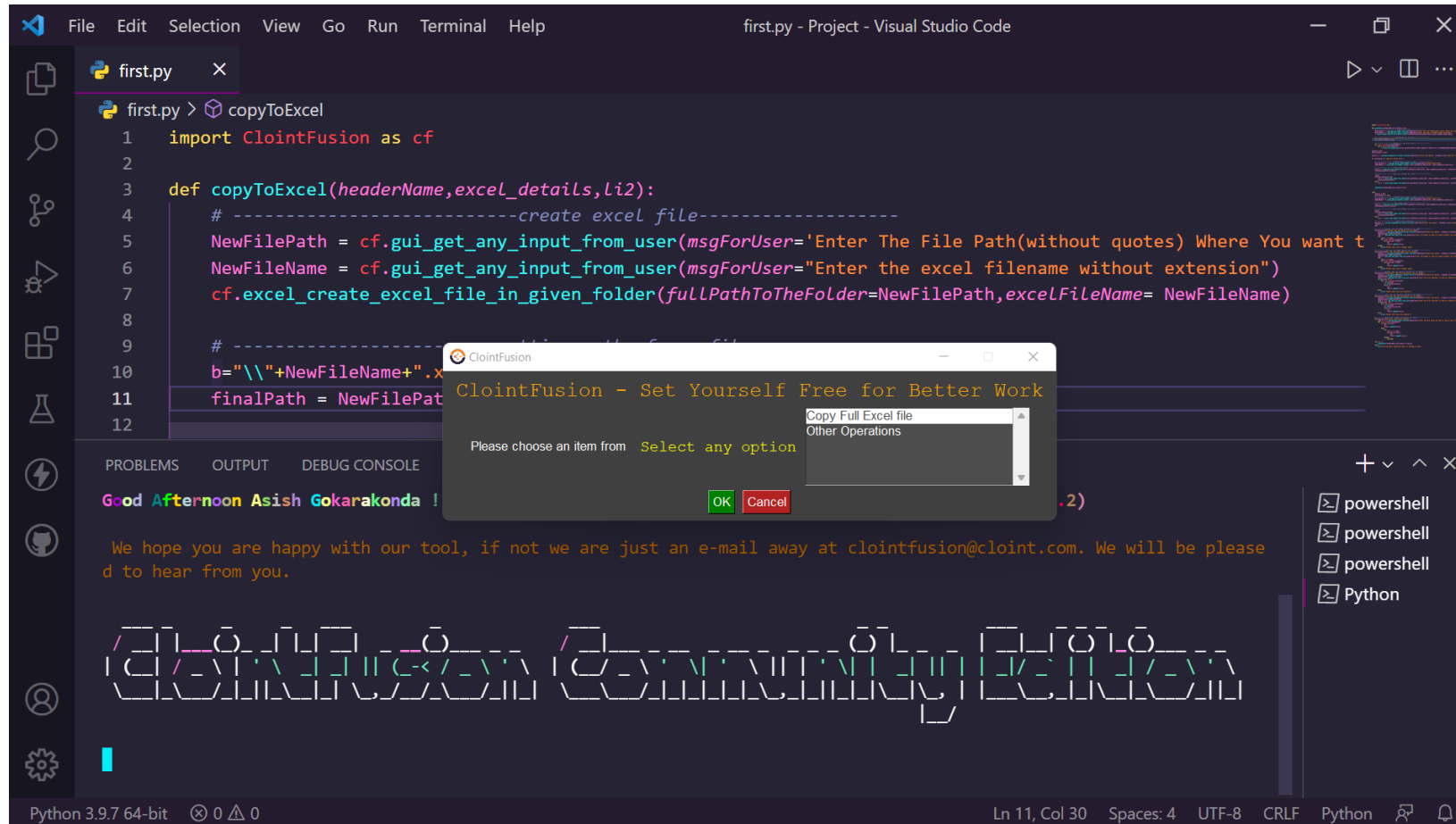
Develop a BOT using ClointFusion to extract rows from one spreadsheet based on conditions and copy the data to another spreadsheet.

To Run This Python File

- You should have python 3.8 or 3.9 version installed in your pc.
- You should install ClointFusion package and sign in dost.
- It is better to have only one version of python in your pc.
- An IDE to run python code (Vs code).

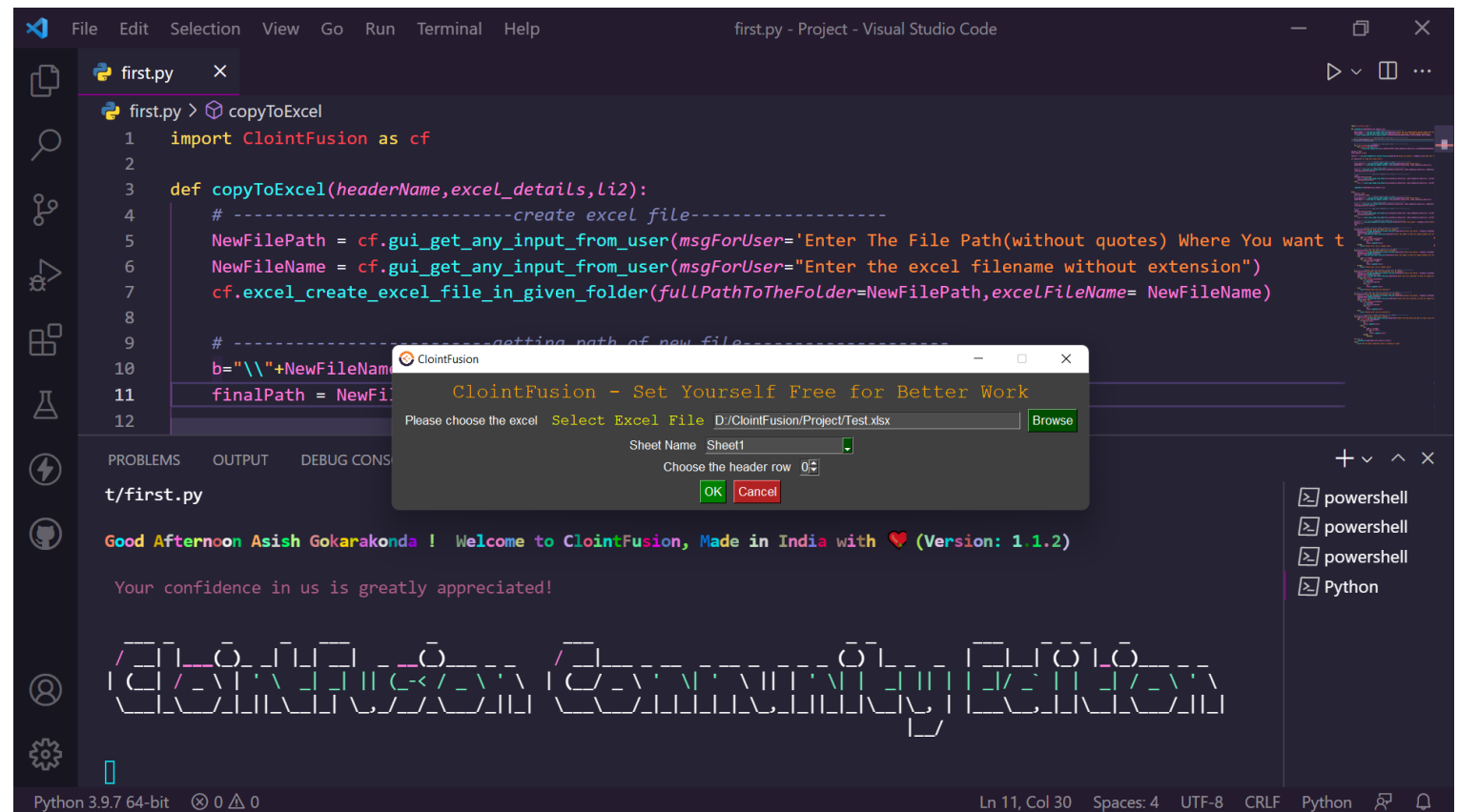
Step-1:

- When you run the program, the first message u will get is this.



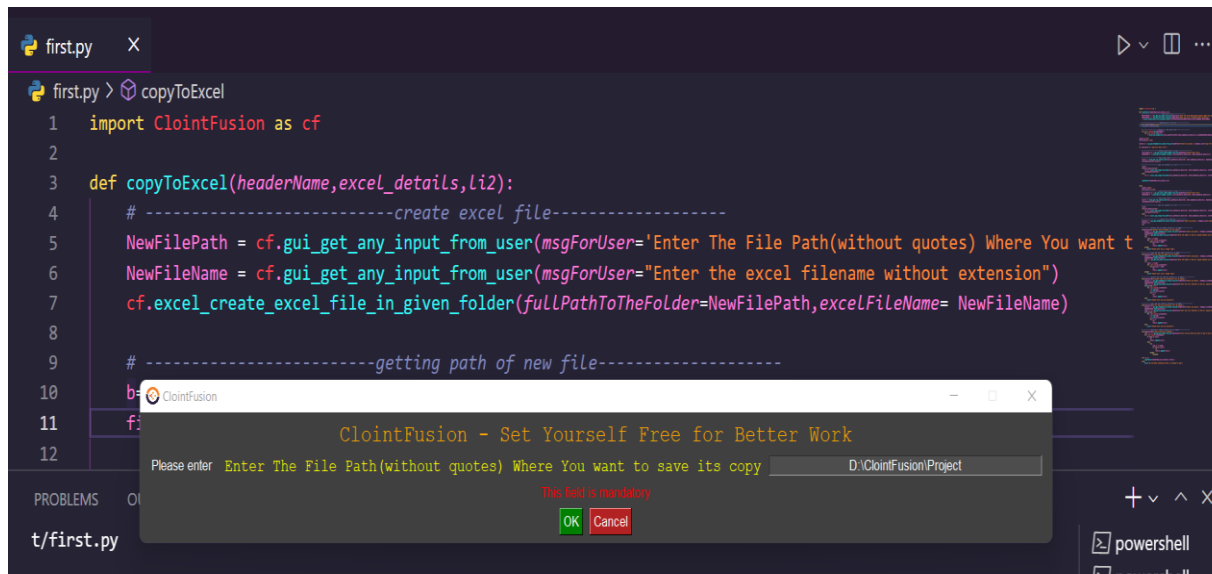
Step-1:

- Click the first option “Copy Full Excel File”. This option means, you can copy the full excel file.
- After that, you should give the file you want to copy and the sheet name and header row.
- You can change header row if you want.
- And the main point here is, the header row will be copied even if you don't keep header row=0.



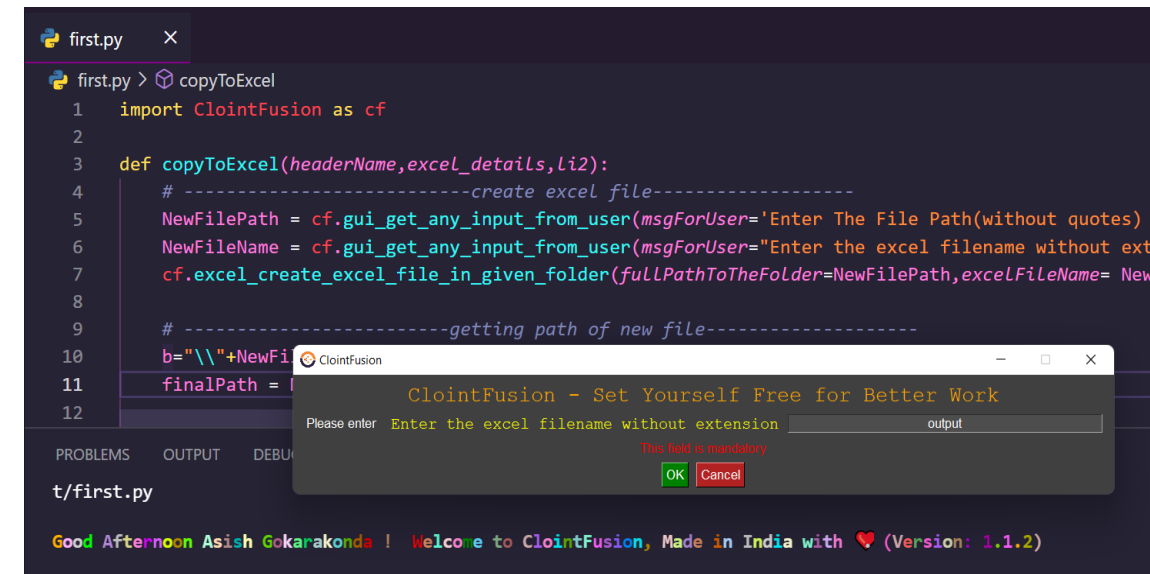
Step-2:

- Now you should give the file path(**without quotes**) where you want to save the copied excel file.
- And after that you should give file name without extension (.xlsx will be added by default).



The screenshot shows a code editor with a file named `first.py`. The code defines a function `copyToExcel` that takes `headerName`, `excel_details`, and `li2` as arguments. Inside the function, it prompts the user for a file path and a file name. A dialog box is open, asking for the file path, with the text "Please enter Enter The File Path(without quotes) Where You want to save its copy" and a text field containing "D:\ClointFusion\Project". The dialog also has "OK" and "Cancel" buttons.

```
1 import ClointFusion as cf
2
3 def copyToExcel(headerName,excel_details,li2):
4     # -----create excel file-----
5     NewFilePath = cf.gui_get_any_input_from_user(msgForUser='Enter The File Path(without quotes) Where You want to
6     NewFileName = cf.gui_get_any_input_from_user(msgForUser="Enter the excel filename without extension")
7     cf.excel_create_excel_file_in_given_folder(fullPathToTheFolder=NewFilePath,excelFileName= NewFileName)
8
9     # -----getting path of new file-----
10    b = cf.gui_get_any_input_from_user(msgForUser="Enter the excel filename without extension")
11    finalPath = b + NewFileName + ".xlsx"
12
```



The screenshot shows the same code editor with the `copyToExcel` function. A dialog box is open, asking for the file name, with the text "Please enter Enter the excel filename without extension" and a text field containing "output". The dialog also has "OK" and "Cancel" buttons. Below the dialog, the output of the program is visible, showing a welcome message and the version number.

```
1 import ClointFusion as cf
2
3 def copyToExcel(headerName,excel_details,li2):
4     # -----create excel file-----
5     NewFilePath = cf.gui_get_any_input_from_user(msgForUser='Enter The File Path(without quotes) Where You want to
6     NewFileName = cf.gui_get_any_input_from_user(msgForUser="Enter the excel filename without extension")
7     cf.excel_create_excel_file_in_given_folder(fullPathToTheFolder=NewFilePath,excelFileName= NewFileName)
8
9     # -----getting path of new file-----
10    b = cf.gui_get_any_input_from_user(msgForUser="Enter the excel filename without extension")
11    finalPath = b + NewFileName + ".xlsx"
12
```

PROBLEMS OUTPUT DEBUG CONSOLE

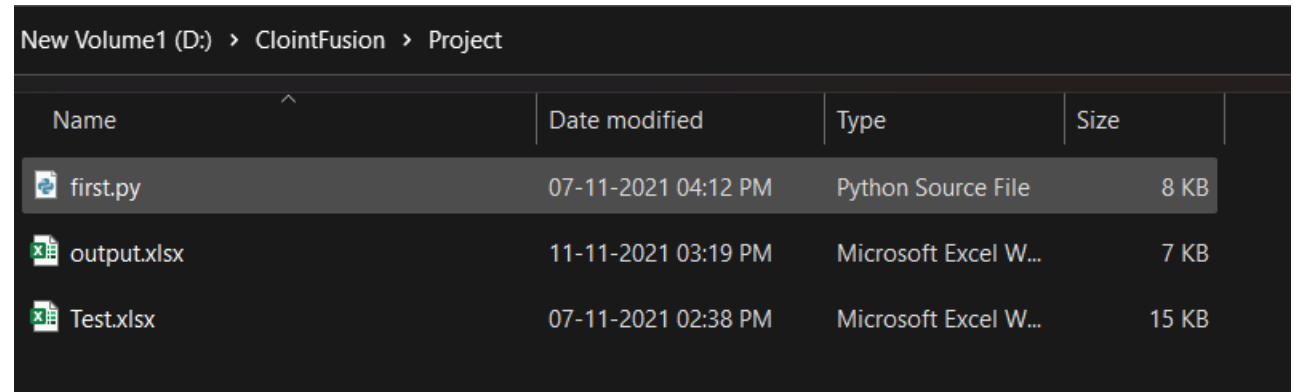
t/first.py




Good Afternoon Asish Gokarakonda ! Welcove to ClointFusion, Made in India with ❤️ (Version: 1.1.2)

Step-3:

Yeah, it is done!

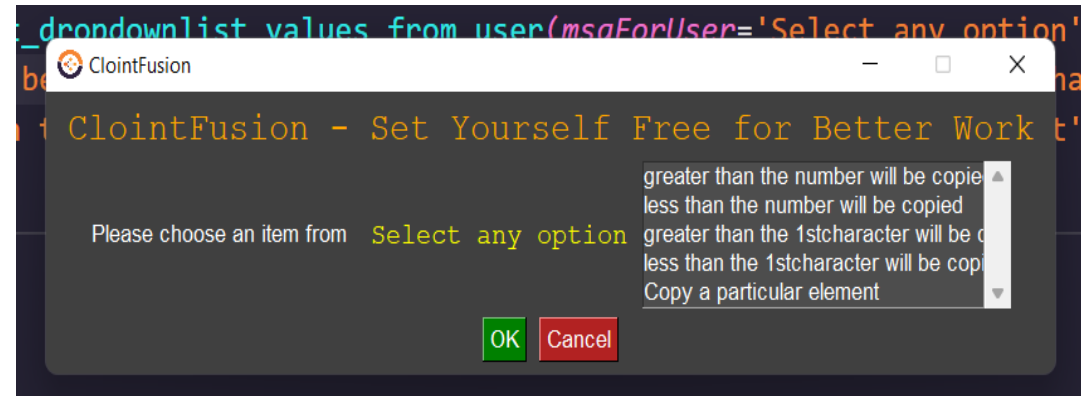
- You just need to go to the file location you have given and search for that file and check !
- For the inputs, I have given in the previous pictures, it made this output.xlsx file automatically which is copied version of Test.xlsx.



New Volume1 (D:) > ClointFusion > Project			
Name	Date modified	Type	Size
 first.py	07-11-2021 04:12 PM	Python Source File	8 KB
 output.xlsx	11-11-2021 03:19 PM	Microsoft Excel W...	7 KB
 Test.xlsx	07-11-2021 02:38 PM	Microsoft Excel W...	15 KB

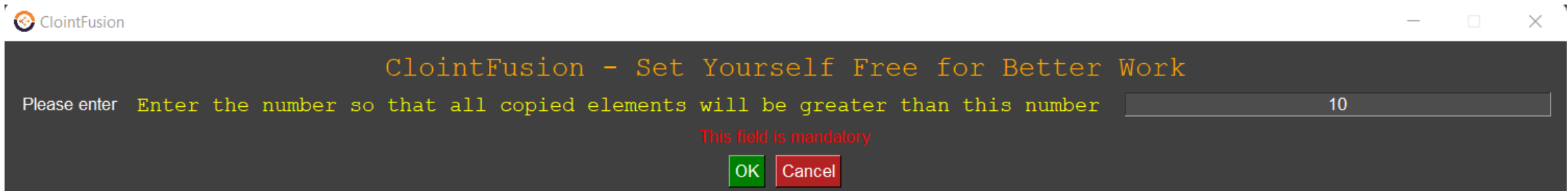
Step-4:

- Now, we will click on “Other Operations” instead of “Copy Full Excel file”.
- Same Step-1 should be repeated here also because we want an excel file to copy.
- Now we will get 5 options. They are:
 - Greater than the number will be copied
 - Less than the number will be copied
 - Greater than the 1st character will be copied
 - Less than the 1st character will be copied
 - Copy a particular element



Step-5:

- We will select “Greater than the number will be copied” now.
- Then you will get all the headers (header row) in the excel you have given in Step-1.
- You should select one header file. For example, I will select Rank column.
- Then you should give a number.



Step-6:

- Here what happens is it will check for the number greater than the number you have given in the column you have given (I gave Rank column, number 10) and copy that whole row to the new excel file.
- In the example, the rows corresponding to the numbers greater than 10 in Rank column will be added to new excel file.
- And now it will ask for the new excel file location. Repeat Step-2.

- Here if you follow my example, it will be very clear for you.
- Only from Rank 11 rows are added.

The image displays two Excel spreadsheets side-by-side, both showing a table of city data. The left spreadsheet is titled 'output1.xlsx' and the right is 'Test.xlsx'. Both are in the 'Home' tab of the Excel ribbon.

Left Spreadsheet (output1.xlsx): The table has 40 rows (Rank 1 to 40). Row 11 is highlighted. The data is as follows:

Rank	City	Population (2011)	Population (2001)	State/Territory
11	Cochin	2939038	2832142	Kerala
12	Lucknow	2815601	2732150	Uttar Pradesh
13	Kanpur	2767031	2551337	Uttar Pradesh
14	Nagpur	2405421	2052066	Maharashtra
15	Indore	1960631	1474968	Madhya Pradesh
16	Thane	1818872	1262551	Maharashtra
17	Bhopal	1795648	1437354	Madhya Pradesh
18	Visakhapatnam	1730320	982904	Andhra Pradesh
19	Pimpri-Chinchwad	1729359	1012472	Maharashtra
20	Patna	1683200	1366444	Bihar
21	Vadodara	1666703	1306227	Gujarat
22	Ghaziabad	1636068	968256	Uttar Pradesh
23	Ludhiana	1613878	1398467	Punjab
24	Agra	1574542	1275134	Uttar Pradesh
25	Nashik	1486973	1077236	Maharashtra
26	Faridabad	1404653	1055938	Haryana
27	Meerut	1309023	1068772	Uttar Pradesh
28	Rajkot	1286995	967476	Gujarat
29	Kalyan-Dombivali	1246381	1193512	Maharashtra
30	Vasai-Virar	1221233	1560111	Maharashtra
31	Solapur	1202951	951558	Maharashtra
32	Varanasi	1201815	1091918	Uttar Pradesh
33	Srinagar	1192792	898440	Jammu and Kashmir
34	Aurangabad	1171330	873311	Maharashtra
35	Dhanbad	1161561	99258	Jharkhand
36	Amritsar	1132761	966862	Punjab
37	Navi Mumbai	1119477	704002	Maharashtra
38	Allahabad	1117094	975393	Uttar Pradesh
39	Ranchi	1073440	847093	Jharkhand
40	Howrah	1072161	1007532	West Bengal

Right Spreadsheet (Test.xlsx): The table has 30 rows (Rank 1 to 30). Row 11 is highlighted. The data is as follows:

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	1,24,78,447	1,19,78,450	Maharashtra
2	Delhi	1,10,07,835	98,79,172	Delhi
3	Chennai	89,81,087	55,43,645	Tamil Nadu
4	Bangalore	84,25,970	54,38,065	Karnataka
5	Hyderabad	68,09,970	36,37,483	Andhra Pradesh
6	Ahmedabad	55,70,585	35,20,085	Gujarat
7	Kolkata	44,86,679	45,72,876	West Bengal
8	Surat	44,62,002	24,33,835	Gujarat
9	Pune	31,15,431	25,38,473	Maharashtra
10	Jaipur	30,73,350	23,22,575	Rajasthan
11	Cochin	29,39,038	28,32,142	Kerala
12	Lucknow	28,15,601	27,32,150	Uttar Pradesh
13	Kanpur	27,67,031	25,51,337	Uttar Pradesh
14	Nagpur	24,05,421	20,52,066	Maharashtra
15	Indore	19,60,631	14,74,968	Madhya Pradesh
16	Thane	18,18,872	12,62,551	Maharashtra
17	Bhopal	17,95,648	14,37,354	Madhya Pradesh
18	Visakhapatnam	17,30,320	9,82,904	Andhra Pradesh
19	Pimpri-Chinchwad	17,29,359	10,12,472	Maharashtra
20	Patna	16,83,200	13,66,444	Bihar
21	Vadodara	16,66,703	13,06,227	Gujarat
22	Ghaziabad	16,36,068	9,68,256	Uttar Pradesh
23	Ludhiana	16,13,878	13,98,467	Punjab
24	Agra	15,74,542	12,75,134	Uttar Pradesh
25	Nashik	14,86,973	10,77,236	Maharashtra
26	Faridabad	14,04,653	10,55,938	Haryana
27	Meerut	13,09,023	10,68,772	Uttar Pradesh
28	Rajkot	12,86,995	9,67,476	Gujarat
29	Kalyan-Dombivali	12,46,381	11,93,512	Maharashtra

Step-7:

- Same like the previous one, in the option “less than the number will be copied” only the numbers less the number you entered in a particular column corresponding rows will be copied. I am taking previous example, but this time the option I selected is “less than the number will be copied”. Only below 10 are copied

The image displays two side-by-side Excel spreadsheets illustrating a filtering operation. Both spreadsheets have the same data, but the selection criteria are different.

Left Spreadsheet (output2.xlsx): The 'Rank' column is filtered to show values less than 10. The selected rows are 1 through 10, corresponding to ranks 1 through 9.

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	12478447	11978450	Maharashtra
2	Delhi	11007835	9879172	Delhi
3	Chennai	8981087	5543645	Tamil Nadu
4	Bangalore	8425970	5438065	Karnataka
5	Hyderabad	6809970	3637483	Andhra Pradesh
6	Ahmedabad	5570585	3520085	Gujarat
7	Kolkata	4486679	4572876	West Bengal
8	Surat	4462002	2433835	Gujarat
9	Pune	3115431	2538473	Maharashtra


Right Spreadsheet (Test.xlsx): The 'Rank' column is filtered to show values less than 30. The selected rows are 1 through 30, corresponding to ranks 1 through 29.

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	12,478,447	11,978,450	Maharashtra
2	Delhi	11,007,835	9,879,172	Delhi
3	Chennai	8,981,087	5,543,645	Tamil Nadu
4	Bangalore	8,425,970	5,438,065	Karnataka
5	Hyderabad	6,809,970	3,637,483	Andhra Pradesh
6	Ahmedabad	5,570,585	3,520,085	Gujarat
7	Kolkata	4,486,679	4,572,876	West Bengal
8	Surat	4,462,002	2,433,835	Gujarat
9	Pune	3,115,431	2,538,473	Maharashtra
10	Jaipur	3,073,350	2,322,575	Rajasthan
11	Cochin	2,939,038	2,832,142	Kerala
12	Lucknow	2,815,601	2,732,150	Uttar Pradesh
13	Kanpur	2,767,031	2,551,337	Uttar Pradesh
14	Nagpur	2,405,421	2,052,066	Maharashtra
15	Indore	1,960,631	1,474,968	Madhya Pradesh
16	Thane	1,818,872	1,262,551	Maharashtra
17	Bhopal	1,795,648	1,437,354	Madhya Pradesh
18	Visakhapatnam	1,730,320	9,82,904	Andhra Pradesh
19	Pimpri-Chinchwad	1,729,359	1,012,472	Maharashtra
20	Patna	1,683,200	1,366,444	Bihar
21	Vadodara	1,666,703	1,306,227	Gujarat
22	Ghaziabad	1,636,068	9,68,256	Uttar Pradesh
23	Ludhiana	1,613,878	1,398,467	Punjab
24	Agra	1,574,542	1,275,134	Uttar Pradesh
25	Nashik	1,486,973	1,077,236	Maharashtra
26	Faridabad	1,404,653	1,055,938	Haryana
27	Meerut	1,309,023	1,068,772	Uttar Pradesh
28	Rajkot	1,286,995	9,67,476	Gujarat
29	Kalyan-Dombivli	1,246,381	1,193,512	Maharashtra

Exception Handling:

- If you enter some weird text instead of a number, the program wont be crashed. It will show you a message, “Please enter only a integer type” in terminal. As nothing is copied, it will show “By the above conditions,there is nothing to copy”.

```
Please enter only a integer type
By the above conditions,there is nothing to copy
```

 ClointFusion

— □ ×

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Please enter Enter the number so that all copied elements will be greater than this number

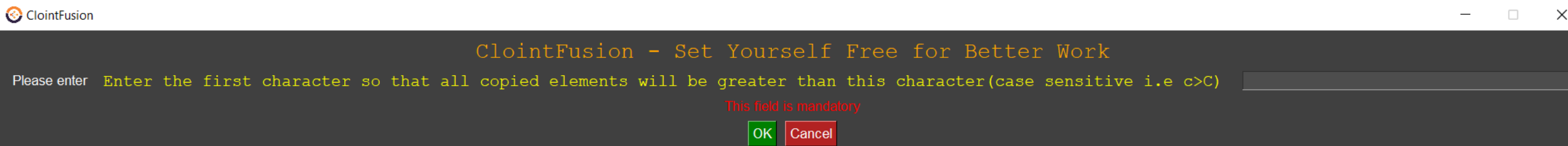
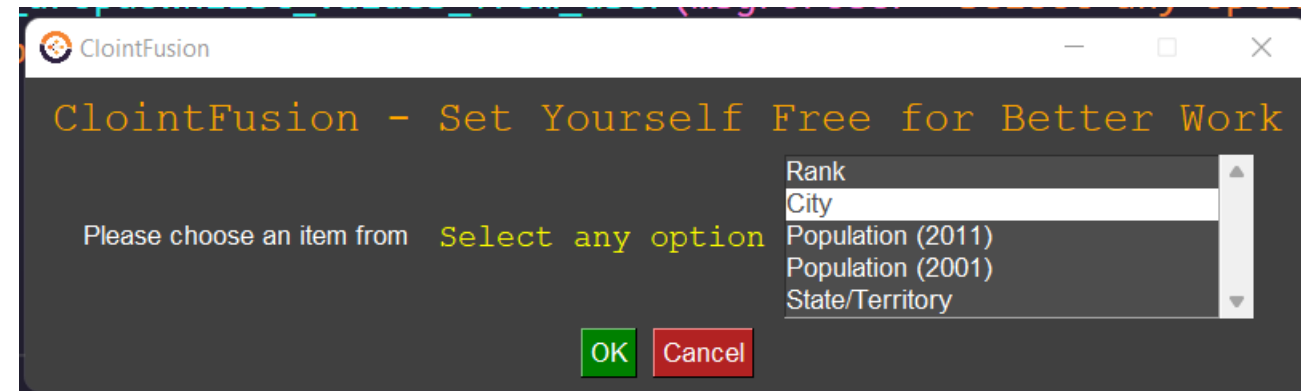
dfjsdf

This field is mandatory

OK Cancel

Step-8:

- We will select “Greater than the 1st character will be copied” now.
- Then you will get all the headers (header row) in the excel you have given in Step-1
- You should select one header file. For example, I will select City column.
- Then you should give a character.
- It is case sensitive. By ASCII code c>C.



Step-9:

- For example, I gave letter M. Then what this function does is, it will check for the 1st character greater than letter M in the given column (I gave City column). And copy the rows of those columns to new excel file.
- And now it will ask for the new excel file location. Repeat Step-2.
- You will get the file in the path you entered.

Step-10:

- Here if you follow my example, it will be very clear for you.
- Here after the letter M, that is N,O,P,Q,R,S,T,U,V,W,X,Y,Z. The rows, in which the word in City column starting with these letters will be copied.
- It is case sensitive, that is c>C. If you enter c, then then all the letters after c and all the uppercase letter words will be copied

The image displays two side-by-side Excel spreadsheets. The left spreadsheet, titled 'output3.xlsx', shows a table with columns: Rank, City, Population (2011), Population (2001), and State/Territory. The right spreadsheet, titled 'Test.xlsx', shows the same table after filtering for cities starting with 'c' (case-sensitive). The filtered results are shown in rows 13 through 30 of the right spreadsheet.

Rank	City	Population (2011)	Population (2001)	State/Territory
1	8 Surat	4462002	2433835	Gujarat
2	9 Pune	3115431	2538473	Maharashtra
3	14 Nagpur	2405421	2052066	Maharashtra
4	16 Thane	1818872	1262551	Maharashtra
5	18 Visakhapatnam	1730320	982904	Andhra Pradesh
6	19 Pimpri-Chinchwad	1729359	1012472	Maharashtra
7	20 Patna	1683200	1366444	Bihar
8	21 Vadodara	1666703	1306227	Gujarat
9	25 Nashik	1486973	1077236	Maharashtra
10	28 Rajkot	1286995	967476	Gujarat
11	30 Vasai-Virar	1221233	1560111	Maharashtra
12	31 Solapur	1202951	951558	Maharashtra
13	32 Varanasi	1201815	1091918	Uttar Pradesh
14	33 Srinagar	1192792	898440	Jammu and Kashmir
15	37 Navi Mumbai	1119477	740002	Maharashtra
16	39 Ranchi	1073440	847093	Jharkhand
17	44 Vijayawada	1048240	851282	Andhra Pradesh
18	47 Raipur	1010087	605747	Chhattisgarh

Step-11:

- Same like the previous one, in the option “less than the 1st character will be copied”, the starting letter less than the entered letter in a particular column will be copied to the new excel file.
- Here Letter M is given as input.

The image displays two Excel spreadsheets side-by-side, illustrating a data transfer or sorting process. Both windows show the 'Home' tab of the Excel ribbon.

Left Spreadsheet (output4.xlsx): The active cell is B2, containing 'Delhi'. The table below shows data for various Indian cities, sorted by Rank.

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Delhi	11007835	9879172	Delhi
2	Chennai	8981087	5543645	Tamil Nadu
3	Bangalore	8425970	5438065	Karnataka
4	Hyderabad	6809970	3637483	Andhra Pradesh
5	Ahmedabad	5570585	3520085	Gujarat
6	Kolkata	4486679	4572876	West Bengal
7	Jaipur	3073350	2322575	Rajasthan
8	Cochin	2939038	2832142	Kerala
9	Lucknow	2815601	2732150	Uttar Pradesh
10	Kanpur	2767031	2551337	Uttar Pradesh
11	Indore	1960631	1474968	Madhya Pradesh
12	Bhopal	1795648	1437354	Madhya Pradesh
13	Ghaziabad	1636068	968256	Uttar Pradesh
14	Ludhiana	1613878	1398467	Punjab
15	Agra	1574542	1275134	Uttar Pradesh
16	Faridabad	1404653	1055938	Haryana
17	Kalyan-Dombivali	1246381	1193512	Maharashtra
18	Aurangabad	1171330	873311	Maharashtra
19	Dhanbad	1161561	99258	Jharkhand
20	Amritsar	1132761	966862	Punjab
21	Allahabad	1117094	975393	Uttar Pradesh
22	Howrah	1072161	1007532	West Bengal
23	Coimbatore	1061447	930882	Tamil Nadu
24	Jabalpur	1054336	932484	Madhya Pradesh
25	Gwalior	1053505	827026	Madhya Pradesh
26	Jodhpur	1033918	851051	Rajasthan
27	Kota	1001365	694316	Rajasthan
28	Guwahati	963429	809895	Assam

Right Spreadsheet (Test.xlsx): The active cell is I13. The table below shows the same data as the left spreadsheet, but it is sorted by State/Territory.

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	1,24,78,447	1,19,78,450	Maharashtra
2	Delhi	1,10,07,835	98,79,172	Delhi
3	Chennai	89,81,087	55,43,645	Tamil Nadu
4	Bangalore	84,25,970	54,38,065	Karnataka
5	Hyderabad	68,09,970	36,37,483	Andhra Pradesh
6	Ahmedabad	55,70,585	35,20,085	Gujarat
7	Kolkata	44,86,679	45,72,876	West Bengal
8	Surat	44,62,002	24,33,835	Gujarat
9	Pune	31,15,431	25,38,473	Maharashtra
10	Jaipur	30,73,350	23,22,575	Rajasthan
11	Cochin	29,39,038	28,32,142	Kerala
12	Lucknow	28,15,601	27,32,150	Uttar Pradesh
13	Kanpur	27,67,031	25,51,337	Uttar Pradesh
14	Nagpur	24,05,421	20,52,066	Maharashtra
15	Indore	19,60,631	14,74,968	Madhya Pradesh
16	Thane	18,18,872	12,62,551	Maharashtra
17	Bhopal	17,95,648	14,37,354	Madhya Pradesh
18	Visakhapatnam	17,30,320	9,82,904	Andhra Pradesh
19	Pimpri-Chinchwad	17,29,359	10,12,472	Maharashtra
20	Patna	16,83,200	13,66,444	Bihar
21	Vadodara	16,66,703	13,06,227	Gujarat
22	Ghaziabad	16,36,068	9,68,256	Uttar Pradesh
23	Ludhiana	16,13,878	13,98,467	Punjab
24	Agra	15,74,542	12,75,134	Uttar Pradesh
25	Nashik	14,86,973	10,77,236	Maharashtra
26	Faridabad	14,04,653	10,55,938	Haryana
27	Meerut	13,09,023	10,68,772	Uttar Pradesh
28	Rajkot	12,86,995	9,67,476	Gujarat
29	Kalyan-Dombivali	12,46,381	11,93,512	Maharashtra

Exception Handling:

- If you enter some weird text instead of a single character, the program won't be crashed. It will show you a message, "Please enter only one character" in terminal. As nothing is copied, it will show "By the above conditions, there is nothing to copy".

```
Please enter only one character
By the above conditions,there is nothing to copy
```

ClointFusion

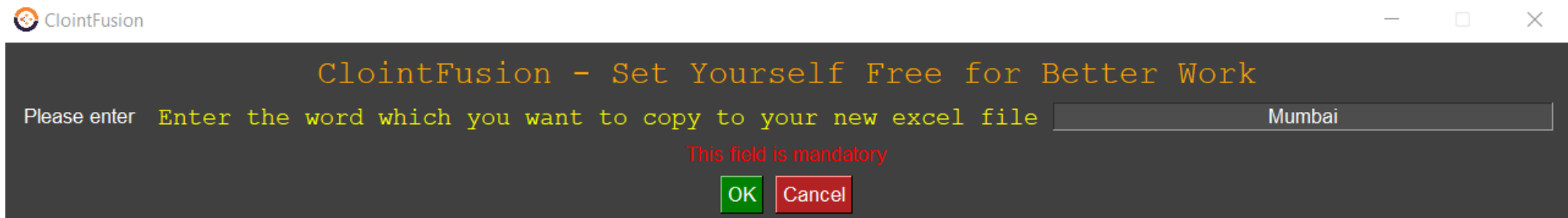
ClointFusion - Set Yourself Free for Better Work

Please enter Enter the first character so that all copied elements will be greater than this character(case sensitive i.e c>C)

This field is mandatory

Step-12:

- We will select “Copy a particular element” now.
- Here you wont get any headers as previous options. It will search the word you have entered in the whole excel file and copy that rows.
- For example, Here I have entered Mumbai. So, the rows which contains the word Mumbai will be copied to new excel file.



The screenshot shows a window titled "ClointFusion" with standard Windows window controls (minimize, maximize, close). The main content area has a dark background with yellow text. At the top, it says "ClointFusion - Set Yourself Free for Better Work". Below this, a prompt "Please enter" is followed by the instruction "Enter the word which you want to copy to your new excel file" in yellow. A text input field contains the word "Mumbai". Below the input field, a red error message states "This field is mandatory". At the bottom, there are two buttons: a green "OK" button and a red "Cancel" button.

ClointFusion - Set Yourself Free for Better Work

Please enter Enter the word which you want to copy to your new excel file

This field is mandatory

Step-13:

- Here I have only one Mumbai word in the whole excel sheet, So only one row added.

The image displays two side-by-side Excel spreadsheets. The left spreadsheet, titled 'output5.xlsx', shows a table with the following data:

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	12478447	11978450	Maharashtra

The right spreadsheet, titled 'Test.xlsx', shows the same table with 30 rows of data:

Rank	City	Population (2011)	Population (2001)	State/Territory
1	Mumbai	1,24,78,447	1,19,78,450	Maharashtra
2	Delhi	1,10,07,835	98,79,172	Delhi
3	Chennai	89,81,087	55,43,645	Tamil Nadu
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12	Lucknow	28,15,601	27,32,150	Uttar Pradesh
13	Kanpur	27,67,031	25,51,337	Uttar Pradesh
14	Nagpur	24,05,421	20,52,066	Maharashtra
15	Indore	19,60,631	14,74,968	Madhya Pradesh
16	Thane	18,18,872	12,62,551	Maharashtra
17	Bhopal	17,95,648	14,37,354	Madhya Pradesh
18	Visakhapatnam	17,30,320	9,82,904	Andhra Pradesh
19	Pimpri-Chinchwad	17,29,359	10,12,472	Maharashtra
20	Patna	16,83,200	13,66,444	Bihar
21	Vadodara	16,66,703	13,06,227	Gujarat
22	Ghaziabad	16,36,068	9,68,256	Uttar Pradesh
23	Ludhiana	16,13,878	13,98,467	Punjab
24	Agra	15,74,542	12,75,134	Uttar Pradesh
25	Nashik	14,86,973	10,77,236	Maharashtra
26	Faridabad	14,04,653	10,55,938	Haryana
27	Meerut	13,09,023	10,68,772	Uttar Pradesh
28	Rajkot	12,86,995	9,67,476	Gujarat
29	Kalyan-Dombivli	12,46,381	11,93,512	Maharashtra

Thank you for giving me this opportunity!!