Requirements :

Software : python (any version) **Recommended :** Latest

Python Libraries : pandas version :1.4.2

openpyxl version : 3.0.9

Installation cmd : pip install pandas

pip install openpyxl

Code:

```
from tracemalloc import start
import pandas as pd

filepath=input("Enter the File path : ")

# input for creating attendance sheets
range_input=list(map(int,input("Enter range list : ").split(" ")))
#print(filepath)

data_orig = pd.read_excel(filepath)

#creating attendance sheets and index for attendance percentagw
total_ent = []
unique_ent = []
attendance = []                                    # reading excel file by its
path

for i in range_input:
    sh_name = '<'+str(i)+' ATTENDANCE'
    select=data_orig[data_orig['ATTENDANCE PERCENTAGE'].between(0,i)]          #
Sorting of elements based on the range inputs from user
    print(select)                                                  # displaying
selected values
    writer_new=pd.ExcelWriter(path=filepath, if_sheet_exists =
'replace',mode='a',engine='openpyxl')
    select.to_excel(excel_writer=writer_new, sheet_name =
sh_name)                          # appending the selected values on the specific
sheet of the excel file
    writer_new.save()

    total_ent.append(select.shape[0])
```

```
    unique_ent.append(select.nunique( axis = 'rows')['REG. NO.'])
    attendance.append(sh_name)

    writer_new.save()

try:
    data_index = pd.read_excel(filepath, sheet_name = 'Index')
    row_count = data_index.shape[0]

except:
    row_count = 0

writer_ovr = pd.ExcelWriter(path=filepath, if_sheet_exists = 'overlay',
mode='a',engine='openpyxl')
index_df = pd.DataFrame({'Total Number of Entries': total_ent, 'No. of Students':
unique_ent, 'Attendance': attendance})
if row_count == 0:
    index_df.to_excel(excel_writer=writer_ovr, sheet_name = 'Index', index=False)
else:
    index_df.to_excel(excel_writer=writer_ovr, sheet_name = 'Index', index=False,
startrow=row_count+1, header = False)

writer_ovr.save()
writer_new.close()
writer_ovr.close()


#creating attendance sheets and index and avg attendance


std_regno = ''
att_sum = 0
count = 0
avg_attendance = []

for ind in data_orig.index:
    regno = data_orig['REG. NO.'][ind]

    if regno == std_regno:
        att_sum += data_orig['ATTENDANCE PERCENTAGE'][ind]
        count += 1
    else:
        if std_regno != '':
            for _ in range(count):
                avg_attendance.append((round(att_sum/count)))
```

```
        std_regno = regno
        att_sum = data_orig['ATTENDANCE PERCENTAGE'][ind]
        count = 1

for _ in range(count):
    avg_attendance.append((round(att_sum/count)))

data_orig['ATTENDANCE AVG'] = avg_attendance


writer_new=pd.ExcelWriter(path=filepath, if_sheet_exists = 'replace', mode='a',
engine='openpyxl')
data_orig.to_excel(excel_writer=writer_new, sheet_name =
'ATTENDANCE_REPORT_FSPG', index=False)                          # appending the
selected values on the specific sheet of the excel file
writer_new.save()

total_ent = []
unique_ent = []
attendance = []
for i in range_input:
    sh_name = '<'+str(i)+' ATTENDANCE AND OVERALL_AVG <'+str(i)
    select=data_orig[data_orig['ATTENDANCE PERCENTAGE'].between(0,i)]
    select=data_orig[data_orig['ATTENDANCE AVG'].between(0,i)]         # Sorting
of elements based on the range inputs from user
    print(select)                                                   # displaying
selected values
    select.to_excel(excel_writer=writer_new, sheet_name =
sh_name)                          # appending the selected values on the specific
sheet of the excel file
    writer_new.save()

    total_ent.append(select.shape[0])
    unique_ent.append(select.nunique( axis = 'rows')['REG. NO.'])
    attendance.append(sh_name)

    writer_new.save()

try:
    data_index = pd.read_excel(filepath, sheet_name = 'Index')
    row_count = data_index.shape[0]

except:
    row_count = 0
```

```
writer_ovr = pd.ExcelWriter(path=filepath, if_sheet_exists = 'overlay',
mode='a',engine='openpyxl')
index_df = pd.DataFrame({'Total Number of Entries': total_ent, 'No. of Students':
unique_ent, 'Attendance': attendance})
if row_count == 0:
    index_df.to_excel(excel_writer=writer_ovr, sheet_name = 'Index', index=False)
else:
    index_df.to_excel(excel_writer=writer_ovr, sheet_name = 'Index', index=False,
startrow=row_count+1, header = False)

writer_ovr.save()
writer_new.close()
writer_ovr.close()
```

Output at Terminal:

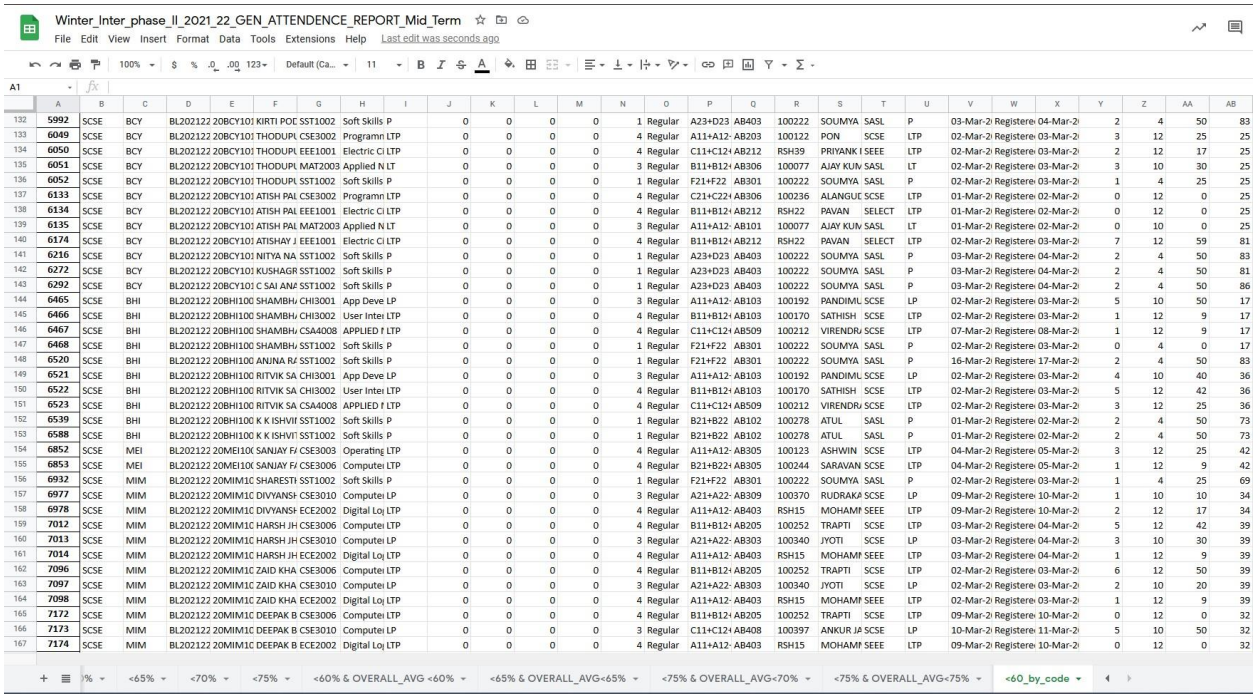
```
 Enter the range of values need to be selected and appended on the other sheet
Enter the Initial value of range : 70
Enter the final value of range : 75
Enter the Column Name of Which the values is to be sorted : ATTENDANCE AVG
Enter the Sheet name where the selected elements should be printed : <70 ATTENDANCE AVG <75 BY CODE
     SCHOOL CODE PROGRAM CODE          CLASSNBR    REG. NO.           STUDENT NAME COURSE CODE  ...                STATUS ATTENDANCE DATE  ATTENDED CLASSES  TOTAL CLASSES  ATTENDANCE PERCENTAGE  ATTENDANCE AVG
36         VITBS          BBA  BL20212211000120  20BBA10012          PARANGI PATEL     BMT2006  ... Registered and Approved     03-Mar-2022                 6              6                    100              75
37         VITBS          BBA  BL20212211000119  20BBA10012          PARANGI PATEL     BMT2007  ... Registered and Approved     03-Mar-2022                 6             10                     60              75
38         VITBS          BBA  BL20212211000118  20BBA10012          PARANGI PATEL     BMT2016  ... Registered and Approved     03-Mar-2022                 7             10                     70              75
39         VITBS          BBA  BL20212211000117  20BBA10012          PARANGI PATEL     BMT3001  ... Registered and Approved     03-Mar-2022                 8             12                     67              75
306         SMEC          BAS  BL20212211000036  20BAS10042  GAVHANE KULDEEP DATTA     ASE1003  ... Registered and Approved     03-Mar-2022                 8             10                     80              71
...          ...          ...               ...         ...                   ...        ...  ...                    ...             ...               ...            ...                    ...             ...
6588        SCSE          BHI  BL20212211000052  20BHI10046     K K ISHVITHA SHREE     SST1002  ... Registered and Approved     02-Mar-2022                 2              4                     50              73
7510        SCSE          MIP  BL20212211000123  20MIP10025          AKASH KAITHELE     CDS3001  ... Registered and Approved     08-Mar-2022                 8             10                     80              75
7511        SCSE          MIP  BL20212211000110  20MIP10025          AKASH KAITHELE     CSE3004  ... Registered and Approved     08-Mar-2022                11             12                     92              75
7512        SCSE          MIP  BL20212211000030  20MIP10025          AKASH KAITHELE     MAT3003  ... Registered and Approved     08-Mar-2022                 6             12                     50              75
7513        SCSE          MIP  BL20212211000137  20MIP10025          AKASH KAITHELE     SST1002  ... Registered and Approved     08-Mar-2022                 3              4                     75              75

[73 rows x 27 columns]
(73, 28)
Total Number of Entries: 73
Total Number of Students: 21
Success The Process is Finished
PS D:\Programming\python\vscode python>
```

Note:

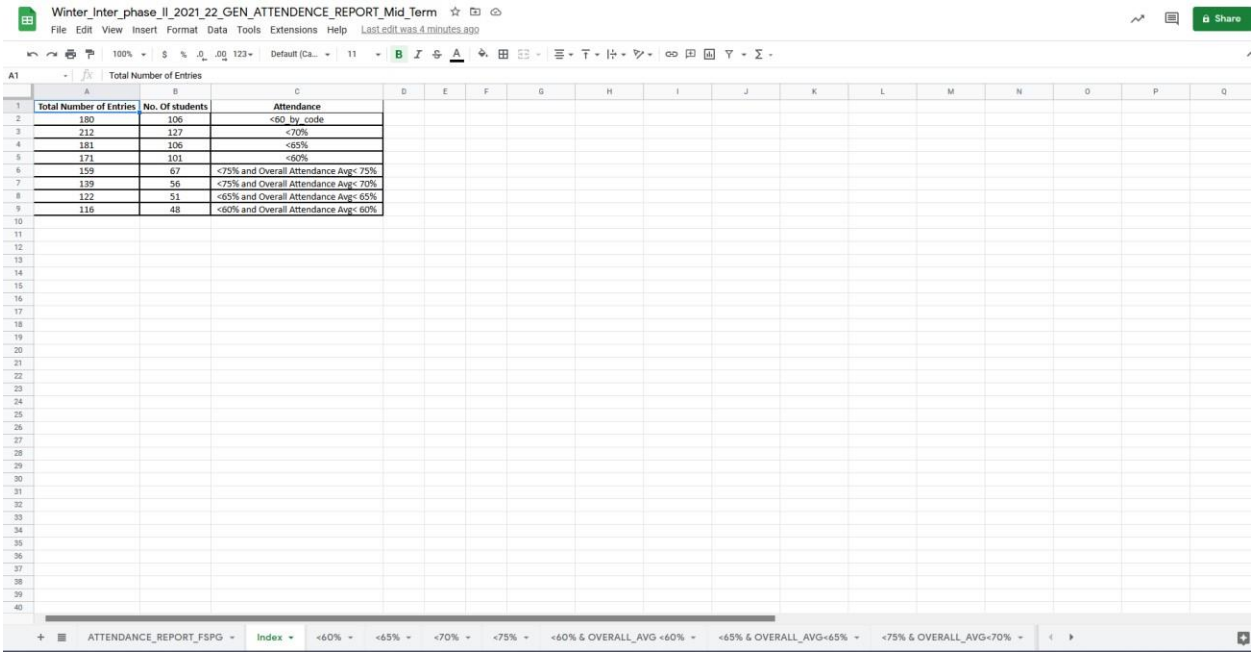
In order to view the output on excel file . Kindly Upload the .xlsx file to google slide and then view it.

In MS Excel the file may get corrupted due to software integrity policy violations in MS Excel

Output on Excel file with Sheet_name=” <60_by_code



Output on Index sheet of excel file



Total Number of Entries	No. Of students	Attendance
180	106	<60_by_code
212	127	<70%
181	106	<65%
171	101	<60%
159	67	<75% and Overall Attendance Avg< 75%
139	56	<75% and Overall Attendance Avg< 70%
122	51	<65% and Overall Attendance Avg< 65%
116	48	<60% and Overall Attendance Avg< 60%