Lab Task Week 12

Objective:

- Conditional Filter
- Sorting
- Group
- Data Visualization

Note: You need to download the files from BBLearn.

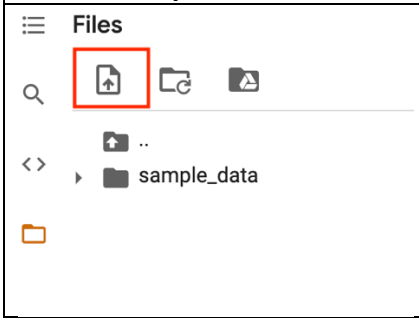
- Lab_Task_12.ipynb and
- Marks.xlsx

Lab Task - 10

1. Open your google chrome browser
2. Go to the website https://colab.research.google.com/
3. Press the Sign in Button on top right and sign in to your google account.
4. Select upload notebook from the File menu and drag/drop the Lab_Task_12.ipynb file from your computer.
5. Click on the files option from the tool menu to add the data file.

Note: Wait till the runtime is connected to see the options of file.

6. Click on the upload option and choose the marks.xlsx to upload it with the project.
   Note: Uploaded files will get deleted when this runtime is recycled. You need to reupload it if runtime is recycled.

1. To upload the data file	2. After data file is added
	

7. From the Runtime select Run All to run all the commands from Week 09 and Week 10 labs.

8. Complete the below Lab Tasks and type the code in given space.

a.	Display the student who got more than 69 in Final Marks
	`grades[grades['Final Marks'] > 69]`
b.	Display the student who got Final Marks between 80 to 89
	`grades[(grades['Final Marks'] >= 80) & (grades['Final Marks'] <= 89)]`
c.	Display the student who study in ENG division and got FWA less than 71
	`grades[(grades['Division'] == 'ENG' )& (grades['FWA'] < 71)]`
d.	Display the student sort by Division
	`grades.sort_values('Division')`
e.	Display the student sort by Division in ascending and Final Marks by descending
	`grades.sort_values(['Division','Final Marks'],ascending=[True,False])`
f.	Display the number of students in each division
	`grades.groupby('Division')['ID'].count()`

Data Visualization

a.	Display a line chart to display FWA details, give title as FWA details, change the line colour to red
	`grades['FWA'].plot(title='FWA details',color='RED')`
b.	Display a Bar chart to display students by division, give title as Students by Division
	`grades.groupby('Division')[['ID']].count().plot.bar(title = 'Student by Division')`
I	Display as above information using a Pie Chart.
	`grades.groupby('Division')[['ID']].count().plot.pie(title = 'Student by Division',subplots=True)`

9. Download the notebook to your local computer.