

LETTERKENNY INSTITUTE OF TECHNOLOGY

ASSIGNMENT COVER SHEET

Lecturer's Name: Ruth Lennon

Assessment Title: University edition SAS LAB

Work to be submitted to: Ruth Lennon

Date for submission of work: 3 December 2017

Place and time for submitting work: RM

To be completed by the Student

Student's Name: Prateek Parasher (L00143921)

Class: MSc Big Data Analytics

Subject/Module: Big Data Analytics

Word Count (where applicable): N/A

I confirm that the work submitted has been produced solely through my own efforts.

Student's signature: Prateek Parasher Date: 3 / 12 /2017

Notes

Penalties: The total marks available for an assessment is reduced by 15% for work submitted up to one week late. The total marks available are reduced by 30% for work up to two weeks late. Assessment work received more than two weeks late will receive a mark of zero. [Incidents of alleged plagiarism and cheating are dealt with in accordance with the Institute's Assessment Regulations.]

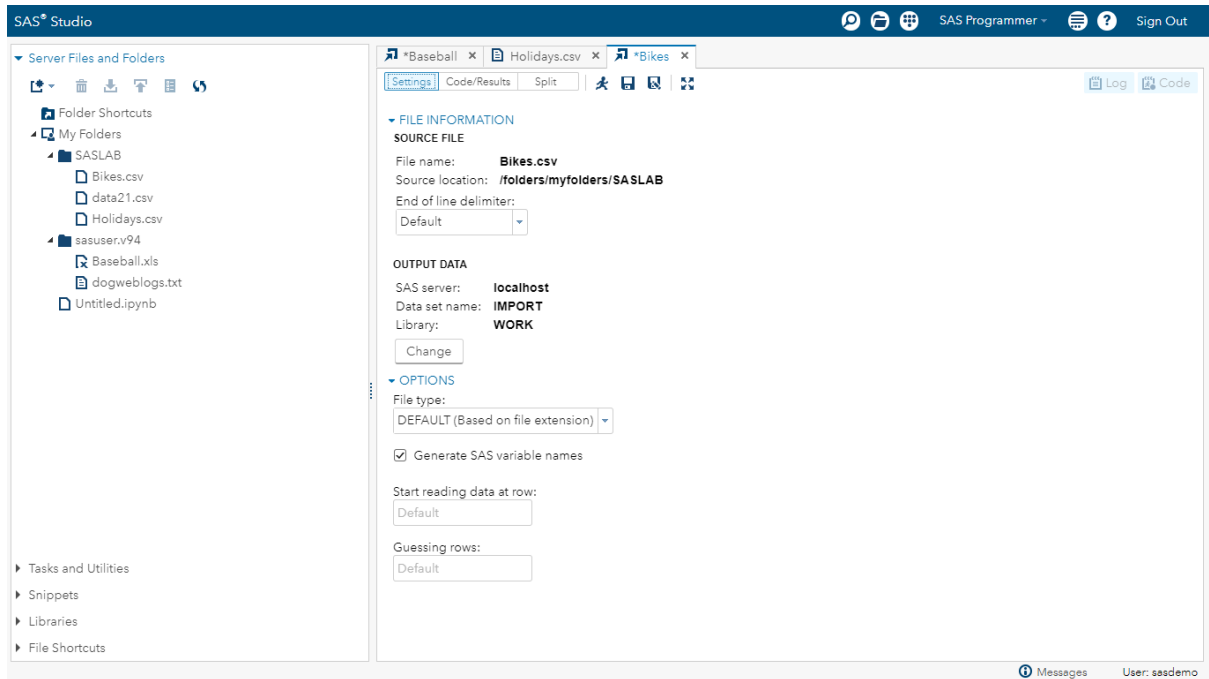
Plagiarism: Presenting the ideas etc. of someone else without proper acknowledgement (see section L1 paragraph 8).

Cheating: The use of unauthorised material in a test, exam etc., unauthorised access to test matter, unauthorised collusion, dishonest behaviour in respect of assessments, and deliberate plagiarism (see section L1 paragraph 8).

Continuous Assessment: For students repeating an examination, marks awarded for continuous assessment, shall normally be carried forward from the original examination to the repeat examination.

SAS University Edition Tutorials

1. SAS User Interfaces



Conclusion:- In this lab I learned that SAS is good combination of business and technology using SAS studio I can use 3rd party application for data cleaning or data reporting I can make reports, graph and different visualization SAS studio is very easy to use GUI and having lot's of powerful tools inside SAS. in this tutorial I learned from where I can upload files from where I can run my files I can file information setting according to my requirement and I can see SAS code and SAS GUI both at same time ,

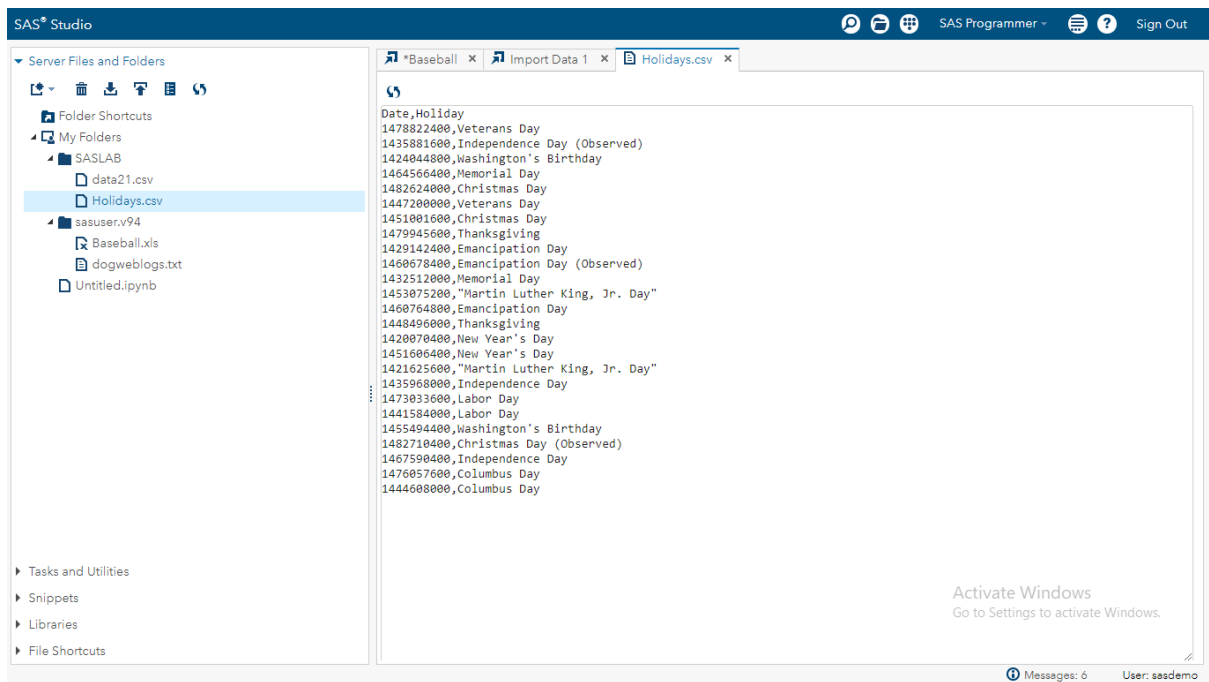
2. Import Data in SAS

The screenshot displays the SAS Studio interface. On the left, the 'Server Files and Folders' pane shows a project structure with files like 'data21.csv' and 'Baseball.xls'. The main workspace is divided into three panes: 'CODE', 'LOG', and 'RESULTS'. The 'RESULTS' pane is active, showing the 'OUTPUT DATA' tab for a table named 'WORK.DATA21'. The table has 568 rows and 32 columns. The columns are labeled with baseball statistics: '_842302', 'M', '_17_99', and '_10_38'. The table data is displayed in a grid format, showing rows of player statistics. A 'Property Value' table is visible below the column list, showing properties like Label, Name, Length, Type, Format, and Informat. The bottom status bar indicates 'Messages: 6' and 'User: sasdemo'.

	_842302	M	_17_99	_10_38
1	842517	M	20.57	17.77
2	84300903	M	19.69	21.25
3	84348301	M	11.42	20.38
4	84358402	M	20.29	14.34
5	843786	M	12.45	15.7
6	844359	M	18.25	19.98
7	84458202	M	13.71	20.83
8	844981	M	13	21.82
9	84501001	M	12.46	24.04
10	845636	M	16.02	23.24
11	84610002	M	15.78	17.89
12	846226	M	19.17	24.8
13	846381	M	15.85	23.95
14	84667401	M	13.73	22.61
15	84799002	M	14.54	27.54
16	848406	M	14.68	20.13
17	84862001	M	16.13	20.68

Conclusion:- In this lab I imported the my csv data file in sas studio we can import all data files like .csv .xls .text and after that we can check the setting as I want them default after run the code that SAS generated after that result tab shows file imported data it's easy to use via SAS GUI

3. CSV files in SAS

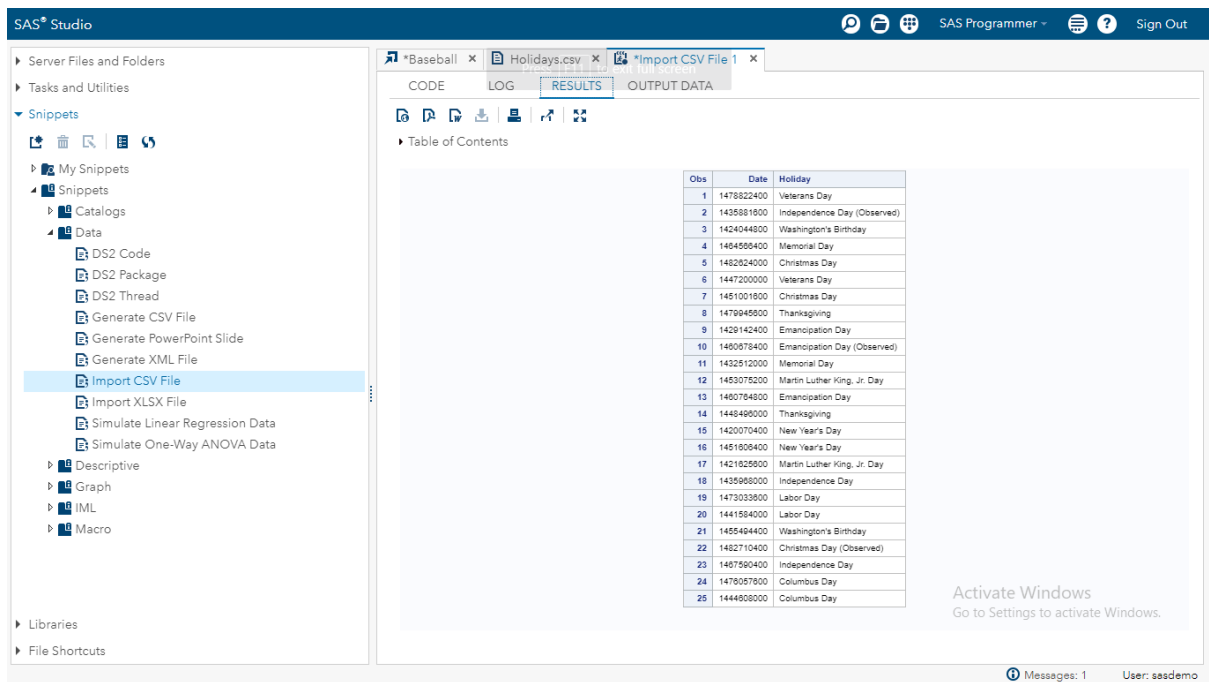


SAS Studio interface showing the 'Holidays.csv' file in the 'Server Files and Folders' pane. The main editor displays the raw CSV data:

```
Date,Holiday
1478822400,Veterans Day
1435881600,Independence Day (Observed)
1424044800,Washington's Birthday
1464564000,Memorial Day
1482624000,Christmas Day
1447200000,Veterans Day
1451001600,Christmas Day
1479945600,Thanksgiving
1429142400,Emancipation Day
1460678400,Emancipation Day (Observed)
1432512000,Memorial Day
1453075200,"Martin Luther King, Jr. Day"
1460764800,Emancipation Day
1448496000,Thanksgiving
1420070400,New Year's Day
1451606400,New Year's Day
1421625600,"Martin Luther King, Jr. Day"
1435968000,Independence Day
1473033600,Labor Day
1441584000,Labor Day
1455494400,Washington's Birthday
1482710400,Christmas Day (Observed)
1467590400,Independence Day
1476057600,Columbus Day
1444608000,Columbus Day
```

Activate Windows
Go to Settings to activate Windows.

Messages: 6 User: sasdemo

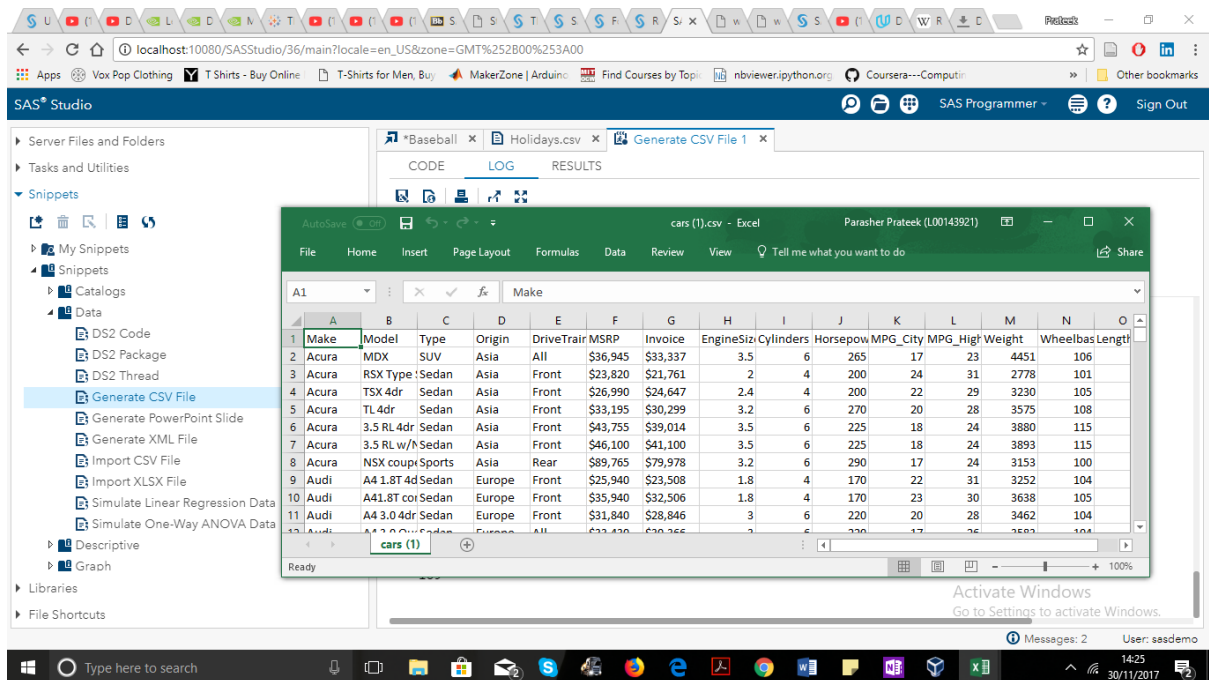


SAS Studio interface showing the 'Import CSV File' snippet selected in the 'Snippets' pane. The main editor displays the 'Table of Contents' for the imported data:

Obs	Date	Holiday
1	1478822400	Veterans Day
2	1435881600	Independence Day (Observed)
3	1424044800	Washington's Birthday
4	1464564000	Memorial Day
5	1482624000	Christmas Day
6	1447200000	Veterans Day
7	1451001600	Christmas Day
8	1479945600	Thanksgiving
9	1429142400	Emancipation Day
10	1460678400	Emancipation Day (Observed)
11	1432512000	Memorial Day
12	1453075200	Martin Luther King, Jr. Day
13	1460764800	Emancipation Day
14	1448496000	Thanksgiving
15	1420070400	New Year's Day
16	1451606400	New Year's Day
17	1421625600	Martin Luther King, Jr. Day
18	1435968000	Independence Day
19	1473033600	Labor Day
20	1441584000	Labor Day
21	1455494400	Washington's Birthday
22	1482710400	Christmas Day (Observed)
23	1467590400	Independence Day
24	1476057600	Columbus Day
25	1444608000	Columbus Day

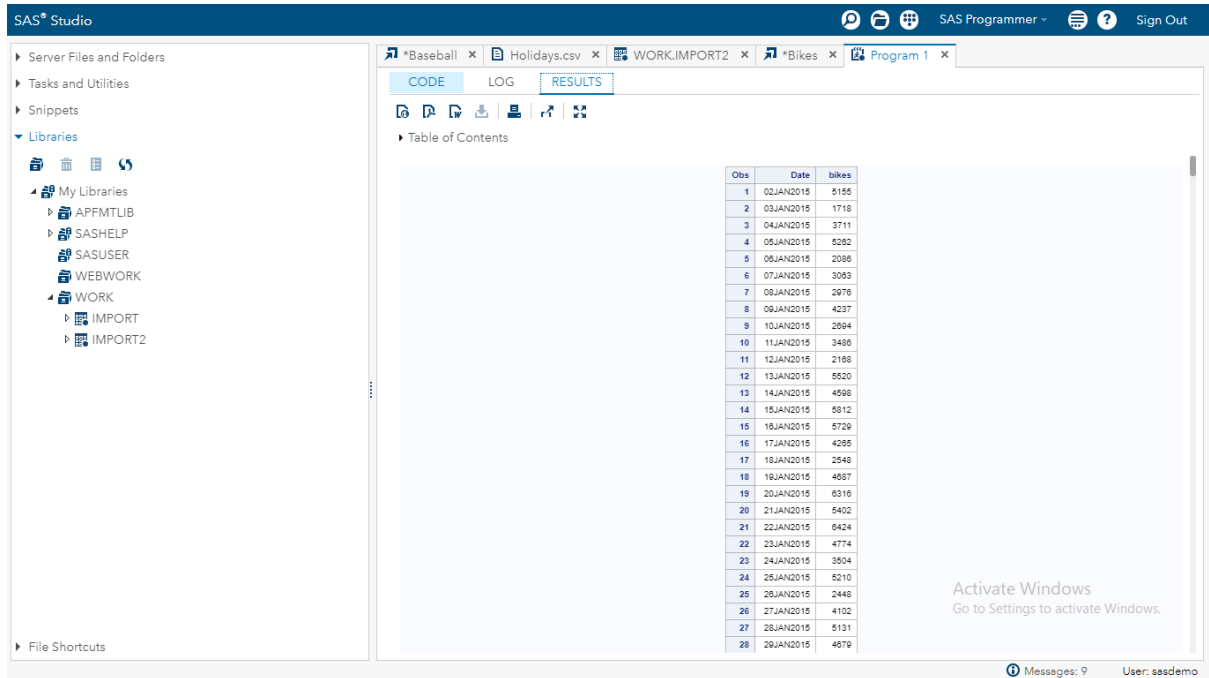
Activate Windows
Go to Settings to activate Windows.

Messages: 1 User: sasdemo



Conclusions:- In this lab I learned how to read csv file or how to generated csv files using SAS studio after importing the data and I used snippet for generating the csv files as you can see in my screen shots

4. Format data in SAS

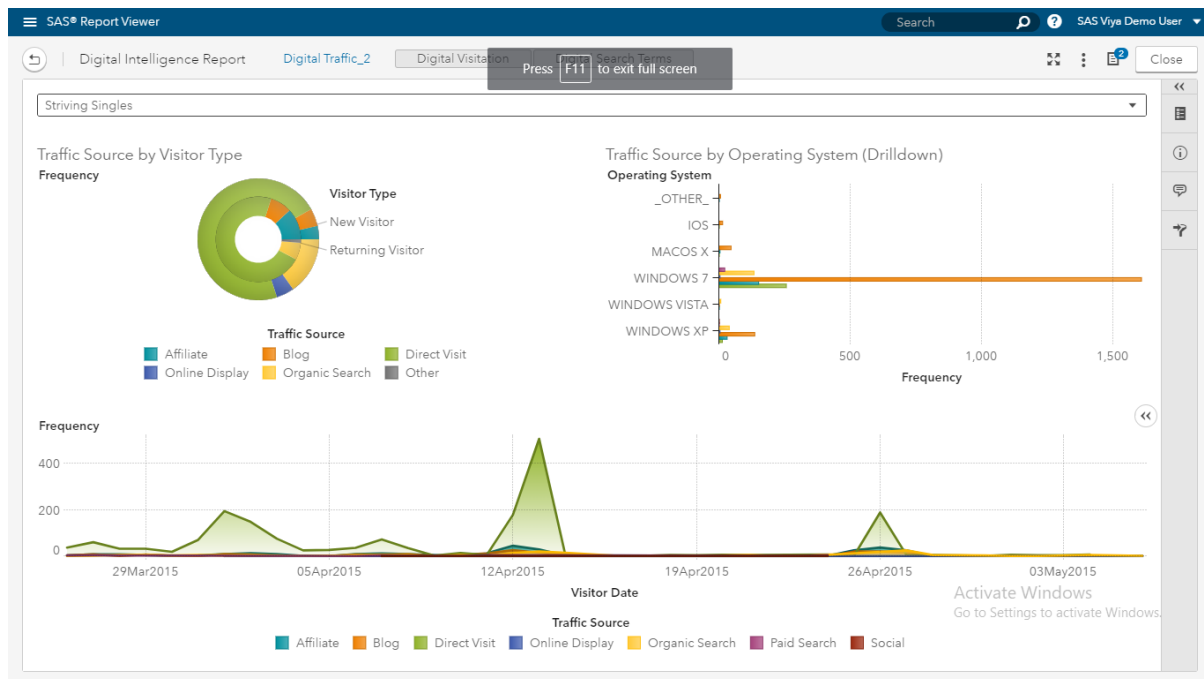


The screenshot shows the SAS Studio interface. On the left is a navigation pane with 'Libraries' expanded, showing 'My Libraries' and 'WORK'. The main window has tabs for 'Baseball', 'Holidays.csv', 'WORK.IMPORT2', 'Bikes', and 'Program 1'. The 'Program 1' tab is active, showing a 'RESULTS' view with a 'Table of Contents'. The table displays 28 observations with columns 'Obs', 'Date', and 'bikes'. The 'Date' column is formatted as DD/JAN/YY. A watermark 'Activate Windows' is visible in the bottom right corner.

Obs	Date	bikes
1	02JAN2015	5155
2	03JAN2015	1718
3	04JAN2015	3711
4	05JAN2015	5252
5	06JAN2015	2085
6	07JAN2015	3053
7	08JAN2015	2976
8	09JAN2015	4237
9	10JAN2015	2694
10	11JAN2015	3486
11	12JAN2015	2168
12	13JAN2015	5520
13	14JAN2015	4598
14	15JAN2015	5812
15	16JAN2015	5729
16	17JAN2015	4285
17	18JAN2015	2548
18	19JAN2015	4857
19	20JAN2015	6316
20	21JAN2015	5402
21	22JAN2015	6424
22	23JAN2015	4774
23	24JAN2015	3504
24	25JAN2015	5210
25	26JAN2015	2448
26	27JAN2015	4102
27	28JAN2015	5131
28	29JAN2015	4879

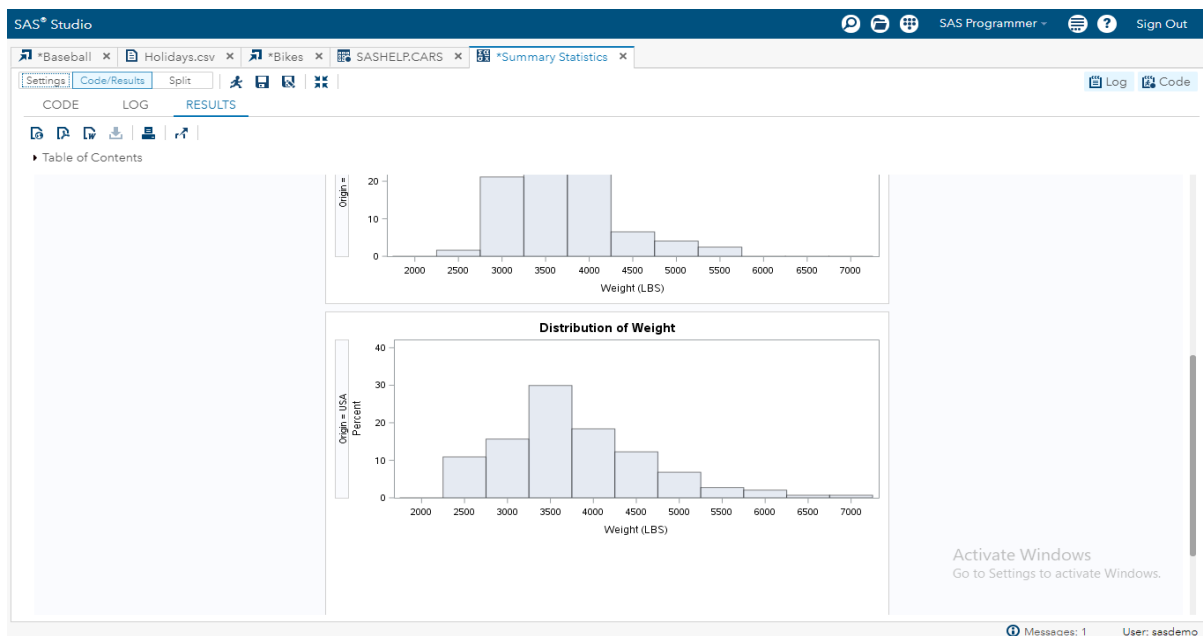
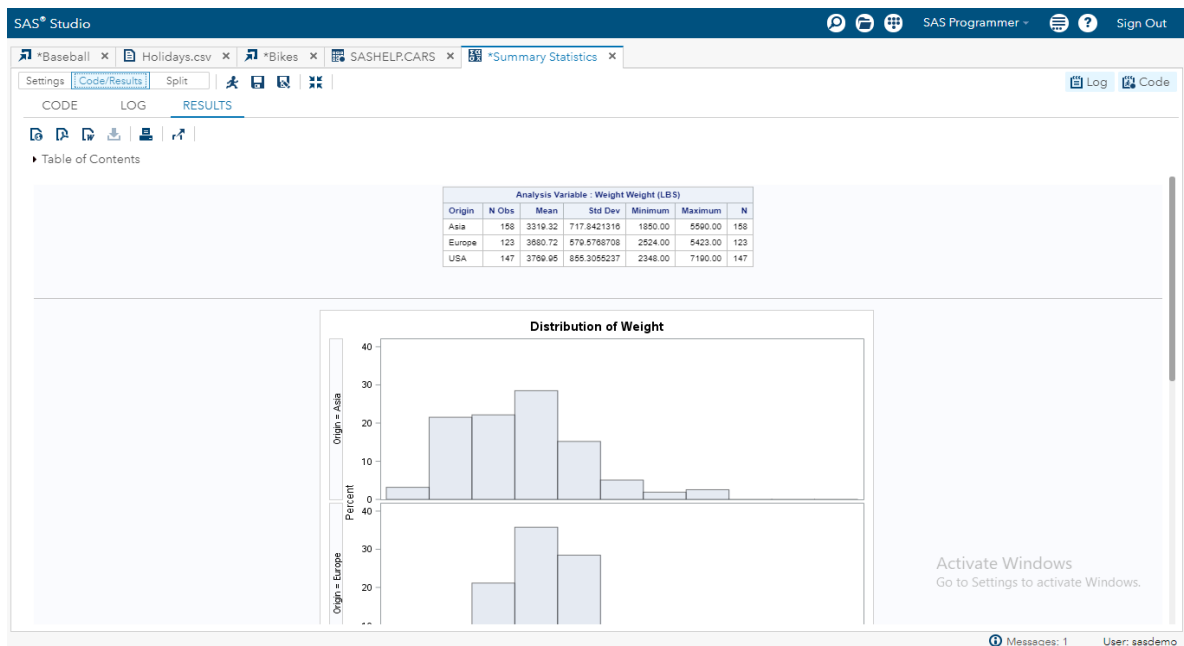
Conclusions:- in this lab I learned how to format the data which is easy to understand and that make sense like through this video I learned how to convert dates into DD/MM/YYYY format so that any one can understand the data easily and how to put \$ sign front of price value apart from that we can do many other things and make the data readable and easily understandable

5. Creating Graphs in SAS



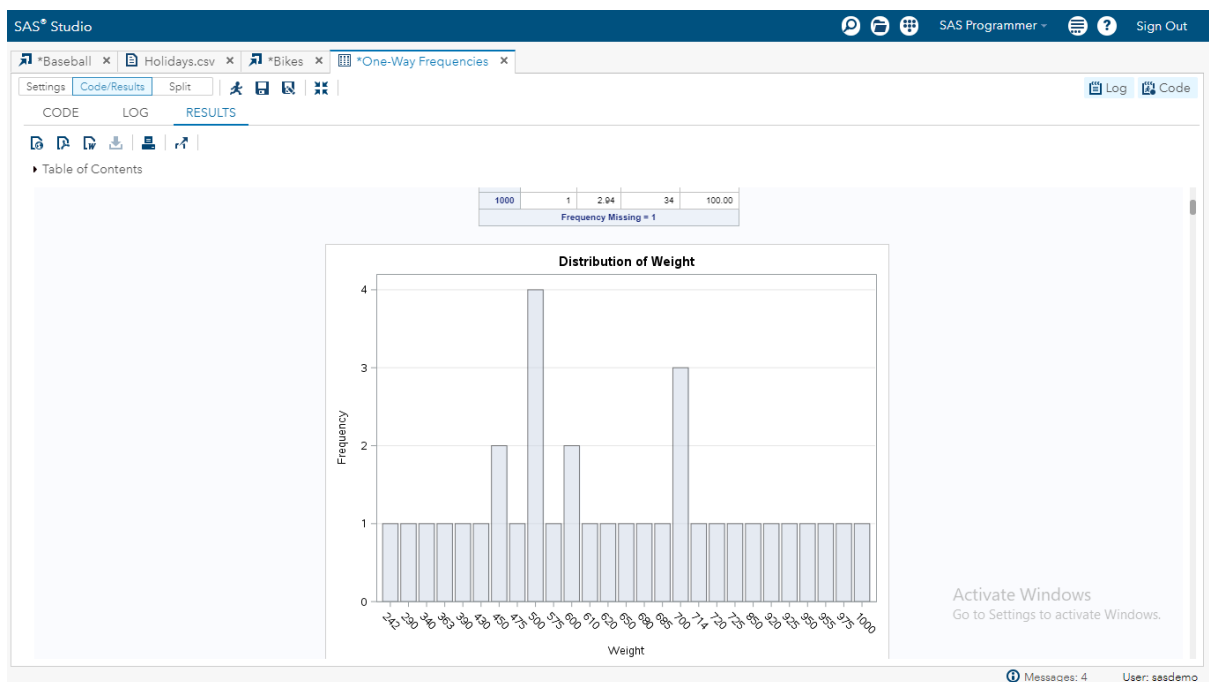
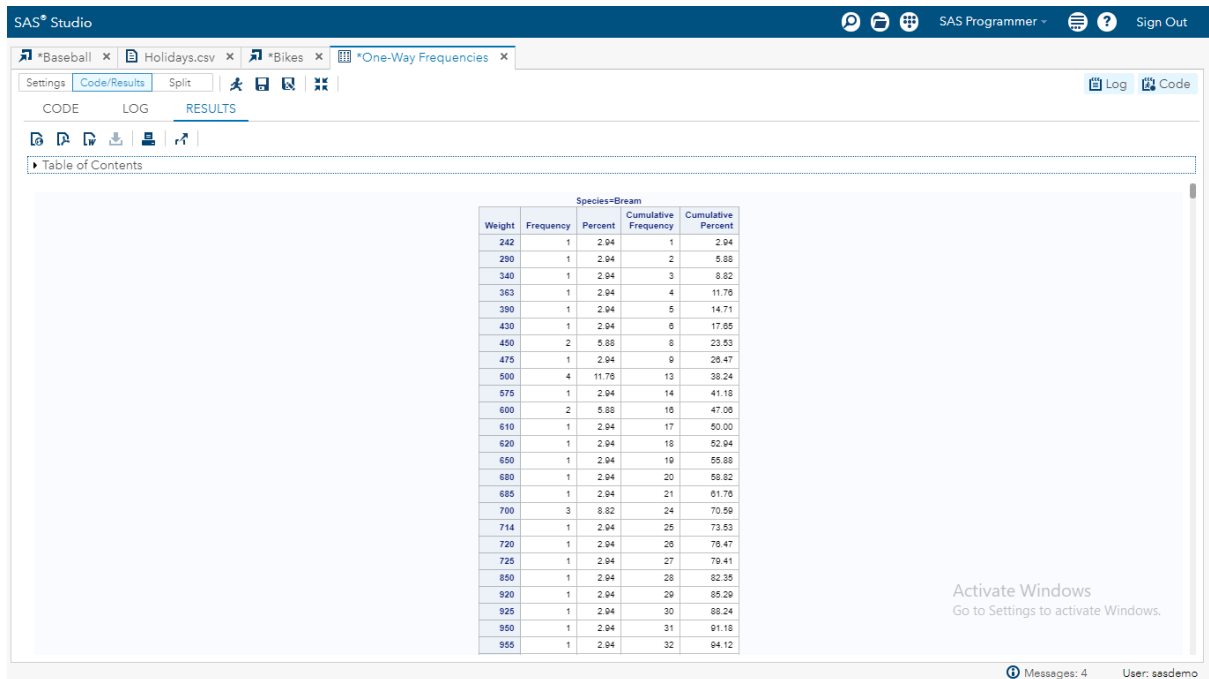
Conclusion:- in this lab I learned the visualization of the different type of graph for each data we need to know how to use appropriate graph or valuations in this lab visual analytics helping to understanding the all the visual analytics above pic I took the data of digital traffic I used line chart pie chart and bar graph to visualize my data with different colours so that it is more under stable in first look.

6. Summary Statistics



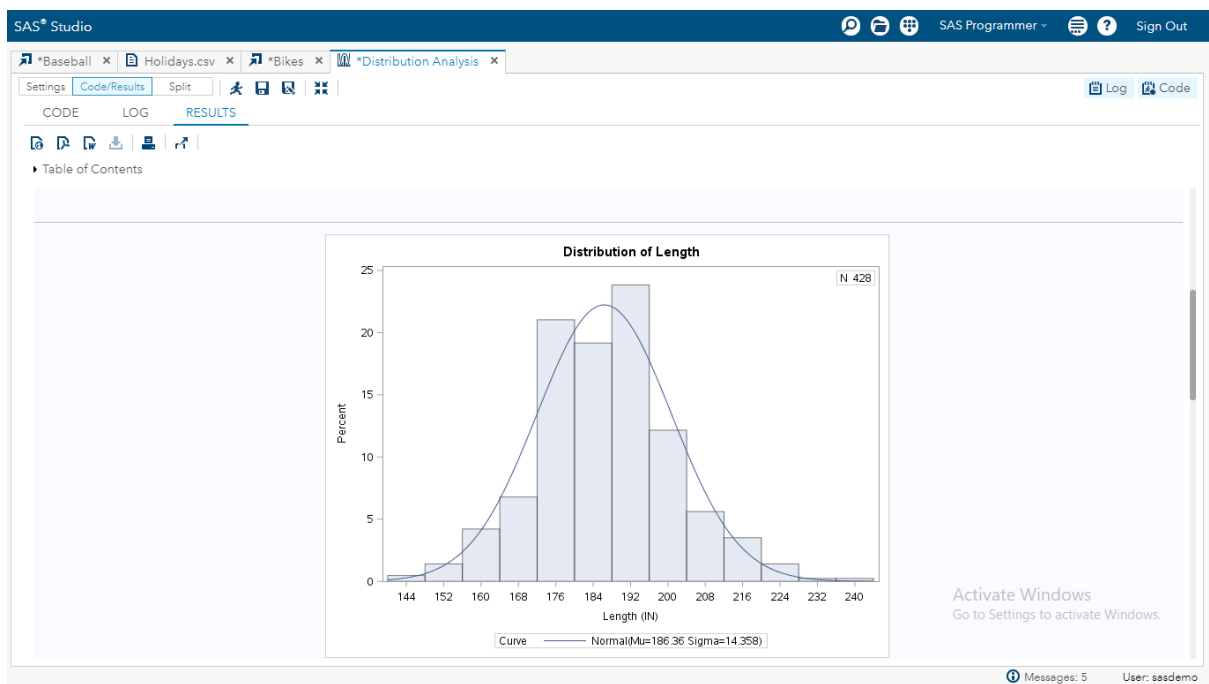
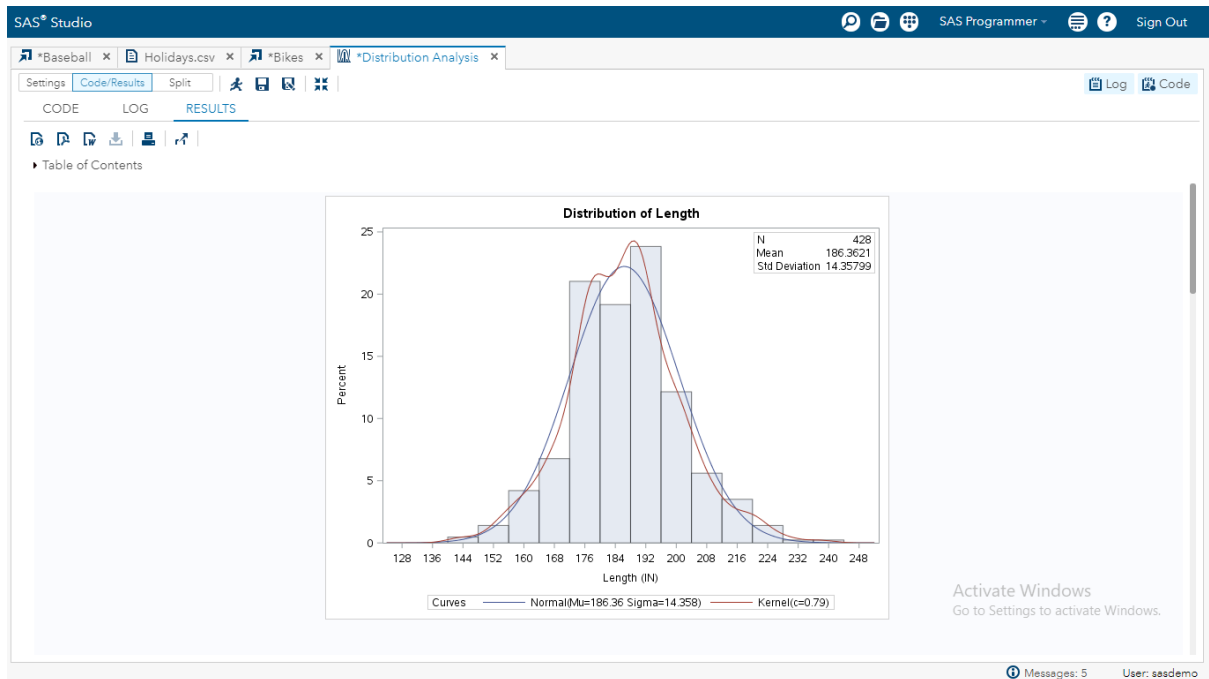
Conclusion:- In this lab I learned use of described statistics using SAS studio lab I used car data and calculated the mean , median , mode using summary statistics and generated the histogram we can see the relation in graph Sas studio is quickly do this complex maths problem and it's GUI fully fixable.

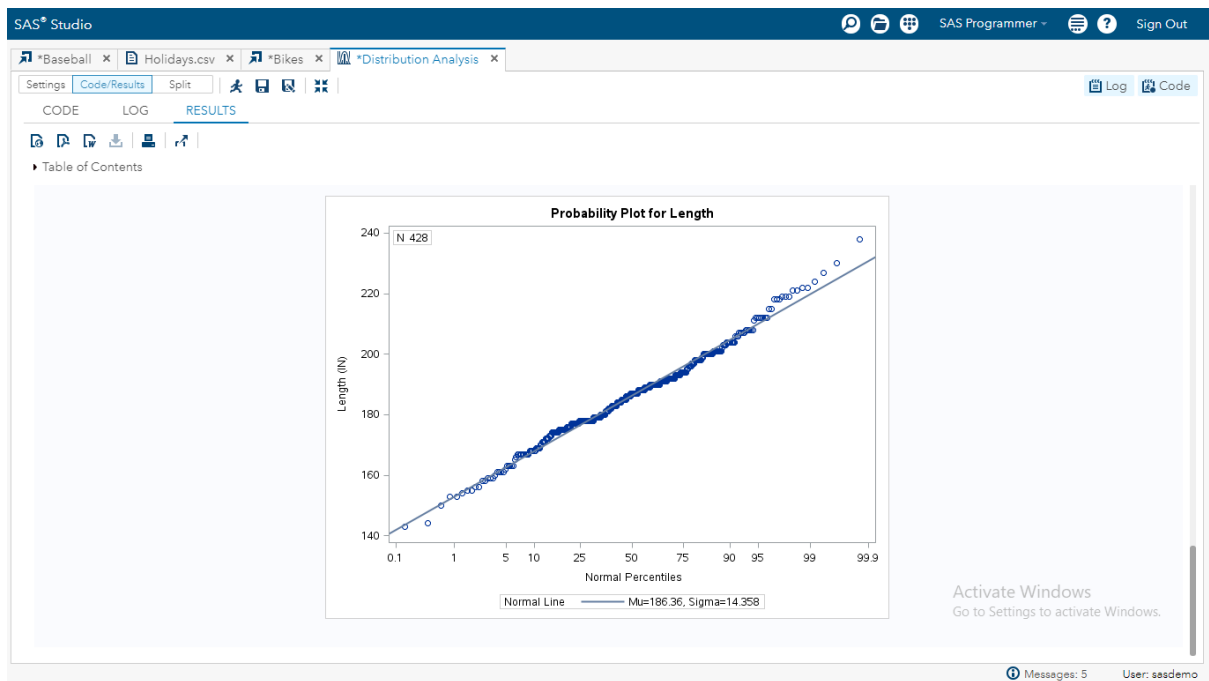
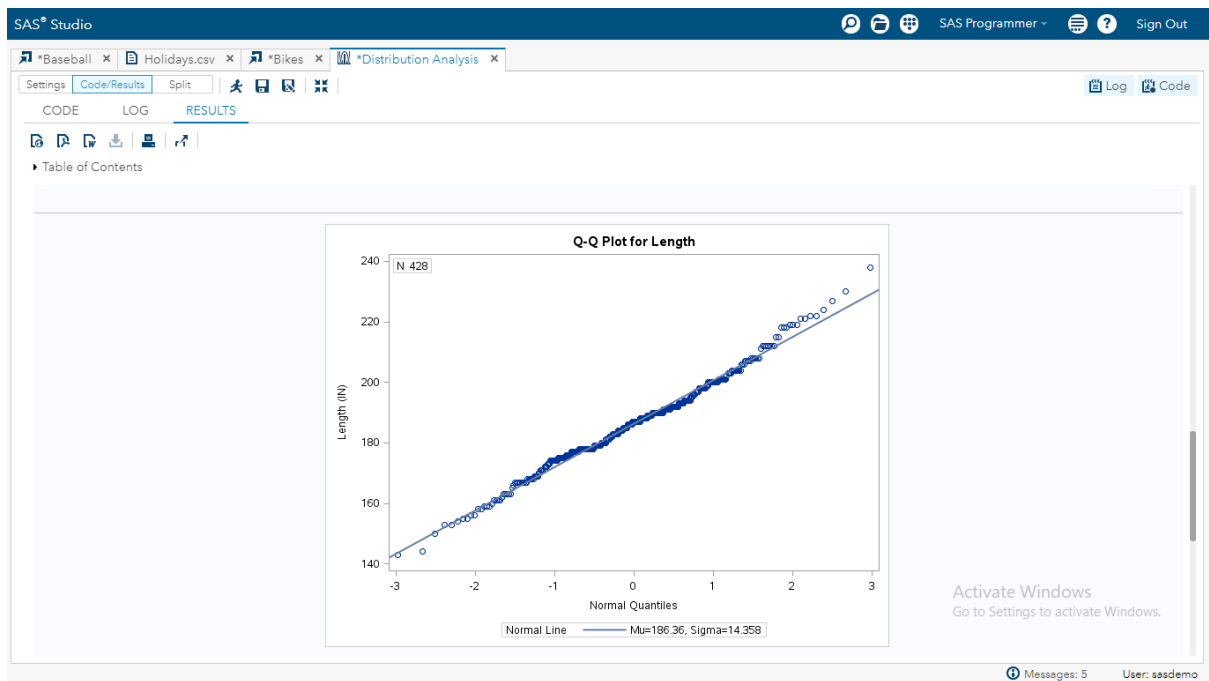
7. One Way Frequencies



Conclusion:- In this Lab I learned how to generate one way frequency task using this we can perform many tasks , in this case we import data and get the different frequency relation with different weight size we can also see the percentage and cumulative frequency in our output file.

8. Distribution Analysis





Conclusion:- In this video I learned distribution analysis I used cars data in this task and compared statistical and plot graph distribution , in this lab I compared cars length distribution data after all this analysis I personally find that SAS is really good and very power full business tool with all the required features

