



**Loyola - ICAM**  
**College of Engineering and Technology (LICET)**  
**(Autonomous)**

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**AIM :**

**PROCEDURE :**

**Step 1 :** Start Ms Excel application in Ms- office.

**Step 2 :** Open XLSTAT . Select the XLSTAT / Analyzing data / Principal components analysis command. The Principal Component Analysis dialog box will appear.

**Step 3 :** Select the data on the Excel sheet.

**Step 4 :** Select Observations/variables in the Data format field because of the format of the input data and Select Correlation in the PCA type field.

**Step 5:** In the Outputs tab, activate the option to display significant correlations in bold characters (Test significance).

**Step 6 :** In the Charts tab, in order to display the labels on all charts, and to display all the observations (observations charts and biplots), uncheck the filtering option.

**Step 7 :** If there is a lot of data, displaying the labels might slow down the global display of the results. Displaying all the observations might make the results unreadable. In these cases, filtering the observations to display is recommended

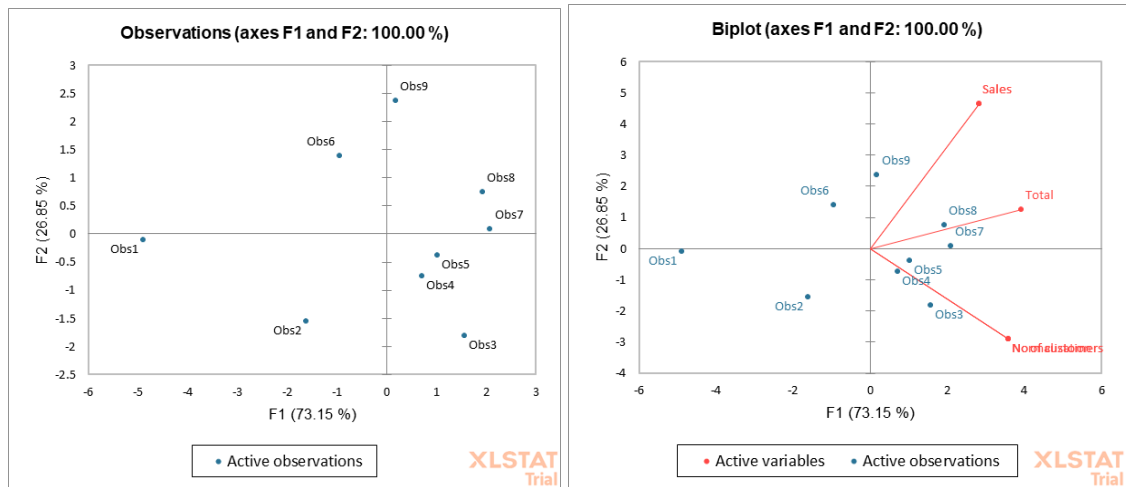
**Step 8:** Click OK to launch the computations.

**Step 7 :** Save the excel file and Close the Ms Excel application.

**INPUT :**

| Sno | Region  | State          | Branch | Month | No of customers | Sales | No of customers | Sales | Total |
|-----|---------|----------------|--------|-------|-----------------|-------|-----------------|-------|-------|
| 1   | South   | Kentucky       | A1     | Jan   | 32              | 10000 | 0               | 0     | 0     |
| 2   | West    | California     | A2     | Jan   | 45              | 12000 | 0.57            | 0.1   | 0.67  |
| 3   | South   | Florida        | A3     | Jan   | 55              | 18000 | 1               | 0.4   | 1.4   |
| 4   | West    | California     | A4     | Jan   | 50              | 20000 | 0.78            | 0.5   | 1.28  |
| 5   | South   | North Carolina | A5     | Jan   | 50              | 22000 | 0.78            | 0.6   | 1.38  |
| 6   | West    | Washington     | A6     | Jan   | 40              | 24000 | 0.35            | 0.7   | 1.05  |
| 7   | Central | Texas          | A7     | Jan   | 52              | 26000 | 0.87            | 0.8   | 1.67  |
| 8   | Central | Wisconsin      | A8     | Jan   | 50              | 28000 | 0.78            | 0.9   | 1.68  |
| 9   | West    | Utah           | A9     | Jan   | 41              | 30000 | 0.39            | 1     | 1.39  |

### OUTPUT :



### RESULT :