

Practical File

Name : Ganesh Agrhari

Subject : Predictive Analytics (BCADSN15301)

Class : BCA DS&AI; 33

Roll No. : 1230258126

Submitted To : Mr. Robin Tyagi

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Practical: 1

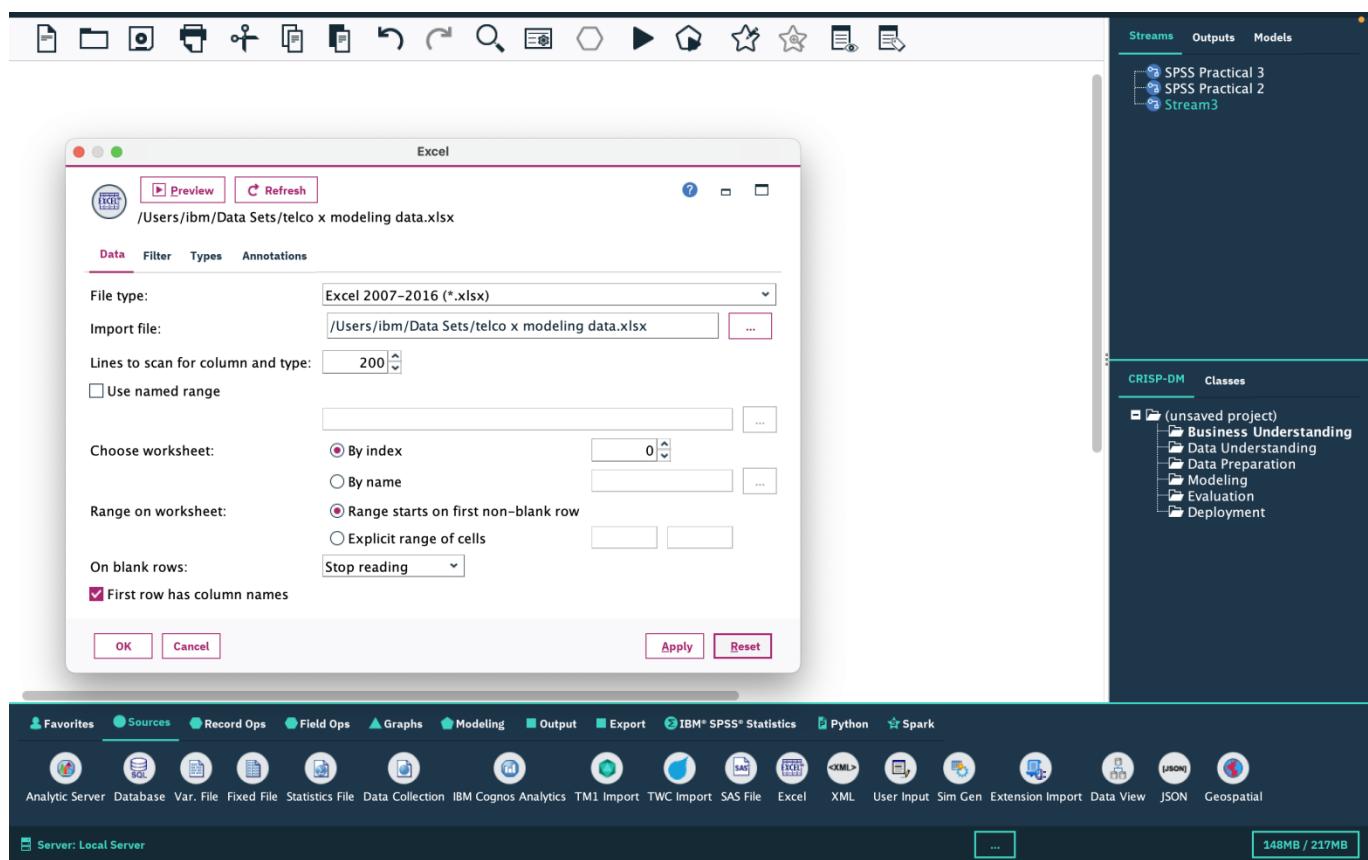
Definition: You want to become familiar with the IBM SPSS Modeler user interface that you will use to create and edit streams.

Outcomes/Learning: Through this process, we learned how to perform a basic data preparation workflow in IBM SPSS Modeler by importing a raw dataset, filtering out unnecessary fields, and viewing the cleaned data in a table format. The key outcome is a streamlined dataset containing only the relevant variables for further analysis.

Required Tool: IBM SPSS Modeler.

Working: This project file demonstrates a streamlined data preparation process using IBM SPSS Modeler. It imports raw data, filters for relevant fields, and outputs a clean, ready-to-use table for subsequent analysis.

Step 1: Import Data: The process begins by importing an Excel file named telco x modeling data.xlsx into the IBM SPSS Modeler.



Step 2: Filter Data: A Filter node is used to select specific fields from the imported data. In this case, fields like customer_id, data_known, gender, age, and churn were kept, while others like tariff and dropped_calls were discarded.

The screenshot shows the SPSS Modeler interface. A 'Filter' dialog box is open, displaying a list of fields being mapped from an input source named 'telco x modeling dat...'. The dialog shows the following mappings:

Field	Filter	Field
customer_id	→	customer_id
data_known	→	data_known
gender	→	gender
age	→	age
tariff	X →	tariff
dropped_calls	X →	dropped_calls
handset	X →	handset
peak_mins	X →	peak_mins
peak_rate	X →	peak_rate
bill_peak	X →	bill_peak

Below the table, there are two radio buttons: 'View current fields' (selected) and 'View unused field settings'. At the bottom of the dialog are 'OK', 'Cancel', 'Apply', and 'Reset' buttons. The status bar at the bottom of the interface shows 'Server: Local Server' and memory usage '146MB / 217MB'.

Step 3: View Results: A Table node is connected to the Filter node to display the filtered data.

The screenshot shows the SPSS Modeler interface with a stream diagram and an execution feedback dialog.

Stream Diagram:

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graph LR; A[telco x modeling dat..] --> B{Filter}; B --> C[Table]
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Execution Feedback Dialog:

Please wait, executing...

Node	State
Table	Running

Time elapsed 00:00:07 (Stop Execution)

Close dialog once execution is complete

Toolbar: Includes icons for File, Edit, View, Insert, Tools, Window, Help, and various data manipulation and visualization tools.

Left Panel: Streams, Outputs, Models, and CRISP-DM/Classes navigation.

Bottom Status Bar: Server: Local Server, Records In : 15,000, Records Out : 15,000, and Memory usage: 146MB / 217MB.

Step 4: Execute and Display: The execution of the stream is initiated, and the final output is a table showing a preview of the data with the selected fields.

