Babu Banarasi Das University

Predictive Analytics

BCADS15301

LAB FILE

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Sr. No.	Name of Experiment	Date	Faculty signature	Remarks
1	DEMONSTRATE THE USE OF NODES IN SPSS FOR IMPORTING A DATASET, APPLYING DATA FILTERS TO SELECT SPECIFIC RECORDS, AND EXPORTING THE FILTERED RESULTS.	04/09/25		
2	DEMONSTRATE HOW TO USE NODES IN SPSS TO GATHER INITIAL DATA FOR A TELECOMMUNICATIONS COMPANY.	08/09/25		
3	CREATE A DATA-MINING PROJECT TO PREDICT CHURN IN TELECOMMUNICATIONS FIRM.	09/09/25		
4	DEFINE THE UNIT OF ANALYSIS FOR THE TELECOMMUNICATIONS DATASET IN SPSS USING NODES.	12/09/25		
5	SHOW THE INTEGRATION OF TELECOMMUNICATIONS DATASETS USING SPSS.	24/09/25		
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Practical-3:-

Definition:- Customer Churn Prediction is a data mining task where the goal is to identify customers who are likely to leave (churn) a telecommunications service provider.

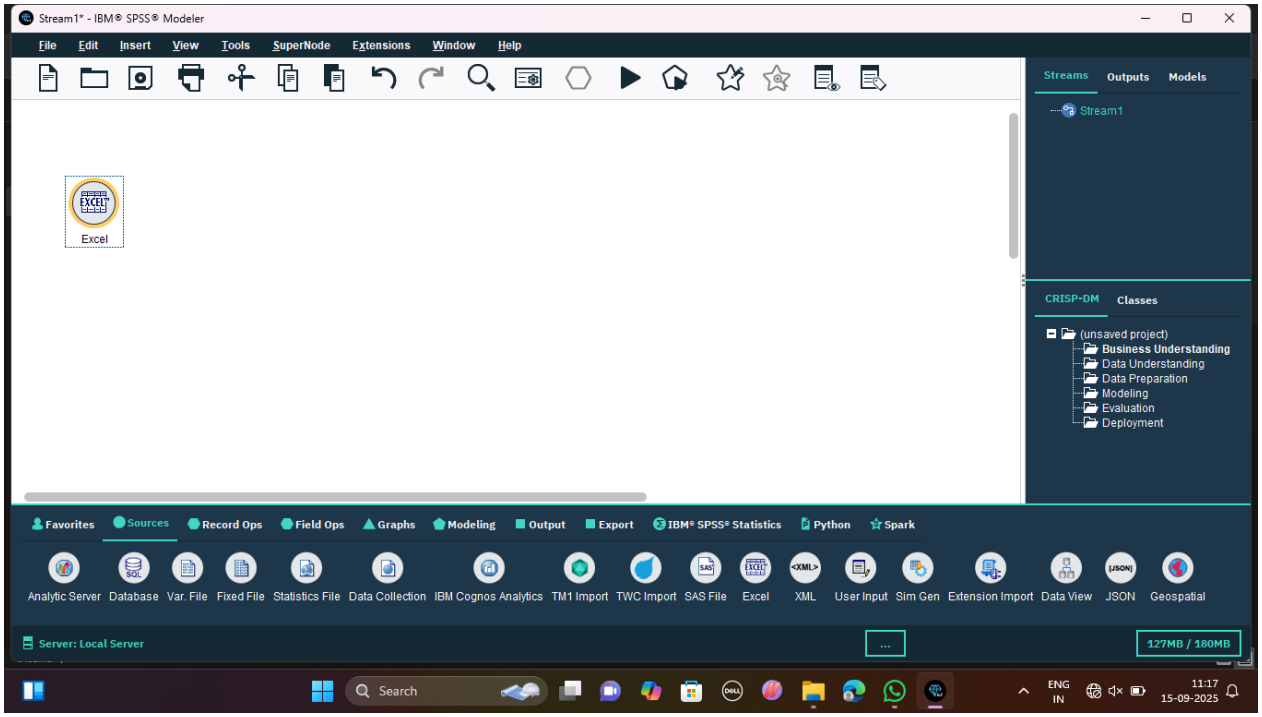
Dataset:- telco x deployment data.xlsx
telco x modeling data.xlsx

Outcomes/Learning:-.Used to learn the data clean, train model, predict , evaluate and export it.

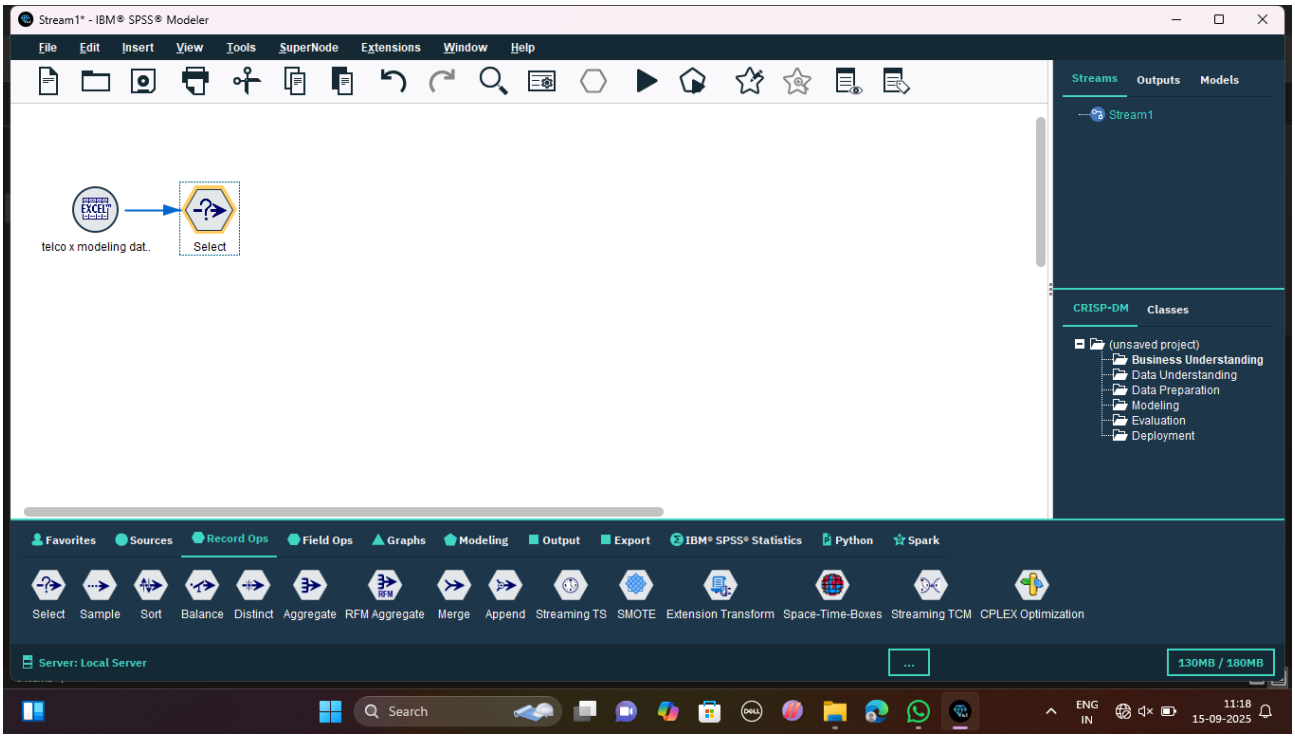
Required tools:-IBM spss Modeler tool.

Working:-We used the modelling node and type node and many other for churn prediction on telecommunication dataset.

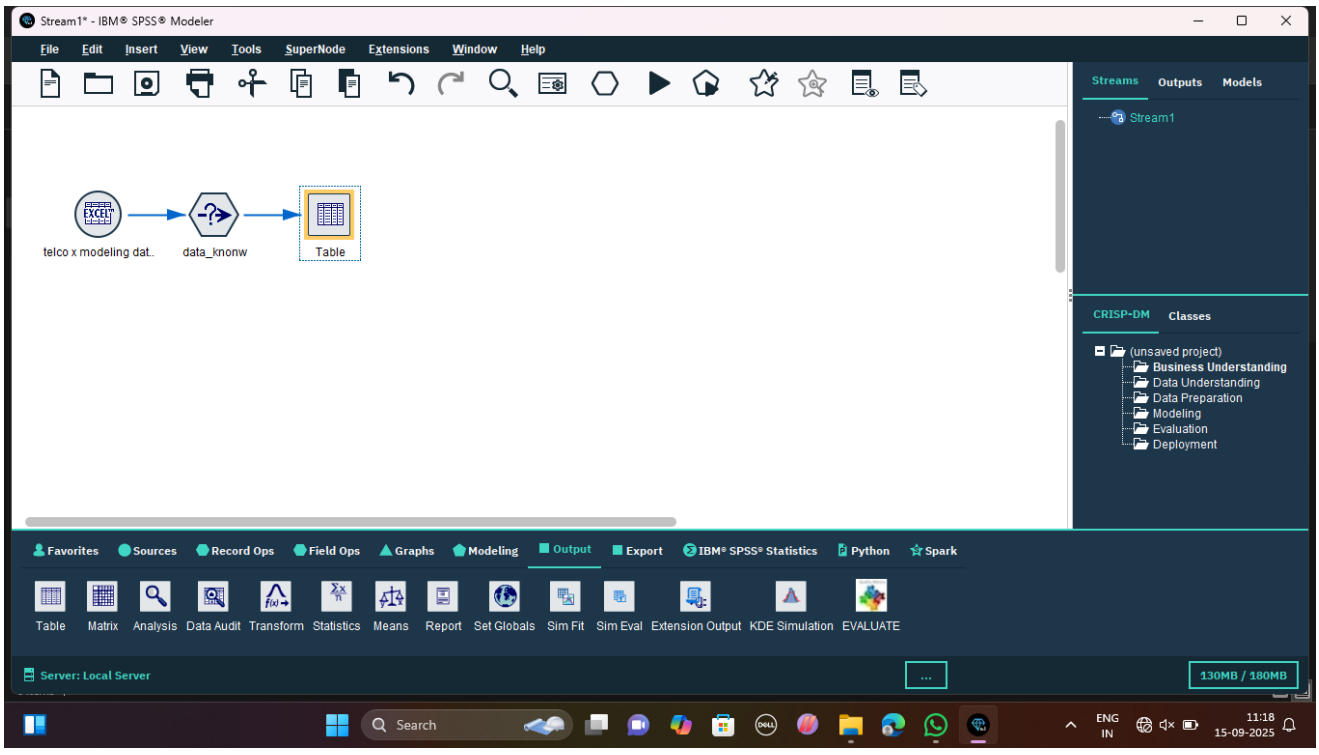
- **Step – 1:** Open the spss modeler tool then go to source category and double click the Excel node to open on the canvas and import the telecommunication dataset data in that node.



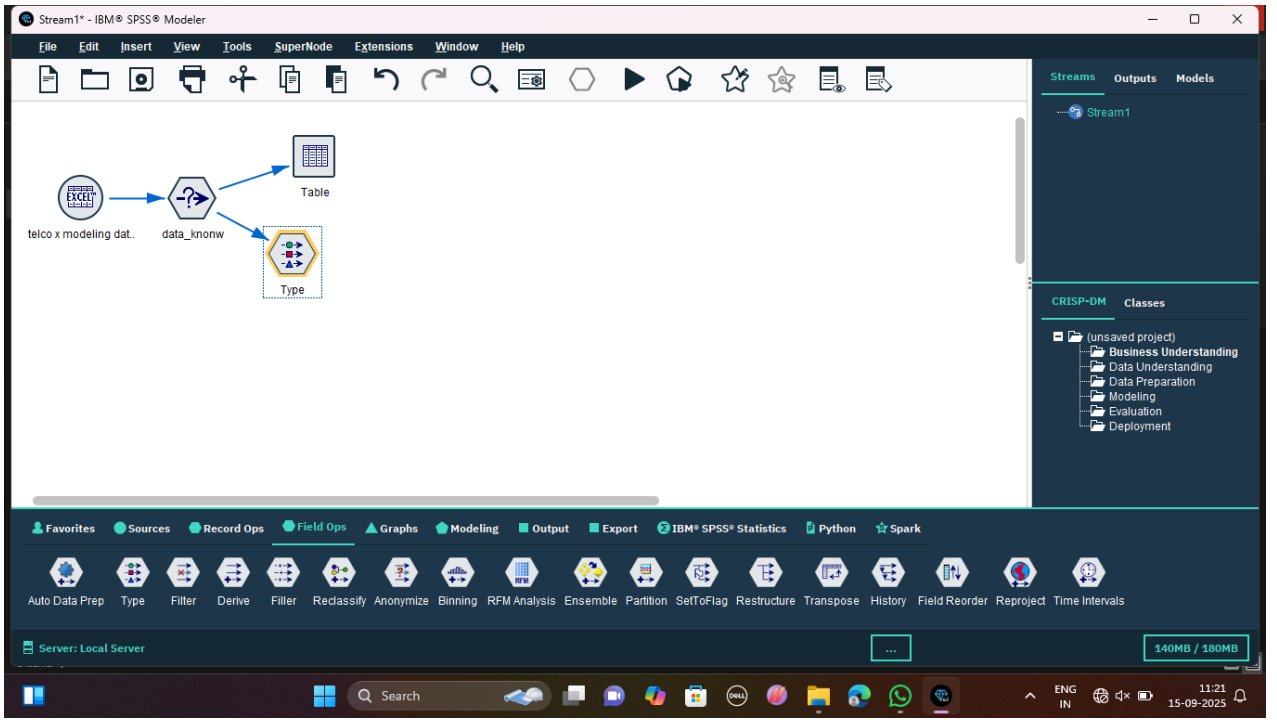
Step-2: We used the record ops to select the valid data that we want to as a output ,for this we open the select node to select the valid data .
For valid data selection we write:- data_known = “yes”



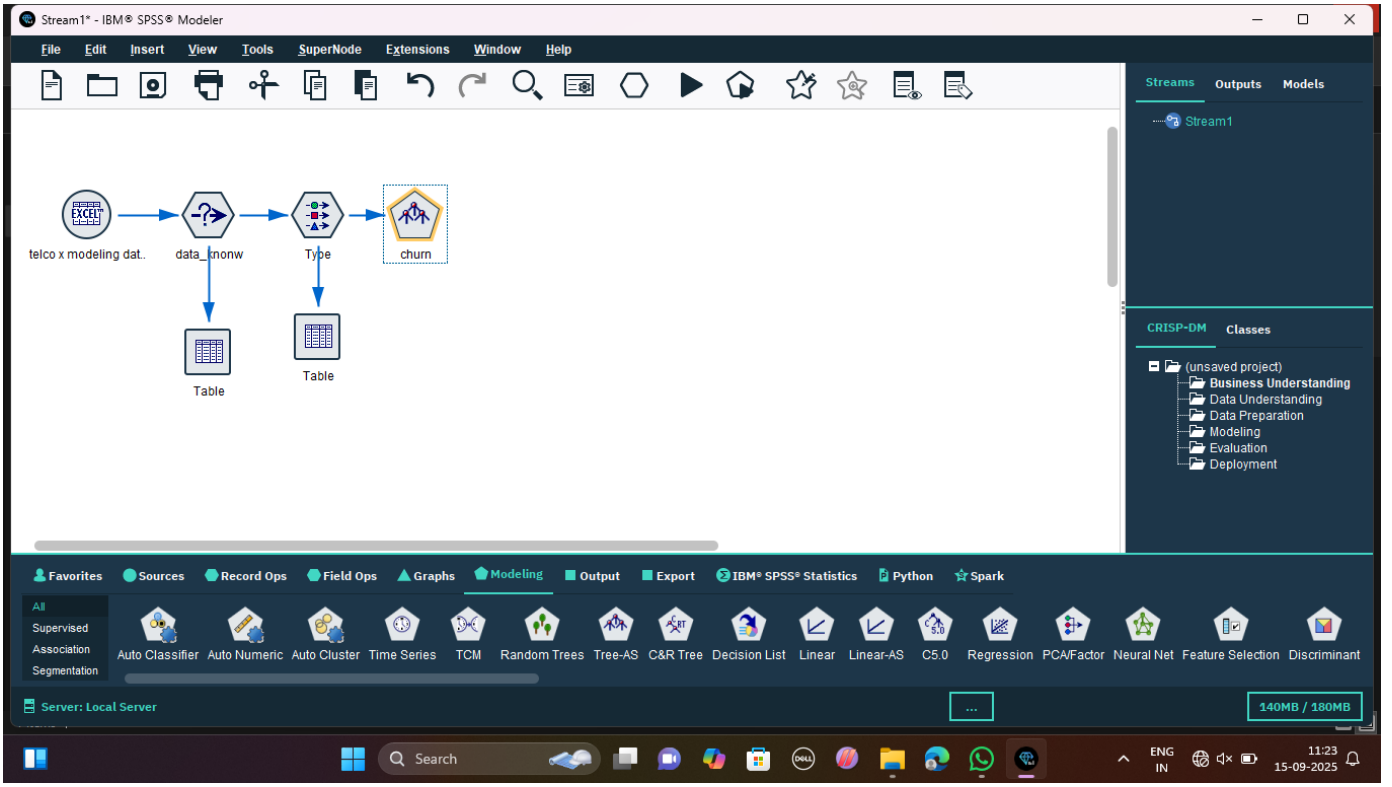
Step-3 : Now we add a table to see the result or output so, we go to the output category and select table node then connect to the select node to present the output in table format...



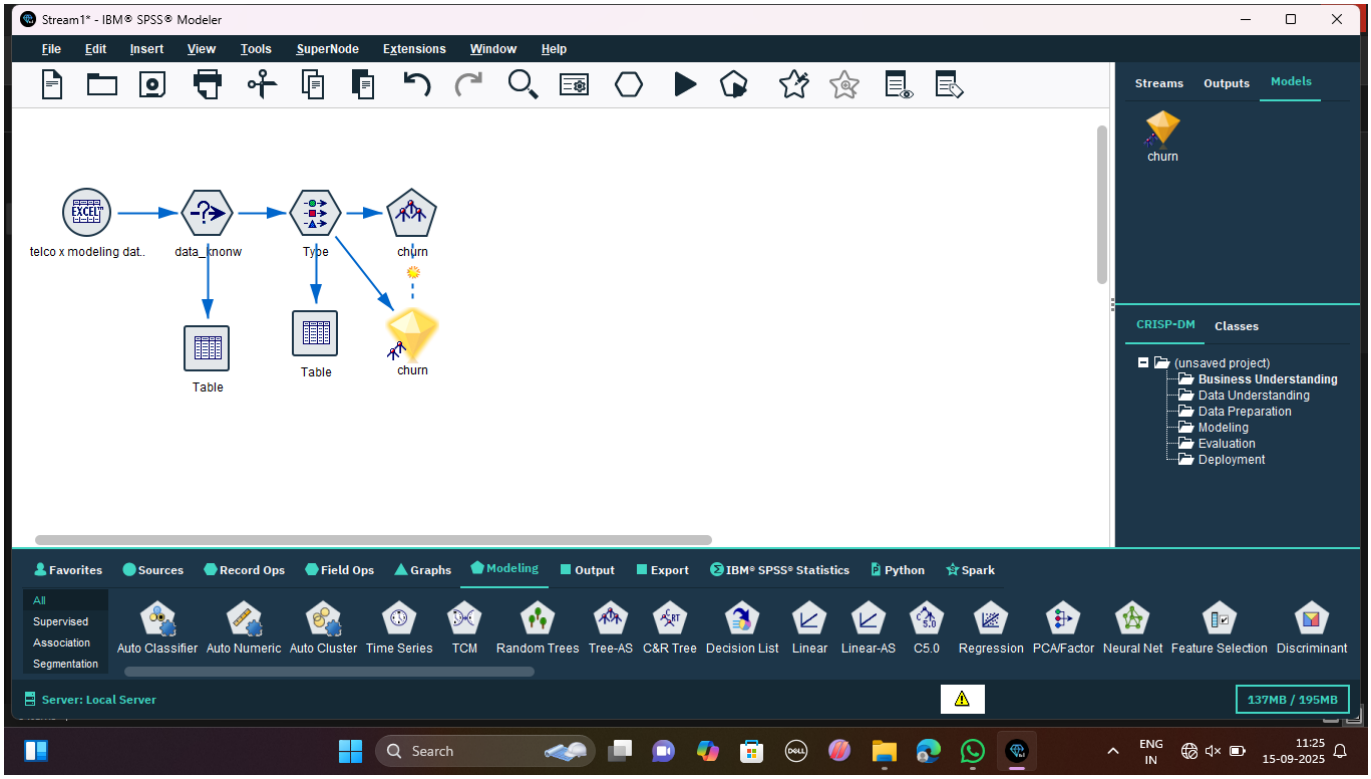
Step-4: We used the field category to select the type node . In the type node we select some input data like- data_known , age , gender , handsets and put the churn as target value.



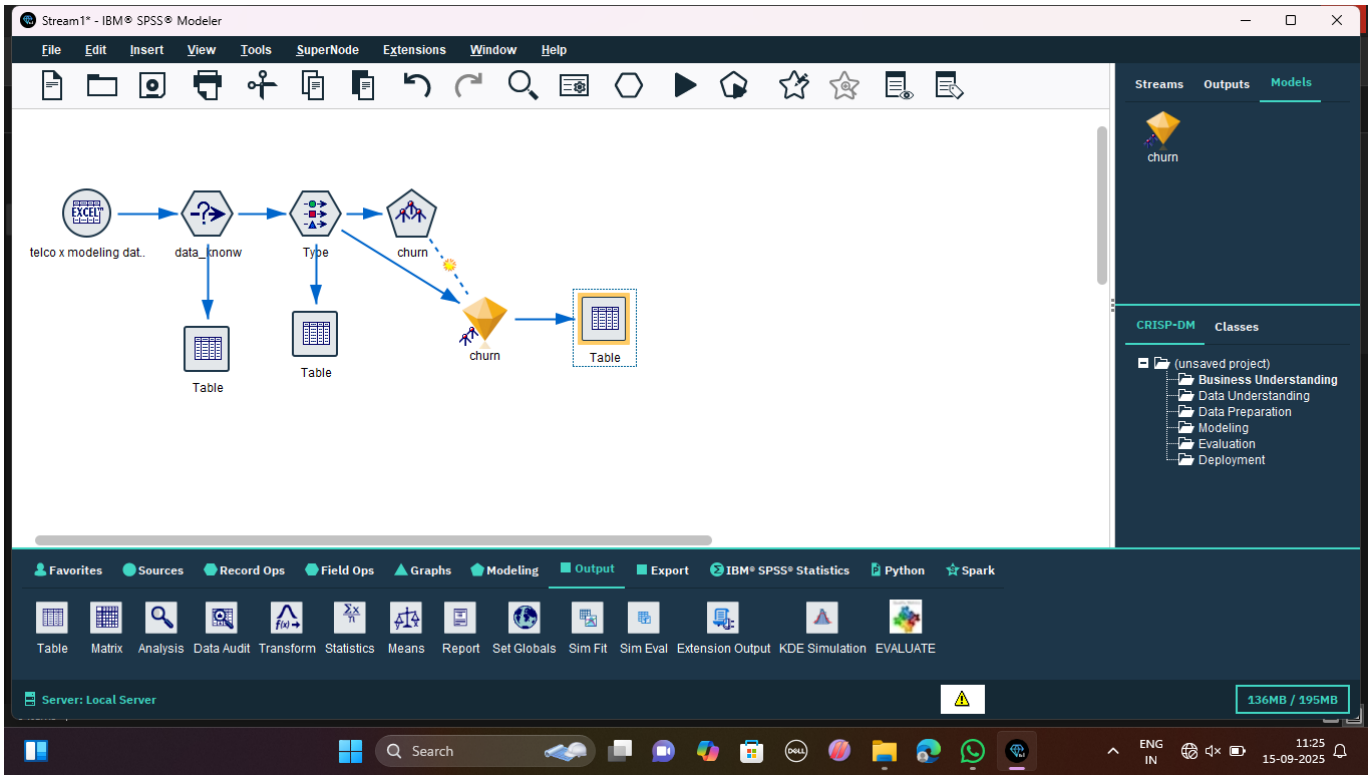
Step-5: We add the churn node from the modelling category . We used this to apply that value which we select as input in type node and target value.



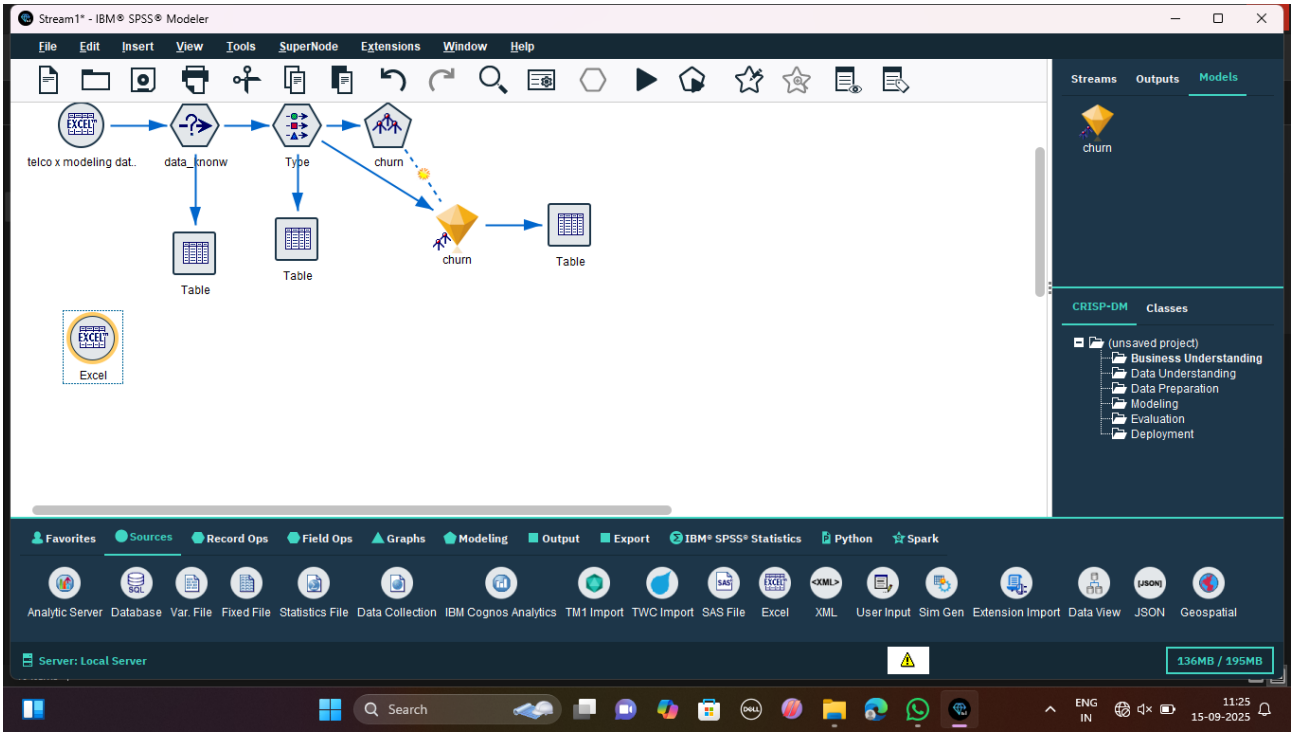
Step -6: After this we run the churn node from right click then click run to create a churn or nugget.



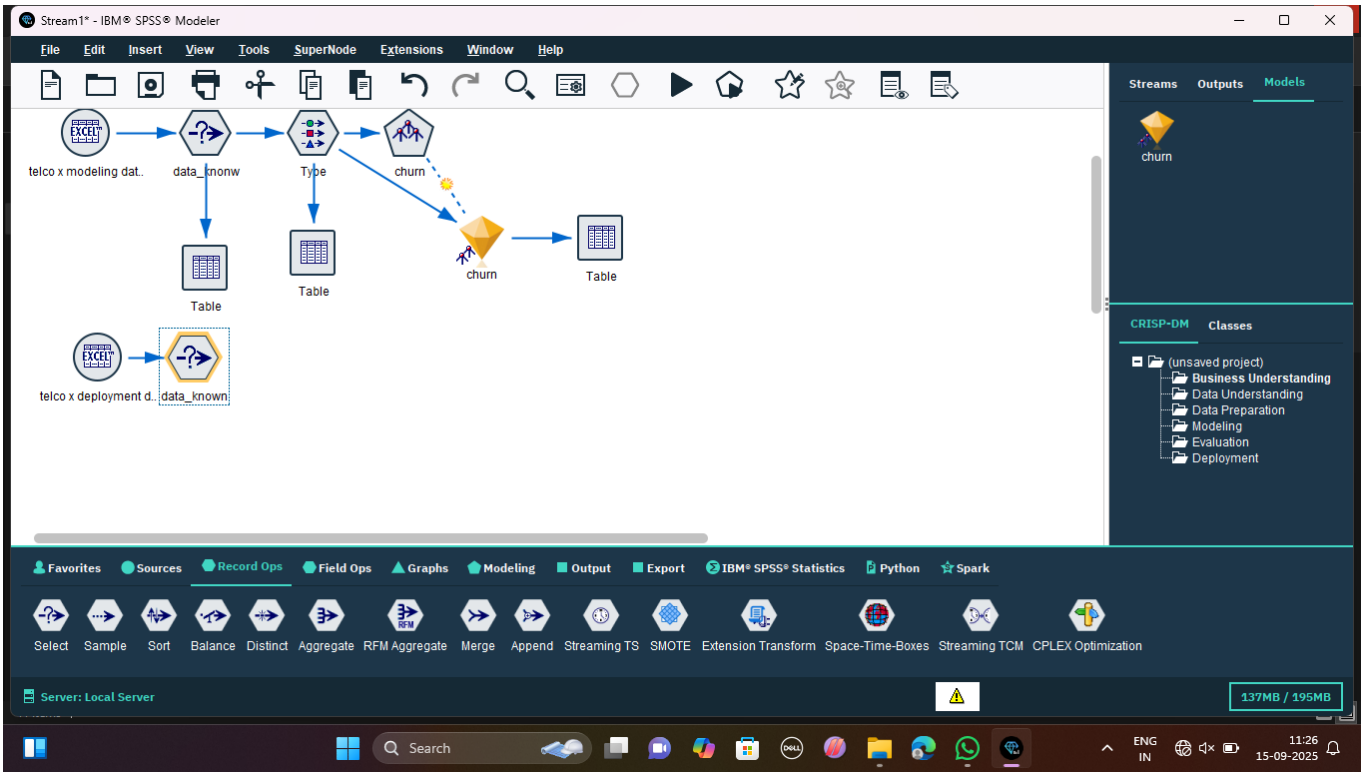
Step-7: we add a table to check that the churn we create which create a churn field or not . Like- $R-churn, $RC-churn, $RI-churn.



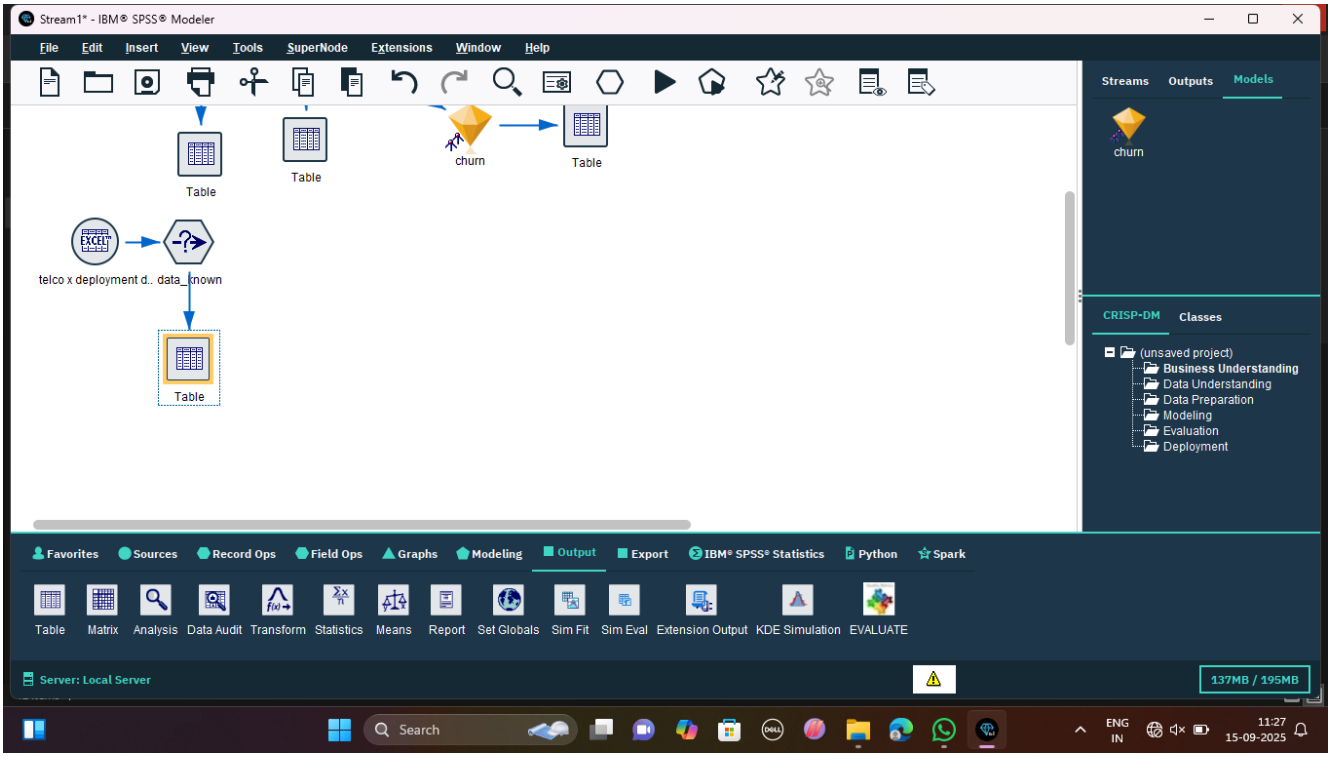
Step-8: We again take a excel node to import a deploying data of telecommunication.



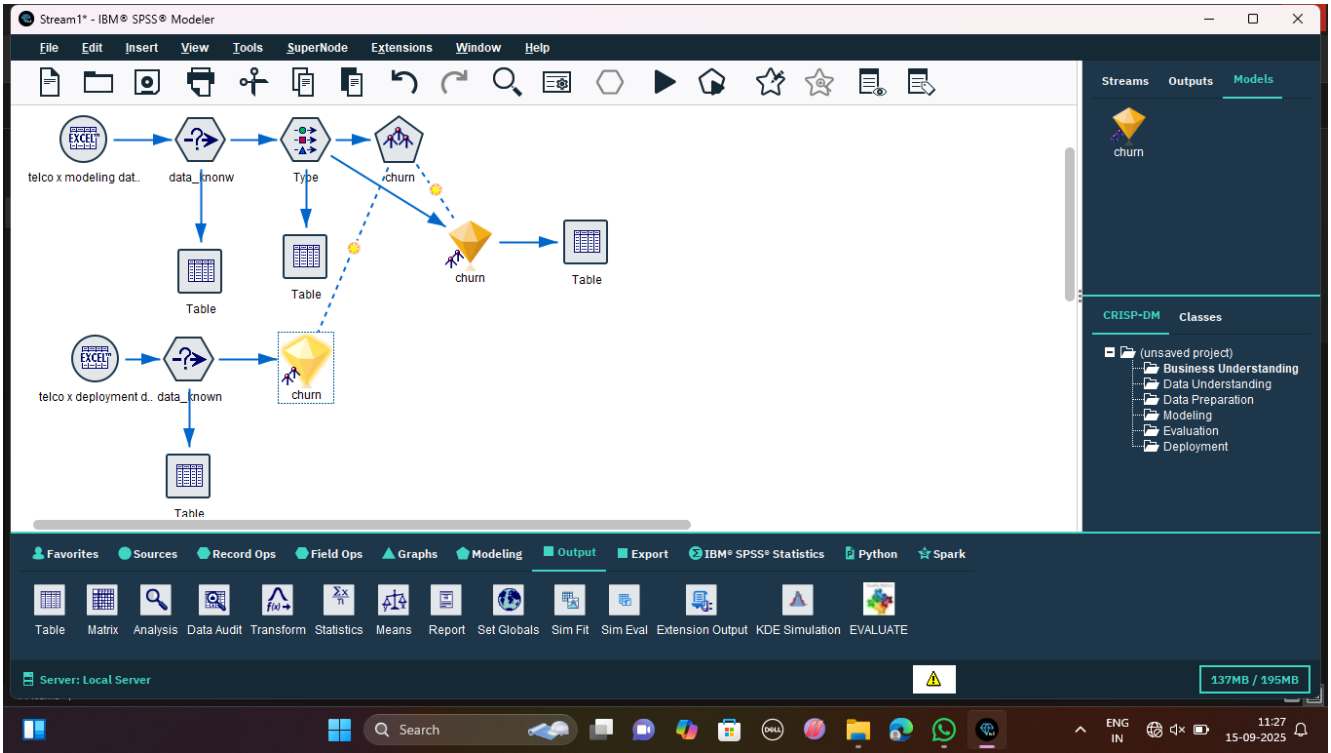
Step-9: We connect a same select node as the we connect before the modelling data. Write the include data and apply it.



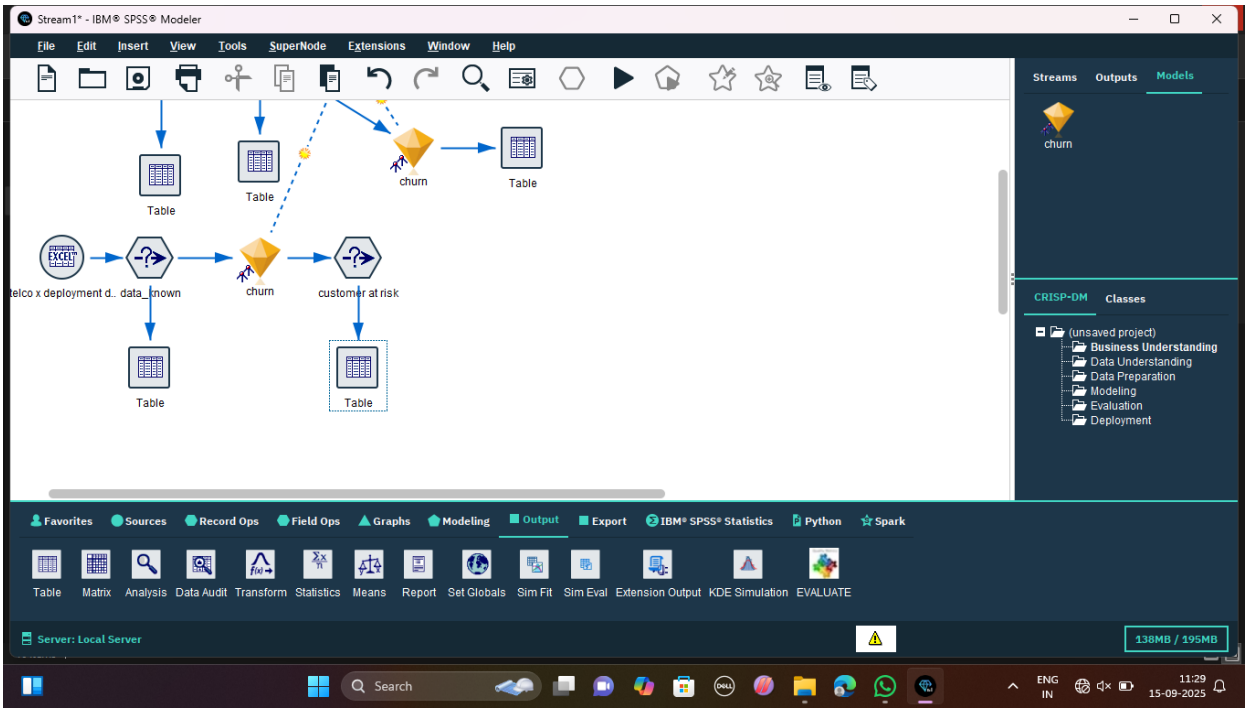
Step-10: We connect the table to run the select node that we used to select the valid data .



Step- 11 : When we used one time churn on a canvas then we don't need to again connect the churn node just go to churn nugget right click it and click copy node then paste at the canvas and connect to the select node .

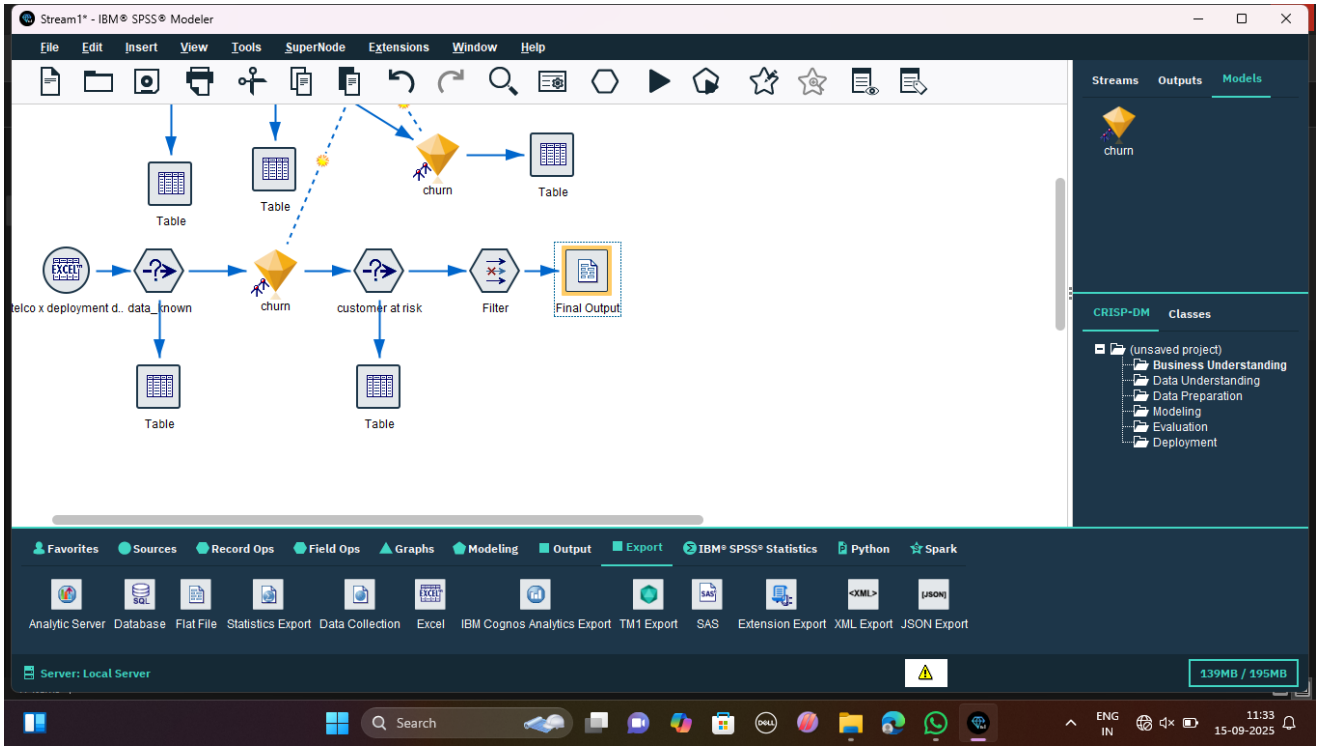


Step-12: We connect a select node to the customer at risk which means we select a customer based on the probability of churn . Like we write:- '$R-churn' = "Churned" '$RC-churn' > 0.94. then connect a table to see the data.

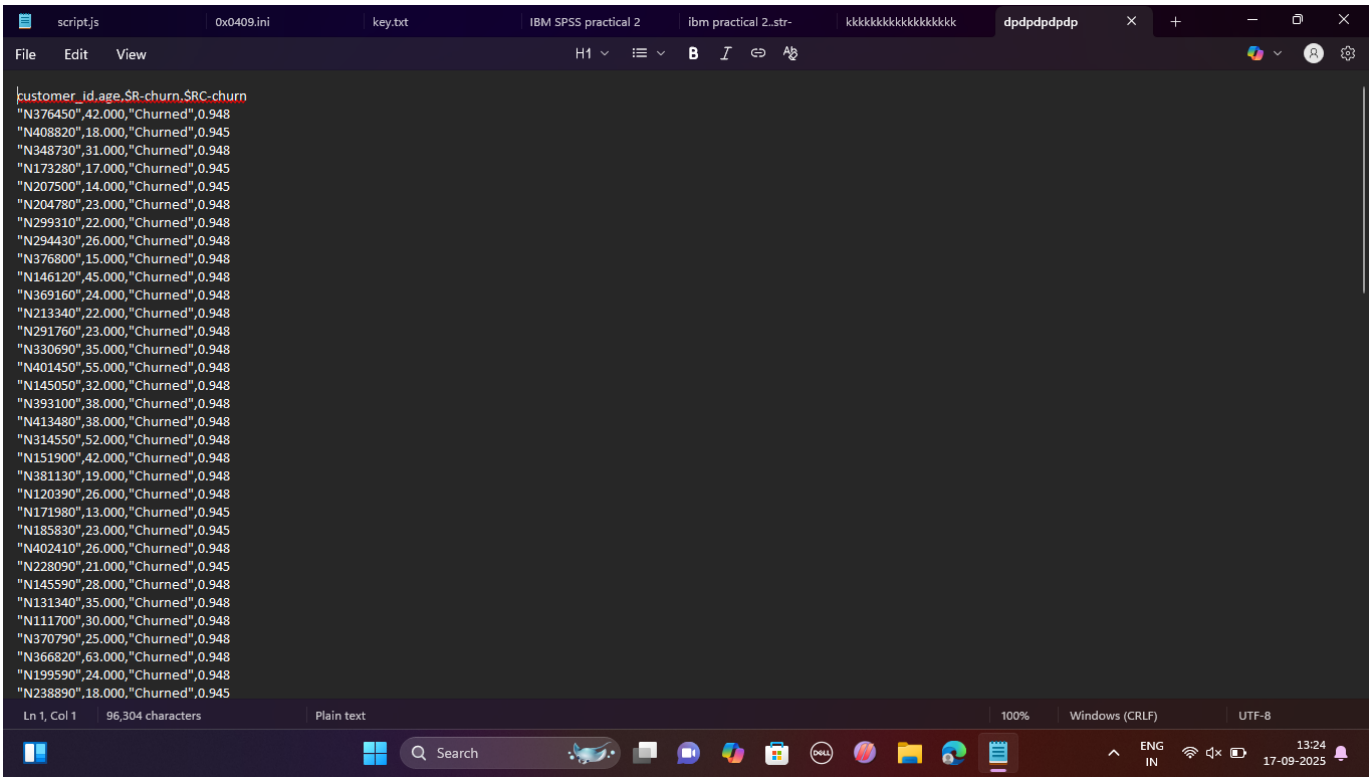


Step-13: We go to field category to add the filter node to filter the data means which field we want to see as final output . and we connect a flat file from the export to see the final output .

In final output we give the path of data and apply and save it by this we can see and read the data in notepad , word , etc.



Step-14: After the export the data by giving the path . Save saw our selected or final data on notepad .



Here our final output of our data set in notepad .