Babu Banarasi Das University

BBD UNIVERSITY

Case Study on Hospital staffs schedule using SPSS

SUBMITTED TO:

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PRACTICAL

Definition:- As a data miner in a hospital, I wanted to show relationships between two categorical fields, one categorical and one continuous field and two continuous fields.
Used the set to flag node, derive node and reclassify node to enhance the data.

Dataset used:- staff_schedule.csv

Outcomes/Learning:- Understood the use of graphs such as distribution graph, plot, histogram and outputs such as matrix, statistics, means.
Also, gained experience that how to derive field from existing fields using derive node, the use of reclassify and set to flag.
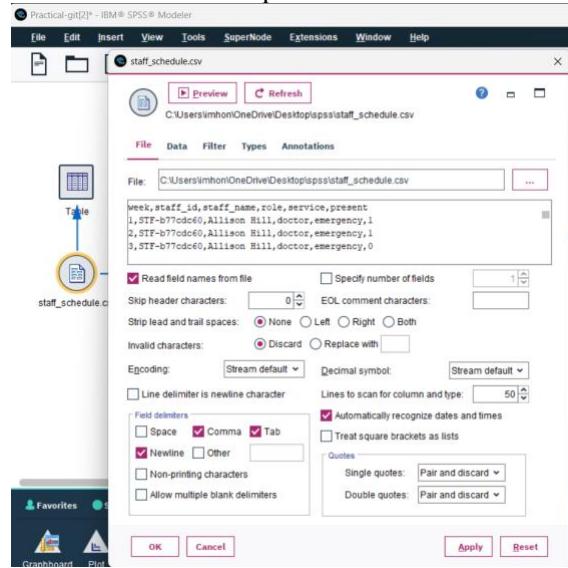
Required Tool:- IBM SPSS MODELER.

Working:-
- To examine the relationship between two categorical fields:
  For tabular output, use a Matrix.
  For graphical output, use a Distribution chart.
- To examine the relationship between one categorical field and one continuous field:
  For tabular output, use Means.
  For graphical output, use a Histogram.
- To examine the relationship between two continuous fields:
  For tabular output, use Statistics.
  For graphical output, use a Plot.
- And also gained the knowledge of how to work with derive, reclassify and set to flag node.

Step 1:-
Choose var file and upload the dataset from the saved location. Further click on apply and ok.

Step 2:-
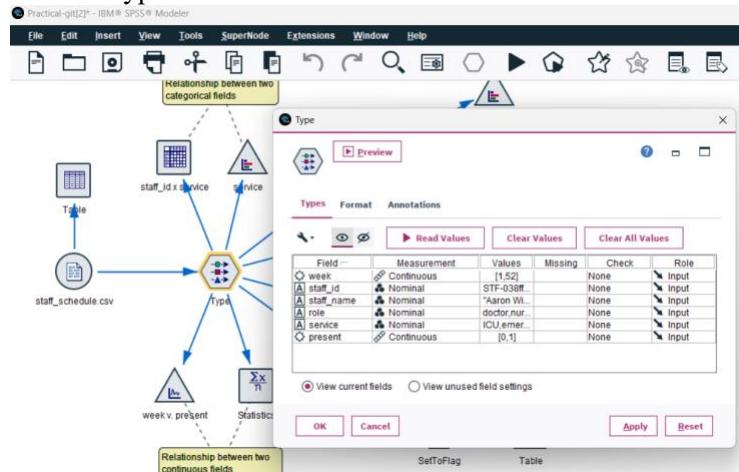
Connect table with the dataset and click on run to run the values.

Step 3:-
Connect type node with the dataset.
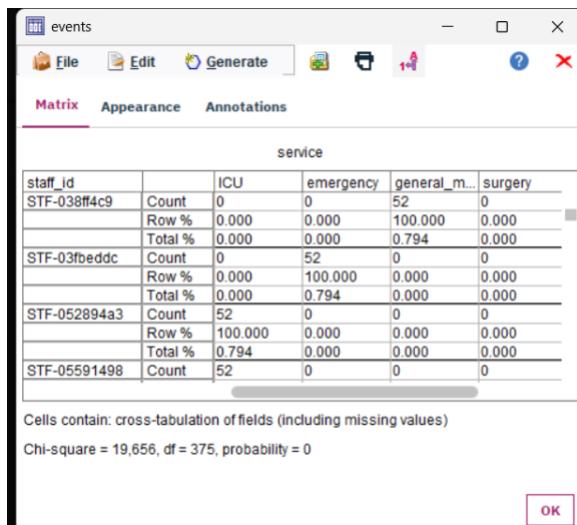
Step 4:-
Connect matrix node with the type node. Mark staff_id as row and service as column. Click apply and ok.
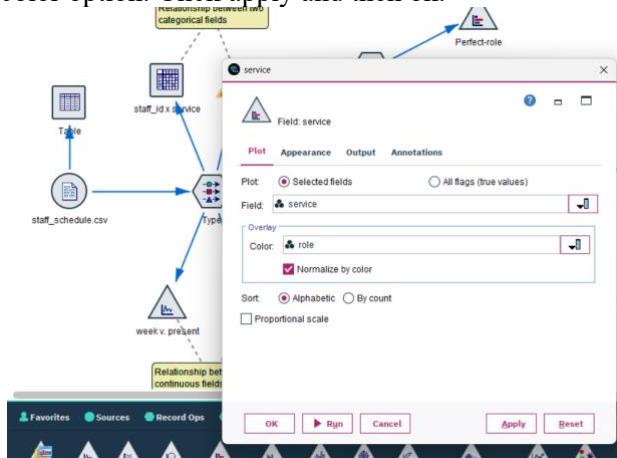
**Step 5:-**
Double click on the matrix node and run the values.
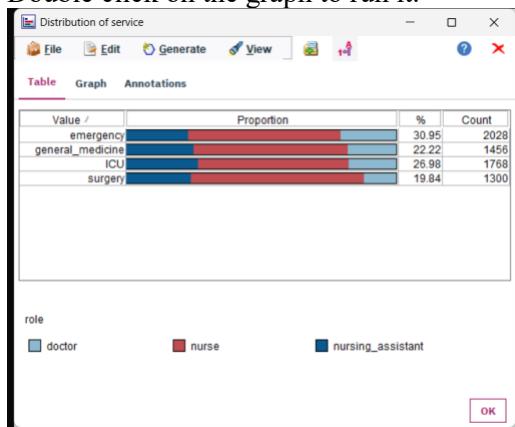
Step 6:-
Connect distribution graph node with the type node. Select field as a service and choose normalize by color option. Click apply and then ok.
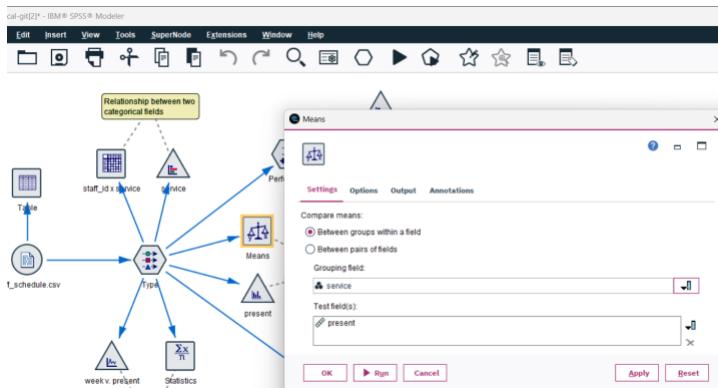

Step 7:-
Double click on the graph to run it.
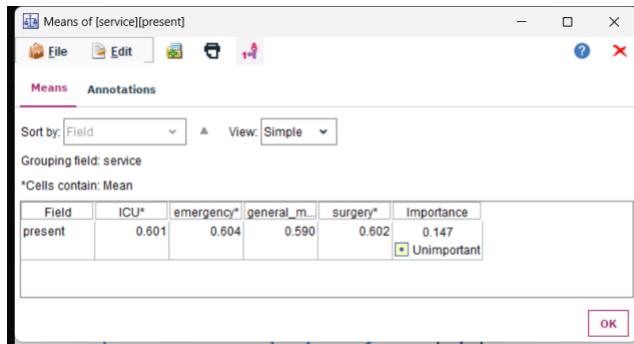
Step 8:-
Connect means node with the type node. Choose service as a grouping field and present as a test field. Click apply and then ok.
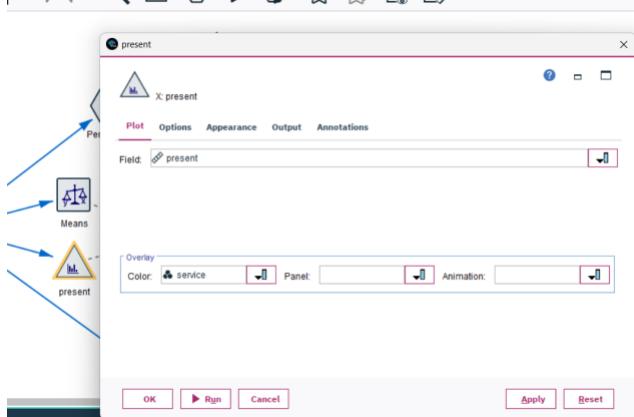
## Step 9:-

Double click on the means node and run the values.
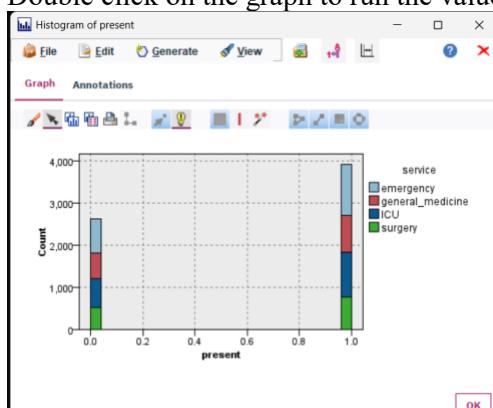
Step 10:-

Connect histogram graph node with the type node. Select field as a present. Click apply and then ok.
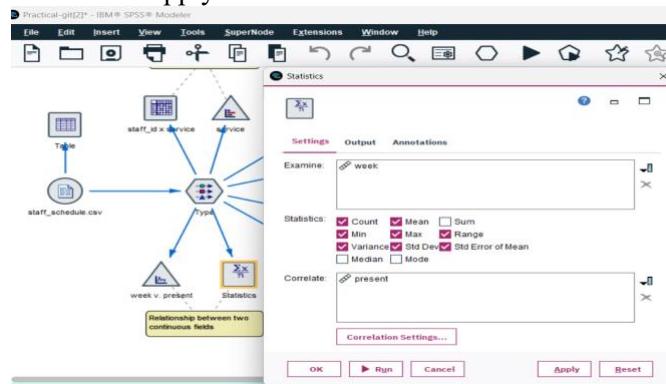

Step 11:-

Double click on the graph to run the values.
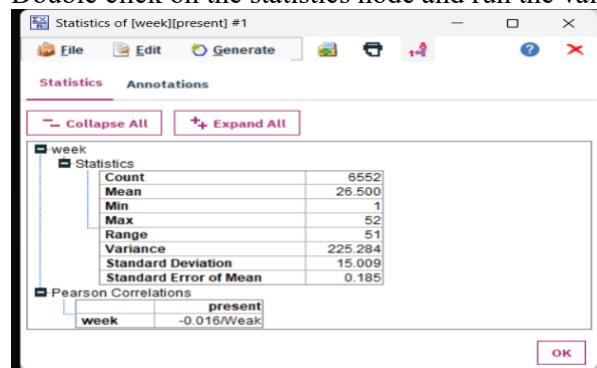
Step 12:-
Connect statistics node with the type node. Choose week as a examine field and present as a correlate field. Click apply and then ok.
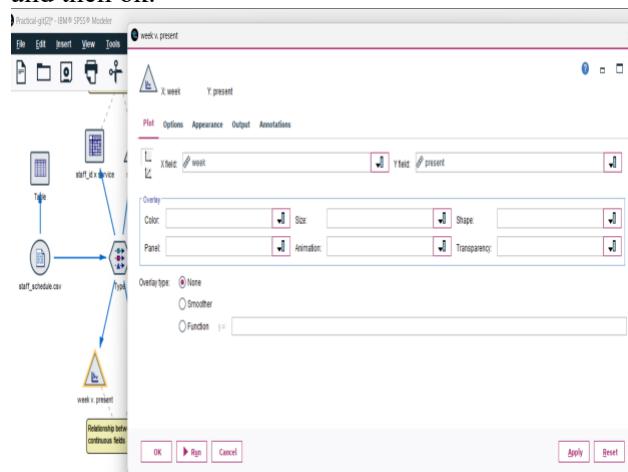

Step 13:-
Double click on the statistics node and run the values.
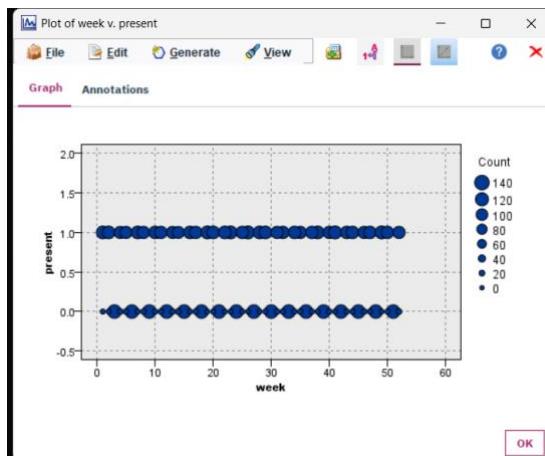
Step 14:-
Connect plot graph node with the type node. Select x-field as week and y-field as present. Click apply and then ok.


**Step 15:-**
Double click on the graph to run the values.
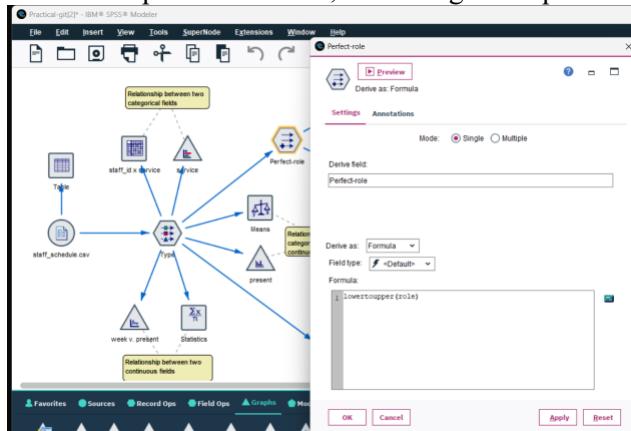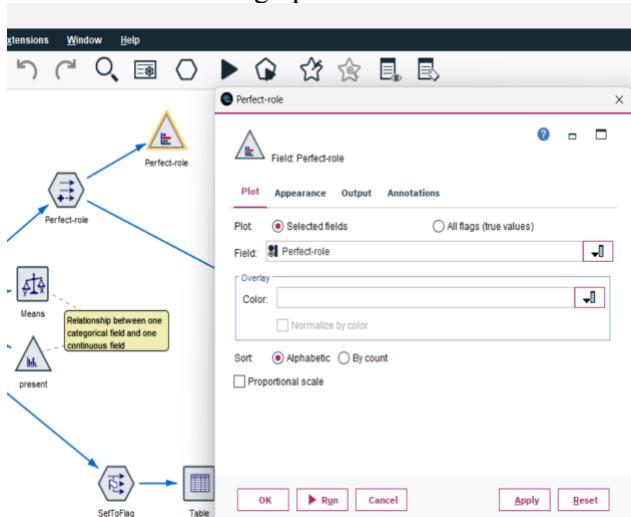
Step 16:-

Connect derive node with the type node. Double click on the node, write perfect-role in derive field. Click on expression builder, adds the given equation (lowertoupper(role)). Click apply and ok.
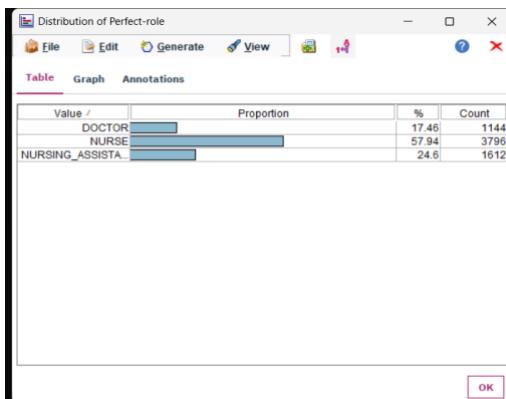

Step 17:-

Connect distribution graph with the derive node. Add perfect-role in the field. Click apply and ok.
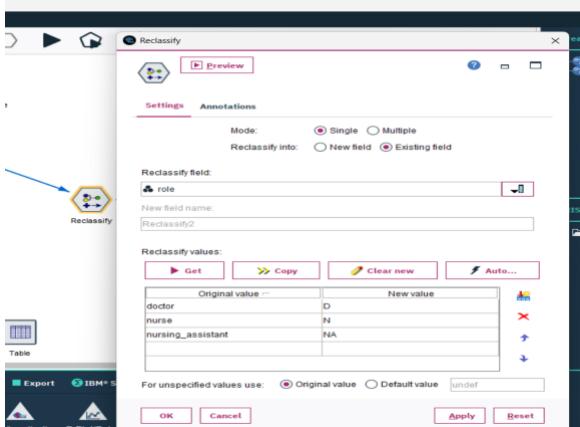
Step 18:-

Double click on the graph to run the values.
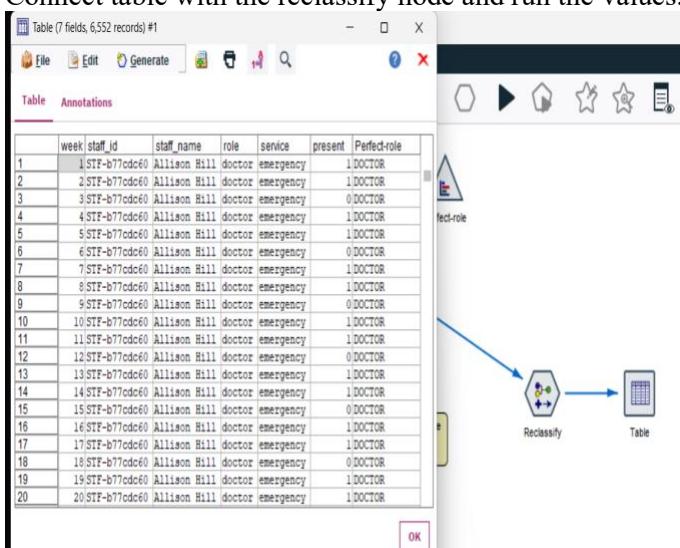
Step 19:-

Connect reclassify node with the perfect-role (derived) node. Double click on the node to reclassify the field as a role, and give them a new values. Further, click on apply and ok.
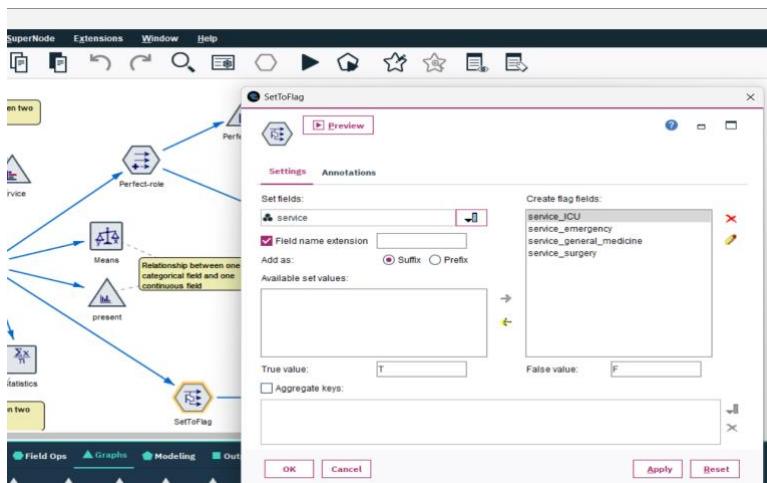

Step 20:-

Connect table with the reclassify node and run the values.
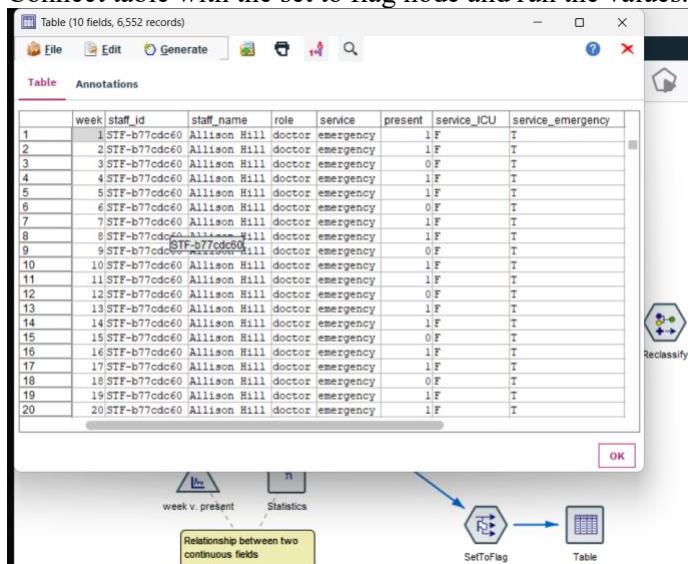

Step 21:-

Connect set to flag node with the type node, set field as service. Create flag fields and appoint values as T and F, where T belongs to true value and F belongs to false value. Click apply and then ok.

Step 22:-

Connect table with the set to flag node and run the values.

Step 23:-

Final view of the practical.