

# Lab 6:

Lab Slot: L5+L6 – INTERNET OF THINGS Domain Analyst

**Name: Tanmay Mahajan**

**Regn. No: 19BCE1735**

**Faculty name: Dr. Sriramalakshmi P**

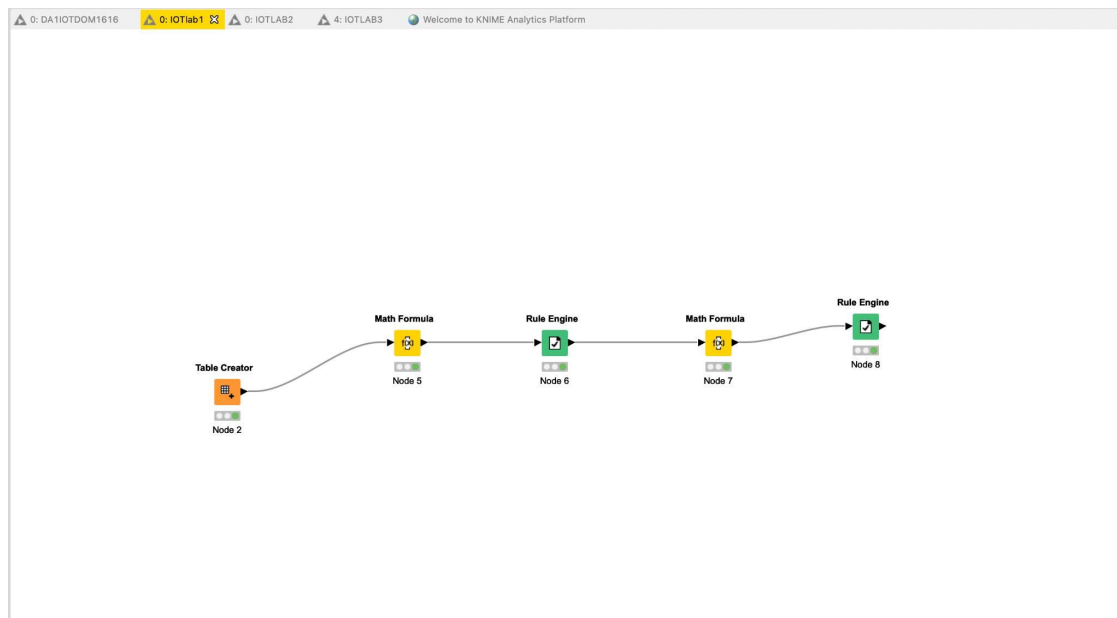
**Title: Data manipulation(math operations)**

**Aim:-**

Create a dataset with 5 columns (name, Regd no, elective name, score1 and score 2) in Knime Analytics and analyse the dataset

- Average of two test scores
- Score Status
- Difference between two test scores
- Recheck the status and based on the difference show if the candidate is eligible for interview call or not

## WorkFlow:-



## Node Details:-

### 1) Table Creator

Dialog - 0:2 - Table Creator

Table Creator Settings | Flow Variables | Memory Policy

Input line:

	S Reg No	S Name	S Electiv...	I Score_...	I Score_...
Row0	19BCE1616	ACB	STS	37	65
Row1	19BCE2653	DF	Java	45	66
Row2	19BCE1273	FEGF	Finance	34	45
Row3	19BCE3231	GEGV	English	67	55
Row4	19BCE1276	GREG	IOT	78	87
Row5	19BCE1267	FGER	Java	88	76
Row6	19BCE2638	ERG	Maths	98	78
Row7	19BCE2785	VER	Marketing	67	67
Row8	19BCE2388	FVER	Software	88	98
Row9	19BCE3875	VGER	IOT	99	67
Row10	19BCE3763	VER	Sociology	100	99
Row11					
Row12					
Row13					
Row14					
Row15					
Row16					
Row17					
Row18					
Row19					
Row20					
Row21					
Row22					

The output table has 11 rows and 5 columns.

☐ Highlight output table

OK Apply Cancel ?

## 2) Math Formula(Average Calc)

Dialog - 0:5 - Math Formula

Math Expression | Flow Variables | Memory Policy

Column List

ROWINDEX

ROWCOUNT

Score\_Test1

Score\_Test2

Category

All

Description

Function

ROWCOUNT

ROWINDEX

pi

e

COL\_MIN(col\_name)

COL\_MAX(col\_name)

COL\_MEAN(col\_name)

COL\_MEDIAN(col\_name)

COL\_SUM(col\_name)

COL\_STDDEV(col\_name)

COL\_VAR(col\_name)

ln(x)

Flow Variable List

Expression

1 average(\$Score\_Test1\$, \$Score\_Test2\$)

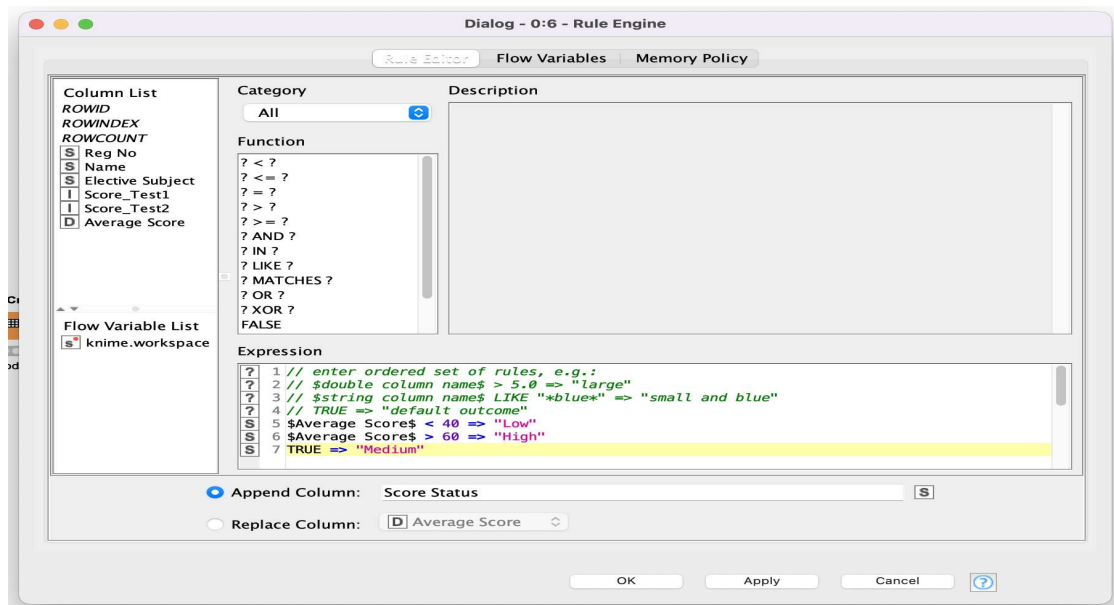
☒ Append Column: Average Score

☐ Replace Column: Score\_Test2

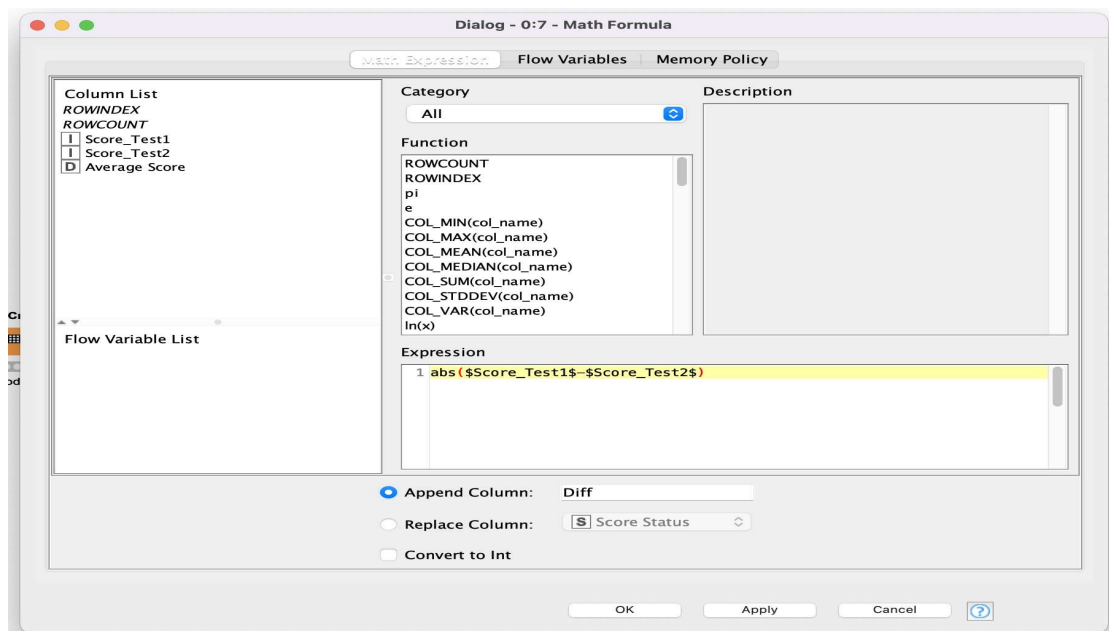
☐ Convert to Int

OK Apply Cancel ?

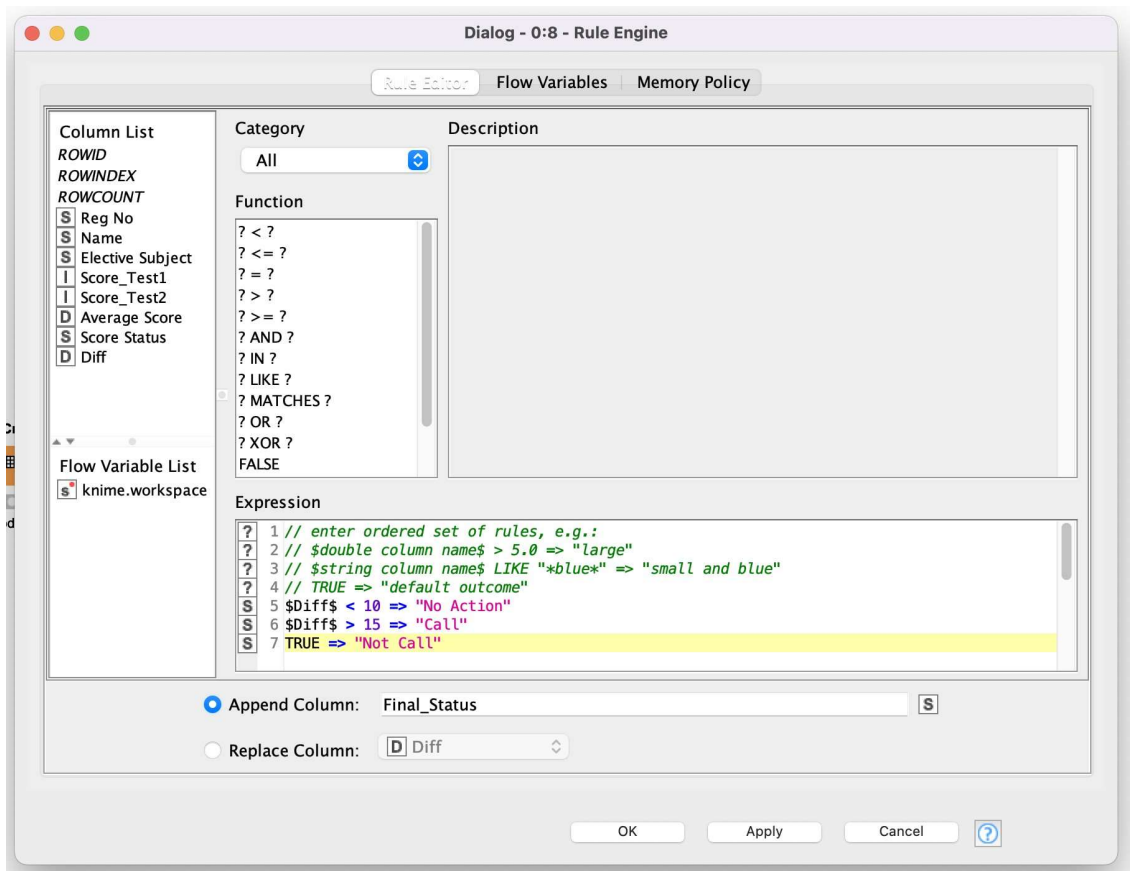
### 3) Rule Engine(Status Checker)



### 4) Math Formula(Difference)



## 5) Rule Engine(Status Checker)



## Outputs:-

### 1)Table Creator

Manually created table - 0:2 - Table Creator

File Edit Hilite Navigation View

Table "default" - Rows: 11 Spec - Columns: 5 Properties Flow Variables

Row ID	S Reg No	S Name	S Electiv...	I Score_...	I Score_...
Row0	19BCE1616	ACB	STS	37	65
Row1	19BCE2653	DF	Java	45	66
Row2	19BCE1273	FEGF	Finance	34	45
Row3	19BCE3231	GEGV	English	67	55
Row4	19BCE1276	GREG	IOT	78	87
Row5	19BCE1267	FGER	Java	88	76
Row6	19BCE2638	ERG	Maths	98	78
Row7	19BCE2785	VER	Marketing	67	67
Row8	19BCE2388	FVER	Software	88	98
Row9	19BCE3875	VGER	IOT	99	67
Row10	19BCE3763	VER	Sociology	100	99

## 2) Math Formula(Average Calc)

Output data - 0:5 - Math Formula

File Edit Hilite Navigation View

Table "default" - Rows: 11 Spec - Columns: 6 Properties Flow Variables

Row ID	S Reg No	S Name	S Electiv...	I Score_...	I Score_...	D Avera...
Row0	19BCE1616	ACB	STS	37	65	51
Row1	19BCE2653	DF	Java	45	66	55.5
Row2	19BCE1273	FEGF	Finance	34	45	39.5
Row3	19BCE3231	GEGV	English	67	55	61
Row4	19BCE1276	GREG	IOT	78	87	82.5
Row5	19BCE1267	FGER	Java	88	76	82
Row6	19BCE2638	ERG	Maths	98	78	88
Row7	19BCE2785	VER	Marketing	67	67	67
Row8	19BCE2388	FVER	Software	88	98	93
Row9	19BCE3875	VGER	IOT	99	67	83
Row10	19BCE3763	VER	Sociology	100	99	99.5

## 3) Rule Engine(Status Checker)

Classified values - 0:6 - Rule Engine							
File Edit Hilite Navigation View							
Table "default" - Rows: 11 Spec - Columns: 7 Properties Flow Variables							
Row ID	S Reg No	S Name	S Electiv...	I Score_...	I Score_...	D Avera...	S Score ...
Row0	19BCE1616	ACB	STS	37	65	51	Medium
Row1	19BCE2653	DF	Java	45	66	55.5	Medium
Row2	19BCE1273	FEGF	Finance	34	45	39.5	Low
Row3	19BCE3231	GEGV	English	67	55	61	High
Row4	19BCE1276	GREG	IOT	78	87	82.5	High
Row5	19BCE1267	FGER	Java	88	76	82	High
Row6	19BCE2638	ERG	Maths	98	78	88	High
Row7	19BCE2785	VER	Marketing	67	67	67	High
Row8	19BCE2388	FVER	Software	88	98	93	High
Row9	19BCE3875	VGER	IOT	99	67	83	High
Row10	19BCE3763	VER	Sociology	100	99	99.5	High

#### 4) Math Formula(Difference)

Output data - 0:7 - Math Formula								
File Edit Hilite Navigation View								
Table "default" - Rows: 11 Spec - Columns: 8 Properties Flow Variables								
Row ID	S Reg No	S Name	S Electiv...	I Score_...	I Score_...	D Avera...	S Score ...	D Diff
Row0	19BCE1616	ACB	STS	37	65	51	Medium	28
Row1	19BCE2653	DF	Java	45	66	55.5	Medium	21
Row2	19BCE1273	FEGF	Finance	34	45	39.5	Low	11
Row3	19BCE3231	GEGV	English	67	55	61	High	12
Row4	19BCE1276	GREG	IOT	78	87	82.5	High	9
Row5	19BCE1267	FGER	Java	88	76	82	High	12
Row6	19BCE2638	ERG	Maths	98	78	88	High	20
Row7	19BCE2785	VER	Marketing	67	67	67	High	0
Row8	19BCE2388	FVER	Software	88	98	93	High	10
Row9	19BCE3875	VGER	IOT	99	67	83	High	32
Row10	19BCE3763	VER	Sociology	100	99	99.5	High	1

#### 5) Rule Engine(Status Checker)

Classified values - 0:8 - Rule Engine									
File Edit Hilite Navigation View									
Table "default" - Rows: 11 Spec - Columns: 9 Properties Flow Variables									
Row ID	S Reg No	S Name	S Electiv...	I Score_...	I Score_...	D Avera...	S Score ...	D Diff	S Final_...
Row0	19BCE1616	ACB	STS	37	65	51	Medium	28	Call
Row1	19BCE2653	DF	Java	45	66	55.5	Medium	21	Call
Row2	19BCE1273	FEGF	Finance	34	45	39.5	Low	11	Not Call
Row3	19BCE3231	GEGV	English	67	55	61	High	12	Not Call
Row4	19BCE1276	GREG	IOT	78	87	82.5	High	9	No Action
Row5	19BCE1267	FGER	Java	88	76	82	High	12	Not Call
Row6	19BCE2638	ERG	Maths	98	78	88	High	20	Call
Row7	19BCE2785	VER	Marketing	67	67	67	High	0	No Action
Row8	19BCE2388	FVER	Software	88	98	93	High	10	Not Call
Row9	19BCE3875	VGER	IOT	99	67	83	High	32	Call
Row10	19BCE3763	VER	Sociology	100	99	99.5	High	1	No Action