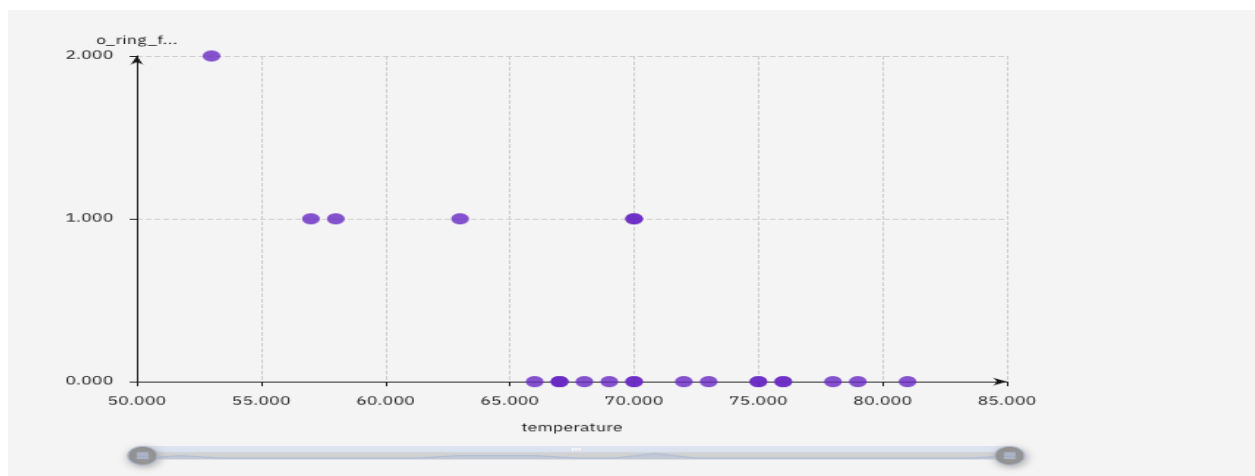OJASHWI SHARMA (VIT BHOPAL)
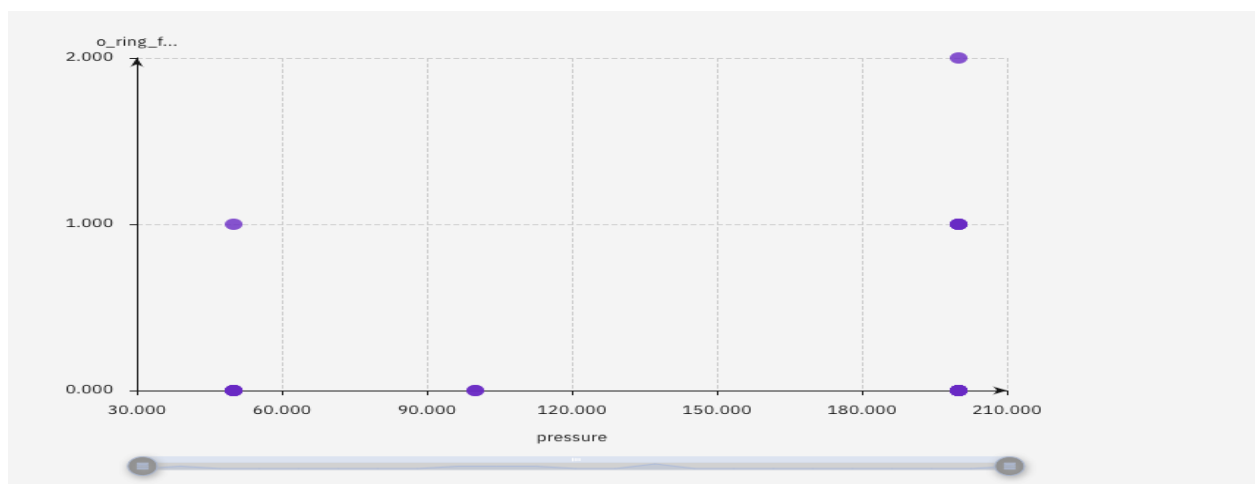SmartInternz Externship
Assignment 2
Space Shuttle Data Analysis

1. Refined data visualization

a) Temperature Vs o_ring_failures Scatter plot

b) Pressure Vs o_ring_failures Scatter plot
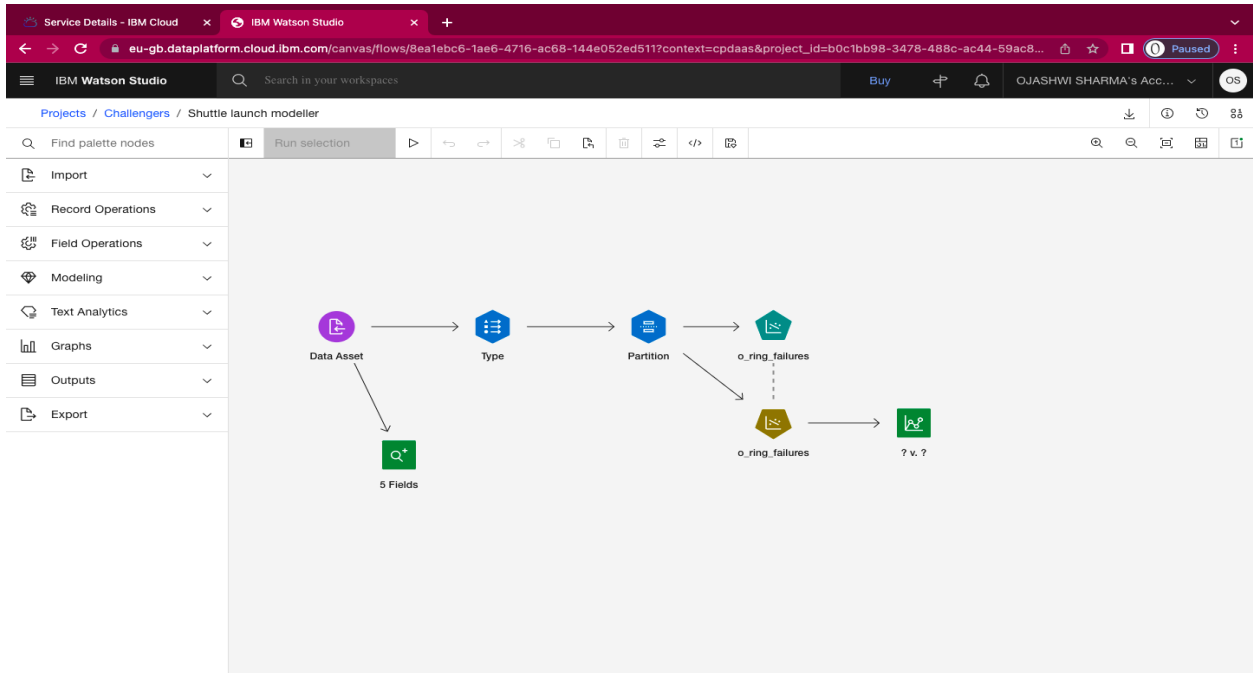

2. Data Audited

View Output: 5 Fields

Compare ✕

	Field	Graph	Measurement	Min	Max	Mean	Std. Dev	Skewness	Unique	Valid
1	o_ring_ct		Continuous	6	6	6	0	--	--	23
2	o_ring_failures		Continuous	0	2	0.304	0.559	1.735	--	23
3	temperature		Continuous	53	81	69.565	7.057	-0.654	--	23
4	pressure		Continuous	50	200	152.174	68.221	-0.791	--	23
5	launch_id		Continuous	1	23	12	6.782	0	--	23

	Field	Measurement	Outliers	Extremes	Action	Impute Missing	Method	% Complete	Valid Records	Null Value	Empt
1	o_ring_ct	Continuous	0	0	None	Never	Fixed	100.000	23	0	0
2	o_ring_failures	Continuous	1	0	None	Never	Fixed	100.000	23	0	0
3	temperature	Continuous	0	0	None	Never	Fixed	100.000	23	0	0

3. SPSS Model Flow

4. Model Summary

View Model: o_ring_failures

Regression

EVALUATION

Model Summary
ANOVA
Coefficients

MODEL VIEWER

Build Settings
Training Summary

Model Summary ⓘ

	1
R	0.766 [1]
R Square	0.587
Adjusted R Square	0.561
Std. Error of the Estimate	0.402

[1] Predictors: (Constant), [%1:, temperature

5. Anova

View Model: o_ring_failures

Regression

EVALUATION

Model Summary
ANOVA
Coefficients

MODEL VIEWER

Build Settings
Training Summary

ANOVA ⓘ

	1		
	Regression	Residual	Total
Sum of Squares	3.686	2.592	6.278
df	1.000	16.000	17.000
Mean Square	3.686	0.162	
F	22.758		
Sig.	0.000		

6. Coefficients

View Model: o_ring_failures

Regression

EVALUATION

Model Summary
ANOVA
Coefficients

MODEL VIEWER

Build Settings
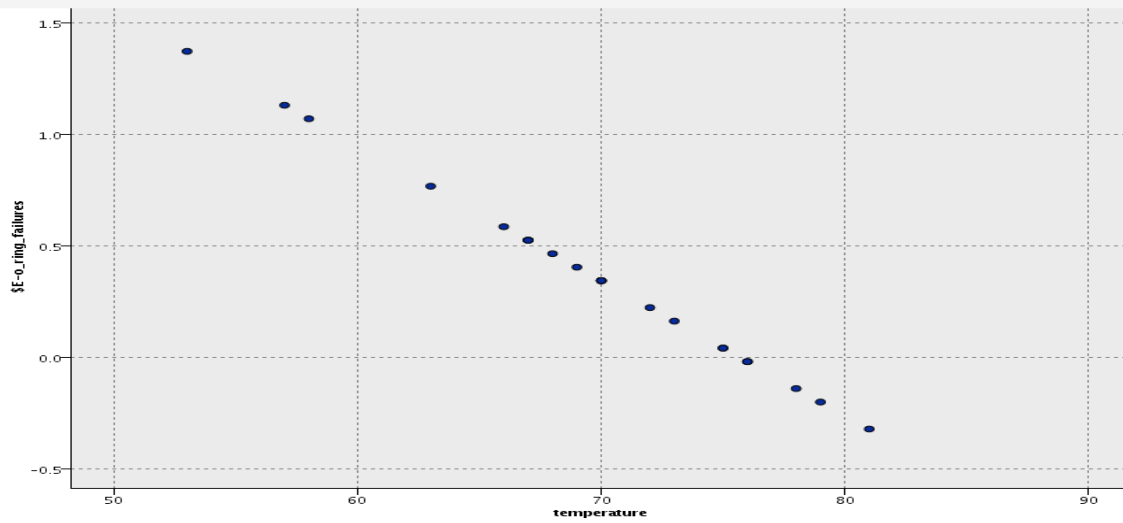Training Summary

Coefficients ⓘ

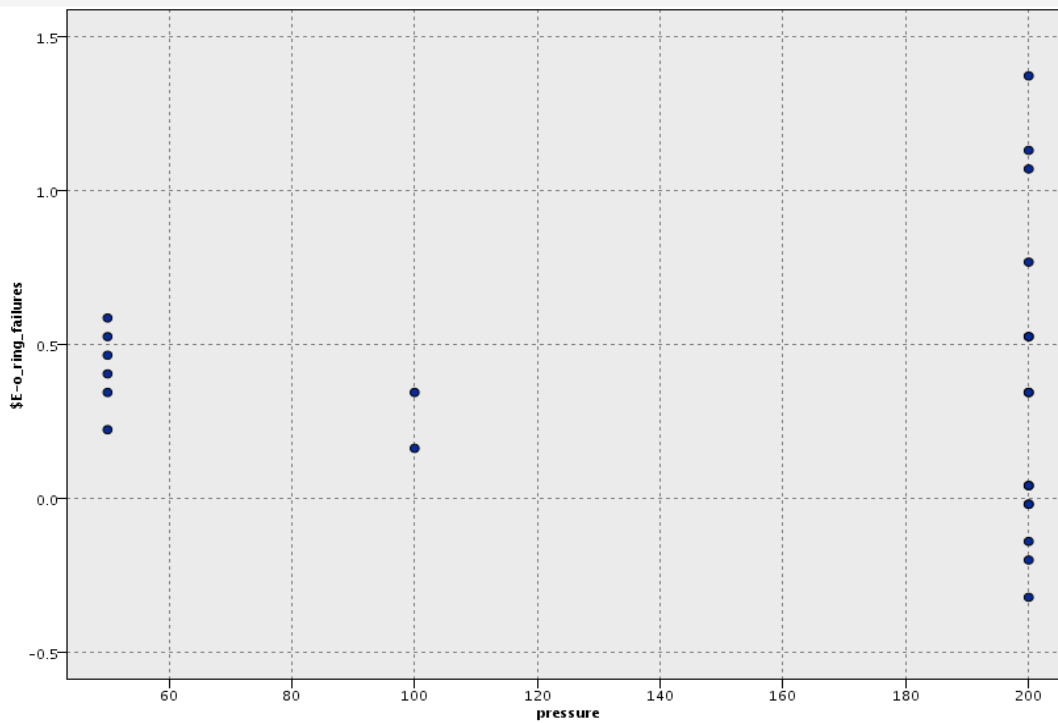|		1	
		(Constant)	temperature
Unstandardized Coefficients	B	4.579	-0.060
	Std. Error	0.883	0.013
Standardized Coefficients	Beta		-0.766
t		5.183	-4.770
Sig.		0.000	0.000
Fraction Missing Info.			
Relative Increase Variance			
Relative Efficiency			

7. 2d plot Temperature Vs &E-o_ring_failures

View Output: ? v. ?

8. 2d plot Pressure Vs &E-o_ring_failures

View Output: ? v. ?

9. 3d plot Pressure vs Temperature vs &E-o_ring_failures

View Output: ? v. ?