

Multiple Regression temp pressure O ring Failures

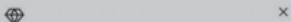
Promote to deployment space ↗

Overview

Activities

Input Schema

Input			Output		
Column	↑	Type	Column	↑	Type
launch_id		"integer"	\$E-o_ring_failures		"double"
o_ring_ct		"integer"	Partition		"string"
o_ring_failures		"integer"	launch_id		"integer"
pressure		"integer"	o_ring_ct		"integer"
temperature		"integer"	o_ring_failures		"integer"
			pressure		"integer"
			temperature		"integer"



Multiple Regression temp pressure O ring Failures



Last modified at Dec 28, 2021 1:37 PM

Description



Multiple Regression Target --> O ring Failure input -> pressure, temperature

Created

Dec 19, 2021 1:38 PM

Type

spss-modeler_18.2

Model ID

032ff944-9a1e-49d4-b2fa-a4d...

Software specification

[spss-modeler_18.2](#)

Hybrid pipeline software specifications

Tags



Add tags to make assets easier to find.



Projects / Risk_Analysis_Space_Shuttle / challengers.csv_flow

Steps

Use a code template to add a step

Data

Profile

Visualizations

	o_ring_ct Integer	o_ring_failu... Integer	temperature Integer	pressure Integer	launch_id Integer
1	6	0	66	50	1
2	6	1	70	50	2
3	6	0	69	50	3
4	6	0	68	50	4
5	6	0	67	50	5
6	6	0	72	50	6
7	6	0	73	100	7
8	6	0	70	100	8
9	6	1	57	200	9
10	6	1	63	200	10
11	6	1	70	200	11
12	6	0	78	200	12
13	6	0	67	200	13
14	6	2	53	200	14

Information

Details

Help

Edit

LOCATION

Risk_Analysis_Space_Shuttle

DATA REFINERY FLOW NAME

challengers.csv_flow

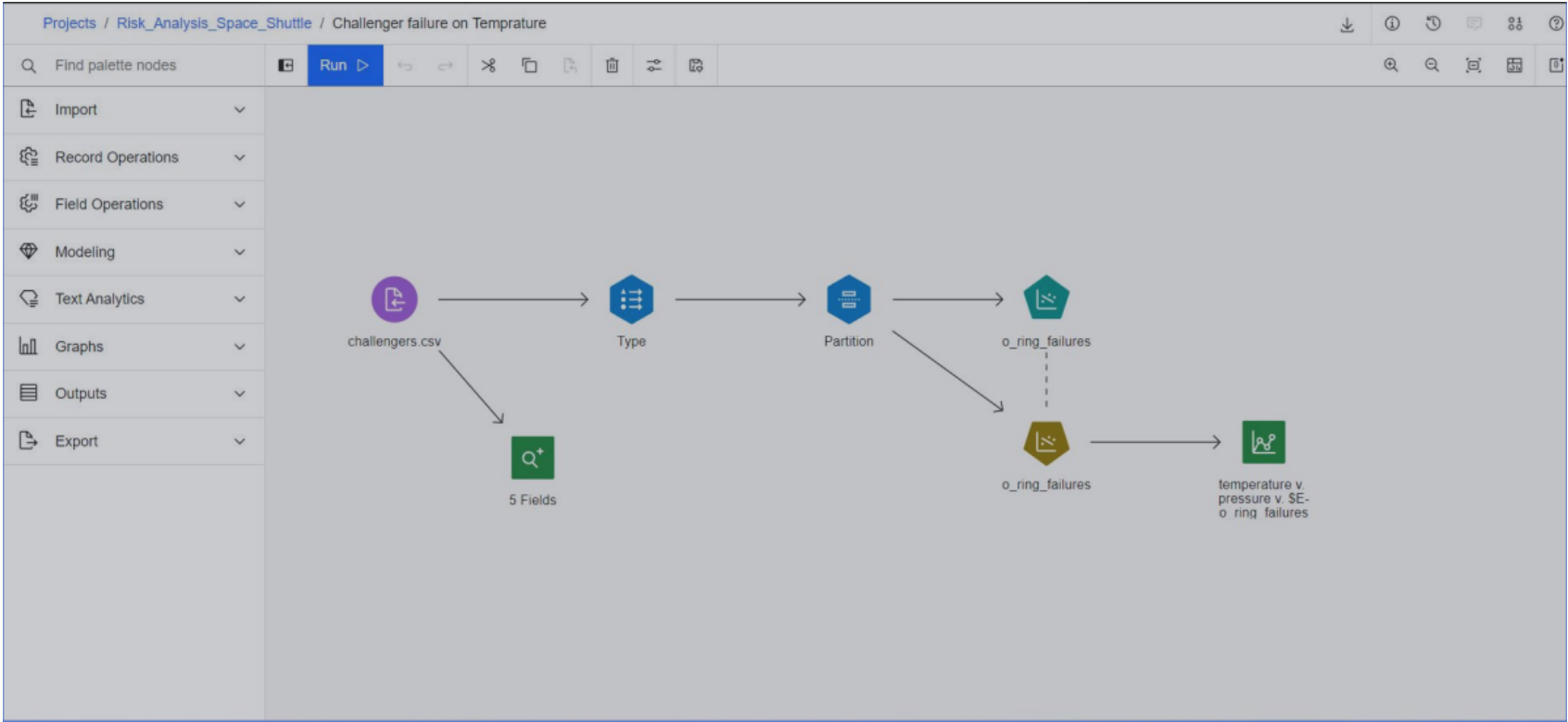
Enter a description of the Data Refinery flow

STEPS

1

DATA REFINERY FLOW OUTPUT

Location



Type

Settings

Default Mode ⓘ

☒ Read metadata ☐ Pass (do not scan)

Type Operations

Read Values

Clear All Values

🔍 Find in column Field

<input type="checkbox"/>	Field	Measure		Role		Value mode		Values		Check
<input type="checkbox"/>	# o_ring_ct	Continuous	▼	None	▼	Instantiated	▼	6, 6		None ▼ ⚙
<input type="checkbox"/>	# o_ring_fail	Continuous	▼	Target	▼	Instantiated	▼	0, 2		None ▼ ⚙
<input type="checkbox"/>	# temperatur	Continuous	▼	Input	▼	Instantiated	▼	53, 81		None ▼ ⚙
<input type="checkbox"/>	# pressure	Continuous	▼	Input	▼	Instantiated	▼	50, 200		None ▼ ⚙
<input type="checkbox"/>	# launch_id	Continuous	▼	None	▼	Instantiated	▼	1, 23		None ▼ ⚙

View Output: 5 Fields



	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	Empty String
1	o_ring_ct	Continuous	0	0	None	Never	Fixed	100.000	23	0	0

View Output: 5 Fields



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	Empty String
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
4	pressure	Continuous	0	0	None	Never	Fixed	100.000	23	0	0
5	launch_id	Continuous	0	0	None	Never	Fixed	100.000	23	0	0

View Model: o_ring_failures



Regression

EVALUATION

Model Summary

ANOVA

Coefficients

MODEL VIEWER

Build Settings

Training Summary

Model Summary ⓘ

	1
R	0.822 [1]
R Square	0.676
Adjusted R Square	0.633
Std. Error of the Estimate	0.368

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

View Model: o_ring_failures

Regression

EVALUATION

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MODEL VIEWER

Build Settings

Training Summary

ANOVA ⓘ

	1		
	Regression	Residual	Total
Sum of Squares	4.243	2.034	6.278
df	2.000	15.000	17.000
Mean Square	2.122	0.136	
F	15.645		
Sig.	0.000		

View Model: o_ring_failures



Regression

EVALUATION

Model Summary

ANOVA

Coefficients

MODEL VIEWER

Build Settings

Training Summary

Coefficients ⓘ

		1		
		(Constant)	temperature	pressure
Unstandardized Coefficients	B	4.181	-0.060	0.003
	Std. Error	0.832	0.012	0.001
Standardized Coefficients	Beta		-0.763	0.298
t		5.025	-5.194	2.027
Sig.		0.000	0.000	0.061
Fraction Missing Info.				

View Model: o_ring_failures

Regression

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MODEL VIEWER

Build Settings

Training Summary

Build Settings ⓘ

Use partitioned data	true
Calculate predictor importance	true
Method	Enter
Include constant in equation	true
Use weight	false
Mode	Simple

View Model: o_ring_failures

Regression

EVALUATION

Model Summary

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Coefficients

MODEL VIEWER

Build Settings

Training Summary

Training Summary ⓘ

Algorithm	Regression
Model type	Approximation
Date built	Tue Dec 28 09:54:29 UTC 2021
Elapsed time for model build	0 hours, 0 mins, 3 secs

View Output: temperature v. pressure v. \$E-o_ring_failures

