• Launch IDE v

ⓘ

Overview    Assets    Environments    Jobs    Access control    Settings

Data                                                          ✕

Q  What assets are you looking for?

Load        Files        Catalog

## Data assets

0 assets selected.

Drop files here or browse for files to upload.

| | Name | Type | created by | Last modified |
|---|---|---|---|---|
| ☐ | est challengers.csv | Data Asset | Vishal Yadav | April 19, 2022, 12:35 PN |

## Models

Watson Machine Learning models

| Name | J'ype | Software specification | Last modified | ↓ |
|---|---|---|---|---|
| Multiple Regression temp pressure 0 ring Failures | spss-modeter 18.2 | spss— modeler 18.2 | April 19,2022 | |
| Regression Linear and Multiple | spss—modeler 18.2 | spss— modeler 18.2 | April 19,2022 | |

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,-,+    Launch IDE    Add to project    ⓘ    ⚏ ⑦

## Watson Machine Learning models

| Name | Type | Software specification | Last modified | ↓ |
|---|---|---|---|---|
| Multiple Regression temp pressure 0 ring Failures | spss-modeler_18.2 | spss-modeler_18.2 | April 19, 2022 | |
| Regression Linear and Multiple | spss-modeler 18.2 | spss-nlodeler 18.2 | Dec 19. 2022 | |

### Data    X

Load    Files    Catalog

Drop files here or browse for files to upload.

## Modeler flows

New Modeler flow +

| Name | Type | Created by | Last modified | ↓ |
|---|---|---|---|---|
| Challenger failure on Temprature | SPSS Modeler | Vishal Yadav | April 19, 2022, 01:39 PM | |

## Data Refinery flows

New Data Refinery flow +

| Name | Type | Created by | Last modified | ↓ |
|---|---|---|---|---|
| challengers.csv_flow | DataRefineryflow | Vishal yadav | April 19, 2022, 12:49 PM | |

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# Multiple Regression temp pressure O ring Failures

Promote to deployment space

**Overview**    Activities

## Input Schema

### In put

| Column | ↑ | Type |
|--------|---|------|
| launch id | | "integer" |
| a ring ct | | "integer" |
| a ring failures | | "integer" |
| pressure | | "integer" |
| temperature | | "integer" |

### Output

| Column | ↑ | Type |
|--------|---|------|
| $E-o_ring failures | | "double" |
| Partition | | "string" |
| launch id | | "integer" |
| o_ring_ct | | 'integer' |
| a ring failures | | "integer" |
| pressure | | "integer" |
| temperature | | "integer" |

Multiple Regression temp
pressure O ring Failures

Lost *modified at Dec 28, 202d 1:37 PM*

Description
multiple Regression Target --> 0 ring
Failure inpu -> pressure , temprature

Created
Dec 19, 20211:38 PM

Type
spss-modeler_18.2

Model TD
032ff944-9a1e-49d4-b2fa-a4d...    +[g

Software specification
spss-modeler 18.2

Hybrid pipeline software specifications

Tags    6
Addtagstomake assets easier tofind.

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Steps          Use  a rocl e I entp T nt e to aclcl n step

Information                    ✕

| Data | Profile | Visualizations |
| --- | --- | --- |

Details          Help

| | o_ring_ct | o_ring_failu... | temperature | pressure | launch_id |
| --- | --- | --- | --- | --- | --- |
| | Integer | Integer | Integer | Integer | 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 |

challengers.csv

Edit                          ✎

LOCATION
Risk_Analysis_Space_Shuttle

DATA REFINERY FLOW NAME

challengers.csv_flow

Enter a description of the Data Refinery

STEPS
1

DATA REFINERY FLOW OUTPUT

Location

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Q    Find palette nodes

@+    Import

      Record Operations    v

      Field Operations

@     Modeling    v

      Text Analytics    v

|g|}  Graphs

ᴡ    Outputs

@-+   Export    v

Run ▷

challengers.csv

5 Fields

Type

Partition

o_ring_failures

o ring failures

temperature v. pressure v. $E-o rin9 failures

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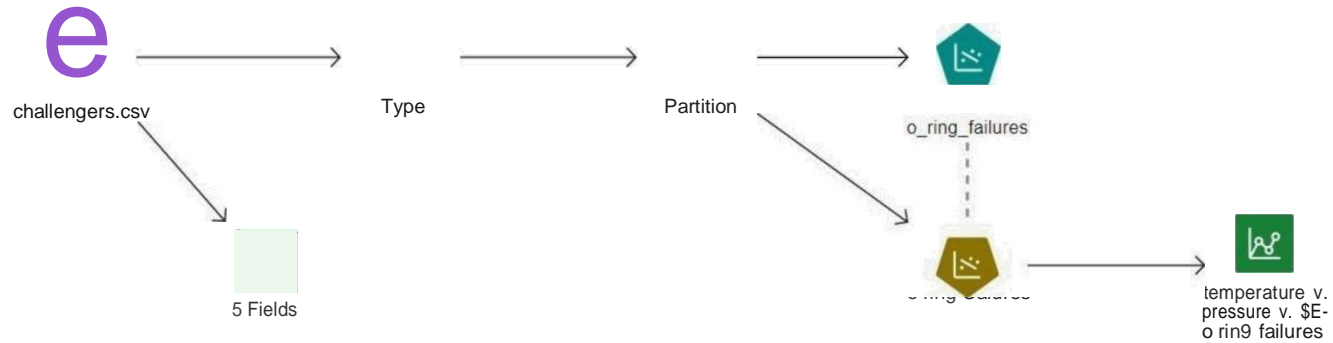
## Type

Type ⓘ

## Settings

Default Mode

Read metadata      Pass (do not scan)

Type Operations          v

Read Values    Clear All Values

Q   Find in column Field

| | Field | f¥leasure | | Role | | Value mode | | Values | Check | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | t o ring ct | Continuous | v | None | | Instantiated | v | 6, 6 | None | v | @ |
| ☐ | @ o ring fail | Continuous | v | Target | v | Instantiated | v | 0, 2 | None | v | ⚙ |
| ☐ | @ temperatui | Continuous | v | Input | v | Instantiated | v | 53, 81 | None | v | ⚙ |
| ☐ | @ pressure | Continuous | v | Input | v | Instantiated | v | 50, 200 | None | v | ⚙ |
| ☐ | @ launch id | Continuous | v | None | v | Instantiated | v | 1, 23 | None | v | ⚙ |

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# View Output: S 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 | | 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 |

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# View Output: 5 Fields

| | Field | | Measurement | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | temperature |  | Continuous | 53 | 81 | 69.565 | 7.057 | -0.654 | 23 |
| 4 | pressure |  | Continuous | 50 | 200 | 152.174 | 68221 | -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 | Goniinuous | 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 | Goniinuous | 0 | 0 | None | Never | Fixed | 100.000 | 23 | 0 | 0 |
| 4 | pressure | Gone in uous | 0 | 0 | None | Never | Fixed | 100.000 | 23 | 0 | 0 |
| 5 | launch id | Goniinuous | 0 | 0 | None | Never | Fixed | 100.000 | 23 | 0 | 0 |

Assignment done by- Vishal Yadav(19BCE10098)

# View Model: o ring failures

Model Summary O

|  | 1 |
|---|---|
| R | 0.822 |
| R Square | 0.676 |
| Adjusted R Square | 0.633 |
| Std. R ror of the Estimate | 0.368 |

Predictors: (Constant), [% 1 , pressuretemperature

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# View Model: o ring failures

Regression

ANOVA O

1

| | Regression | Residual | Total |
|---|---|---|---|
| Shun of Squares | 4.243 | 2.034 | 6.278 |
| dt | 2.000 | 15.000 | 17.000 |
| Mean Square | 2.122 | 0.136 | |
| F | 15.645 | | |
| Sig. | 0.000 | | |

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# View Model: o ring failures

Coefficients O

| | | 1 | | |
| --- | --- | --- | --- | --- |
| | | (Constant) | temperature | pressure |
| *just* CoefBcieate | B | 4.181 | -0.060 | 0.003 |
| | Std. Rrror | 0.83 | 0.012 | 0.001 |
| Standardized Coefficients | Beta | | -0.763 | 0.298 |
| | t | 5.025 | -1.194 | 2.027 |
| | Sig. | 0.000 | 0.000 | 0.061 |
| | Fraction Missing Info. | | | |

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# View Model: o ring  failures

## Rep•ression

### Build Settings O

EVALUATION

h4odel Suinniary

ANOVA

Coefficieute

MODEL VIEWER

**Build Settings**

Trnining Sununary

| | |
|---|---|
| Uee partitioned datn | true |
| Calculate predictor importance | true |
| Method | Eiiier |
| Include constant in equation | true |
| Use weight | false |
| Mode | Simple |

Assignment done by- Vishal Yadav(19BCE10098)

# View Model: o ring failures

Regression

Training Summary O

E\ILUATIOh

Model Summary

OVA

Coe&cients

MODEL VIEWER

BuJdS/dngs

| igc/Buo | Regression |
|---|---|
| Model type | Approximation |
| Date built | Tire Dec 28 09:54:29 UTC 2021 |
| Elapsed time for model build | 0 hours. 0 niina. 3 seca |

Assignment done by- Vishal Yadav(19BCE10098)

# View Output: temperature v. pressure v. $E-o ring failures



Assignment done by- Vishal Yadav(19BCE10098)