

# Smartinternz data analytics

## Assignment 2

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**Q) Plot 3-D linear regression between ring failures, temperature and pressure.**

The screenshot shows the IBM Watson Studio interface. The main workspace displays a data flow diagram with the following steps: 1. A 'Data asset' node (purple circle) connects to a 'Type' node (blue hexagon). 2. The 'Type' node connects to a 'Partition' node (blue hexagon). 3. The 'Partition' node has two outputs: one to a 'o\_ring\_failures' node (green hexagon) and another to a 'o\_ring\_failures' node (yellow hexagon). 4. The 'o\_ring\_failures' node (yellow hexagon) connects to a 'Plot' node (green square). 5. The 'Plot' node outputs to a '5 Fields' node (green square). The right-hand sidebar shows the 'Plot' configuration panel. Under '3-D graph', the 'X field' is set to 'temperature', the 'Y field' is set to 'SE-o\_ring\_failures', and the 'Z field' is set to 'pressure'. The 'Overlay' and 'Options' sections are also visible. The bottom status bar shows the date and time as 23:05 on 25-04-2022.

The screenshot shows the IBM Watson Studio interface with the 'Partition' configuration panel open on the right-hand sidebar. The main workspace displays the same data flow diagram as the previous screenshot. The 'Partition' panel shows the following settings: 1. 'Derived Field Name' is set to 'Partition'. 2. 'Training Partition(%)' is set to 70. 3. 'Testing Partition(%)' is set to 30. 4. 'Create validation partition' is unchecked. 5. 'Repeatable partition assignment' is checked. 6. 'Seed' is set to 1234567. 7. 'Use unique field to assign partitions' is unchecked. The bottom status bar shows the date and time as 23:05 on 25-04-2022.

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IBM Watson Studio interface showing a project named "shuttle launch modeller". The main workspace displays a flow diagram with nodes for "Data asset", "Type", and "Partition". The "Type" node is selected, and its settings panel is open on the right. The settings panel shows a table of fields with their measures, roles, and value modes. The "Default mode" is set to "Read metadata". The "Set unique fields to None" button is visible.

Field	Measure	Role	Value mode	Values
# o_ring_ct	Continuous	None	Instantiated	6, 6
# o_ring_failures	Continuous	Target	Instantiated	0, 2
# temperature	Continuous	Input	Instantiated	53, 81
# pressure	Continuous	Input	Instantiated	50, 200
# launch_id	Continuous	None	Instantiated	1, 23

## Output -

View Output: Data Audit of [o\_ring\_ct o\_ring\_failures temperature pressure launch\_id] #1

Field	Measurement	Outliers	Extremes	Action	Impute Missing	Method	% Complete	Valid Records	Null Value	Empty String	White Space	Blank Value
1 o_ring_ct	Continuous	0	0	None	Never	Fixed	100.000	23	0	0	0	0
2 o_ring_failures	Continuous	1	0	None	Never	Fixed	100.000	23	0	0	0	0
3 temperature	Continuous	0	0	None	Never	Fixed	100.000	23	0	0	0	0
4 pressure	Continuous	0	0	None	Never	Fixed	100.000	23	0	0	0	0
5 launch_id	Continuous	0	0	None	Never	Fixed	100.000	23	0	0	0	0

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