

# Maintenance Analysis Report

Generated insights and recommendations for maintenance data.

## Executive Summary

### Executive Dashboard

Total Cost

\$2,615,129.08

Average Cost

\$5,230.26

Cost Trend

66.2% ↑

## Data Overview

### Dataset Overview

- Rows: 500

- Columns: 9

Columns

- Equipment Name
- Equipment ID
- Criticality level
- Task Id
- Task Description
- Start date
- End Date
- Duration
- Maintenance cost

Numerical Statistics

Column	Mean	Min	Max	Std
Duration	5.39	1.0	10.0	2.89
Maintenance cost	5230.26	530.78	9990.13	2723.79

Categorical Statistics

Column	Top Categories	Counts
Equipment Name	Drill Bit, Separator, Blowout Preventer, Gas Lift Valve, Choke Valve	43, 39, 39, 37, 37
Equipment ID	EQP-1062, EQP-1054, EQP-1012, EQP-1000, EQP-1057	10, 10, 9, 8, 8
Criticality level	Low, Medium, High	175, 173, 152
Task Id	TASK-35965, TASK-77888, TASK-99678, TASK-45943, TASK-32911	1, 1, 1, 1, 1
Task Description	Valve check, Lubrication, Filter change, Routine inspection, Seal replacement	61, 55, 53, 51, 50
Start date	2024-05-13 00:00:00, 2025-02-10 00:00:00, 2024-08-04 00:00:00, 2024-06-23 00:00:00, 2024-08-26 00:00:00	4, 3, 3, 3, 3
End Date	2025-02-17 00:00:00, 2023-10-30 00:00:00, 2024-08-29 00:00:00, 2024-06-29 00:00:00, 2023-08-18 00:00:00	4, 4, 4, 3, 3

Missing Values

Column	Missing Values
Equipment Name	0
Equipment ID	0
Criticality level	0
Task Id	0
Task Description	0
Start date	0
End Date	0
Duration	0
Maintenance cost	0

## Insights

The following table shows the total number of jobs that were completed in the last year.

## Recommendations

Detected 50 potential anomalies in maintenance records.

Predicted Maintenance cost with R2 score: 0.00

Clustered equipment for optimized scheduling.

## Advanced Statistical Analysis

## Advanced Statistical Analysis

Metric	Duration	Maintenance cost
Skewness	0.04	0.04

Kurtosis	-1.27	-1.16
Variance	8.38	7419058.25

## Visualizations







