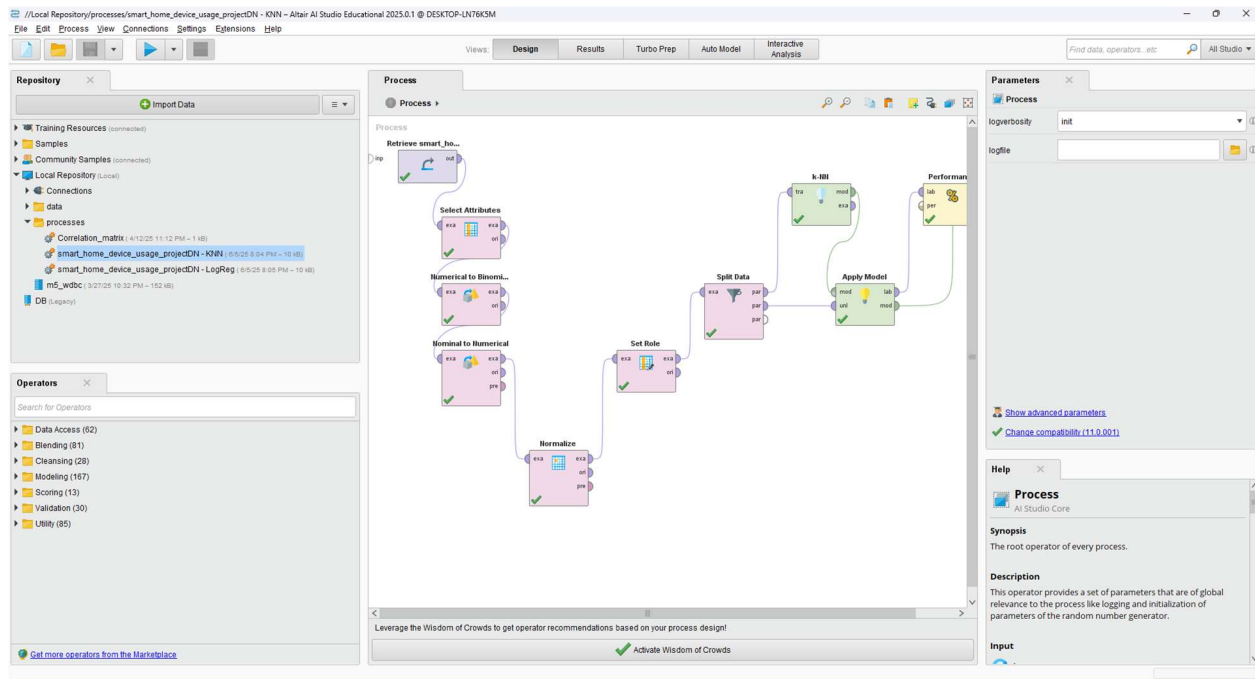


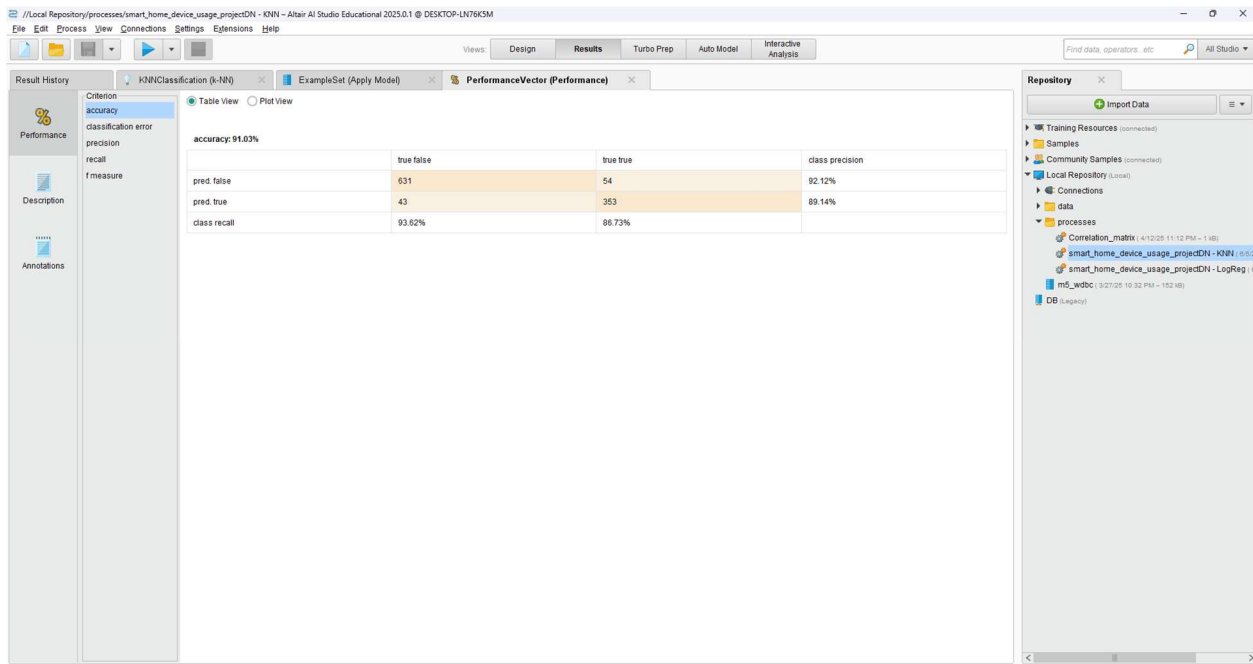
Danny Nguyen Final Project – Rapidminer Screenshots

K-NN Analysis

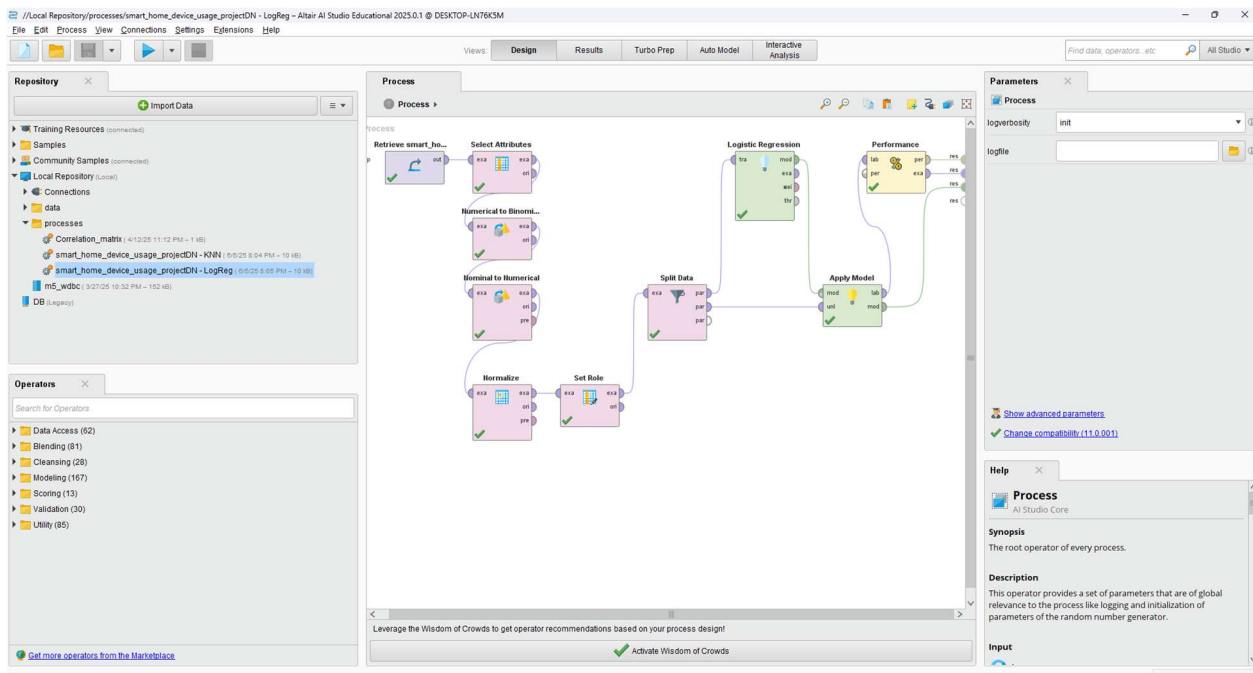


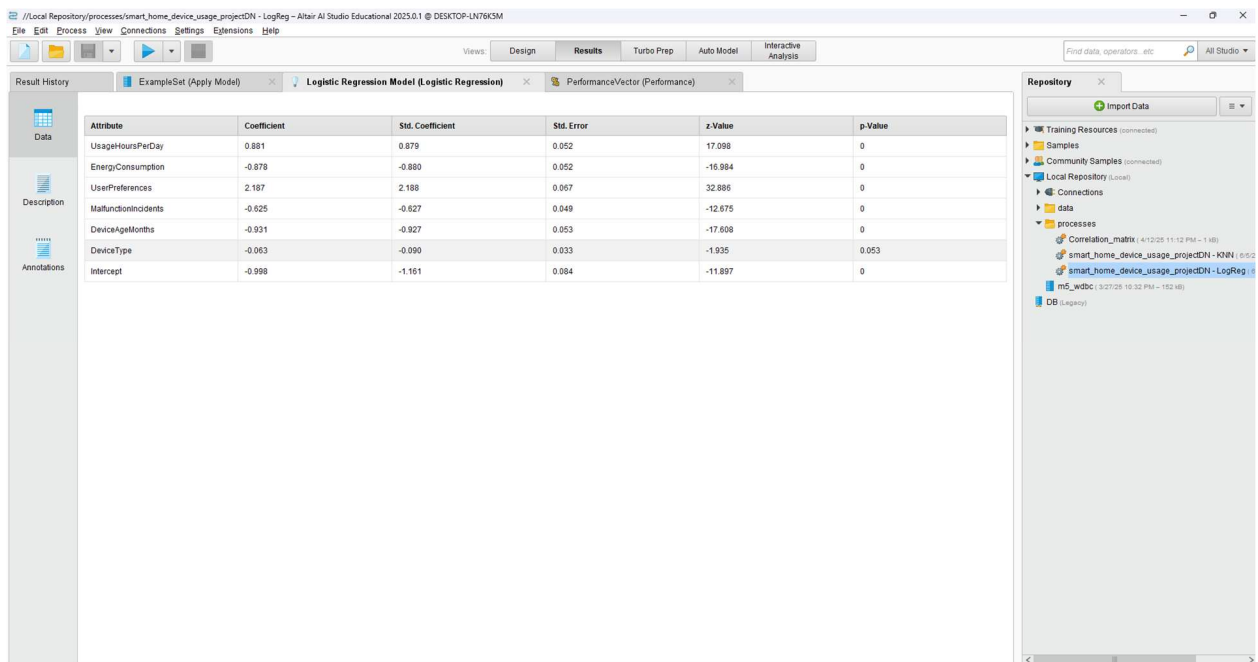
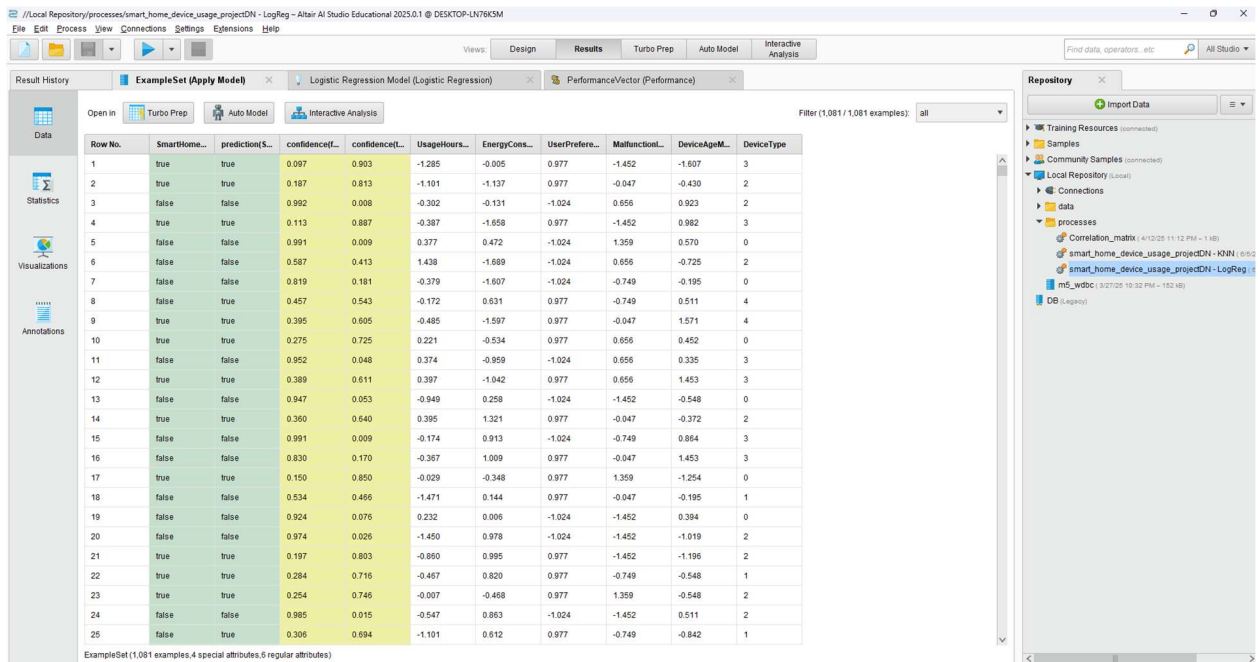
The screenshot displays the 'Results' view of Rapidminer Studio, showing the output of the K-NN classification process. The table contains 25 rows of data, including predicted and confidence scores, and various attributes like SmartHome, UsageHours, EnergyCons., UserPrefere., Malfunction., DeviceAgeM., and DeviceType.

| Row No. | SmartHome... | prediction(S... | confidence(S... | confidenceL... | UsageHours... | EnergyCons... | UserPrefere... | Malfunction... | DeviceAgeM... | DeviceType |
|---------|--------------|-----------------|-----------------|----------------|---------------|---------------|----------------|----------------|---------------|------------|
| 1 | true | true | 0.197 | 0.803 | -1.285 | -0.005 | 0.977 | -1.452 | -1.807 | 3 |
| 2 | true | true | 0 | 1 | -1.101 | -1.137 | 0.977 | -0.047 | -0.430 | 2 |
| 3 | false | false | 1 | 0 | -0.302 | -0.131 | -1.024 | 0.656 | 0.923 | 2 |
| 4 | true | true | 0.188 | 0.812 | -0.387 | -1.658 | 0.977 | -1.452 | 0.982 | 3 |
| 5 | false | false | 0.807 | 0.193 | 0.377 | 0.472 | -1.024 | 1.359 | 0.570 | 0 |
| 6 | false | false | 1 | 0 | 1.438 | -1.689 | -1.024 | 0.656 | -0.725 | 2 |
| 7 | false | false | 0.803 | 0.197 | -0.379 | -1.607 | -1.024 | -0.749 | -0.195 | 0 |
| 8 | false | false | 0.611 | 0.389 | -0.172 | 0.631 | 0.977 | -0.749 | 0.511 | 4 |
| 9 | true | true | 0.201 | 0.799 | -0.485 | -1.597 | 0.977 | -0.047 | 1.571 | 4 |
| 10 | true | true | 0 | 1.000 | 0.221 | -0.534 | 0.977 | 0.656 | 0.452 | 0 |
| 11 | false | false | 1 | 0 | 0.374 | -0.959 | -1.024 | 0.656 | 0.335 | 3 |
| 12 | true | true | 0 | 1 | 0.397 | -1.042 | 0.977 | 0.656 | 1.453 | 3 |
| 13 | false | false | 1.000 | 0 | -0.949 | 0.258 | -1.024 | -1.452 | -0.548 | 0 |
| 14 | true | true | 0.225 | 0.775 | 0.395 | 1.321 | 0.977 | -0.047 | -0.372 | 2 |
| 15 | false | false | 1 | 0 | -0.174 | 0.913 | -1.024 | -0.749 | 0.854 | 3 |
| 16 | false | false | 0.799 | 0.201 | -0.367 | 1.009 | 0.977 | -0.047 | 1.453 | 3 |
| 17 | true | true | 0.205 | 0.795 | -0.029 | -0.348 | 0.977 | 1.359 | -1.254 | 0 |
| 18 | false | true | 0.402 | 0.598 | -1.471 | 0.144 | 0.977 | -0.047 | -0.195 | 1 |
| 19 | false | false | 0.803 | 0.197 | 0.232 | 0.006 | -1.024 | -1.452 | 0.394 | 0 |
| 20 | false | false | 1 | 0 | -1.450 | 0.978 | -1.024 | -1.452 | -1.019 | 2 |
| 21 | true | true | 0 | 1 | -0.880 | 0.995 | 0.977 | -1.452 | -1.196 | 2 |
| 22 | true | true | 0.197 | 0.803 | -0.467 | 0.820 | 0.977 | -0.749 | -0.548 | 1 |
| 23 | true | true | 0 | 1 | -0.007 | -0.468 | 0.977 | 1.359 | -0.548 | 2 |
| 24 | false | false | 1 | 0 | -0.547 | 0.863 | -1.024 | -1.452 | 0.511 | 2 |
| 25 | false | false | 0.809 | 0.191 | -1.101 | 0.612 | 0.977 | -0.749 | -0.842 | 1 |



Logistic Regression Analysis





Altair AI Studio Educational 2025.0.1 @ DESKTOP-LN76K3M

FileEditProcessViewConnectionsSettingsExtensionsHelp

Views:DesignResultsTurbo PrepAuto ModelInteractive Analysis

Find data, operators, etc. All Studio

Result HistoryExampleSet (Apply Model)Logistic Regression Model (Logistic Regression)PerformanceVector (Performance)

Performance

Criterion
accuracy
classification error
f measure

Description

Annotations

Table ViewPlot View

accuracy: 86.03%

| | true false | true true | class precision |
|--------------|------------|-----------|-----------------|
| pred. false | 567 | 64 | 90.17% |
| pred. true | 87 | 343 | 79.77% |
| class recall | 87.09% | 84.28% | |

RepositoryImport Data

Training Resources (connected)

Samples

Community Samples (connected)

Local Repository (Local)

Connections

data

processes

Correlation_matrix (4/12/25 11:12 PM - 1 MB)

smart_home_device_usage_projectDN - KNN (6/5/25 10:32 PM - 152 MB)

smart_home_device_usage_projectDN - LogReg (6/5/25 10:32 PM - 152 MB)

m5_wdbc (3/27/25 10:32 PM - 152 MB)

DB (Legacy)