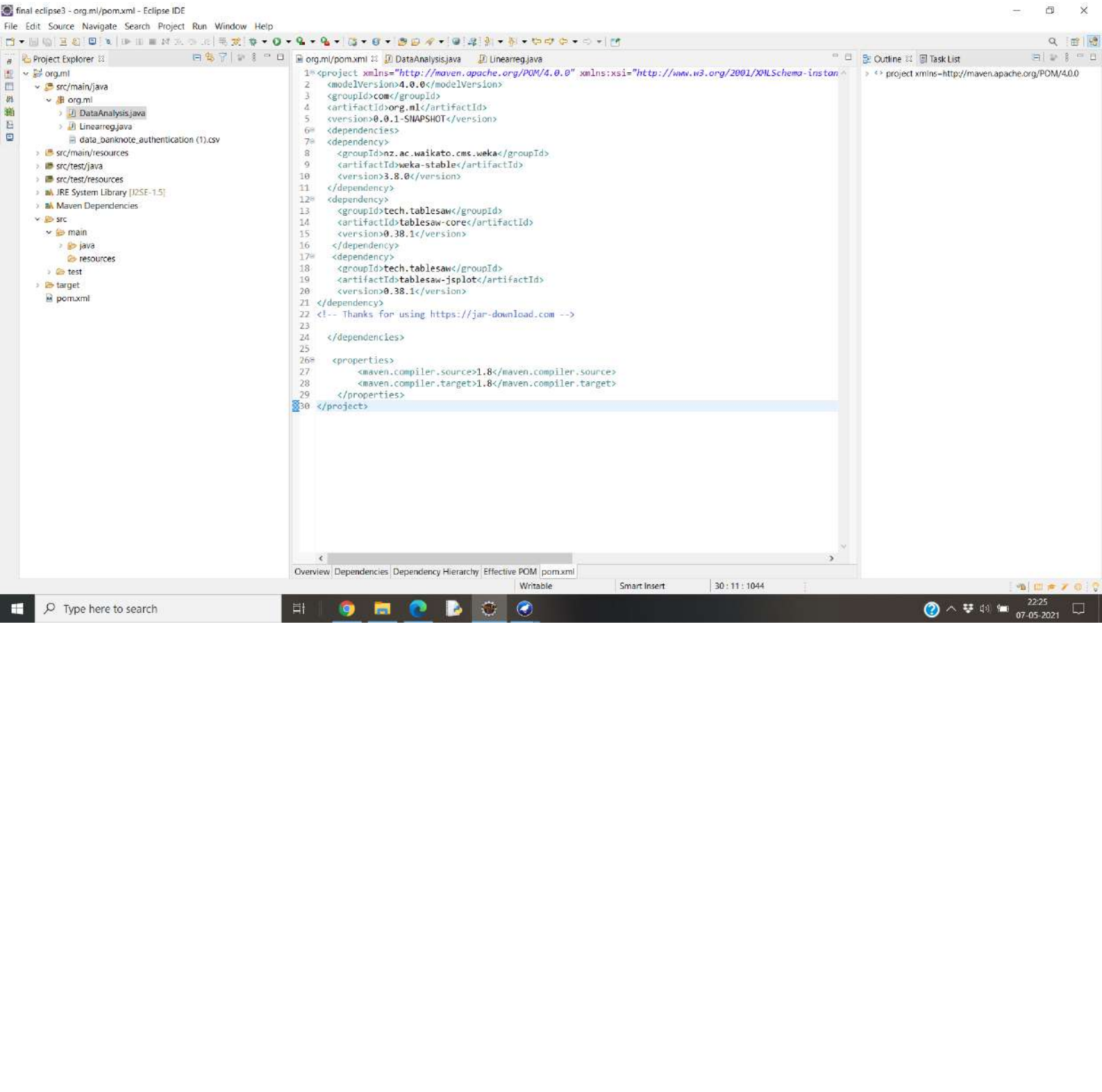
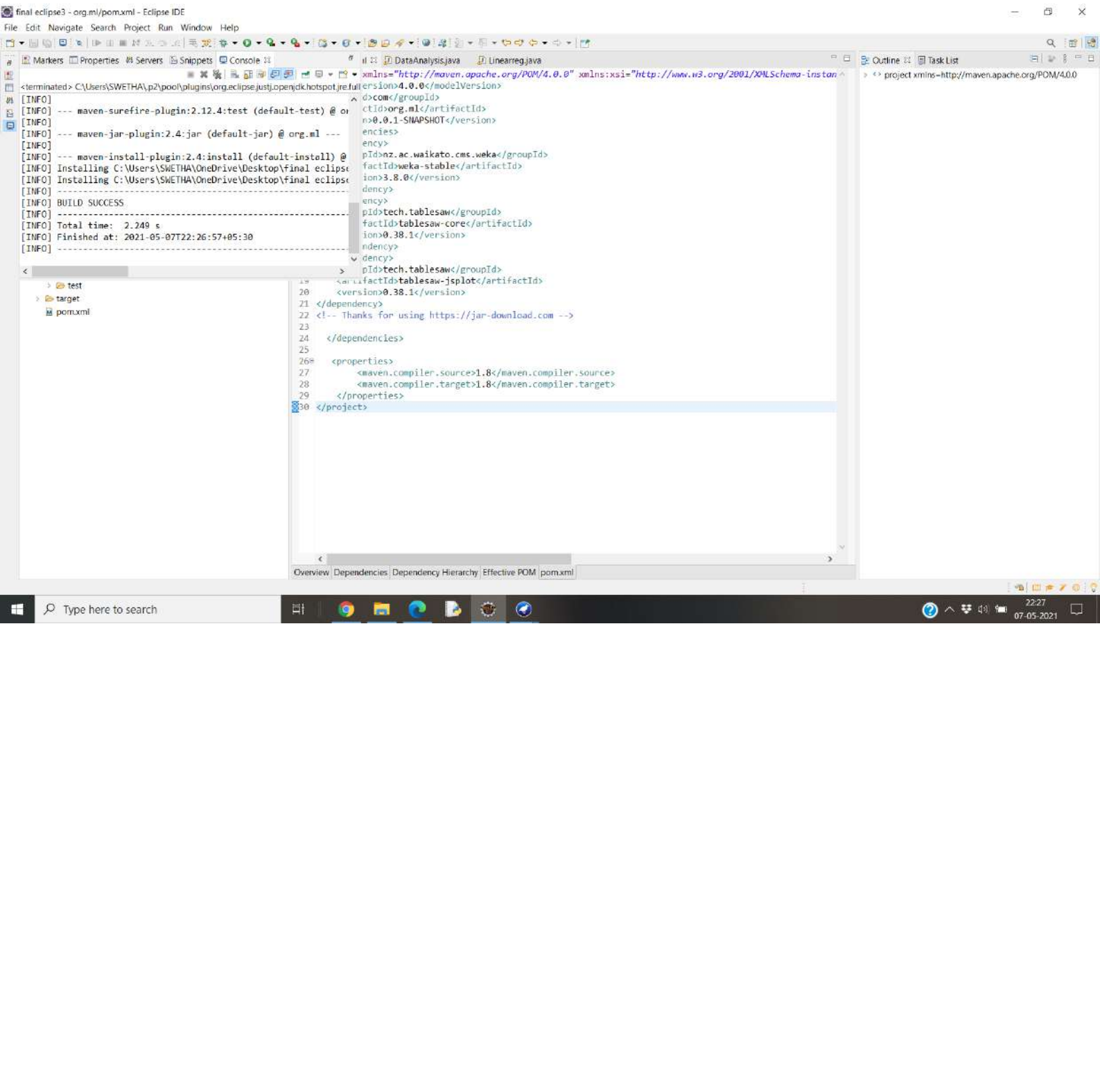
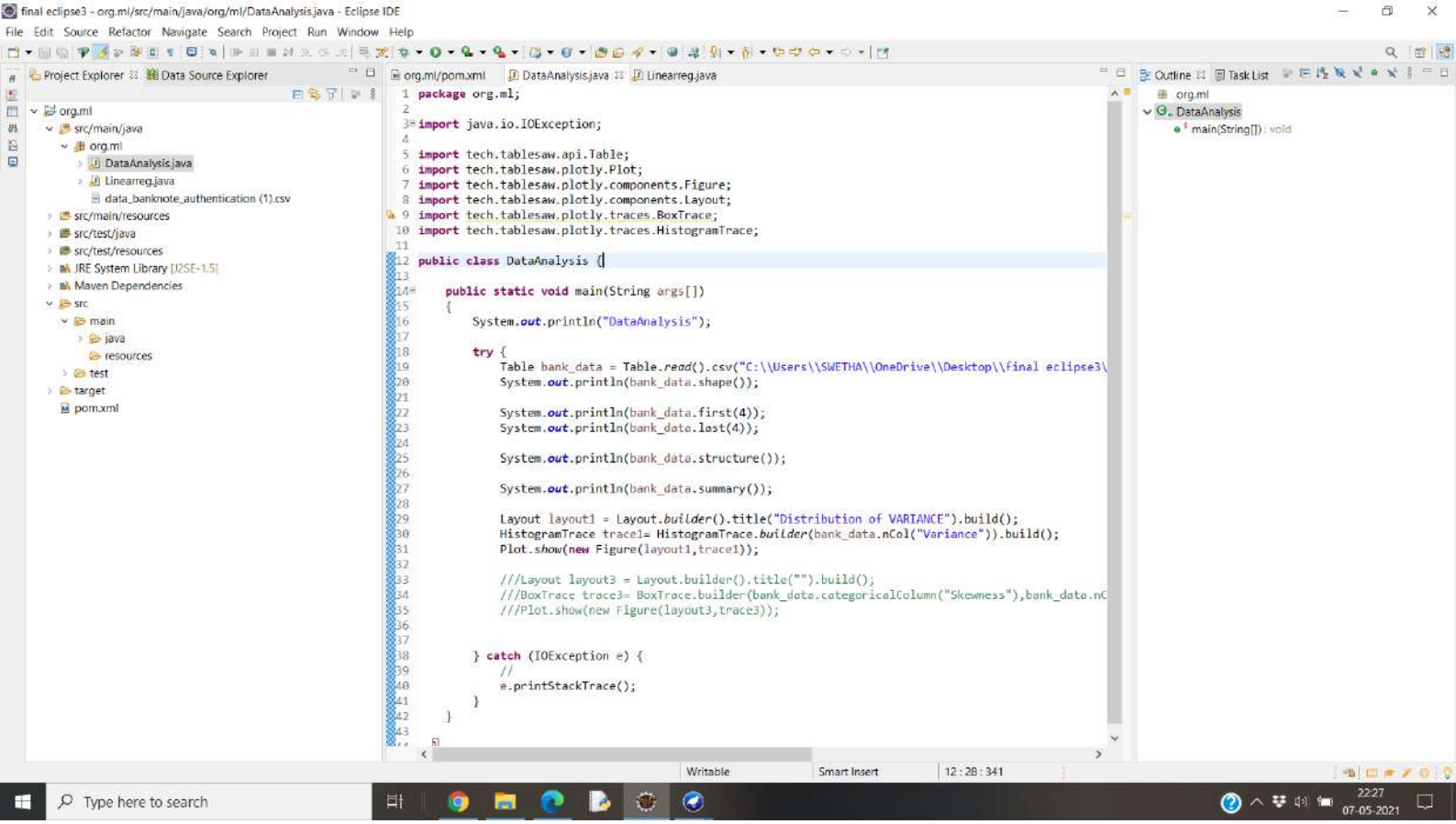

final eclipse3 - org.ml/pom.xml - Eclipse IDE
File Edit Source Navigate Search Project Run Window Help
Project Explorer
org.ml
src/main/java
org.ml
DataAnalysis.java
Linearreg.java
data_banknote_authentication (1).csv
src/main/resources
src/test/java
src/test/resources
JRE System Library [J2SE-1.5]
Maven Dependencies
src
main
java
resources
test
target
pom.xml
org.ml/pom.xml
DataAnalysis.java
Linearreg.java
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instan
<modelVersion>4.0.0</modelVersion>
<groupId>com</groupId>
<artifactId>org.ml</artifactId>
<version>0.0.1-SNAPSHOT</version>
<dependencies>
<dependency>
<groupId>nz.ac.waikato.cms.weka</groupId>
<artifactId>weka-stable</artifactId>
<version>3.8.0</version>
</dependency>
<dependency>
<groupId>tech.tablesaw</groupId>
<artifactId>tablesaw-core</artifactId>
<version>0.38.1</version>
</dependency>
<dependency>
<groupId>tech.tablesaw</groupId>
<artifactId>tablesaw-jsplot</artifactId>
<version>0.38.1</version>
</dependency>
<!-- Thanks for using https://jar-download.com -->
</dependencies>
<properties>
<maven.compiler.source>1.8</maven.compiler.source>
<maven.compiler.target>1.8</maven.compiler.target>
</properties>
</project>
Overview Dependencies Dependency Hierarchy Effective POM pom.xml
Outline
Task List
project xmlns=http://maven.apache.org/POM/4.0.0
Writable
Smart Insert
30 : 11 : 1044
Type here to search
22:25
07-05-2021


final eclipse3 - org.ml/pom.xml - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Markers Properties Servers Snippets Console
<terminated> C:\Users\SWETHA\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full
[INFO]
[INFO] --- maven-surefire-plugin:2.12.4:test (default-test) @ or
[INFO]
[INFO] --- maven-jar-plugin:2.4:jar (default-jar) @ org.ml ---
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @
[INFO] Installing C:\Users\SWETHA\OneDrive\Desktop\final eclipse
[INFO] Installing C:\Users\SWETHA\OneDrive\Desktop\final eclipse
[INFO] --
[INFO] BUILD SUCCESS
[INFO] --
[INFO] Total time: 2.249 s
[INFO] Finished at: 2021-05-07T22:26:57+05:30
[INFO] --
test
target
pom.xml
DataAnalysis.java
Linearreg.java
xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instan
ersion>4.0.0</modelVersion>
d>com</groupId>
ctId>org.ml</artifactId>
n>0.0.1-SNAPSHOT</version>
encies>
ency>
pId>nz.ac.waikato.cms.weka</groupId>
factId>weka-stable</artifactId>
ion>3.8.0</version>
dency>
ency>
pId>tech.tablesaw</groupId>
factId>tablesaw-core</artifactId>
ion>0.38.1</version>
ndency>
dency>
pId>tech.tablesaw</groupId>
<artifactId>tablesaw-jsplot</artifactId>
<version>0.38.1</version>
</dependency>
<!-- Thanks for using https://jar-download.com -->
</dependencies>
<properties>
<maven.compiler.source>1.8</maven.compiler.source>
<maven.compiler.target>1.8</maven.compiler.target>
</properties>
</project>
Overview Dependencies Dependency Hierarchy Effective POM pom.xml
Outline Task List
project xmlns=http://maven.apache.org/POM/4.0.0
Type here to search
22:27
07-05-2021


final eclipse3 - org.ml/src/main/java/org/ml/DataAnalysis.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
Data Source Explorer
org.ml
src/main/java
org.ml
DataAnalysis.java
Linearreg.java
data_banknote_authentication (1).csv
src/main/resources
src/test/java
src/test/resources
JRE System Library [J2SE-1.5]
Maven Dependencies
src
main
java
resources
test
target
pom.xml
org.ml/pom.xml
DataAnalysis.java
Linearreg.java
1 package org.ml;
2
3 import java.io.IOException;
4
5 import tech.tablesaw.api.Table;
6 import tech.tablesaw.plotly.Plot;
7 import tech.tablesaw.plotly.components.Figure;
8 import tech.tablesaw.plotly.components.Layout;
9 import tech.tablesaw.plotly.traces.BoxTrace;
10 import tech.tablesaw.plotly.traces.HistogramTrace;
11
12 public class DataAnalysis {
13
14 public static void main(String args[])
15 {
16 System.out.println("DataAnalysis");
17
18 try {
19 Table bank_data = Table.read().csv("C:\\Users\\SWETHA\\OneDrive\\Desktop\\final eclipse3\
20 System.out.println(bank_data.shape());
21
22 System.out.println(bank_data.first(4));
23 System.out.println(bank_data.last(4));
24
25 System.out.println(bank_data.structure());
26
27 System.out.println(bank_data.summary());
28
29 Layout layout1 = Layout.builder().title("Distribution of VARIANCE").build();
30 HistogramTrace trace1= HistogramTrace.builder(bank_data.nCol("Variance")).build();
31 Plot.show(new Figure(layout1,trace1));
32
33 ///Layout layout3 = Layout.builder().title("").build();
34 ///BoxTrace trace3= BoxTrace.builder(bank_data.categoricalColumn("Skewness"),bank_data.nC
35 ///Plot.show(new Figure(layout3,trace3));
36
37
38 } catch (IOException e) {
39 //
40 e.printStackTrace();
41 }
42 }
43
Outline
Task List
org.ml
DataAnalysis
main(String[]) : void
Writable
Smart Insert
12 : 28 : 341
Type here to search
22:27
07-05-2021

final eclipse3 - org.ml/src/main/java/org/ml/DataAnalysis.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Markers Properties Servers Snippets Console

<terminated> DataAnalysis [Java Application] C:\Users\SWETHA\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\javaw.exe (07-May-2021, 10:27:41 pm – 10:27:45 pm)

```
DataAnalysis
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
1372 rows X 5 cols
            data_banknote_authentication (1).csv
 Variance  |  Skewness  |  Curtosis  |  Entropy   |  Class  |
-----------------------------------------------------------
   3.6216  |    8.6661  |   -2.8073  |  -0.44699  |      0  |
   4.5459  |    8.1674  |   -2.4586  |   -1.4621  |      0  |
    3.866  |   -2.6383  |    1.9242  |   0.10645  |      0  |
   3.4566  |    9.5228  |   -4.0112  |   -3.5944  |      0  |
            data_banknote_authentication (1).csv
 Variance  |  Skewness  |  Curtosis  |  Entropy  |  Class  |
-----------------------------------------------------------
  -1.3887  |   -4.8773  |    6.4774  |  0.34179  |      1  |
  -3.7503  |  -13.4586  |   17.5932  |  -2.7771  |      1  |
  -3.5637  |   -8.3827  |    12.393  |  -1.2823  |      1  |
  -2.5419  |  -0.65804  |    2.6842  |   1.1952  |      1  |
Structure of data_banknote_authentication (1).csv
 Index  |  Column Name  |  Column Type  |
-----------------------------------------
     0  |     Variance  |       DOUBLE  |
     1  |     Skewness  |       DOUBLE  |
     2  |     Curtosis  |       DOUBLE  |
     3  |      Entropy  |       DOUBLE  |
     4  |        Class  |      INTEGER  |
                                          data_banknote_authentication (1).csv
 Summary   |       Variance       |       Skewness       |       Curtosis       |       Entropy        |        Class         |
-------------------------------------------------------------------------------------------------------------------------------
    Count  |                1372  |                1372  |                1372  |                1372  |                1372  |
      sum  |   595.0847726999998  |   2637.468481520002  |  1917.5444048900017  |  -1634.9527454999989  |                 610  |
     Mean  |  0.4337352570699696  |  1.9223531206414035  |  1.3976271172667638  |  -1.1916565200437328  |  0.44460641399416895  |
      Min  |              -7.0421  |             -13.7731  |              -5.2861  |              -8.5482  |                   0  |
      Max  |               6.8248  |              12.9516  |              17.9274  |               2.4495  |                   1  |
    Range  |              13.8669  |              26.7247  |              23.2135  |              10.9977  |                   1  |
 Variance  |   8.081299121945154  |   34.44570967967512  |  18.576359377624264  |   4.414256203357667  |   0.2471116611696257  |
 Std. Dev  |  2.8427625862785577  |    5.86904674369485  |   4.310030090106595  |   2.101013137359609  |   0.4971032701256608  |
```

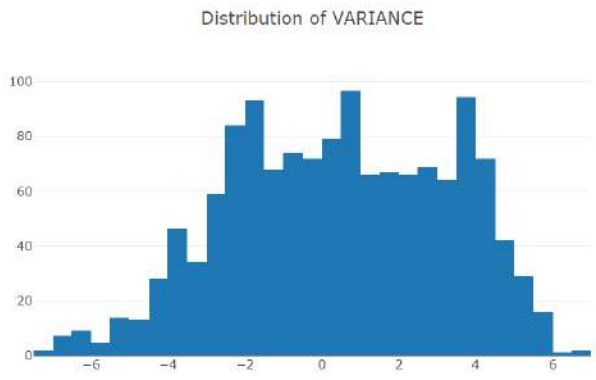
Type here to search

22:28
07-05-2021

Distribution of VARIANCE | Distribution of VARIANCE

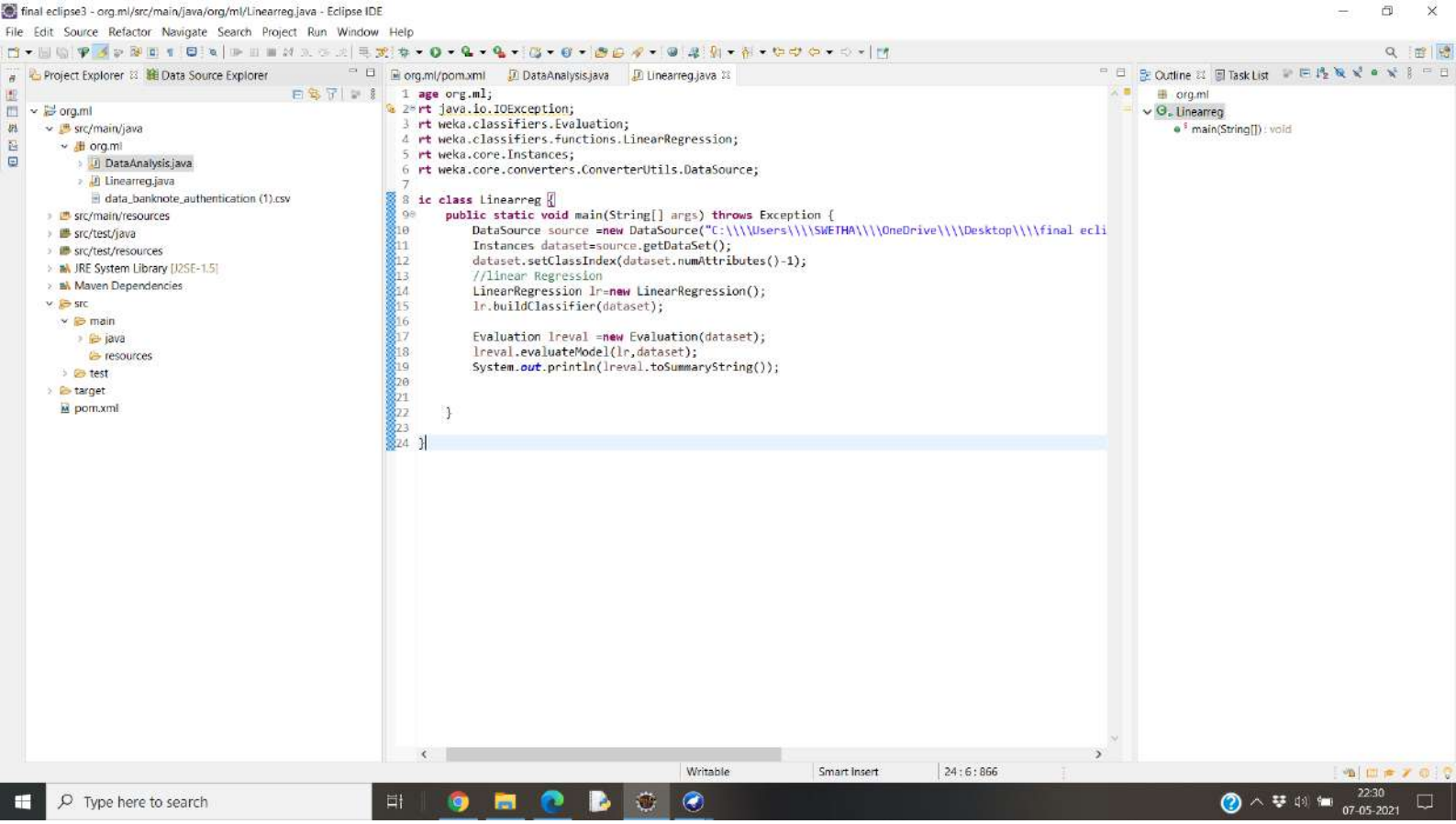
File | C:/Users/SWETHA/OneDrive/Desktop/final%20eclipse3/org.ml/testoutput/outputd1a1ef69-fbef-4c59-a892-283ed00eb89e.html

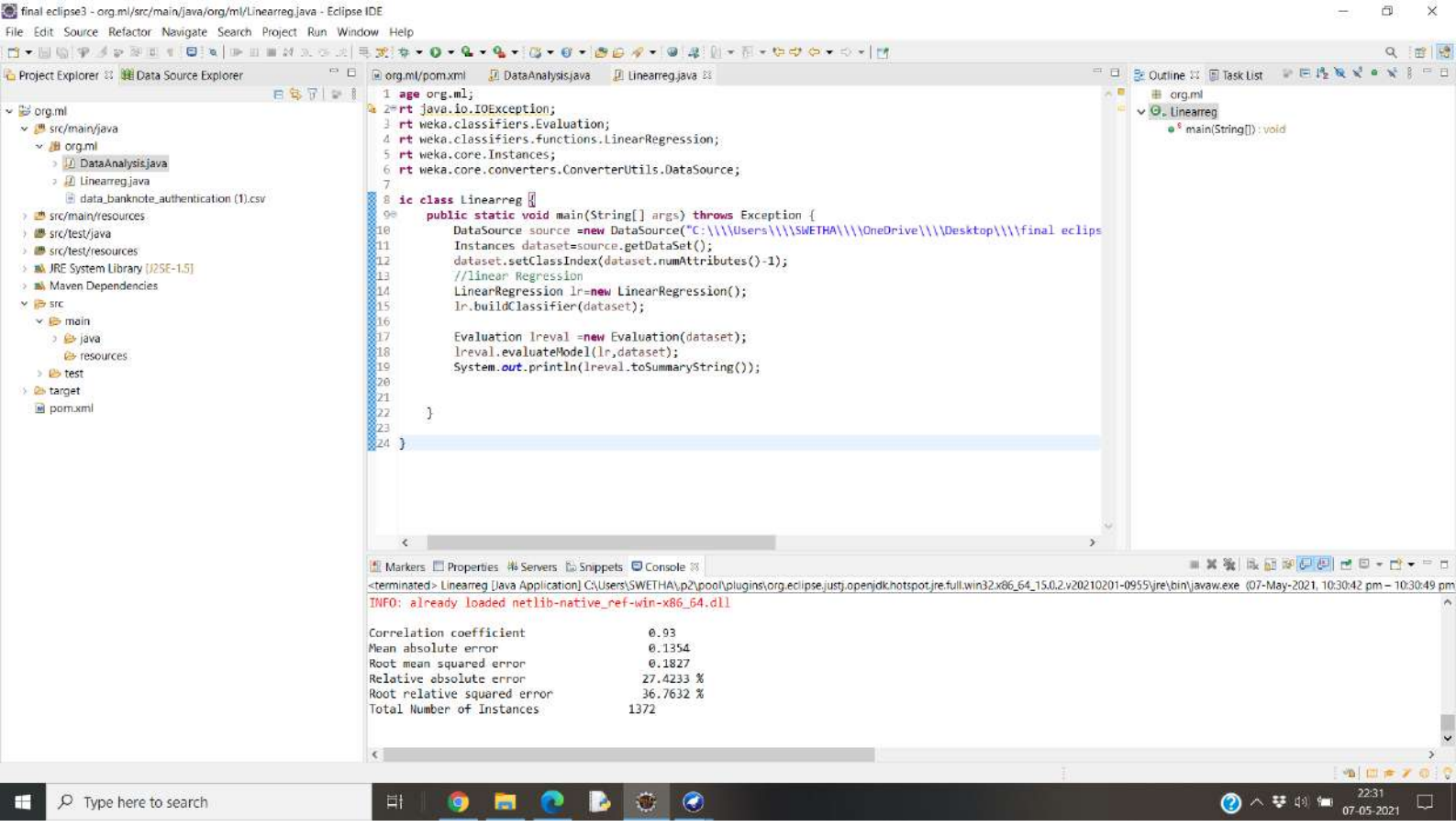
Restore Down

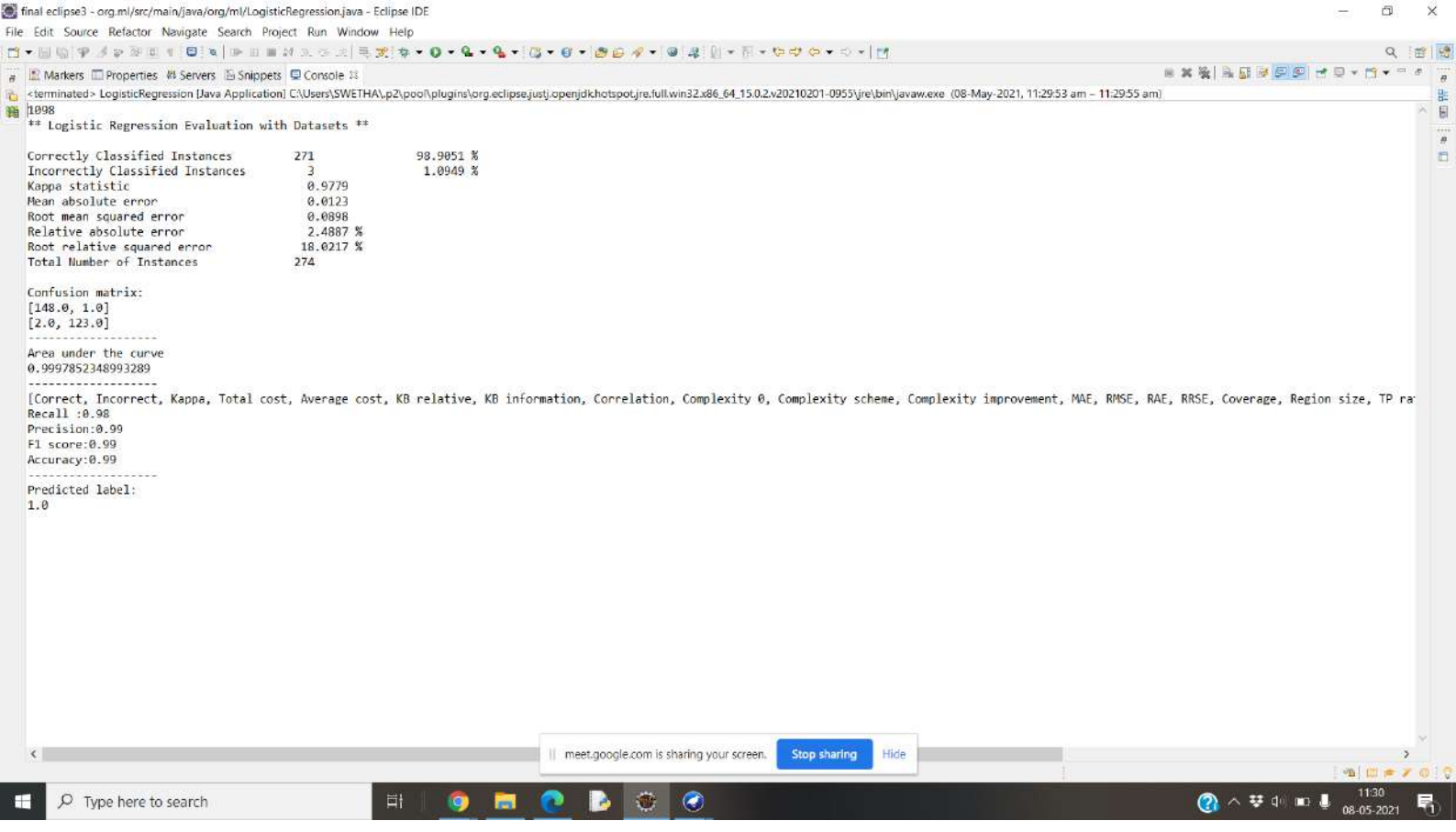


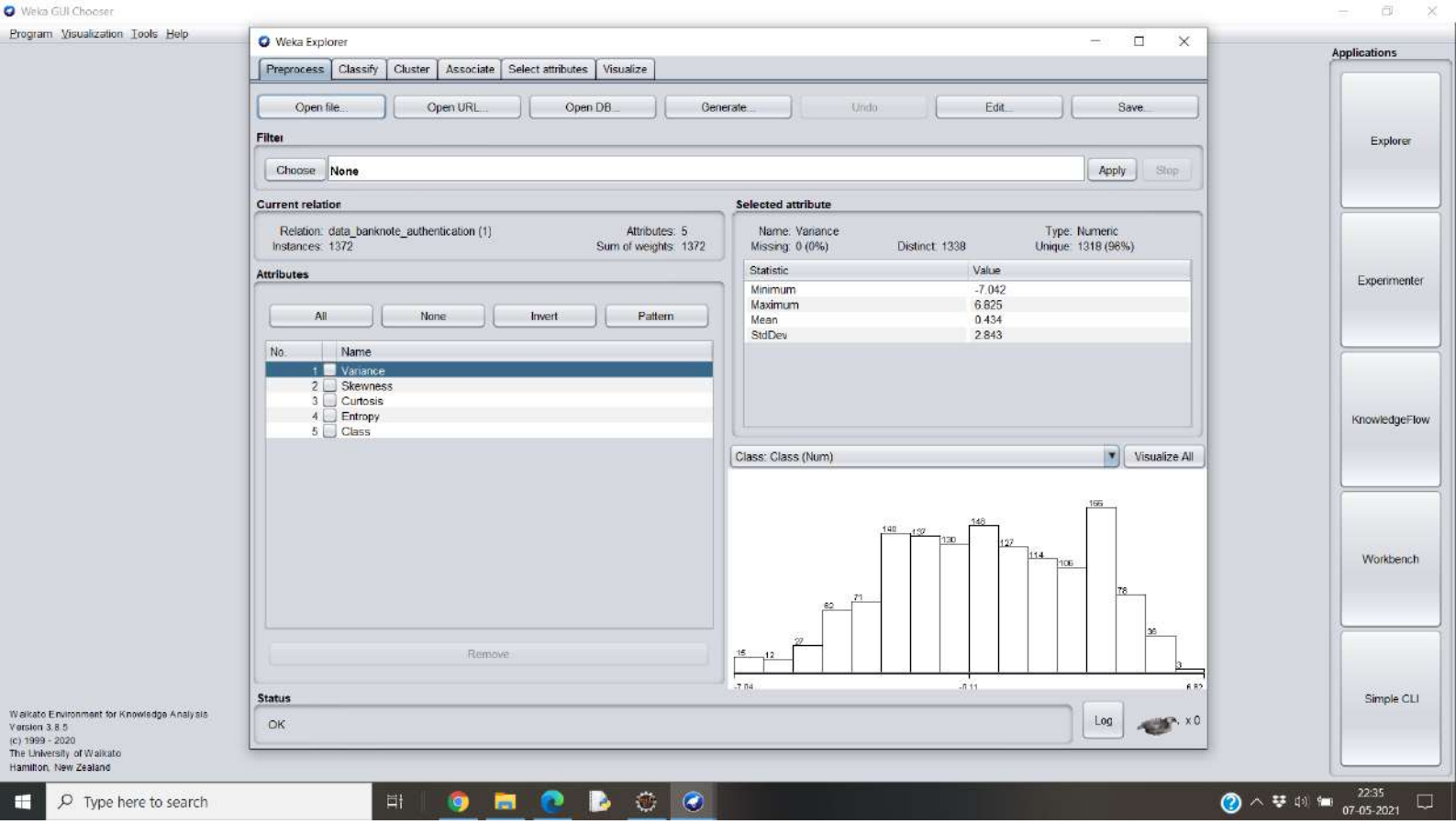
Type here to search

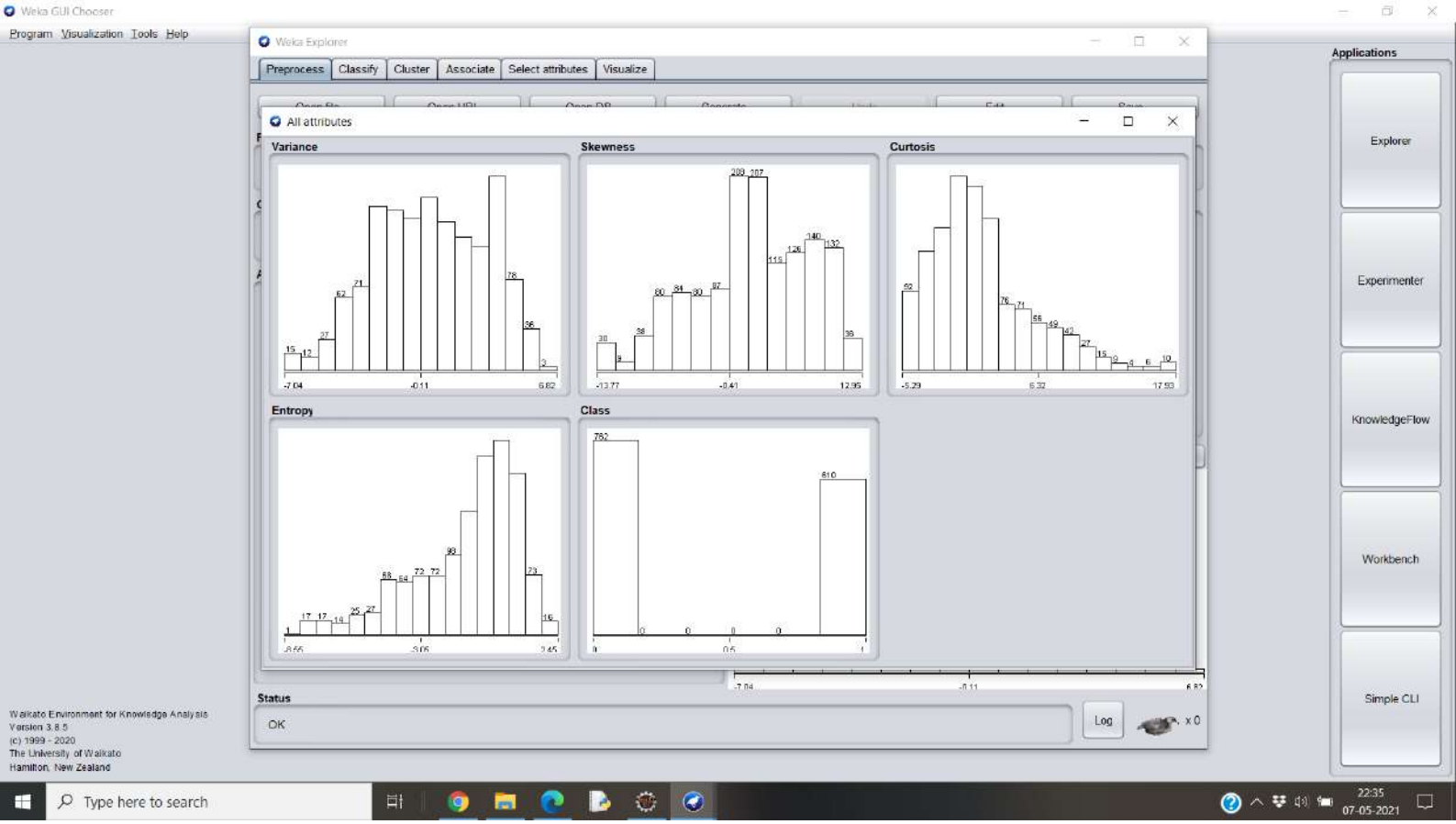
22:27
07-05-2021


final eclipse3 - org.ml/src/main/java/org/ml/Linearreg.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
Data Source Explorer
org.ml
src/main/java
org.ml
DataAnalysis.java
Linearreg.java
data_banknote_authentication (1).csv
src/main/resources
src/test/java
src/test/resources
JRE System Library [J2SE-1.5]
Maven Dependencies
src
main
java
resources
test
target
pom.xml
org.ml/pom.xml
DataAnalysis.java
Linearreg.java
age org.ml;
rt java.io.IOException;
rt weka.classifiers.Evaluation;
rt weka.classifiers.functions.LinearRegression;
rt weka.core.Instances;
rt weka.core.converters.ConverterUtils.DataSource;
ic class Linearreg {
public static void main(String[] args) throws Exception {
DataSource source =new DataSource("C:\\\\Users\\\\SWETHA\\\\OneDrive\\\\Desktop\\\\final ecli
Instances dataset=source.getDataSet();
dataset.setClassIndex(dataset.numAttributes()-1);
//linear Regression
LinearRegression lr=new LinearRegression();
lr.buildClassifier(dataset);
Evaluation lreval =new Evaluation(dataset);
lreval.evaluateModel(lr,dataset);
System.out.println(lreval.toSummaryString());
}
}
Outline
Task List
org.ml
Linearreg
main(String[]) : void
Writable
Smart Insert
24 : 6 : 866
Type here to search
22:30
07-05-2021


final eclipse3 - org.ml/src/main/java/org/ml/Linearreg.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
Data Source Explorer
org.ml
src/main/java
org.ml
DataAnalysis.java
Linearreg.java
data_banknote_authentication (1).csv
src/main/resources
src/test/java
src/test/resources
JRE System Library [J2SE-1.5]
Maven Dependencies
src
main
java
resources
test
target
pom.xml
org.ml/pom.xml
DataAnalysis.java
Linearreg.java
age org.ml;
rt java.io.IOException;
rt weka.classifiers.Evaluation;
rt weka.classifiers.functions.LinearRegression;
rt weka.core.Instances;
rt weka.core.converters.ConverterUtils.DataSource;
ic class Linearreg {
public static void main(String[] args) throws Exception {
DataSource source =new DataSource("C:\\\\Users\\\\SWETHA\\\\OneDrive\\\\Desktop\\\\final eclips
Instances dataset=source.getDataSet();
dataset.setClassIndex(dataset.numAttributes()-1);
//linear Regression
LinearRegression lr=new LinearRegression();
lr.buildClassifier(dataset);
Evaluation lreval =new Evaluation(dataset);
lreval.evaluateModel(lr,dataset);
System.out.println(lreval.toSummaryString());
}
}
Outline
Task List
org.ml
Linearreg
main(String[]) : void
Markers
Properties
Servers
Snippets
Console
<terminated> Linearreg [Java Application] C:\Users\SWETHA\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\javaw.exe (07-May-2021, 10:30:42 pm – 10:30:49 pm)
INFO: already loaded netlib-native_ref-win-x86_64.dll
Correlation coefficient 0.93
Mean absolute error 0.1354
Root mean squared error 0.1827
Relative absolute error 27.4233 %
Root relative squared error 36.7632 %
Total Number of Instances 1372
Type here to search
22:31
07-05-2021


final eclipse3 - org.ml/src/main/java/org/ml/LogisticRegression.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Markers Properties Servers Snippets Console
<terminated> LogisticRegression [Java Application] C:\Users\SWETHA\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\javaw.exe (08-May-2021, 11:29:53 am – 11:29:55 am)
1098
** Logistic Regression Evaluation with Datasets **
Correctly Classified Instances 271 98.9051 %
Incorrectly Classified Instances 3 1.0949 %
Kappa statistic 0.9779
Mean absolute error 0.0123
Root mean squared error 0.0898
Relative absolute error 2.4887 %
Root relative squared error 18.0217 %
Total Number of Instances 274
Confusion matrix:
[148.0, 1.0]
[2.0, 123.0]
Area under the curve
0.9997852348993289
[Correct, Incorrect, Kappa, Total cost, Average cost, KB relative, KB information, Correlation, Complexity 0, Complexity scheme, Complexity improvement, MAE, RMSE, RAE, RRSE, Coverage, Region size, TP ra
Recall :0.98
Precision:0.99
F1 score:0.99
Accuracy:0.99
Predicted label:
1.0
meet.google.com is sharing your screen.
Stop sharing
Hide
Type here to search
11:30
08-05-2021


Weka GUI Chooser
Program Visualization Tools Help
Weka Explorer
Preprocess Classify Cluster Associate Select attributes Visualize
Open file... Open URL... Open DB... Generate... Undo Edit... Save...
Filter
Choose None Apply Stop
Current relation
Relation: data_banknote_authentication (1)
Instances: 1372
Attributes: 5
Sum of weights: 1372
Attributes
All None Invert Pattern
No. Name
1 Variance
2 Skewness
3 Curtosis
4 Entropy
5 Class
Remove
Selected attribute
Name: Variance
Missing: 0 (0%)
Distinct: 1338
Type: Numeric
Unique: 1318 (96%)
Statistic Value
Minimum -7.042
Maximum 6.825
Mean 0.434
StdDev 2.843
Class: Class (Num)
Visualize All
Status
OK
Log
x 0
Applications
Explorer
Experimenter
KnowledgeFlow
Workbench
Simple CLI
Waikato Environment for Knowledge Analysis
Version 3.8.5
(c) 1999 - 2020
The University of Waikato
Hamilton, New Zealand
Type here to search
22:35
07-05-2021


Weka GUI Chooser
Program Visualization Tools Help
Weka Explorer
Preprocess Classify Cluster Associate Select attributes Visualize
All attributes
Variance
Skewness
Curtosis
Entropy
Class
Status
OK
Log
x 0
Applications
Explorer
Experimenter
KnowledgeFlow
Workbench
Simple CLI
Waikato Environment for Knowledge Analysis
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Hamilton, New Zealand
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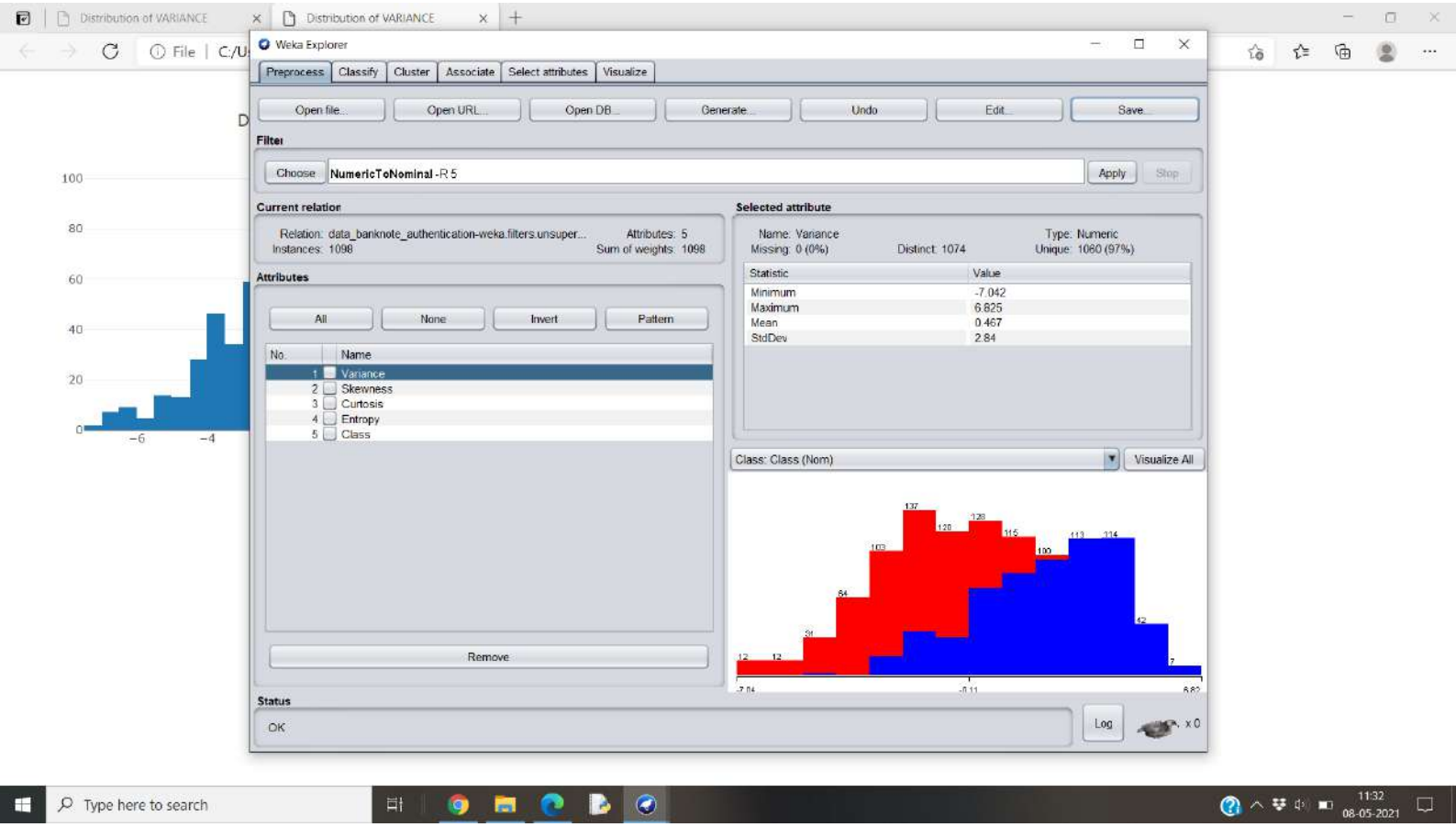
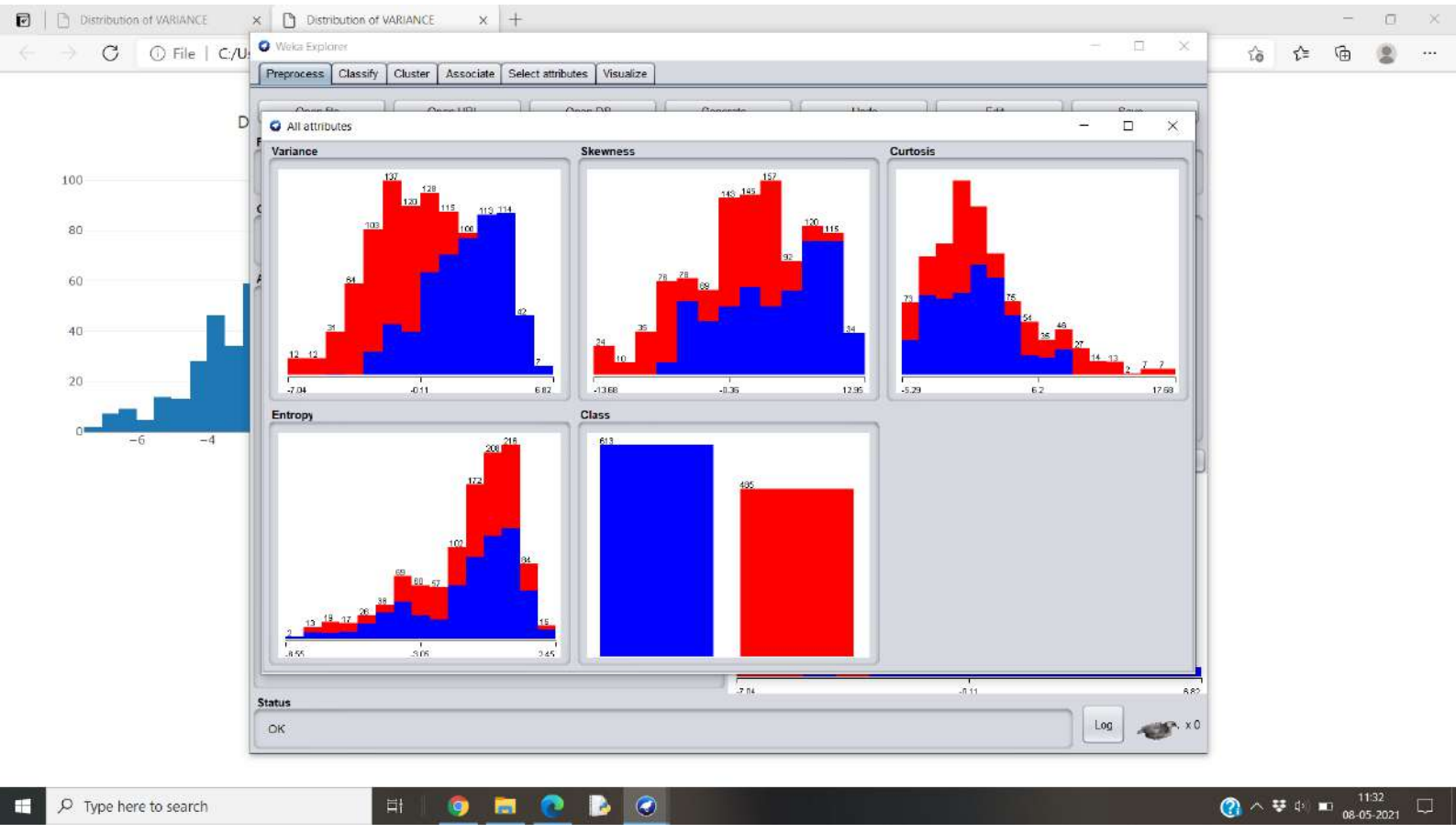
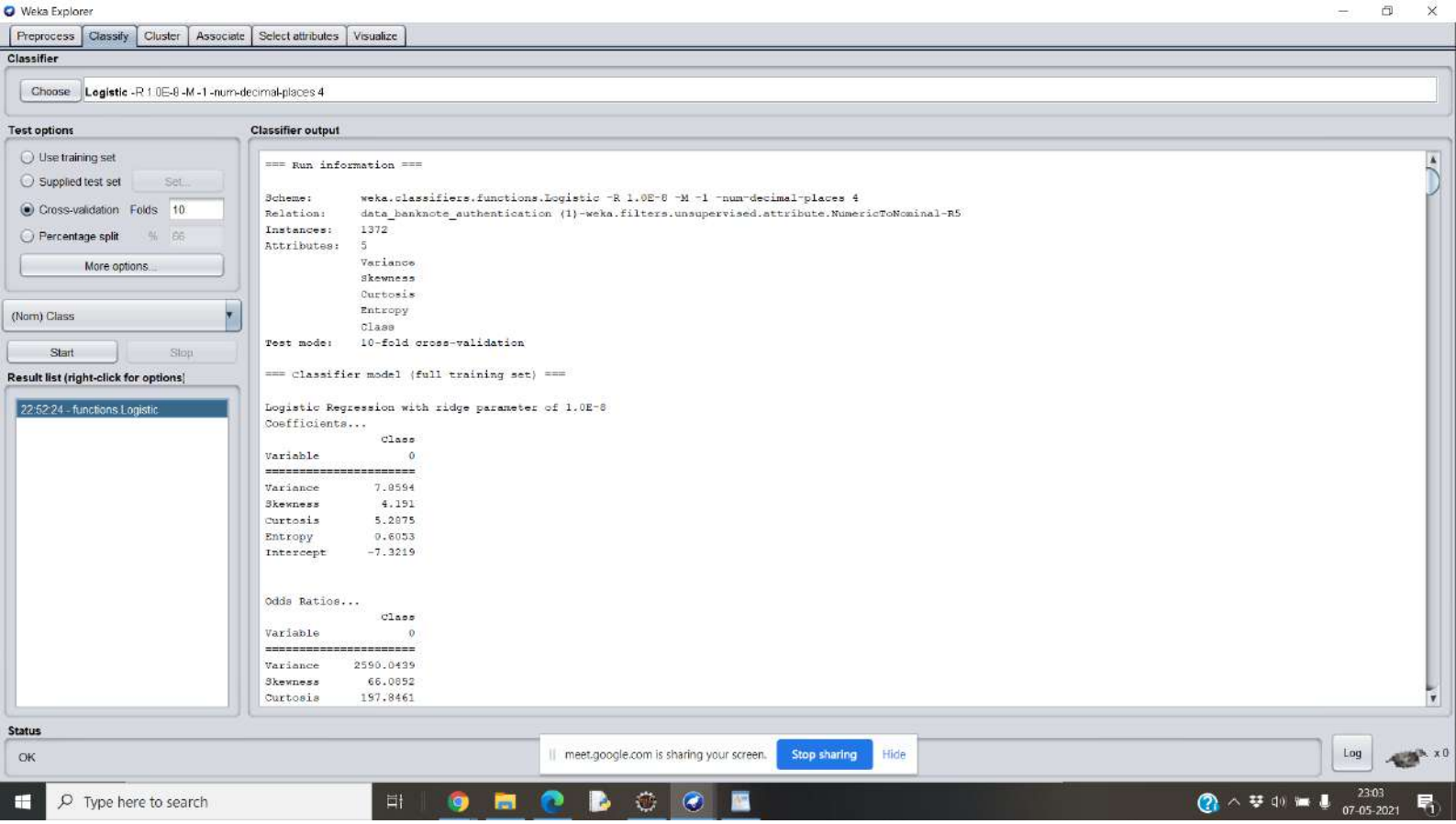
22:35
07-05-2021


Distribution of VARIANCE
Distribution of VARIANCE
Weka Explorer
Preprocess
Classify
Cluster
Associate
Select attributes
Visualize
Open file...
Open URL...
Open DB...
Generate...
Undo
Edit...
Save...
Filter
Choose
NumericToNominal -R 5
Apply
Stop
Current relation
Relation: data_banknote_authentication-weka.filters.unsuper...
Instances: 1098
Attributes: 5
Sum of weights: 1098
Selected attribute
Name: Variance
Missing: 0 (0%)
Distinct: 1074
Type: Numeric
Unique: 1060 (97%)
Statistic
Value
Minimum
-7.042
Maximum
6.825
Mean
0.467
StdDev
2.84
Attributes
All
None
Invert
Pattern
No.
Name
1 Variance
2 Skewness
3 Curtosis
4 Entropy
5 Class
Remove
Class: Class (Nom)
Visualize All
Status
OK
Log
x 0
Type here to search
11:32
08-05-2021


Distribution of VARIANCE
Distribution of VARIANCE
Weka Explorer
Preprocess
Classify
Cluster
Associate
Select attributes
Visualize
All attributes
Variance
Skewness
Curtosis
Entropy
Class
Status
OK
Log
x 0
Type here to search
11:32
08-05-2021


Weka Explorer
Preprocess
Classify
Cluster
Associate
Select attributes
Visualize
Classifier
Choose
Logistic -R 1.0E-8 -M -1 -num-decimal-places 4
Test options
Use training set
Supplied test set
Set...
Cross-validation
Folds
10
Percentage split
%
66
More options...
(Nom) Class
Start
Stop
Result list (right-click for options)
22:52:24 - functions.Logistic
Classifier output
=== Run information ===
Scheme: weka.classifiers.functions.Logistic -R 1.0E-8 -M -1 -num-decimal-places 4
Relation: data_banknote_authentication (1)-weka.filters.unsupervised.attribute.NumericToNominal-R5
Instances: 1372
Attributes: 5
Variance
Skewness
Curtosis
Entropy
Class
Test mode: 10-fold cross-validation
=== Classifier model (full training set) ===
Logistic Regression with ridge parameter of 1.0E-8
Coefficients...
Class
Variable 0
Variance 7.0594
Skewness 4.191
Curtosis 5.2875
Entropy 0.6053
Intercept -7.3219
Odds Ratios...
Class
Variable 0
Variance 2590.0439
Skewness 66.0852
Curtosis 197.8461
Status
OK
meet.google.com is sharing your screen.
Stop sharing
Hide
Log
x 0
Type here to search
23:03
07-05-2021