

EX. No : 01 **STUDY OF WEKA, RAPID MINER TOOLS AND UCI REPOSITORY DATASETS**
DATE :

AIM:

To explore the various features of Weka, Rapid miner Tools and UCI Repository datasets.

PROCEDURE:

FUNDAMENTAL TERMS:

Feature/Attribute: A single column of data is called a feature. It is a component of an observation and is also called an attribute of a data instance. Some features may be inputs to a model (the predictors) and others may be outputs or the features to be predicted.

Attribute values: Attribute values are numbers or symbols assigned to an attribute.

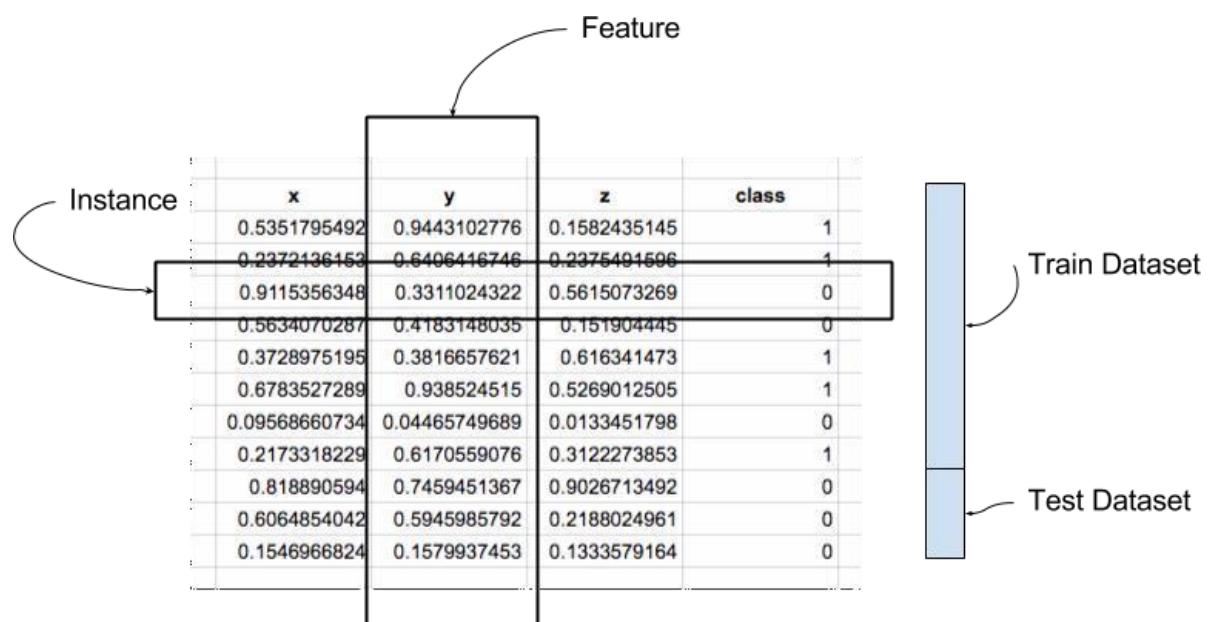
Target attribute: Target attribute is a special attribute which corresponds to the label of each instance.

Instance: Each row in the dataset is called the instance.

Datasets: A collection of instances is a dataset.

Training Dataset: A dataset that is fed into the machine learning algorithm to train the model.

Testing Dataset: A dataset that is used to validate the accuracy of the model but is not used to train the model.



WEKA:

1. Download and install weka,
 2. In the window, select the explorer button from the available five buttons.
 3. The weka supports two common formats for files:
ARFF-Attribute Relation File Format
CSV-Comma Separated Values
- EXPLORER:**

The explorer window contains preprocess, classify, cluster, associate, select attribute and visualize from which select preprocess.

OPEN FILE:

To open the default dataset into the machine.

OPEN URL:

To access the dataset in the website.

OPENDB:

To open the database which the user saved in the machine.

CHOOSE:

To select the filter option.

EDIT:

To set the filled dataset before and after the filter.

FILTERS:

To filter or tune the data.

1. REMOVE(ATTRIBUTE) :

A filter that removes a range of attributes from the dataset.

1. Open file button is clicked
2. Choose weka and open the data folder
3. Choose **heart-disease.arff**
4. In filter tab, click choose button
5. Choose unsupervised and select attribute
6. Select remove filter
7. Specify the attribute index in the filter editor window
8. Apply button is clicked
9. Choose the edit button to see the output data after filtering the attribute

2. REMOVE WITH VALUES:

Filters instances according to the value of the attribute.

1. Open file button is clicked
2. Choose heart-disease.arff
3. Choose unsupervised and select instance
4. Select “remove with values” filter
5. Set attribute index to 2 and split point to 60
6. The output contains column dataset in which the second column contains only the values which is above the split point
7. Choose the **Edit button** to view the filtered dataset

3. REPLACE WITH MISSING VALUES:

Replace all missing values for nominal and numeric attributes in a dataset with the modes and means from the training data.

1. Choose unsupervised and select attributes.
2. Select “remove missing values” filter.
3. Click “edit” and delete any one of the data.
4. Select **“Replace Missing Values”** filter
5. After applying the filter, the deleted values or any missing values are replaced by taking the mean values.
6. Click **Edit** button to view the updated dataset

4. REMOVE PERCENTAGE:

A filter that removes a given percentage of a database.

1. Choose unsupervised and select instance.
2. Select “remove percentage” filter.
3. Set percentage as “50.0”
4. After filter is applied , from the dataset 50% of the instance are removed

5. REMOVE FREQUENT VALUES:

Determine which values of attribute or retained and filters the instances accordingly.

1. Choose unsupervised and select instances.
2. Select “remove frequent values” filter.
3. Specify the attribute index as 2.

4. When apply is clicked the less frequently repeated values are removed

OUTPUT:

Dataset: heart-disease.arff

Relation: heart-disease																
No.	age	sex	cp	trestbps	chol	chol	fbst	restecg	thalatag	thalach	oldpeak	oldpeak	ca	thall	Class	Class
Non.	Sex	Chest	Pain	Bpsuse	Chromo	Cholt	Sugar	Domsorol	Nominal	Nominal	Nominal	Nominal	Tbs	Thall	Numeric	Nominal
1	63	male	typical_angina	145	233	true	normal	normal	150	2.3	down	0	fixed	disease	disease	
2	37	male	non_anginal	130	250	false	normal	Normal	187	3.5	0	flat	1	disease	disease	
3	41	female	atypical_angina	130	204	false	ST_abnormal	teethig	172	1.4	1.4	0	up	disease	no_disease	
4	56	male	non_anginal	120	236	false	normal	ST_abnormal	173	sL2	0.8	0	up	disease	no_disease	
5	57	female	typical_angina	140	354	false	normal	Section	163	0.5	0.6	0	flat	disease	disease	
6	57	male	asymptomatic	140	192	false	normal	normal	148	no	0.4	flat-	0	fixed	disease	
7	51	female	atypical_angina	140	294	false	normal	normal	153	no	1.3	flat	0	sia	disease	
8	44	male	non_anginal	140	263	false	normal	normal	173	0.0	1.3	0	tervi-	disease	disease	
8	44	male	non_anginal	120	263	false	normal	Neative	173	0.0	0.0	0	up	neverable	no_disease	

Applying Remove Filter:

WEKA Explorer

Preprocess Classify Classify Cluster Associate Select attributes Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Remove

Current relation
Relation: heart-disease
Instances: 286

Attributes: 286
Sum of weights: 286

Selected attribute
Name: sex
Missing: 0 (0%)
Type: Nominal
Unique: 2 Unique: 2 (0%)

No.	Label	Count	Weight
207	79	79	79
207	79	79	79

Attributes

All	Name	Type
Index	Name	Type
1	age	Nominal
2	sex	Nominal
3	cp	Nominal
4	trestbps	Nominal
5	chol	Nominal
6	fbst	Nominal
7	restecg	Nominal
8	thalach	Nominal
9	exang	Nominal
10	oldpeak	Nominal
11	slope	Nominal
12	ca	Nominal
13	thal	Nominal
14	Class	Nominal

weka.filters.unsupervised.attribute.Remove

About
A filter that removes a range of attributes from the

attributeIndices: 2
debug: False
doNotCheckCapabilities: False
invertSelection: False

Open... Save... OK Cancel

30 40 50 60 70 89 207 70

Add instance Undo OK Cancel

Viewer

Relation: heart-disease

No.	age	sex	cp	trestbps	chol	chol	fbst	restecg	thalat	thalach	oldpeak	oldpeak	ca	thal	Class	Class
Nom.	Sex	Chest	Pain	Blood pressure	Cholesterol	Chol	Sugar	Electrocardiogram	Normal	Nominal	Nominal	Nominal	Tbs	Thall	Numeric	Nominal
1	63	male	typical_angina	145	233	true	normal	normal	150	2.3	down	0	fixed	disease	disease	
2	37	male	non_anginal	130	250	false	normal	Normal	187	3.5	3.5	0	flat	disease	disease	
3	41	female	atypical_angina	130	204	false	ST_abnormal	ST_abnormal	172	1.4	1.4	0	up	disease	no_disease	
4	56	male	non_anginal	120	236	false	normal	ST_abnormal	173	st2	0.8	0	up	disease	no_disease	
5	57	female	typical_angina	140	354	false	normal	Normal	163	0.5	0.6	0	flat	disease	disease	
6	57	male	asymptomatic	140	192	false	normal	normal	148	no	0.4	flat	0	fixed	disease	
7	51	female	atypical_angina	140	294	false	normal	normal	153	no	1.3	flat	0	slope	disease	
8	44	male	non_anginal	140	263	false	normal	normal	173	0.0	1.3	0	fibrill-	disease	disease	
8	44	male	non_anginal	120	263	false	normal	Normal	173	0.0	0.0	0	up	reversible	no_disease	

Add instance Undo OK

Applying Remove with values Filter

WEKA Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

RemoveWithValues > 5.0 < 9-1 Apply

Current relation
Relation: heart-disease
Instances: 286

Attributes			Selected attribute		Type: Nominal
Index	Name	Type	Name: sex	Missing: 0 (0%)	Unique: 2 Unique: 2 (0%)
1	age	Numinal			
2	sex	Numinal			
3	cp	Nominal			
4	trestbps	Nominal			
5	chol	Nominal			
6	fbst	Nominal			
7	restecg	Nominal			
8	thalach	Nominal			
9	exang	Nominal			
10	oldpeak	Nominal			
11	slope	Nominal			
12	ca	Nominal			
13	thal	Nominal			
14	Class	Nominal			

weka.gui.GenericObjectEditor weka.filters.unsupervised.instance.RemoveWithValues

About

Filters instances according to the value of an attribute.

attributeIndex: 2
debug: False
doNotCheckCapabilities: False
dontFilterAfterFirstBatch: False
invertSelection: False
matchMissingValues: False
modifyHeader: False
nominalIndices:
splitPoint: 60.0

Count Weight

	Count	Weight
207	79	
207	79	

Visualize

60 62 68 75

80 60 129

Status: OK

Add instance Undo OK Cancel

Viewer

Relation: heart-disease--weka.filters.unsupervised.attribute.Remove-R2-weka.filters.unsupervised.instance.RemoveWithValues-S0.0-C9-L1

Instance

No.	3. Rroaal	age 2ostbae	sex -weks	cp Rem..	trestbps Opromaal	chol fionremiss...	(ffs) Eeaaocg	ffs Eeaaeg	restecg Opnrisat	thalach Opr-nitiat	exang Skipccih	oldpeak Opr-nitiat	slope Nonmal	ca fne	thal Eaing	ot tha	Class Nominal
1	63	female	typical_angina		120	354	false	ST_abnormal		163	yes	0.6	0	flat	0	disease	
2	57	female	atypical_angina		140	294	false	normal		153	no	1.3	0	flat	0	disease	
3	66	female	typical_angina		178	228	false	ST_abnormal		165	yes	1.0	0	flxt	2	disease	
4	80	female	asymptomatic		102	226	false	ST_abnormal		178	no	1.0	0	flxt	2	disease	
5	54	female	asymptomatic		140	309	false	normal		140	yes	0.0	1	fixt	0	disease	
6	69	female	asymptomatic		160	286	false	ST_abnormal		108	yes	1.5	3	flxt	3	disease	
7	58	female	atypical_angina		136	319	false	normal		152	yes	0.0	2	fixed	0	disease	
8	61	female	asymptomatic		130	330	false	ST_abnormal		169	no	1.0	0	flat	1	disease	
9	68	female	asymptomatic		133	253	false	normal		165	no	0.0	0	fixed	0	disease	
10	69	female	asymptomatic		150	212	false	ST_abnormal		108	no	1.5	2	flat	2	disease	
11	67	female	atypical_angina		158	212	false	ST_abnormal		99	no	0.4	2	fixed	2	disease	
12	62	female	atypical_angina		138	294	false	ST_abnormal		106	no	1.9	3	flat	3	disease	

Add instance Undo OK Cancel

Applying Replacing Missing Value Filter

WEKA Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter Choose ReplaceMissingValues Apply

Current relation
Relation: heart-disease-weka.filters.unsupervised.attribute.Remove-R2-weka.filters.uns:
286 instances.13 1313

Attributes

All	None	Invert	Pattern
Index	Name	Name	
1	<input type="checkbox"/> age		
2	<input type="checkbox"/> sex		
3	<input type="checkbox"/> cp		
4	<input type="checkbox"/> trestbps		
5	<input type="checkbox"/> chol		
6	<input type="checkbox"/> fbs		
7	<input type="checkbox"/> restecg		
8	<input type="checkbox"/> thalach		
9	<input type="checkbox"/> exang		
10	<input type="checkbox"/> oldpeak		
11	<input type="checkbox"/> slope		
12	<input type="checkbox"/> ca		
13	<input type="checkbox"/> Class		

Remove

Status: OK

Selected attribute
Name: age Type: Nominal
Missing: 0 (0%) Distinct: 5 Unique: 5 (11%)

No.	Label	Count	Weight
2	10-19	0	0
3	20-29	0	0
4	30-39	15	0
5	40-49	90	72
6	50-59	72	67
7	60-69	67	42
8	70-79	42	0
9	90-99	0	0

Class: Class (Nom) Visualize

Add instance Undo OK Cancel

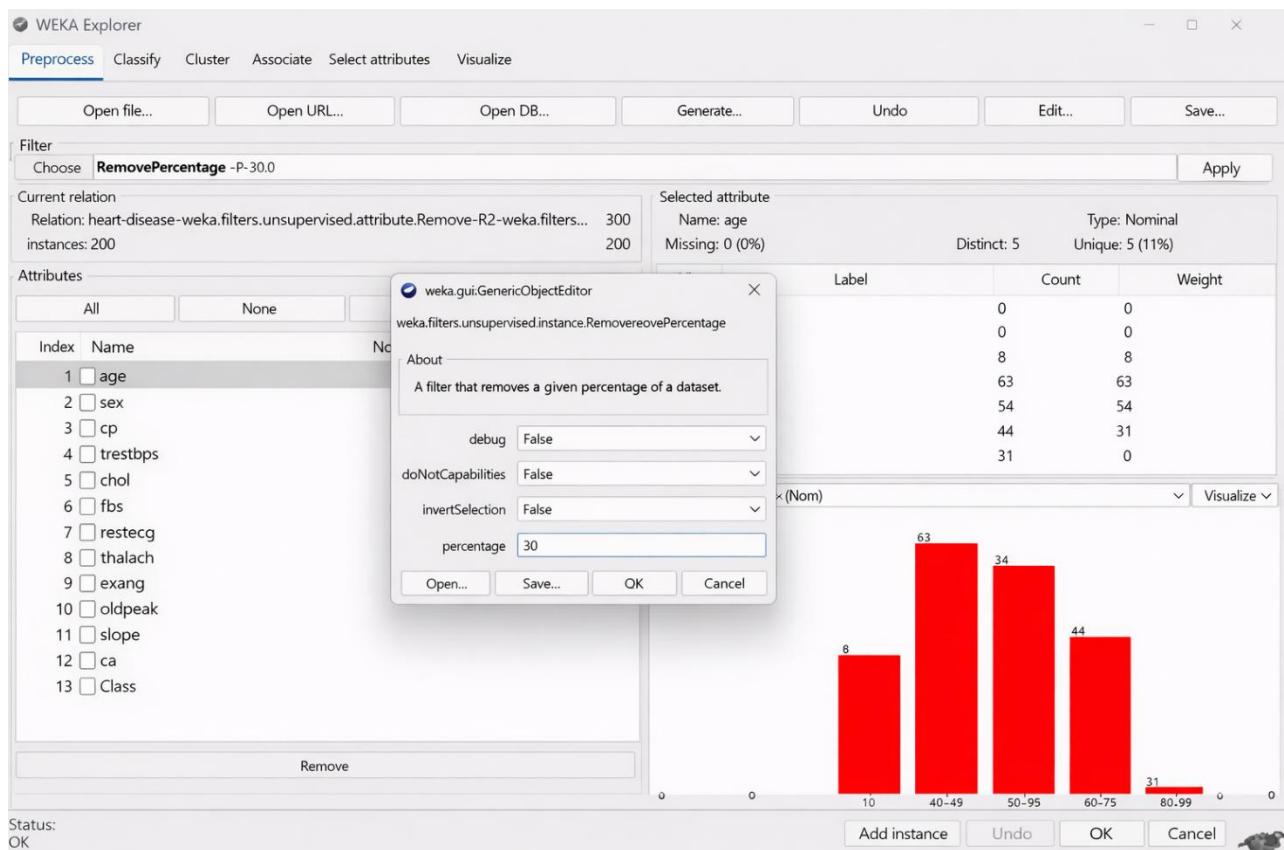
Viewer

Relation: heart-disease-weka.filters.unsupervised.attribute.Remove-R2-weka.filters.unsupervised.intsaince.Remove.RemoveWithValues-S0.0-C9-L1

No.	1: age	2: sex	cp	cp	trestbps	5: chol	7: fbs	7: restecg	8: thalach	9: exang	Oldpeak	11: slope	12: 11	Class
	Nominal	Nominal	Nominal	Nominal	Numeric	Numeric	Nominal	Nominal	Numeric	Numeric	Numeric	Nominal	Nominal	Nominal
1	63	female	typical_angina	120	354	false	ST_abnormal	163	yes	0.6	flat	0	0	disease
2	57	female	atypical_angina	140	294	false	normal	153	no	1.3	flat	0	0	disease
3	66	female	typical_angina	178	228	false	ST_abnormal	165	yes	1.0	flat	2	2	disease
4	80	female	asymptomatic	102	226	false	ST_abnormal	178	no	1.0	flat	1	1	disease
5	54	female	asymptomatic	140	309	false	normal	140	yes	0.0	up	1	1	disease
6	67	female	asymptomatic	160	286	false	ST_abnormal	108	yes	1.5	flat	3	3	disease
7	58	female	atypical_angina	136	319	false	normal	152	yes	0.0	up	2	2	disease
8	61	female	asymptomatic	130	330	false	ST_abnormal	169	yes	0.0	flat	0	1	disease
9	68	female	asymptomatic	133	253	false	normal	165	no	0.0	flat	1	2	disease
10	69	female	asymptomatic	160	212	false	ST_abnormal	108	no	1.5	flat	2	2	disease
11	67	female	asymptomatic	152	212	false	ST_abnormal	99	no	0.4	flat	2	2	disease
12	62	female	atypical_angina	138	294	false	ST_abnormal	106	no	1.9	flat	3	3	disease

Status: Add instance Undo OK Cancel

Applying Remove Percentage Filter



Viewer

Relation: heart-disease-weka.filters.unsupervised.attribute.Remove-R2-weka.filters.unsupervised.instance.RemovePercentage-P30.0

No.	1: age	2: sex	cp	trestbps	5: chol	6: fbs	7: restecg	8: rright	thalach	9: exang	10: oldpeak	12: slope	Class
	Nominal	Nominal	Nominal	Nominal	Nominal	Nominal	Nominal	Sopical	Nominal	Nominal	(Aponinias)	Nominal	Nominal
1	62	female	typical_angina	138	false	ST_abnormal	106	106	no	1.9	3	disease	
2	57	female	asymptomatic	136	false	normal	229	152	no	1.0	2	disease	
3	66	female	typical_angina	178	false	ST_abnormal	178	165	no	1.0	2	disease	
4	58	female	typical_angina	228	false	normal	152	173	yes	1.0	2	disease	
5	80	female	asymptomatic	102	false	ST_abnormal	178	178	no	1.5	2	disease	
6	81	female	asymptomatic	130	false	normal	178	169	yes	1.0	1	disease	
7	81	female	asymptomatic	102	false	ST_abnormal	163	178	ne	2.0	2	disease	
8	80	female	asymptomatic	159	false	normal	214	228	no	3.0	1	disease	
9	81	female	asymptomatic	198	false	miss	163	209	no	3.0	2	disease	
10	80	female	asymptomatic	199	false	nasoule	318	152	no	3.0	1	disease	
11	81	female	asymptomatic	100	false	normal	168	109	no	0.0	2	disease	
12	81	female	asymptomatic	130	false	fasel	228	213	usv	3.0	1	disease	
13	66	female	asymptomatic	120	false	normal	209	228	yes	2.0	4	disease	
14	74	female	asymptomatic	100	false	faset	121	106	no	1.9	3	disease	

Services:

Add instance Undo OK Cancel

Applying Remove Frequent Values Filter

WEKA Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter Choose RemoveFrequentValues -C 13 -N 1 Apply

Current relation Relation: heart-disease-weka.filters.unsupervised.attribute.Remove-R2-weka.filters... instances: 31

Selected attribute Name: age Type: Nominal Missing: 0 (0%) Distinct: 4 Unique: 0 (0%)

Attributes

All	None	
Index	Name	- Name
1 <input type="checkbox"/> age		
2 <input type="checkbox"/> sex		
3 <input type="checkbox"/> cp		
4 <input type="checkbox"/> trestbps		
5 <input type="checkbox"/> chol		
6 <input type="checkbox"/> fbs		
7 <input type="checkbox"/> restecg		
8 <input type="checkbox"/> thalach		
9 <input type="checkbox"/> exang		
10 <input type="checkbox"/> oldpeak		
11 <input type="checkbox"/> slope		
12 <input type="checkbox"/> ca		
13 <input type="checkbox"/> Class		

weka.filters.unsupervised.instance.RemoveFrequentValues

About Determines which values (frequent or infrequent ones) of an (nominal) attribute are retained and filters the instances accordingly.

weka.gui.GenericObjectEditor

attributeIndex 13 debug False doNotCheckCapabilities False invertSelection False modifyHeader False numValues 1 useLeastValues False

Label Count Weight

0	0	0
0	0	0
7	7	7
7	7	7
7	7	7
7	0	0

Remove

Status: OK Add instance Undo OK Cancel

WEKA Explorer

Viewer

Relation: heart-disease-weka.filters.unsupervised.attribute.Remove-R2-weka.filters.unsupervised.instance.RemoveFrequentValues-C13-N1

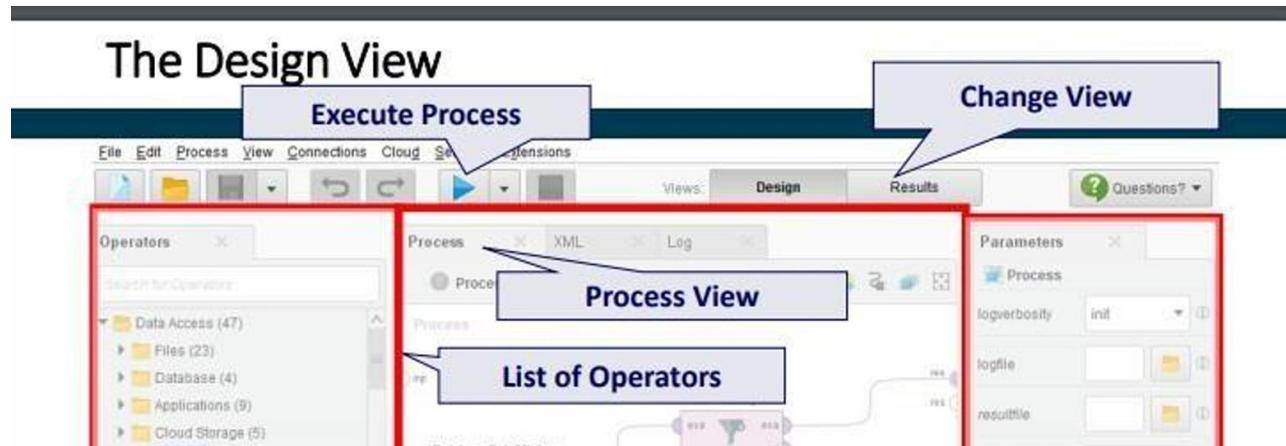
No. 1: age 2: sex cp 4: trestbps 5: chol 6: fbs 7: restecg 8: thalach 9: exang 10: oldpeak 11: slope

No.	1: age	2: sex	cp	4: trestbps	5: chol	6: fbs	7: restecg	8: thalach	9: exang	10: oldpeak	11: slope	
1	62	female	typical_angina	138	false	ST_abnormal	106	no	1.9	flat		
2	57	female	male	asymptomatic	136	false	normal	229	no	1.0	up	
3	66	female	female	typical_angina	178	false	ST_abnormal	165	no	1.0	flat	
4	58	66	female	female	typical_angina	136	false	normal	152	yes	1.0	flat
5	80	80	female	female	asymptomatic	102	false	ST_abnormal	178	yes	1.5	flat
6	81	81	female	female	asymptomatic	102	false	normal	214	no	2.0	up
7	80	80	female	female	asymptomatic	130	false	nasoule	136	yes	3.0	flat
8	61	61	female	female	asymptomatic	150	false	ST_abnormal	169	yes	1.5	up
9	58	58	male	female	asymptomatic	150	false	normal	111	yes	0.0	up
11	55	59	male	male	asymptomatic	150	false	ST_abnormal	182	yes	1.4	flat
12	62	62	male	male	asymptomatic	270	false	normal	103	yes	1.4	flat
13	81	81	male	male	asymptomatic	178	false	nasoule	112	yes	3.0	flat
14	77	77	male	male	asymptomatic	125	false	normal	232	yes	1.5	up
15	57	57	male	male	atypical_angina	128	false	fasel	150	no	1.0	up
15	59	59	male	male	asymptomatic	134	false	ST_abnormal	134	yes	2.8	flat
16	57	77	male	male	asymptomatic	134	false	ST_abnormal	409	yes	2.8	flat

Status: OK Add instance Undo OK Cancel

RAPIDMINER:

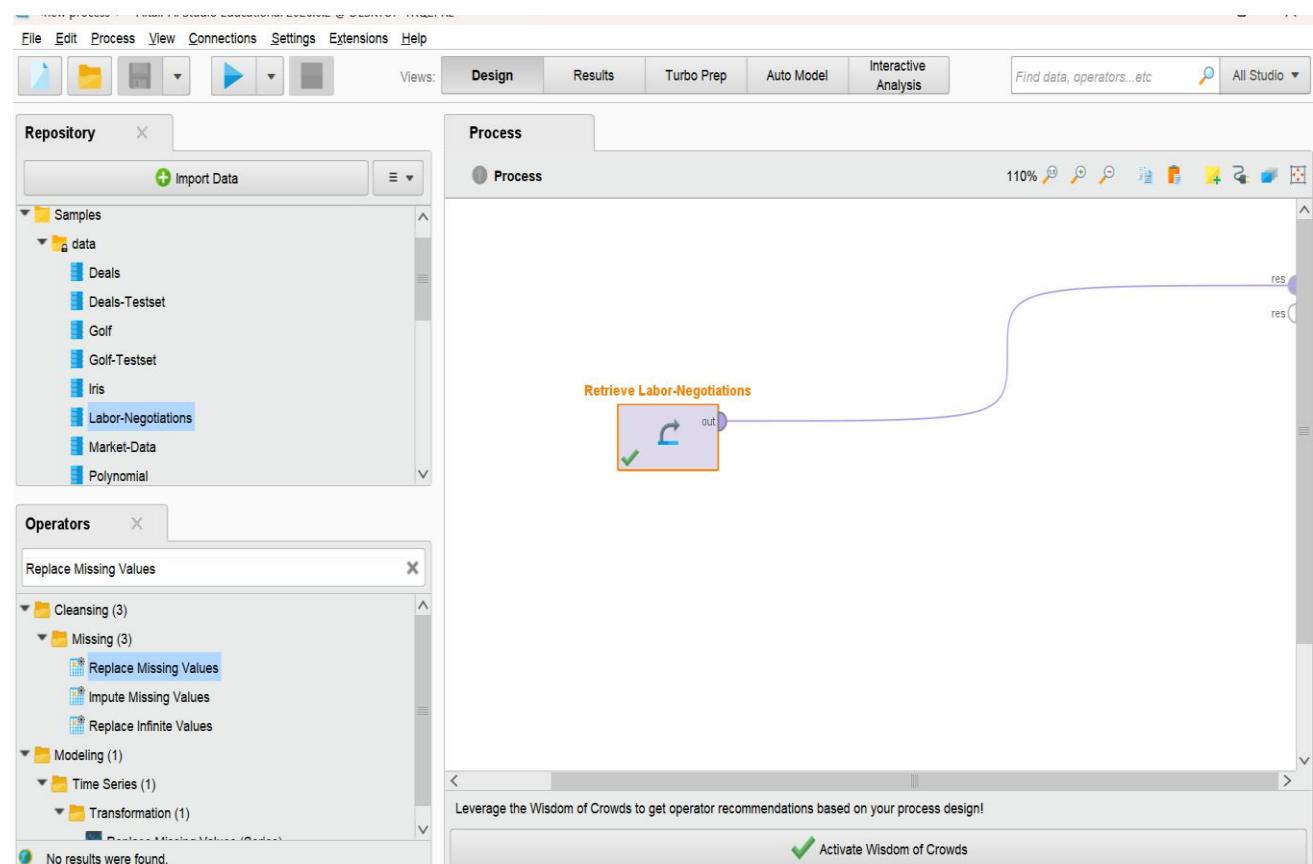
Design View



Preprocessing: Replace missing values

1. Load the Labor-Negotiations data set from the Samples folder.
2. Drag and drop the Replace Missing Values Operator. It applies the replacement on all attributes in the dataset which have at least one missing value.
3. Click the play button and view the output.

Dataset with missing values:



<new process*> – Altair AI Studio Educational 2026.0.2 @ DESKTOP-TRQ2PRL

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Interactive Analysis Find data, operators...etc All Studio

Result History ExampleSet (Retrieve Labor-Negotiations)

Open in Turbo Prep Auto Model Interactive Analysis Filter (40 / 40 examples): all

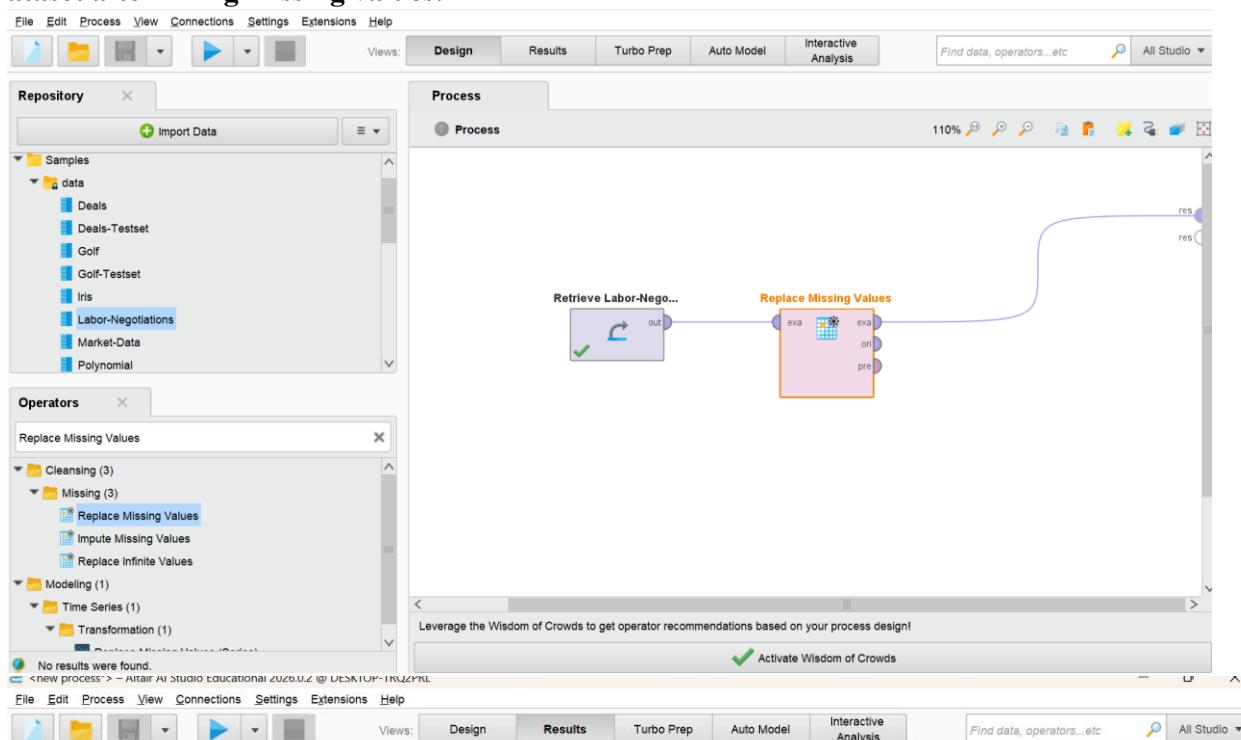
Row No.	class	duration	wage-inc-1st	wage-inc-2nd	wage-inc-3rd	col-adj	working-ho...	pension
1	good	1	5	?	?	?	40	?
2	good	2	4.500	5.800	?	?	35	ret_allw
3	good	?	?	?	?	?	38	empl_cont
4	good	3	3.700	4	5	tc	?	?
5	good	3	4.500	4.500	5	?	40	?
6	good	2	2	2.500	?	?	35	?
7	good	3	4	5	5	tc	?	empl_cont
8	good	3	6.900	4.800	2.300	?	40	?
9	good	2	3	7	?	?	38	?
10	good	1	5.700	?	?	none	40	empl_cont
11	good	3	3.500	4	4.600	none	36	?
12	good	2	6.400	6.400	?	?	38	?
13	bad	2	3.500	4	5.100	tcf	37	?
14	good	3	3.500	4	5.100	tcf	37	?
15	good	1	3	?	?	none	36	?

ExampleSet (40 examples, 1 special attribute, 16 regular attributes)

Repository

- Training Resources (connected)
 - Samples
 - data
 - Deals
 - Deals-Testset
 - Golf
 - Golf-Testset
 - Iris
 - Labor-Negotiations
 - Market-Data
 - Polynomial
 - Products
 - Purchases
 - Ripley-Set
 - Sonar
 - Titanic
 - Titanic Training
 - Titanic Unlabeled
 - Transactions
 - Weighting

Dataset after filling missing values:



<new process*> – Altair AI Studio Educational 2026.0.2 @ DESKTOP-TRQ2PRL

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Interactive Analysis Find data, operators...etc All Studio

Result History ExampleSet (Replace Missing Values)

Open in Turbo Prep Auto Model Interactive Analysis Filter (40 / 40 examples): all

Row No.	class	duration	wage-inc-1st	wage-inc-2nd	wage-inc-3rd	col-adj	working-ho...	pension
1	good	1	5	3.913	3.767	none	40	none
2	good	2	4.500	5.800	3.767	none	35	ret_allw
3	good	2	3.621	3.913	3.767	none	38	empl_cont
4	good	3	3.700	4	5	tc	38	none
5	good	3	4.500	4.500	5	none	40	none
6	good	2	2	2.500	3.767	none	35	none
7	good	3	4	5	5	tc	38	empl_cont
8	good	3	6.900	4.800	2.300	none	40	none
9	good	2	3	7	3.767	none	38	none
10	good	1	5.700	3.913	3.767	none	40	empl_cont
11	good	3	3.500	4	4.600	none	36	none
12	good	2	6.400	6.400	3.767	none	38	none
13	bad	2	3.500	4	3.767	none	40	none
14	good	3	3.500	4	5.100	tcf	37	none
15	good	1	3	3.913	3.767	none	36	none

ExampleSet (40 examples, 1 special attribute, 16 regular attributes)

Repository

- Training Resources (connected)
 - Samples
 - data
 - Deals
 - Deals-Testset
 - Golf
 - Golf-Testset
 - Iris
 - Labor-Negotiations
 - Market-Data
 - Polynomial
 - Products
 - Purchases
 - Ripley-Set
 - Sonar
 - Titanic
 - Titanic Training
 - Titanic Unlabeled
 - Transactions
 - Weighting

UCI Repository:

The screenshot shows the UCI Machine Learning Repository homepage. On the left, there is a sidebar titled "Filters" with dropdown menus for "Keywords", "Attributes", "Data Type", "Subject Area", "Task", "# Instances", "# Features", and "Python". The main area is titled "Browse Datasets" and features a search bar and sorting options ("SORT BY # VIEWS, DESC" and "EXPAND ALL"). A dataset card for "Heart Disease" is displayed, showing a blue icon of a database, the title "Heart Disease", a description "4 databases: Cleveland, Hungary, Switzerland, and the VA Long Beach.", and tags "Classification", "Multivariate", and "303 Instances".

Sample dataset:

The screenshot shows the detailed view for the "Heart Disease" dataset. At the top, there is a header with the dataset name, a download count of "Downloads: 5.04/1988", and buttons for "DOWNLOAD (289 KB)", "IMPORT IN PYTHON", and "CITE". Below the header, there is a table of "Dataset Characteristics" with columns for "Subject Area" (Cleveland, Hungary, Switzerland, VA Long Beach), "Associated Tasks" (Classification), and "Keywords" (health, cardiology). The table also includes rows for "# Instances" (303) and "# Features" (13). To the right of the table, there is a section for "Creators" listing "D.D. Lissner" and "M.A. Clark". On the left, there are sections for "Additional Information" (describing four databases) and "Introductory Paper" (mentioning a 1989 paper by D.D. Lissner and M.A. Clark). At the bottom, there is a "Variables Table" with buttons for "Add Instance", "Undo", "OK", and "Cancel".

Conclusion: The various features of Weka Tool, Rapidminer Tool and UCI Repository datasets have been explored.

MARK ALLOCATION	
Conduct of Experiment(30)	
Record Observation (20)	
Viva (10)	
Total (60)	
Signature of the Faculty with Date	