

=== Run information ===

Scheme: weka.classifiers.functions.MultilayerPerceptron -L 0.3 -
M 0.2 -N 500 -V 0 -S 0 -E 20 -H a -R
Relation: data
Instances: 165
Attributes: 4
DEPT
CLASS
AGE
INCOME
Test mode: split 80.0% train, remainder test

=== Classifier model (full training set) ===

Sigmoid Node 0

Inputs	Weights
Threshold	5.077849919304933
Node 2	-0.7988700079898031
Node 3	-3.255330730049272
Node 4	-1.6849103640762988
Node 5	-1.9722357346589914
Node 6	-0.6077028566801435
Node 7	0.6877457905152887
Node 8	-0.4982510040846006
Node 9	-2.614381465228298
Node 10	-2.1185097501440233

Sigmoid Node 1

Inputs	Weights
Threshold	-5.077776341999069
Node 2	0.8299328096639222
Node 3	3.2668069308453083
Node 4	1.6310381053303158
Node 5	1.9751693228544365
Node 6	0.5808522121372134
Node 7	-0.6837530207251153
Node 8	0.48462900732590103
Node 9	2.61506242622315
Node 10	2.148468070719643

Sigmoid Node 2

Inputs	Weights
Threshold	-0.0862034998667669
Attrib DEPT=sales	0.012600993238492767
Attrib DEPT=systems	0.319119309122466
Attrib DEPT=marketing	0.01847411578253665
Attrib DEPT=secretary	-0.19171693697429357
Attrib AGE=31...35	-0.3122482391062598
Attrib AGE=26...30	0.5835492730772197
Attrib AGE=21...25	0.7542810828120732
Attrib AGE=41...45	-0.2516336438106409

Attrib AGE=36...40	-0.38342085512708035
Attrib AGE=46...50	-0.2092825794255801
Attrib INCOME=46K...50K	-0.5719453876964095
Attrib INCOME=26K...30K	0.3499069945630242
Attrib INCOME=31K...35K	0.8599736495383073
Attrib INCOME=66K...70K	-0.6757140926272822
Attrib INCOME=41K...45K	0.473822646564802
Attrib INCOME=36K...40K	-0.23159494351598092

Sigmoid Node 3

Inputs	Weights
Threshold	0.025346272016822675
Attrib DEPT=sales	-0.32864194581758743
Attrib DEPT=systems	0.5920642195263257
Attrib DEPT=marketing	0.20156508031761194
Attrib DEPT=secretary	-0.6007585551542151
Attrib AGE=31...35	-0.6062600733319661
Attrib AGE=26...30	1.2852738771258672
Attrib AGE=21...25	1.5699313688961292
Attrib AGE=41...45	-0.7509412765773987
Attrib AGE=36...40	-1.030908644764205
Attrib AGE=46...50	-0.730265531815039
Attrib INCOME=46K...50K	-1.2139777194307755
Attrib INCOME=26K...30K	0.483501016200008
Attrib INCOME=31K...35K	1.8622117941871028
Attrib INCOME=66K...70K	-1.8354040575268296
Attrib INCOME=41K...45K	1.170525103478124
Attrib INCOME=36K...40K	-0.7178887222234803

Sigmoid Node 4

Inputs	Weights
Threshold	0.04652778619838557
Attrib DEPT=sales	-0.18370043339262998
Attrib DEPT=systems	0.38317269323577663
Attrib DEPT=marketing	0.06872941128984153
Attrib DEPT=secretary	-0.36964728943767017
Attrib AGE=31...35	-0.4057412390102152
Attrib AGE=26...30	0.9276241611072672
Attrib AGE=21...25	1.0970233668154248
Attrib AGE=41...45	-0.4471506059015922
Attrib AGE=36...40	-0.6263550280798209
Attrib AGE=46...50	-0.42646235986262765
Attrib INCOME=46K...50K	-0.8282809963284244
Attrib INCOME=26K...30K	0.3958174335925042
Attrib INCOME=31K...35K	1.332524172687337
Attrib INCOME=66K...70K	-1.140083203428786
Attrib INCOME=41K...45K	0.6956100621626619
Attrib INCOME=36K...40K	-0.5110689382012422

Sigmoid Node 5

Inputs	Weights
Threshold	-0.022426765433450544
Attrib DEPT=sales	-0.19306856622245017

Attrib	DEPT=sales	0.4779361865593969
Attrib	DEPT=marketing	0.1689891678478432
Attrib	DEPT=secretary	-0.42621411888213545
Attrib	AGE=31...35	-0.4673106858551398
Attrib	AGE=26...30	0.9470242446874013
Attrib	AGE=21...25	1.1610232481211782
Attrib	AGE=41...45	-0.5615663551917706
Attrib	AGE=36...40	-0.7644067381327753
Attrib	AGE=46...50	-0.5476332961238085
Attrib	INCOME=46K...50K	-0.9307277394440311
Attrib	INCOME=26K...30K	0.41051435192121083
Attrib	INCOME=31K...35K	1.4298906672631693
Attrib	INCOME=66K...70K	-1.3146083724285467
Attrib	INCOME=41K...45K	0.8709027909228544
Attrib	INCOME=36K...40K	-0.5146412094931448

Sigmoid Node 6

Inputs	Weights	
Threshold	-0.11246408558877943	
Attrib	DEPT=sales	0.030943733941151224
Attrib	DEPT=systems	0.270716603435774
Attrib	DEPT=marketing	0.003653113313281154
Attrib	DEPT=secretary	-0.11375860909842504
Attrib	AGE=31...35	-0.22835596759234988
Attrib	AGE=26...30	0.5702668345109629
Attrib	AGE=21...25	0.6152697926035566
Attrib	AGE=41...45	-0.18140268271770174
Attrib	AGE=36...40	-0.2299351254321752
Attrib	AGE=46...50	-0.17777278513441386
Attrib	INCOME=46K...50K	-0.5029538515802375
Attrib	INCOME=26K...30K	0.3585084705191637
Attrib	INCOME=31K...35K	0.7343350310882027
Attrib	INCOME=66K...70K	-0.503385189288903
Attrib	INCOME=41K...45K	0.4170501341819823
Attrib	INCOME=36K...40K	-0.1531040898735906

Sigmoid Node 7

Inputs	Weights	
Threshold	0.1435996874869009	
Attrib	DEPT=sales	0.030884493032113148
Attrib	DEPT=systems	-0.03824500136998554
Attrib	DEPT=marketing	-0.17224823545899579
Attrib	DEPT=secretary	-0.11578251384928082
Attrib	AGE=31...35	-0.04578807233404877
Attrib	AGE=26...30	-0.09398675311810643
Attrib	AGE=21...25	-0.10098280549550245
Attrib	AGE=41...45	-0.07971900177279584
Attrib	AGE=36...40	-0.12736173523232835
Attrib	AGE=46...50	-0.09413156744851586
Attrib	INCOME=46K...50K	-0.16651353883117007
Attrib	INCOME=26K...30K	-0.03599597271606738
Attrib	INCOME=31K...35K	-0.09811350455767674

Attrib INCOME=66K...70K	-0.07394911962561217
Attrib INCOME=41K...45K	-0.2137018716869016
Attrib INCOME=36K...40K	-0.06538005656135164

Sigmoid Node 8

Inputs	Weights
Threshold	-0.0703768654788316
Attrib DEPT=sales	0.061932218451711055
Attrib DEPT=systems	0.18996592605127255
Attrib DEPT=marketing	0.04851228462146849
Attrib DEPT=secretary	-0.07753869898783242
Attrib AGE=31...35	-0.22139508044791156
Attrib AGE=26...30	0.48627242241548224
Attrib AGE=21...25	0.609495748500533
Attrib AGE=41...45	-0.10289434094536443
Attrib AGE=36...40	-0.22298678451458487
Attrib AGE=46...50	-0.14035104663170994
Attrib INCOME=46K...50K	-0.4836930970715097
Attrib INCOME=26K...30K	0.3411383177144811
Attrib INCOME=31K...35K	0.7354872646431406
Attrib INCOME=66K...70K	-0.384951710678591
Attrib INCOME=41K...45K	0.3757631217517896
Attrib INCOME=36K...40K	-0.09983684200290625

Sigmoid Node 9

Inputs	Weights
Threshold	0.016058930899953652
Attrib DEPT=sales	-0.2819281713315409
Attrib DEPT=systems	0.5355771588258467
Attrib DEPT=marketing	0.1766652263286509
Attrib DEPT=secretary	-0.49328926901478104
Attrib AGE=31...35	-0.5385435118436851
Attrib AGE=26...30	1.13963252507339
Attrib AGE=21...25	1.367112281700739
Attrib AGE=41...45	-0.6635552565499632
Attrib AGE=36...40	-0.9116240401660539
Attrib AGE=46...50	-0.6515554242201197
Attrib INCOME=46K...50K	-1.0697808162408655
Attrib INCOME=26K...30K	0.44780455572548156
Attrib INCOME=31K...35K	1.6680581330567874
Attrib INCOME=66K...70K	-1.593657485188909
Attrib INCOME=41K...45K	1.0555492088761846
Attrib INCOME=36K...40K	-0.6457927285160273

Sigmoid Node 10

Inputs	Weights
Threshold	0.055144735855013886
Attrib DEPT=sales	-0.19220178251074038
Attrib DEPT=systems	0.507332887135344
Attrib DEPT=marketing	0.1393434843250276
Attrib DEPT=secretary	-0.45433208104598705
Attrib AGE=31...35	-0.49774153597824977
Attrib AGE=26...30	1.0117806818794417

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Attrib AGE=21...25      1.2301685688075434
Attrib AGE=41...45     -0.5648255767286016
Attrib AGE=36...40     -0.7788934770237215
Attrib AGE=46...50     -0.5608808550266501
Attrib INCOME=46K...50K -0.9605860742985308
Attrib INCOME=26K...30K 0.39450429042784957
Attrib INCOME=31K...35K 1.4922512282746334
Attrib INCOME=66K...70K -1.3967736509967557
Attrib INCOME=41K...45K 0.946613023758079
Attrib INCOME=36K...40K -0.532971431498159

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Class senior

Input

Node 0

Class junior

Input

Node 1

Time taken to build model: 0.2 seconds

=== Evaluation on test split ===

Time taken to test model on test split: 0 seconds

=== Summary ===

Correctly Classified Instances	33	100	%
Incorrectly Classified Instances	0	0	%
Kappa statistic	1		
Mean absolute error	0.0042		
Root mean squared error	0.0053		
Relative absolute error	0.962	%	
Root relative squared error	1.1207	%	
Total Number of Instances	33		

=== Detailed Accuracy By Class ===

ROC Area	PRC Area	TP Rate Class	FP Rate	Precision	Recall	F-Measure	MCC
		1.000	0.000	1.000	1.000	1.000	
1.000	1.000	1.000					senior
		1.000	0.000	1.000	1.000	1.000	
1.000	1.000	1.000					junior
Weighted Avg.		1.000	0.000	1.000	1.000	1.000	
1.000	1.000	1.000					

=== Confusion Matrix ===

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a  b  <-- classified as
11  0 | a = senior

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0 22 | b = junior