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Exercise03: Multiclass Classification Confusion Matrix

Data Table

n	Classification	true value	predicted value
1	$comp = comp^1$	compliance	compliance
2	$comp = comp^2$	compliance	compliance
3	$comp = comp^3$	compliance	compliance
4	$comp = risk_4$	compliance	risk of noncompliance
5	$comp = comp^5$	compliance	compliance
6	$comp = non_3$	compliance	noncompliance
7	$comp = comp^5$	compliance	compliance
8	$comp = comp^6$	compliance	compliance
9	$comp = comp^7$	compliance	compliance
10	$comp = risk^2$	compliance	risk of non-compliance
11	$risk = risk$	risk of noncompliance	risk of non-compliance
12	$risk = non^1$	risk of noncompliance	noncompliance
13	$non = non^1$	noncompliance	noncompliance
14	$non = comp^1$	noncompliance	compliance
15	$non = non^2$	noncompliance	noncompliance

Confusion Matrix

True Values

Predicted Values	Compliance	noncompliance	risk of noncompliance
Compliance	7	1	0
risk of non-comp compliance	1	2	1
risk of non-comp compliance	2	0	1

Accuracy $= \dfrac{10}{15}$

$$Accuracy = \frac{10}{15} = \frac{2}{3} \approx .66667$$

$$Misclassification\ Rate = \frac{5}{15} = \frac{1}{3} \approx .33333$$