|  |  |  |  |
| --- | --- | --- | --- |
| Actual | Predicted | | |
|  | Positive | Negative |
| Positive | **1000** (True Positive) | **300**  (False Negative) |
| Negative | **800**  (False Positive) | **900**  (True Negative) |

Accuracy => (True Positive + True Negative) / Total Observation

* (1000 + 900) / (1000 + 300 + 800 + 900)
* 1900 / 3000
* 63.3 %

Precision => True Positive / (True Positive + False Positive)

* 1000 / (1000 + 800)
* 55.5 %

Recall => True Positive / (True Positive + False Negative)

* 1000 / (1000 + 300)
* 76.9 %

Arithmetic Mean => (Precision + Recall) / 2

* (55.5 + 76.9) 2
* 62.2

F1 score or Harmonic Mean

=> 2(Precision \* Recall) / (Precision + Recall)

* 2(55.5 \* 76.9) / (55.5 + 76.9)
* 64.47 %