

Accuracy Analysis:

Data set 1

Data source: <https://www.youtube.com/watch?v=bL852kvYP1E>

Human analysis:

Positive: 37

Negative: 5

Neutral: 18

Software analysis:

Positive: 39

Negative: 07

Neutral: 14

Now we are going to calculate the accuracy of the software:

No. of observations = 60

Total correct response = 52

Total incorrect response = 08

$$\begin{aligned}\text{Therefore, Efficiency} &= \frac{\text{Total correct response}}{\text{Total no. of observation}} * 100 \\ &= \frac{52}{60} * 100 \\ &= \mathbf{86.67\%}\end{aligned}$$

Data set 2

Data source: <https://www.youtube.com/watch?v=m8z4bixevms>

Human analysis:

Positive: 15

Negative: 06

Neutral: 29

Software analysis:

Positive: 17

Negative: 08

Neutral: 25

Now we are going to calculate the accuracy of the software:

No. of observations = 50

Total correct response = 42

Total incorrect response = 08

$$\begin{aligned}\text{Therefore, Efficiency} &= \frac{\text{Total correct response}}{\text{Total no. of observation}} * 100 \\ &= \frac{42}{50} * 100 \\ &= \mathbf{84\%}\end{aligned}$$

Data set 3

Data source: <https://www.youtube.com/watch?v=vJTGfxn2U6Y>

Human analysis:

Positive: 50

Negative: 14

Neutral: 46

Software analysis:

Positive: 51

Negative: 15

Neutral: 44

Now we are going to calculate the accuracy of the software:

No. of observations = 110

Total correct response = 106

Total incorrect response = 4

$$\begin{aligned}\text{Therefore, Accuracy} &= \frac{\text{Total correct response}}{\text{Total no. of observation}} * 100 \\ &= \frac{106}{110} * 100 \\ &= \mathbf{96.36\%}\end{aligned}$$

Average Accuracy

$$\begin{aligned}&= \frac{\text{Summation of all the data sets accuracy}}{\text{total no. of data sets}} \\ &= \frac{86.67+84+96.36}{3} \\ &= \mathbf{89.01\%}\end{aligned}$$

Therefore, overall accuracy rate is equal to **89.01%**