

Assignment -3

1

Machine Learning

1) Accuracy on test set different values of no. of iterations & learning rates.

iterations	learning rate	accuracy (out of 1)
1	0.3	0.5143
2	0.3	0.6709
3	0.3	0.7848
4	0.3	0.9041
5	0.3	0.9358
6	0.3	0.9108
7	0.3	0.8855
8	0.3	0.9358
1	0.7	0.5143
2	0.7	0.6738
3	0.7	0.7787
4	0.7	0.9056
5	0.7	0.9386
6	0.7	0.9214
7	0.7	0.8735
8	0.7	0.9008

1

2. Learning Rate

2

prediction system

iterations learning rate accuracy

1

0.01

0.511

2

1

0.6652

(1 to 100) 3

0.01

0.79881

4

stop

0.8682

5

0.1

0.7801

6

0.1

0.8721

7

0.1

0.9008

8

0.1

0.9448

9

0.1

2

2) When we ~~ex~~excluded the stop words accuracy was little bit increased as they were not contributing much or may be unnecessarily they were misleading the output, so by removing stop words accuracy of the prediction was increased.

5.0

2

5.0

2

5.0

2

5.0

2

5.0

2

5.0

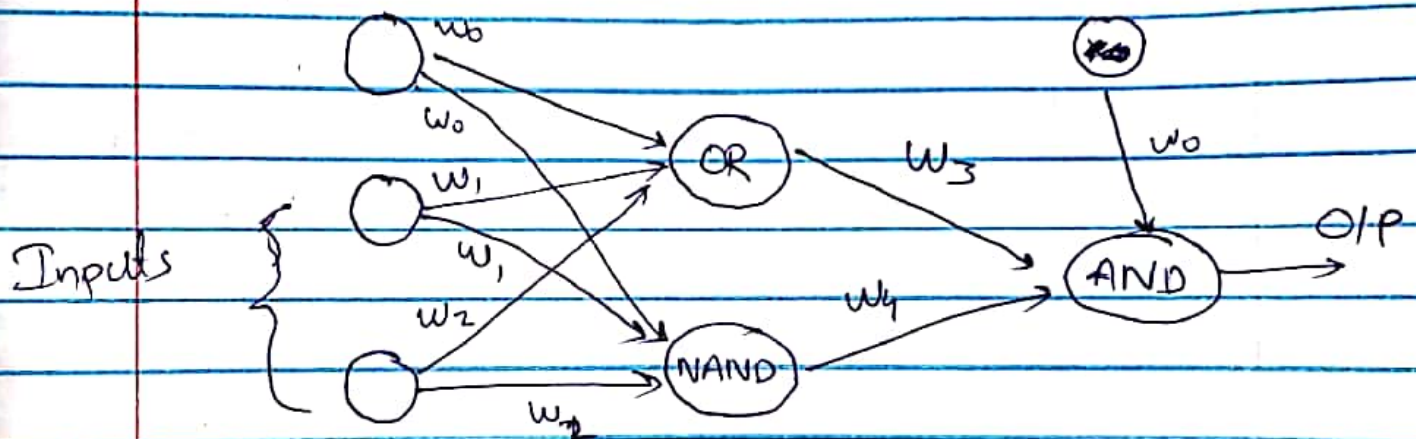
2

5.0

2

3) XOR question.

Here we need a neural network such that it gives us output 1 when same class numbers & output 0 when numbers are different just like XOR. So,



So, we have taken as NAND & ORs as our building blocks of neural network as we have to implement XOR.