

(Autonomous College Affiliated to the University of Mumbai) NAAC Accredited with "A" Grade (CGPA: 3.18)

A.Y. 2022-2023

Subject: Artificial Intelligence SAP ID: 60004220253 – Devansh Mehta

Experiment No. 06

Aim: Implementation of Perceptron Learning

Output:

```
PS C:\Users\devan\OneDrive\Desktop\AI Prac Codes> & C:/Users/devan/AppData/Local/Prog
oads/perceptron (1).py"
Iteration 1
                                   0. -0.5 0. ]
W 0 [ 0.
W 1 [ 0.
               0. -0.5 0.
                              1.
         -1.
                                   0. -0.5 0.]
                              1.
         -1.
               0. -0.5 0.
                                   0. -0.5 0.]
                              1.
W 2 [ 0.
               0. -0.5 0.
         -1.
W 3 [ 0.
               0.
                   -0.5 0.
                                   0. -0.5 0.]
         -1.
                              1.
W 4 [ 0.
                   -0.5 0.
                                   0. -0.5 0.]
         -1.
               0.
                              1.
W 5 [ 0.
         -1.
               0.
                   -0.5 0.
                                   0. -0.5 0.]
W 6 [ 0.
         -1.
               0.
                   -0.5 0.
                              1.
                                   0. -0.5
                                            0.]
W 7 [ 0.
         -1.
                0.
                   -0.5 0.
                              1.
                                    0. -0.5
                                            0.]
W 8 [ 1.
         -1.
                1.
                     0.5 1.
                              2.
                                        0.5
                                    1.
                                             1.
W 9 [ 1.
         -1.
                1.
                    0.5 1.
                               2.
                                    1.
                                         0.5
                                             1. ]
Wafter 1 epochs [ 1. -1.
                              1.
                                    0.5 1.
                                              2.
                                                        0.5 1. ]
                                                   1.
Iteration 2
                                       -0.5
W 0 [ 0.
                   -0.5 1.
                               2.
                                    0.
         -1.
                1.
                                            0.]
W 1 [ 0.
          -1.
                   -0.5 1.
                                        -0.5
                1.
                               2.
                                    0.
                                             0.
W 2 [ 0.
          -1.
                    -0.5 1.
                                        -0.5
                1.
                               2.
                                    0.
                                             0.
    [ 0.
 3
          -1.
                1.
                    -0.5
                         1.
                               2.
                                   0.
                                        -0.5
                                             0.
  4 [-1.
          -1.
                1.
                    -1.5
                          1.
                               1.
                                   -1.
                                        -1.5 -1.
W 4 [-1.
W 5 [ 0.
W 6 [ 0.
W 7 [ 0.
W 8 [ 0.
          -1.
                2.
                   -0.5
                         2.
                               2.
                                   0.
                                        -1.5
                                             0.
                   -0.5 2.
         -1.
                2.
                               2.
                                   0.
                                       -1.5
                                             0.
                   -0.5 2.
         -1.
                2.
                               2.
                                   0.
                                       -1.5
                                             0.
                   -0.5 2.
                                   0.
         -1.
                2.
                                       -1.5
                               2.
                                             0.
W 9 [ 0.
         -1.
                2.
                   -0.5 2.
                               2.
                                    0.
                                       -1.5
                                             0.]
W after 2 epochs [ 0.
                                   -0.5 2.
                                                   0. -1.5 0.]
                          -1.
                               2.
                                             2.
Final W after 2 epochs:
[ 0. -1.
            2. -0.5 2.
                           2.
                               0. -1.5 0. ]
op : 0
```