

# NNFS - Exp. No-2: Perceptron

(Posted on <23 September, 2022>, Submission Deadline <14 October, 2022>)

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## Problem Statement-

We have learned the concept of perceptrons. The perceptron is the building block of artificial neural networks; it is a simplified model of the biological neurons in our brain. A perceptron consists of just one neuron. Simple classification problems can be solved by using perceptrons. Of course, for complex non-linear problems we may have to deploy neural networks or deep neural networks of multiple neurons/layers depending on the complexity of the problem. To further understand and explore this area, we play around with the codes available at-

<https://towardsdatascience.com/perceptron-explanation-implementation-and-a-visual-example-3c8e76b4e2d1>

You can download the code and explore it as mentioned in the link above.

## Rubric for Grading Submission

You need to submit your report for evaluation on a scale of 10. The report shall consist of your understanding of the problem, code, results, novelty (if any) and conclusions. Following rubric shall be used for grading your submission-

Marks	Criteria	Exhibits
0	No submission within deadline	-
1-4	Demonstration of Example-1 on linearly separable classes.	Successfully installed and executed the code
5-6	Demonstration of Example-2 on noisy dataset	Successfully installed and executed the code
7-8	Demonstration of Example-3 on non-linear dataset	Successfully installed and executed the code
9-10	Your own creativity & novelty	Demonstration of novelty

## Note-

You may also explore other resources to demonstrate key concepts which will illustrate your understanding of the topic on “Perceptron”.