**Gaming Laptop Dilemma**

**Problem:**

Whether to buy a gaming laptop is classified based on 3 conditions.

* The Core Processor [intel i9 10thGen]
* Graphic Card [NVIDIA GTX 1080Ti]
* Ports [No. of Ports]

|  |  |  |  |
| --- | --- | --- | --- |
| Core Processor | Graphic Card | Ports | Gaming Laptop |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

**Solution:**

The perceptron is trained with 6 training inputs to predict the outcome of the other two.

[0,1,1] yields output 1

[0,1,0] yields output 0

**Conclusions for XOR-GATE**

XOR Gate is not linearly separable and so correct required weights and bias are not obtained. Also required output is not obtained.