Sustainable Data Science and Artificial Intelligence

Tutorial #6

|  |  |
| --- | --- |
| **My Name:** |  |

**QUESTION 1**

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 10 | Testing the trained neural network:  Input: (0, 0, 0) -> Output: 0.02 (Expected: 0)  Input: (0, 0, 1) -> Output: 1.01 (Expected: 1)  Input: (0, 1, 0) -> Output: 2.02 (Expected: 2)  Input: (0, 1, 1) -> Output: 3.01 (Expected: 3)  Input: (1, 0, 0) -> Output: 4.01 (Expected: 4)  Input: (1, 0, 1) -> Output: 5.04 (Expected: 5)  Input: (1, 1, 0) -> Output: 6.01 (Expected: 6)  Input: (1, 1, 1) -> Output: 6.98 (Expected: 7) |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 11 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 12 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 13 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 14 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 15 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 16 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 17 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 18 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 19 |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| 20 |  |

**QUESTION 2**

**N is the best result from Question 1. Please fill all the ?? with the number you have discovered.**

|  |
| --- |
| **N = ??** |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| N – 0.5  **??** |  |

**Results:**

|  |  |
| --- | --- |
| **Learning\_Rate** | **Outputs** |
| N + 0.5  **??** |  |