CS 6375

ASSIGNMENT \_\_\_\_\_\_1 bonus\_\_\_\_\_\_

Names of students in your group:

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Number of free late days used: \_\_\_\_\_\_\_\_\_0\_\_\_\_\_\_\_\_\_\_\_   
Note: You are allowed a **total** of 4 free late days for the **entire semester**. You can use at most 2 for each assignment. After that, there will be a penalty of 10% for each late day.

Please list clearly all the sources/references that you have used in this assignment.

**Tree Parameters:**

Datasets: train2-win.dat and test2-win.dat

|  |  |  |
| --- | --- | --- |
|  | **Average Depth** | **Number of Nodes** |
| **Tree constructed using ID3** | 6.28155 | 204 |
| **Tree constructed using random attribute selection** | 7.04396 | 362 |

**Accuracy with random selection:**

Datasets: train2-win.dat and test2-win.dat

|  |  |  |
| --- | --- | --- |
| **Run** | **Accuracy of tree constructed using random attribute selection** | |
|  | **Training data** | **Testing data** |
| **1** | 95.25 | 61 |
| **2** | 92.75 | 68 |
| **3** | 93 | 71 |
| **4** | 91 | 59 |
| **5** | 94 | 65 |

**Accuracy with ID3:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Accuracy of tree constructed using random attribute selection** | |
|  | **Training data** | **Testing data** |
|  | 99.5 | 75 |