

Homework-1

Question 1

You are given the following training data:

| | WRITABLE | UPDATED | SIZE | CLASS |
|---|----------|---------|-------|------------|
| 1 | yes | no | small | text |
| 2 | yes | yes | large | text |
| 3 | no | yes | med | text |
| 4 | no | no | med | executable |
| 5 | yes | no | large | executable |
| 6 | no | no | large | executable |

The target attribute is CLASS.

1

Compute the decision tree generated by first considering WRITABLE, then UPDATED, then SIZE.

2

What tree is generated by using ID3?

3

How would these trees classify the following two instances:

| | WRITABLE | UPDATED | SIZE | CLASS |
|---|----------|---------|-------|-------|
| 1 | yes | yes | large | ? |
| 2 | no | no | small | ? |