**Decision Tree**

The name saying Tree , It is a kind of Tree structure

In tree ==== > leaf branches roots

How will split the data, to split the data will take a help of a variable

That variable is called Root node

Which variable becomes a root node

You want to make one person as leader =====

A guy has more random ness =========== not become good leader

A guy has less random ness more focus ==== good leader

Random ness

Shannon information criteria

Concept name= Entropy

Ramesh and kumar best friends

Ramesh has a family function in two days , for that function

Both Ramesh and kumar are working together

So naturally one day Ramesh called to kumar ===== kumar ?

Kumar know why Ramesh called ====== > less random ness ===== information already know

One day suddenly 1am kumar has some missed call about rames

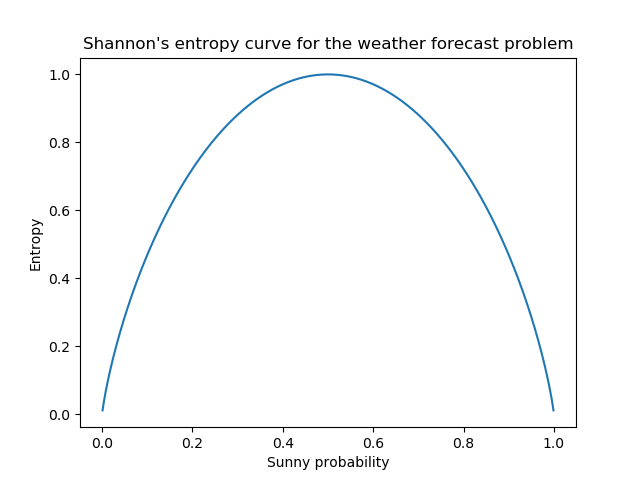
Kumar ===== more random ness ===== information you does not know

Ind vs zim =========== > ind

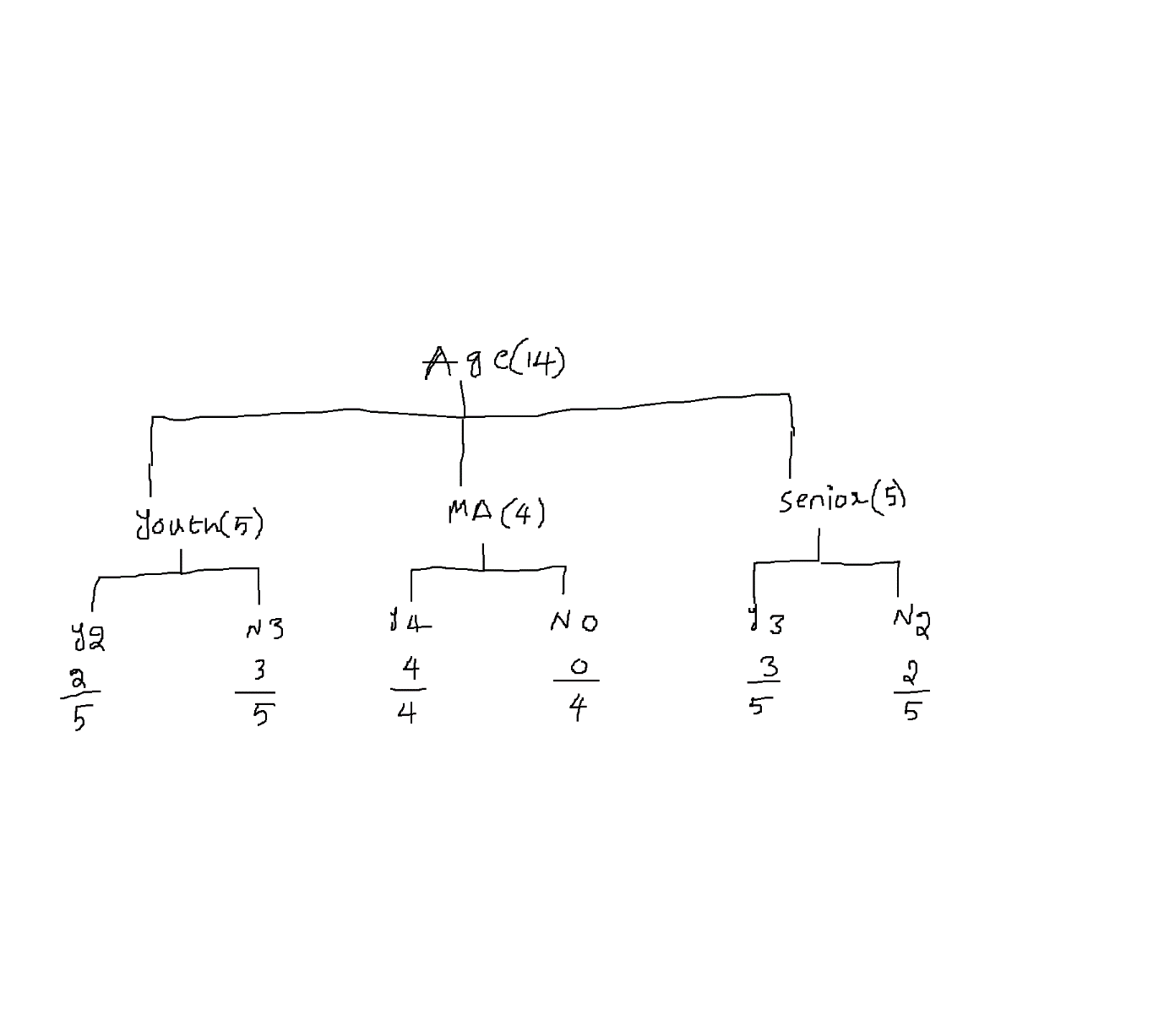
Ind vs aus ========= >

Value of the information ===== random ness ======== entropy

1. You does not know about information
2. You have more random ness
3. Entropy is more



|  |  |  |
| --- | --- | --- |
| Id | Age | Buys a computer |
| 1 | Y | N |
| 2 | Y | N |
| 3 | MA | Y |
| 4 | S | Y |
| 5 | S | Y |
| 6 | S | N |
| 7 | MA | Y |
| 8 | Y | N |
| 9 | Y | Y |
| 10 | S | Y |
| 11 | Y | Y |
| 12 | MA | Y |
| 13 | MA | Y |
| 14 | S | N |



**(Iterative Dichotomiser)**

