THEORY OF EVOLUTION 01

Hey avni how fascinating it is we have a wall power thing cellular body to this form yeah but this is not a single time process you know it takes millions of years to change into this current form from a single cellular form and a single cell has a collective sticks with changes with time, brilliant yeah and the recent studies have shown that the single segment of dna contains a huge amount of information, nice, i would like to stimulate this evolution process through competition. Let us try. You saw the conversation between avni and simran, avni is trying to explain to simran that there is some sort of randomness involved in evolution of species from one to the other we all know that life started off as amoeba and now we are as Homo sapiens humans. The randomness attached to this so called explanation of what intense evolution can actually be stimulated the exact model is little complicated so what will do is we will try stimulating it at a very different level well yes we can stimulate and see how evolution has happened in fact there is a very popular topic called genetic algorithms just precisely this it learns from evolution or how amoeba became human being and that very perches one can mimic and used that as a sort of technology to come out with brand new ways of accomplishing something. So what we will do is genetic algorithms say is way out of the scope of this course i will try to tell you something which is a very very very tone down version of genetic algorithms in fact biology's and people who actually know genetic algorithms might even complaining by saying what am i teaching you people but i am teaching this in keeping in mind of the brand beginners in programming who may not have any idea of programming, either programming nor biology. But still for its a very interesting topic to just like that discuss and then write a piece of code. So what we will do is we take a huge binary strength let say some twenty digit binary strength all of them are zeros the rule is simple, you pick some digit randomly and make zero for one with a same probability you know how to do this you now are familiar with the random function right you say you import random and then you can use a lot of functions within that you are very familiar with tat, using that you can do this the point is you take some digit in this twenty digit string and in case that digit is a zero you make it one with the small probability keep doing it and eventually you will see all the zeros will become ones. How much time does it take? It's based on the length of the string and the probability which you switch zeros to ones sounds complicated but don't worry the programme is actually very easy once you understand this you can in fact go ahead and study what makes the genetic algorithm but again as a asset out of the scope of our joy of computing course which is at the very foundation basic level but you will have all the interest on earth to go and study and even understand what makes genetic algorithms, so let us now go ahead and see screen cast of how to execute this program.