**ABSTRACT**

This question required us to make an expanding tree.

We started by defining few functions namely draw(to draw the branches),rotate\_r(to rotate the branch towards right),rotate\_l(to rotate towards left) ,expand,compare.

It means it will expand based on the input string or called the production rule .We will scan the input from left to right.

We are using the production rules as follows:

A->AF

F->F[]

Thus

1) When we get the symbol A on rhs,we just call the draw function.

2) When we get the symbol F,we expand it to F[]

If we get [ and ],then we call rotate\_l and rotate\_r respectively to make the branches at an angle.

And expanding the function based on the character scanned.

Also a function sleep() is included to get a time gap between the successive appearences of the branches.

Finally by combining the above functions and the production rule we get an expanding tree!