SPIRAL TRAVERSING – LET'S ANIMATE 03

Hello guys, let's see this matrix that we have on the screen, its the four cross four matrix with elements one two three four five sic seven eight nine ten eleven twelve thirteen fourteen fifteen and sixteen so usually how we print, usually in whatever lectures you saw till now in most of them whenever we are using any matrix or printing it or traversing it we usually traverse in row wise manner, what do i mean by the row wise manner? So see this matrix first i go to the first element, my first element is one which is present at zero comma zero so i will go there i will print it, then i will go to the next element, next element is the first row and second column which is here which is the which is two so let's see this i will go to the second element and i will print it. Then i will go to the third element which is present at first row third column which is three then next element is four first row last column now after printing the first row i will shift to the second row first column which is first element of second row which is five here then i will go to the six, seven, eight, second row is over third row nine. Ten, eleven, twelve, third row is over fourth row thirteen, fourteen, fifteen, sixteen see usually we print like this in this program we are not going to do this then we are going to do something else we are going to print the elements of this matrix only let's say in a different order which is spiral order so let's, let's see what do i mean by spiral order. Suppose i have the same matrix i will start with one first element i will print all the elements of the first row which is one, two, three, four then i will not shift to the second row i will just print all the elements of last column which is eight, twelve, sixteen then i will print all the elements all the remaining elements of last row in reverse order which is fifteen, fourteen, thirteen then the first column all the remaining elements in reverse order which is nine and five one is already printed now what is left? In the second row i will print all the elements in the simple order which are left which are six seven i will go to the third row and i will print eleven and i will print after that ten so in this, this is a four cross four matrix then ten is the middle element so this is how we are going to perform and you know if you can print something like this then you just need to add a library which we are going to use a turtle library and with that library rather than just printing the elements will print some kind of dot, coloured dot and it will look like we are animating something so this is what exactly we are going to do so let's do this.