## **MAGIC SQUARE: HIT AND TRIAL 05**

Ok the first step was to find the location of one so we know that the location of one is always the middle row and the last column so we i will fix it let me put i is equal to n by two and j is equal to n minus one, you can guess what these are these are the local variable and j are not have been defined but as soon as they use this warnings will go away so i will not care much of this ok i will create, i will create a variable name num which i will initialise to n cross n so that i can use it again, i may not have to calculate it every time i will take count variable initialise to one, count variable is my elements so as soon as i put elements i will increment the count variable so that i can put the next element so first i have to put one then as soon as i put one i will increment the count to two so that i can count again some location ok now i need to follow some condition multiple times, multiple times means what? Until and unless i do not exhaust all the elements, all the possibilities of this matrix which for example three cross three it is nine, it means that i have to check the condition for nine times exactly nine times so i will write a while, while this count is less than equal to num so what this is mean? Until and unless i have put all the all my elements into their location my count will not go to for example three cross three the count is count becomes more than nine that is ten i have to stop here because i have put all my elements to their respectively locations so i don't have to follow the conditions again so that's what this is the condition which i am going to follow the while loop then let see this as i told you the algorithm that this whenever i find the position, the position of one is fixed ok whenever i find a position i have to check two things first is if row is exceeding row is becoming minus then i have to make it zero or n minus one sorry this column is becoming n then i have to make it zero but before that the important thing is if row is becoming minus one and and this is or there is a difference between and and or, and column becomes n then you have to switch it to zero comma n minus two, this is very important because this is the and condition so it should come first so i will write this so i will write if i becomes minus one which is i's and j becomes n then what is this? I have to follow you write it here condition three condition four yeah ok what is the condition? I have to make j is equal to n minus two, column is becoming n minus two and row is becoming n minus one so j comes n minus two yeah and row becomes zero sorry so i becomes zero this is correct ok else if and condition is not followed it means either of, either this is happening or this is happening let see if j is becoming n column is exceeding so column value is exceeding when this is happening what what you have to do is if column is if column position becomes n then make it zero ok so i will make j equal to zero so or so this is a or, or condition so i don't have to write else here because i have to check both things, for any one of this if after checking this i will check this also not only this or this. I become less than zero then i is equal to n minus one which is this condition is what row is becoming minus one great, now these conditions are over, now what else. One more condition is there if i calculate the location but that location already contains some element then i have to something for that i have to check if my magic square i don't know why i find even though writing magic square ok if magic square location which is i comma j is not equal to zero if it is something else then zero it means it already here something ok then i have to put j is equal to let me check the condition

what was it? If the calculated position already contains a number then decrement the column by two and increment the row nu minus one, so will decrement the column by two and j minus two and i is equal to i plus one and after this it might happen that after calculating after doing this the sum of these conditions might follow that either this is happening that is the row is exceeding and column is also row is going to minus one and column is exceeding only column is exceeding only row is exceeding so i have to check that for that i have to go to the go back to the loop now see this in all this condition i did nothing with the column values, column values not incremented so if anything is happening with this, i will check the condition but count will will not increase so i can do this as many times i as i can so, so for that i need to check this conditions again so for that i will just write continue what does this mean that? After doing this it will skip all the rest of these things which is inside the loop and go back to the while loop and do the things again since the count value is not incremented yet so it means that i am doing the doing everything again without any condition again great so this is done i have checked it else this means what if it doesn't contain any value it means that it is empty it means it contain zero i can put i can safely put my element for which i am calculating the position for that i will write magic square is equal to count value because count is my value and i will put count plus one which means count is equal to count plus one increment the count value which is my next element this is done everything is done now whenever i put an element to its location i have to switch to the second element and i have to follow the p q wala thing so for now whatever location, whatever location i have calculated for this element and take it as p and q and i will follow the p minus one and q minus one q plus one so p minus one means i become i minus one and j becomes j plus one this is it so this was what? Write it here condition one great we are done with this, this is over. Print the elements; do you know how to print the elements? I will copy this just wait one second awesome this is done i will call this function here, function is magic square i will say three for three let me run this ok i am getting an error here, type error list in this is must be an integers or slices not so where it is getting i j ok let see this here i have written i is equal to n by two lets what did i put as n see three by two it is one point five and and what i am doing using this as indices of my matrix so one point five doesn't mean anything in list it should be exactly integer for that you can use the integer decision that is three two division sign and two equals of course exactly one, so i will put two division signs here that's it let see this tada let me print one more thing here so that i get the value print the sum of each row slash column slash diagonal is what is it? Put plus here STR of n cross sorry n into i need to take this square for square my operator is two star into n plus one and bracket. Try here m is equal to three into three two one m ok i think you understood what is taken, c i didn't put any multiplication sign here which is a sin, listen to this sum of oh my god sorry i should run now please god awesome, i am getting magic square and my sum let me try this for seven let's see this awesome this is exactly the magic square you can check it and the sum is one seventy five let me try this for five one is great so this works, so this was the magic square programme you can try some other algorithm if you find some pattern this is some basic algorithm which i found on Wikipedia you can check it please make sure whenever you find any difficulty let like sometimes it happen you writing a code but you miss something then dot understand what wrong you are done this is very simple code on few lines sixty one sixty and some add-ons so finding mistake here is not very difficult but if you have a thousand

lines of code it will be mess it will be very difficult to find any bugged there, its better you always you can always search for the problems for example this i can search and i can try this here so it will re direct me to the stack overflow, stack overflow is the best website to insist to your problem most of your problem will be ensured here and even if some of the problems are not insured you can ask it and easily get insured here in very less time works like a charm so please make use of it and we are done with the magic square, you can do this programme in many ways this is one of the way so please try finding other way also or you can even use some other parading for example you can use recursion to make this to create this programme. So thank you every one please post your queries and other things on discussion form.