Tutorial on Arrays

Task 1

Write an algorithm to generate a Fibonacci series till n^{th} element where n is sum of digits of your roll number.

Eg: Roll No. = 20024   =>   n = 2+0+0+2+4=8, Generate Fibonacci till 8th element.

Task 2

Now generate next five elements of the series such that you need to add n^{th} number and $(n-x)^{th}$ number to get next number.

x is last digit of your roll number.

Keep incrementing n for next number of series as explained in example below.

$(n_i)^{th}$ number = $(n_{i-1}^{th}$ number) + $((n_{i-1} - x)^{th}$ number)

Eg: Roll no. = 20024

Since you already generated Fibonacci series till 8th element (in Task 1), you need to find $9^{th} - 13^{th}$ element as per above equation.

9th number = 8th number + 4th number
10th number = 9th number + 5th number

And so on till 13th number.

Task 3

Also show on paper that what is the expected series as per your number. Show the series till $(n+5)^{th}$ number. Show steps that how you got that series.