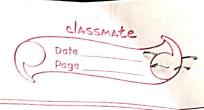
	Date Page
1.	Parogram to Convert a String into Mobile Keypad number
	Concept:
	· A mobile Keypad has lotters associated vists
	2 -> 'ce' 'b', c'
	· 3 -> 'd', 'e', 'f'
	· 4 -> 9, h, i
	· 5 -> j K l
	· 6 -> m, n, 0
	· 7 -> P, 9, ~, &
4	8 -> t, u, v
	$-9 \rightarrow W', X', Y', Z'$
	· The tank is to Convert a string into the Corresponding number on a mobile Keypad
	Algorithm:
	1. Create a mapping of letters to their Cornesponding
	2. Iterate Over each character of the string 3. If the Character is a letter, find its Corresponding number
	4. Append The Greault to a string.



5. 9f the Character is not a letter (like space or Punctuation), Keep it as is.

6. Return the final hesult.

Example - 188 Antrol mai regard

· Inpat: "hello"

· Output: "43556"

Classmate Date Page
2. Program to find all Quadruples that Sum to 0
Concept: The goal is to find all guadruples (sets of four numbers) in an array whose Sum Equals zero
. The Problem is Commonly Known as the "4 Sum" Problem
Approach:
1. Sort the array to make Searching lasier 2. Use two pointers to find pairs that sum to a specific Value.
3. Iterate through the array and use two other pointers to find a Complementary point that sum to zero 4. Avoid duplicates by shipping equal elements.
Algorithm:
1. Sort the array 2. For each pair of elementh (i,i), treat the rimaining two numbers as a Subarray and apply the two. Pointer technique to find the other two numbers. 3. Ensure the Gosuld doesn't Contain duplicates 4. Retarn the quadruples.
Example:
9nput: [-1,0,1,2,-1,-4]
· Output: [[-1, -1, 1, 2], [-1, 0, 0, 1]]