

## Lab 11

### Show the homework tasks first

#### **Task1:**

Write a program that inputs the student ID number (like BSITF21M001) and determines whether he/she is a legal student or not. Kindly use the array of pointers to save the 5 student ID number. (Recap the problem related to searching a specific name that was discussed in the last lecture)

#### **Task2:**

Write a program that creates an array of numbers of size 50 and initialize it randomly from 1 to 200. Now take 2 more arrays, 1 for even numbers and 1 for odd numbers. Traverse the array numbers and check whether it is an even number if it is then store this number to even array else to odd array. Display the output of both even and odd number arrays. Kindly use the pointer notation to access the array elements.

***Note:** write a function `isEven(int number)` that will return `1` if a number is even and `0` if the number is odd.*

#### **Task3:**

Write a program that read a character array as an input. After reading in the array process the array's element and find the count of vowels in that array and convert the vowels to upper case if it is in lower and output the vowels. Write a function `isVowel( )` that takes a character as a parameter and tells whether a character is a vowels or not

#### **Sample Input:**

m n a h i o p k k l e

#### **Sample Output:**

**Vowel in uppercase: AIOE**

No of vowels = 4

#### **Task4:**

Write a function that read a string from the keyboard in the character array named data of size 200. Visit the array data and count the number of alphabets, digits, and spaces in that array.

- Create an int array and copy all the digits in the int array.
- Create a char array and copy all the alphabets and spaces in char array.
- Write a function that takes the pointer of char array and size of the array, and converts all alphabets to upper case and print the resultant values.
- Write a function that takes the pointer of the integer array and the size of the array, and prints the integer array.