ASSIGNMENT

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Model Institute of Engineering & Technology (Autonomous)

(Permanently Affiliated to the University of Jammu, Accredited by NAAC with "A" Grade)

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ASSIGNMENT

Part 1

Aim:- program to find the given string is palindrome or not

```c
// program to check whether a given string is a pallindrome.

#include <stdio.h>
#include <string.h>

// Function to check whether a string is a palindrome
int isPalindrome(char str[]) {
    int length = strlen(str);

    // Iterate over the string
    for (int i = 0; i < length / 2; i++) {
        // Check if the characters at both ends of the string are equal
        if (str[i] != str[length - i - 1]) {
            return 0; // If the characters are not equal, return 0
        }
    }

    return 1; // If the characters at both ends of the string are equal, return 1
}

int main() {
    char str[] = "malayalam";

    if (isPalindrome(str)) {
        printf("\"%s\" is a palindrome.\n", str);
    } else {
        printf("\"%s\" is not a palindrome.\n", str);
    }
    return 0;
}
```

Output:-

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\amank\.vscode\extensions\cprogram>  & 'c:\Users\amank\.vscode\extensions\ms-vscode.cpptools-1.18.5-win32-x64\debugAdapters\bin\WindowsDe
bugLauncher.exe' '--stdin=Microsoft-MIEngine-In-eyj33n4o.chv' '--stdout=Microsoft-MIEngine-Out-2z2urr3j.rxk' '--stderr=Microsoft-MIEngine-Error-nlmm
ccbh.iz3' '--pid=Microsoft-MIEngine-Pid-0pivzhnl.0jc' '--dbgExe=C:\msys64\ucrt64\bin\gdb.exe' '--interpreter=mi'
"malayalam" is a palindrome.
```

Part 2

Aim:- program to find the second largest element in an array

```c
1    // program to find second largest element in an arrey
2
3
4    #include<stdio.h>
5    int main()
6    {
7        int arr[]={45,12,67,34,89,56};
8        int max=arr[0];
9        for (int i = 1; i < 6; i++)
10       {
11           if (arr[i]>max)
12           {
13               max=arr[i];
14           }
15       }
16       printf("Maximum element in the array: %d\n", max);
17       return 0;
18   }
```

Out put:-

```
PS C:\Users\amank\.vscode\extensions\cprogram>  & 'c:\Users\amank\.vscode\extensions\ms-vscode.cpptools-1.18.5-win32-x64\debugAdapters\bin\WindowsDe
bugLauncher.exe' '--stdin=Microsoft-MIEngine-In-jawwcnfj.4qc' '--stdout=Microsoft-MIEngine-Out-cbgvxxkt.cl3' '--stderr=Microsoft-MIEngine-Error-4eh0
2dgs.35f' '--pid=Microsoft-MIEngine-Pid-3qthle2k.xn2' '--dbgExe=C:\msys64\ucrt64\bin\gdb.exe' '--interpreter=mi'
Maximum element in the array: 89
```