ASSIGNMENT-1

By

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CSE

Model Institute of Engineering & Technology (Autonomous)

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

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Q1. Write a C program to check if a string is a palindrome.

```c
// program t0 check if a string is palindrome or not.
#include<stdio.h>
#include<string.h>
int main()
{
    char str[100];
    int i,j,len,flag=0;
    printf("enter a string:");
    scanf("%s",str);
    len = strlen(str);
    for(i=0,j=len-1;i<j;i++,j--){
        if(str[i]!=str[j]){
            flag = 1;
            break;
        }
    }
    if(flag==0){
        printf("%s is a palindrome",str);
    }else{
        printf("%s is not palindrome",str);
    }
return 0;
}
```

OUTPUT :-

```
PS C:\Users\rekhi> cd "c:\Users\     \OneDrive\Desktop\" ; if ($?) { gcc MOKSHNA.c -o MOKSHNA } ; if ($?) { .\MOKSHNA }
enter a string:mokshna
mokshna is not palindrome
PS C:\Users\     \OneDrive\Desktop> cd "c:\Users\     \OneDrive\Desktop\" ; if ($?) { gcc MOKSHNA.c -o MOKSHNA } ; if ($?) { .\MOKSHNA }
enter a string:oppo
oppo is a palindrome
PS C:\Users\     \OneDrive\Desktop>
```

Q2.Write the program for print largest three digit jumping number.

```c
#include <stdio.h>
#include<stdlib.h>
// Function to check if a number is a jumping number
int isJumpingNumber(int num) {
    int digit1, digit2;

    while (num > 0) {
        digit1 = num % 10;
        num /= 10;

        if (num == 0) {
            return 1; // It's a one-digit number, so it's a jumping number
        }

        digit2 = num % 10;

        if (abs(digit1 - digit2) != 1) {
            return 0; // Not a jumping number
        }
    }

    return 1; // It's a jumping number
}

int main() {
    int largestJumpingNumber = 0;

    // Iterate through three-digit numbers in reverse order
    for (int i = 999; i >= 100; --i) {
        if (isJumpingNumber(i)) {
            largestJumpingNumber = i;
            break;
        }
    }

    if (largestJumpingNumber != 0) {
        printf("Largest three-digit jumping number: %d\n", largestJumpingNumber);
    } else {
        printf("No three-digit jumping number found.\n");
    }

return 0;
}
```

OUTPUT:-

```
PS C:\Users\     > cd "c:\Users\     \OneDrive\Desktop\" ; if ($?) { gcc MOKSHNA.c -o MOKSHNA } ; if ($?) { .\MOKSHNA }
Largest three-digit jumping number: 989
PS C:\Users\     \OneDrive\Desktop>
```