

## Strings

9-11-25

Aim – Write a program to demonstrate string functions and another to check if the entered string is palindrome or not and output the result.

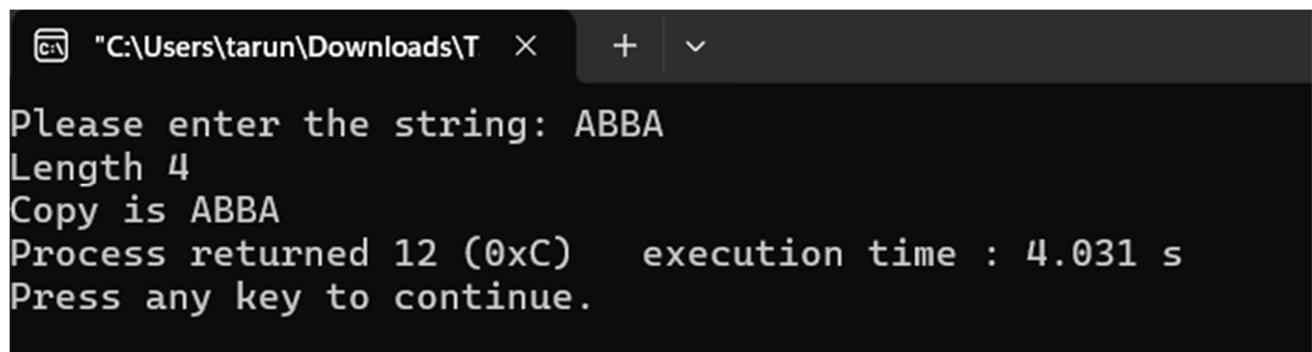
Theory –

Length function counts characters in a string until the null terminator, excluding it. Indexing allows accessing each character using its position starting from zero, enabling reading, modifying, or traversing the string in C programming language. Indexing a string allows us to treat it as an array of chars and perform the required functions.

A1.

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

void main(){
    char s[100], c[100];
    printf("Please enter the string: ");
    gets(s);
    int len = strlen(s);
    strcpy(c, s);
    printf("Length %d\n", len);
    printf("Copy is %s", c);
}
```



```
"C:\Users\tarun\Downloads\T" × + ▾
Please enter the string: ABBA
Length 4
Copy is ABBA
Process returned 12 (0xC)    execution time : 4.031 s
Press any key to continue.
```

A2.

```
#include<stdio.h>
#include<conio.h>
void main(){
    char s[100];
```

```

printf("Please enter the string: ");
scanf("%s", s);

int pal = 1;
int len = 0;

while (s[len] != '\0') {

    len++;
}

for(int i = 0; i<len/2; i++){

    if (s[i] != s[len - i - 1]) {

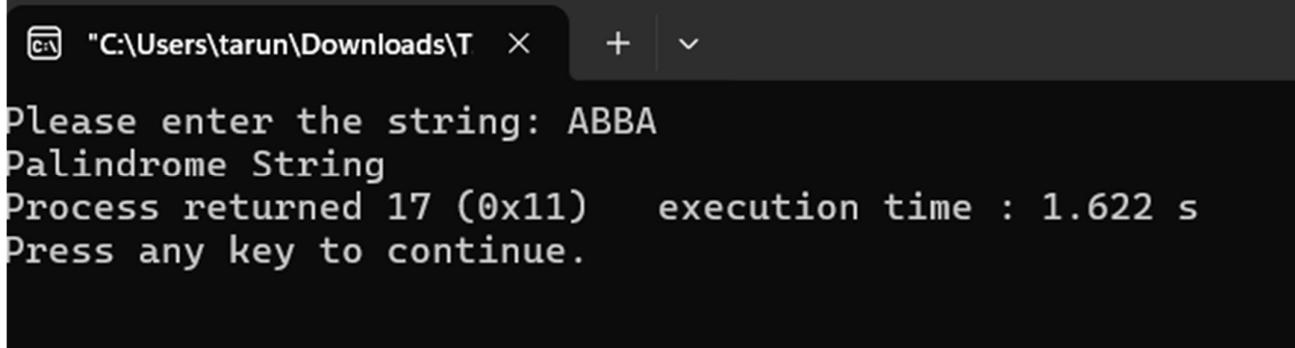
        pal = 0;
        break;
    }
}

if (pal == 1){

    printf("Palindrome String");
} else {

    printf("Not a Palindrome String");
}
}

```



```

"C:\Users\tarun\Downloads\T"  X + | v
Please enter the string: ABBA
Palindrome String
Process returned 17 (0x11)  execution time : 1.622 s
Press any key to continue.

```

### Conclusion

In conclusion, string operations such as checking for palindrome, copying strings, and finding their length help in understanding how strings are handled in C. These programs strengthen the concepts of character arrays, indexing, and the importance of the null terminator '\0', enabling efficient manipulation and processing of textual data.