

Practical Series N°1

Exercise 1

Let $A = \{a, b\}$ be an alphabet set and L is a language defined on A , Write a C program that reads a word $u \in L$ then displays its length $|u|$

1-using functions of string.h

2-Without using functions of string.h

Exercise2

Write a C program that reads a word then displays the number of occurrences of each of its alphabets. (*computes $|w|_a$*)

Exercise 3

Let A be an alphabet set and L is a language defined on A , Write a C program that reads a word u then displays its mirror $\bar{u}$

Exercise 4

Write a C program that reads two words u, v then displays their concatenation $u.v$.

Exercise5

Write a C program that checks if a word is a palindrome or not.

Example:(AYA ,TOAOT,5671765,...) are palindromes.($w = \bar{w}$)

Exercise6

Edit, Compile then run the following C program, what do you observe?

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  #include<string.h>
4  int main()
5  {
6      char s1[100],s2[100],tmp[100],c;
7      int i;
8      printf("Print two words:\n");
9      gets(s1);
10     gets(s2);
11     printf("FIRST:\n");
12     strcpy(tmp,s1);
13     strcpy(s1,s2);
14     strcpy(s2,tmp);
15     puts(s1);
16     puts(s2);
17     printf("SECOND:\n");
18     for(i=0;i<=strlen(s1) || i<=strlen(s2); i++)
19     {
20         c=s1[i];
21         s1[i]=s2[i];
22         s2[i]=c;
23     }
24     puts(s1);
25     puts(s2);
26     system("pause");
27     return 0;
28 }
```