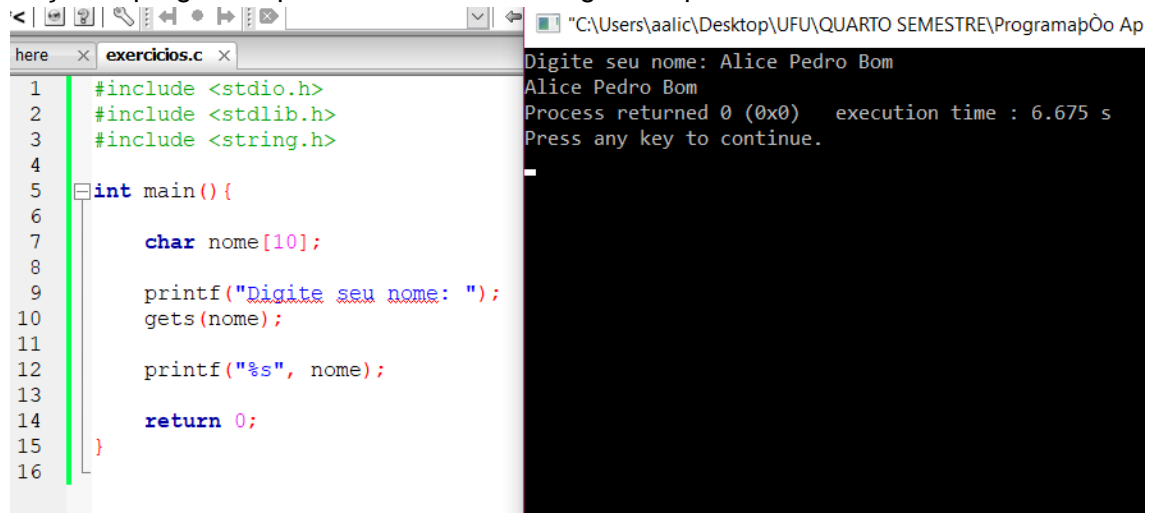


Nome: Alice Pedro Bom Paes

Matrícula: 31711ECA025

Lista STRING- PROGRAMAÇÃO APLICADA.

1. Faça um programa que então leia uma string e a imprima:

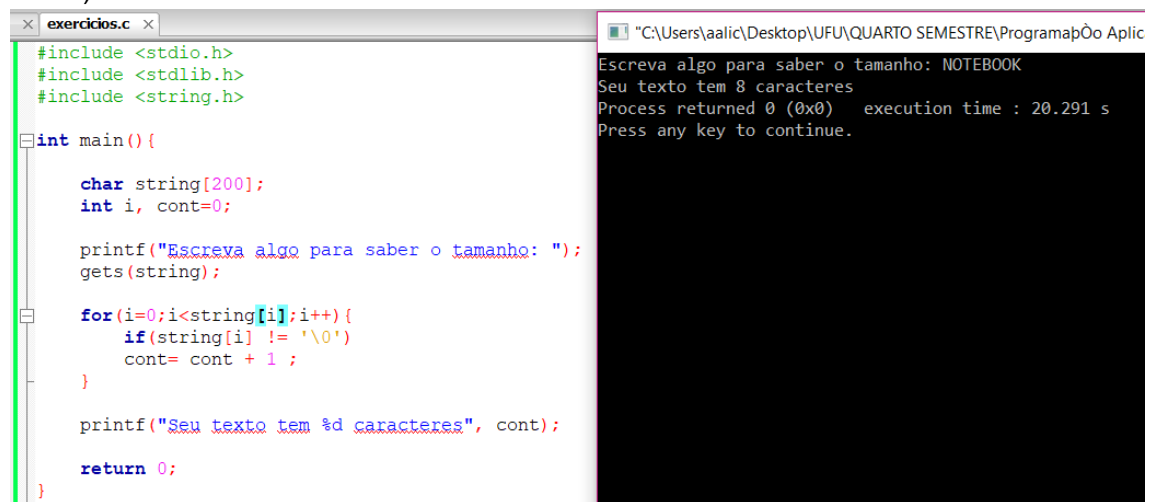


The screenshot shows a C program in a file named 'exercicios.c'. The code includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. The `main` function declares a `char nome[10];`, prompts the user to enter their name, reads the input using `gets`, and prints it using `printf`. The execution output shows the user entering 'Alice Pedro Bom', which is then printed. The process returns 0 and the execution time is 6.675 s.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main(){
6
7     char nome[10];
8
9     printf("Digite seu nome: ");
10    gets(nome);
11
12    printf("%s", nome);
13
14    return 0;
15 }
16
```

Digite seu nome: Alice Pedro Bom
Alice Pedro Bom
Process returned 0 (0x0) execution time : 6.675 s
Press any key to continue.

2. Crie um programa que calcula o comprimento de uma string (nao use a função `strlen`).



The screenshot shows a C program in a file named 'exercicios.c'. The code includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. The `main` function declares a `char string[200];` and an integer `cont` initialized to 0. It prompts the user to enter text, reads it using `gets`, and then iterates through the string to count the number of characters (excluding the null terminator). The execution output shows the user entering 'NOTEBOOK', which is counted as 8 characters. The process returns 0 and the execution time is 20.291 s.

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

int main(){
    char string[200];
    int i, cont=0;

    printf("Escreva algo para saber o tamanho: ");
    gets(string);

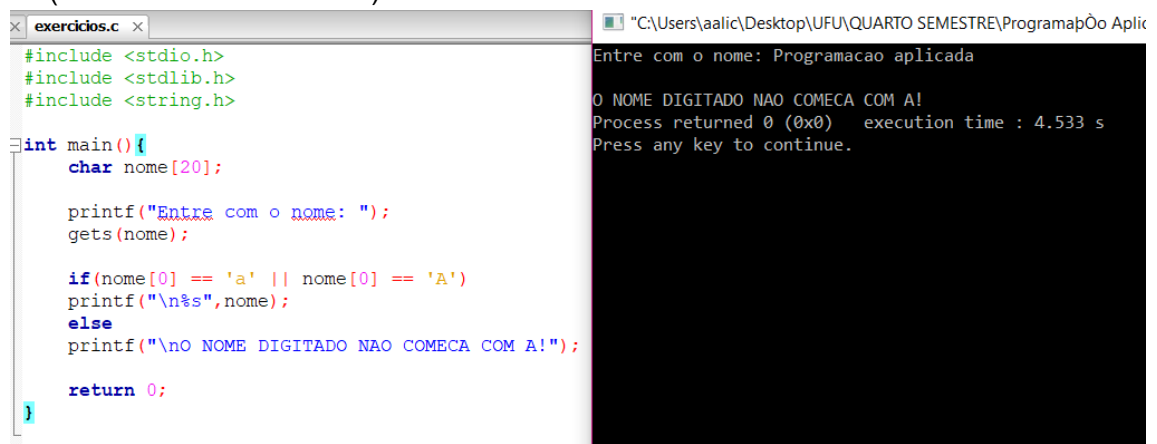
    for(i=0; i<string[i]; i++){
        if(string[i] != '\0')
            cont= cont + 1;
    }

    printf("Seu texto tem %d caracteres", cont);

    return 0;
}
```

Escreva algo para saber o tamanho: NOTEBOOK
Seu texto tem 8 caracteres
Process returned 0 (0x0) execution time : 20.291 s
Press any key to continue.

3. Entre com um nome e imprima o nome somente se a primeira letra do nome for 'a' (maiuscula ou minuscula):



The screenshot shows a C program in a file named 'exercicios.c'. The code includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. The `main` function declares a `char nome[20];`, prompts the user to enter a name, and checks if the first character is 'a' or 'A'. If it is, the name is printed; otherwise, a message is printed. The execution output shows the user entering 'Programacao aplicada', which does not start with 'a', so the message 'O NOME DIGITADO NAO COMECA COM A!' is printed. The process returns 0 and the execution time is 4.533 s.

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

int main(){
    char nome[20];

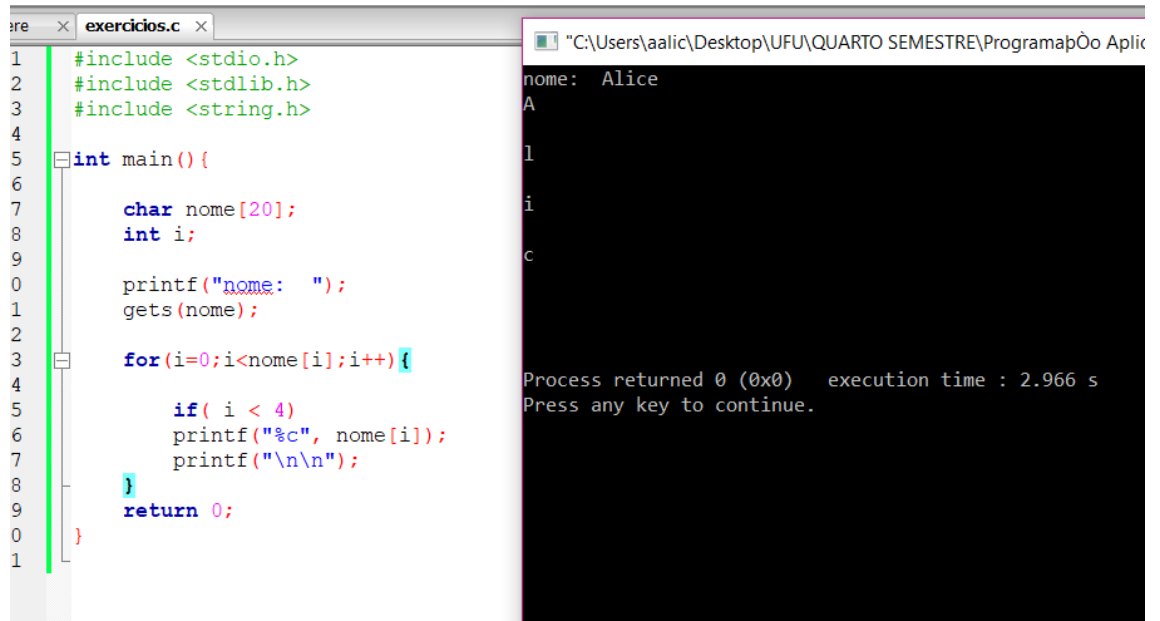
    printf("Entre com o nome: ");
    gets(nome);

    if(nome[0] == 'a' || nome[0] == 'A')
        printf("\n%s", nome);
    else
        printf("O NOME DIGITADO NAO COMECA COM A!");

    return 0;
}
```

Entre com o nome: Programacao aplicada
O NOME DIGITADO NAO COMECA COM A!
Process returned 0 (0x0) execution time : 4.533 s
Press any key to continue.

4. Faça um programa que leia um nome e imprima as 4 primeiras letras do nome:



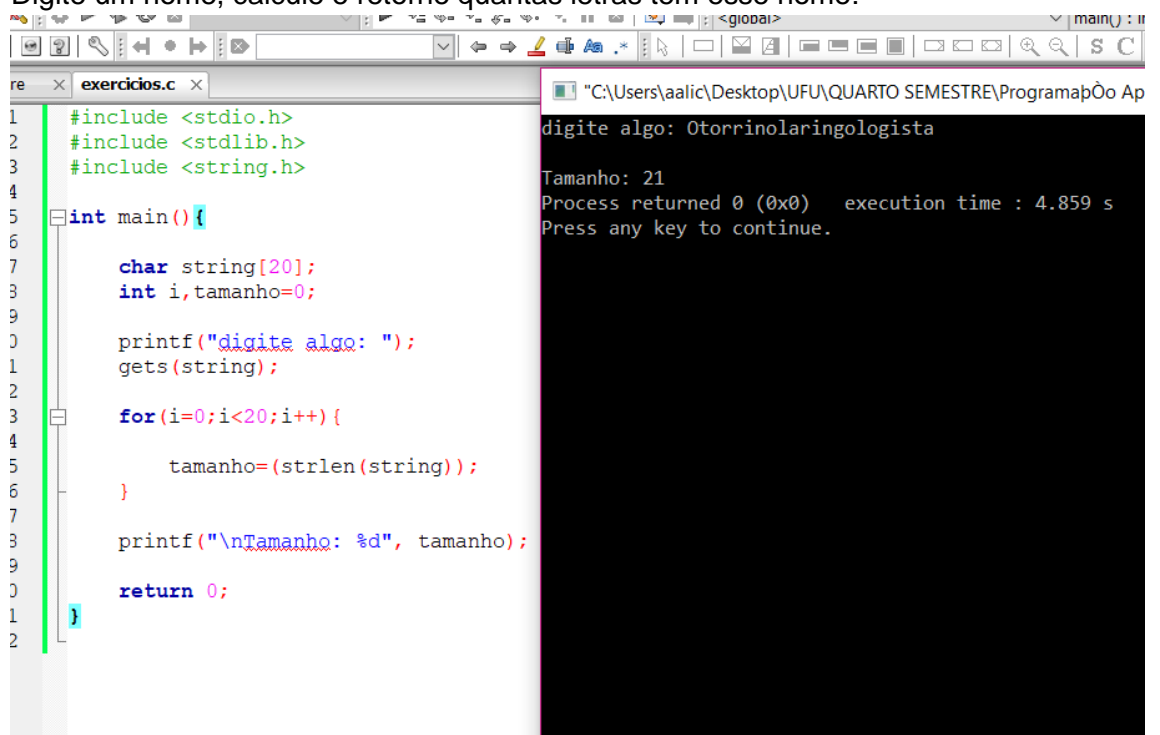
The screenshot shows a C program named 'exercicios.c' in a code editor. The program includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. It defines a `main` function that declares a `char` array `nome[20]` and an `int` `i`. It prompts the user to enter a name using `printf` and `gets`. A `for` loop iterates from `i=0` to `i<nome[i];i++`. Inside the loop, an `if` statement checks `i < 4`. If true, it prints the character `nome[i]` followed by a newline. After the loop, it prints another newline and returns 0. The execution window shows the output: 'nome: Alice', followed by the first four letters 'A', 'l', 'i', 'c' on separate lines. The process returned 0 (0x0) with an execution time of 2.966 s.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main() {
6     char nome[20];
7     int i;
8
9     printf("nome: ");
10    gets(nome);
11
12    for(i=0;i<nome[i];i++){
13
14        if( i < 4)
15            printf("%c", nome[i]);
16        printf("\n\n");
17    }
18    return 0;
19 }
```

nome: Alice
A
l
i
c

Process returned 0 (0x0) execution time : 2.966 s
Press any key to continue.

5. Digite um nome, calcule e retorne quantas letras tem esse nome:

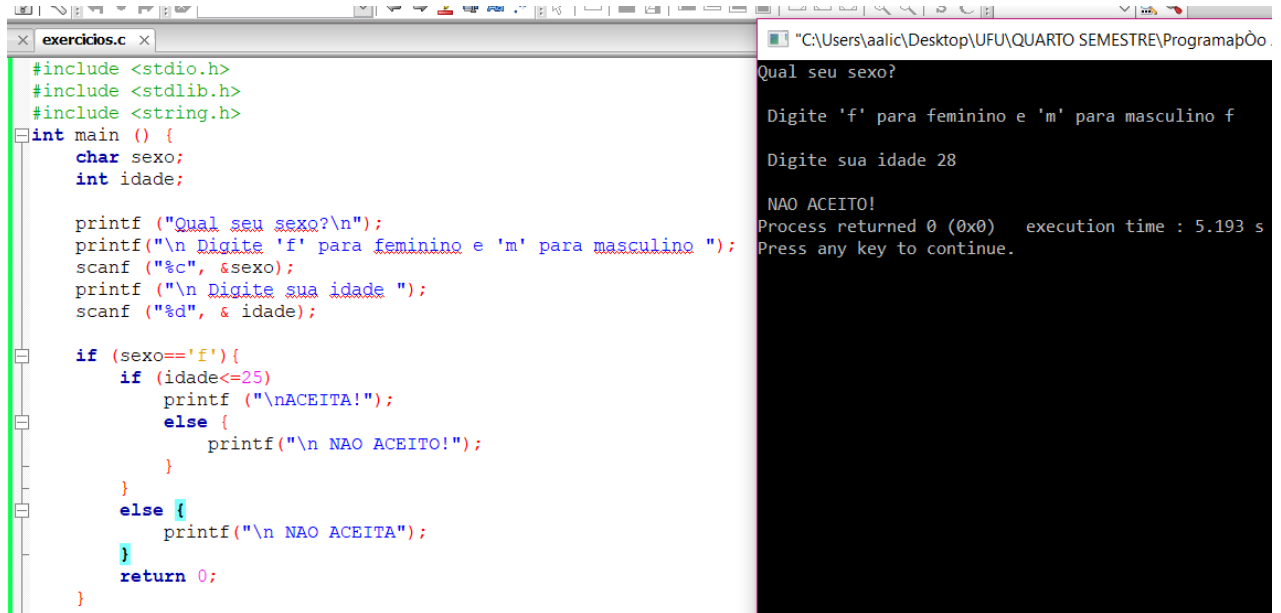


The screenshot shows a C program named 'exercicios.c' in a code editor. The program includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. It defines a `main` function that declares a `char` array `string[20]` and an `int` `i` and `tamanho`. It prompts the user to enter a string using `printf` and `gets`. A `for` loop iterates from `i=0` to `i<20;i++`. Inside the loop, it calculates the length of the string using `strlen` and assigns it to `tamanho`. After the loop, it prints the length and returns 0. The execution window shows the output: 'digite algo: Otorrinolaringologista', followed by 'Tamanho: 21'. The process returned 0 (0x0) with an execution time of 4.859 s.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main() {
6     char string[20];
7     int i, tamanho=0;
8
9     printf("digite algo: ");
10    gets(string);
11
12    for(i=0;i<20;i++){
13
14        tamanho=(strlen(string));
15    }
16
17    printf("\nTamanho: %d", tamanho);
18    return 0;
19 }
```

digite algo: Otorrinolaringologista
Tamanho: 21
Process returned 0 (0x0) execution time : 4.859 s
Press any key to continue.

6. Ler nome, sexo e idade. Se sexo for feminino e idade menor que 25, imprime o nome da pessoa e a palavra “ACEITA”, caso contrario imprimir “NÃO ACEITA”:



The screenshot shows a C program in a text editor and its execution in a terminal. The program asks for sex and age, then checks if the sex is female and age is less than or equal to 25. If true, it prints "ACEITA!"; otherwise, it prints "NAO ACEITO!".

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

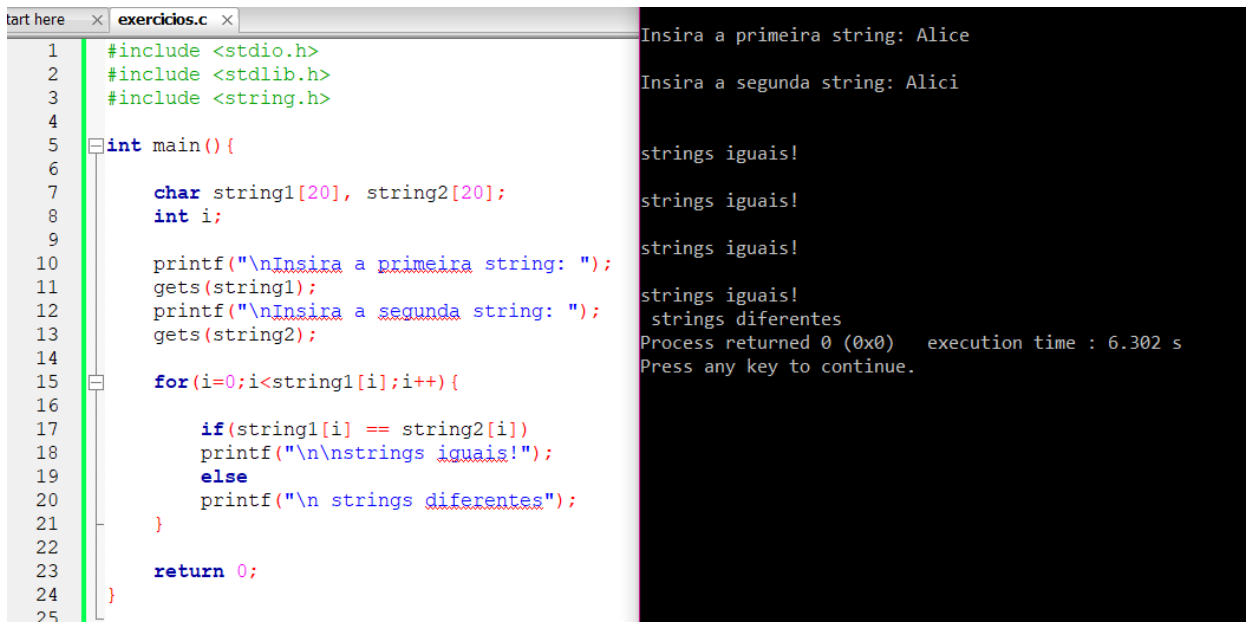
int main () {
    char sexo;
    int idade;

    printf ("Qual seu sexo?\n");
    printf ("\n Digite 'f' para feminino e 'm' para masculino ");
    scanf ("%c", &sexo);
    printf ("\n Digite sua idade ");
    scanf ("%d", &idade);

    if (sexo=='f'){
        if (idade<=25)
            printf ("\nACEITA!");
        else {
            printf ("\n NAO ACEITO!");
        }
    }
    else {
        printf ("\n NAO ACEITA");
    }
    return 0;
}
```

Qual seu sexo?
Digite 'f' para feminino e 'm' para masculino f
Digite sua idade 28
NAO ACEITO!
Process returned 0 (0x0) execution time : 5.193 s
Press any key to continue.

7. Crie um programa que compara duas strings (nao use a função strcmp):
OBS: Analisa letra por letra



The screenshot shows a C program in a text editor and its execution in a terminal. The program asks for two strings and compares them character by character. If they are identical, it prints "strings iguais!"; otherwise, it prints "strings diferentes".

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

int main(){
    char string1[20], string2[20];
    int i;

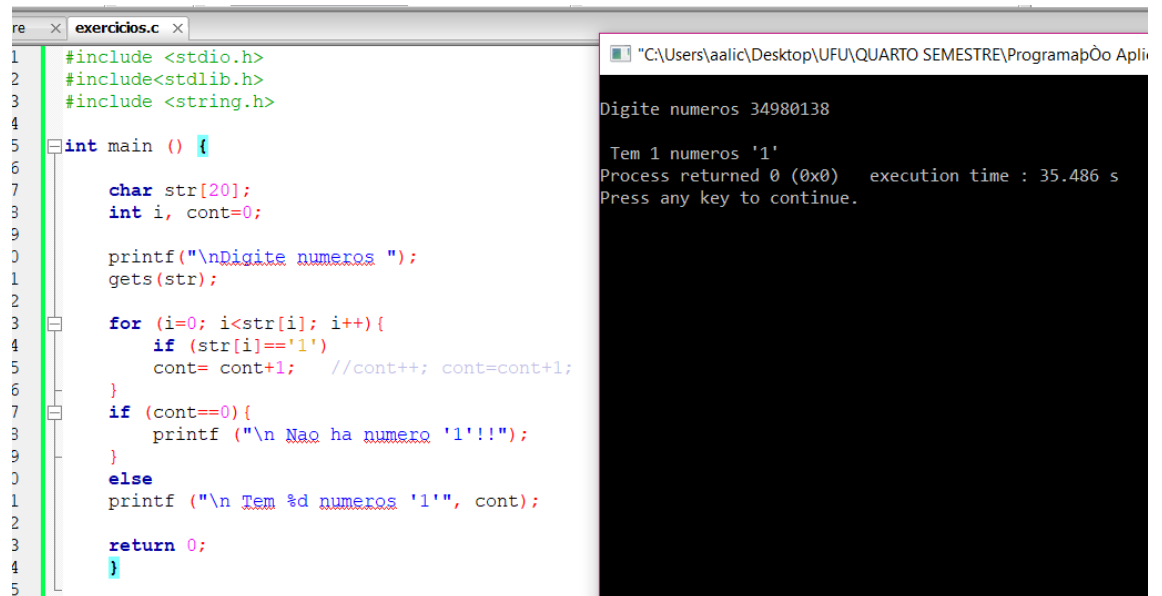
    printf ("\nInsira a primeira string: ");
    gets(string1);
    printf ("\nInsira a segunda string: ");
    gets(string2);

    for(i=0;i<string1[i];i++){
        if(string1[i] == string2[i])
            printf ("\n\nstrings iguais!");
        else
            printf ("\n strings diferentes");
    }

    return 0;
}
```

Insira a primeira string: Alice
Insira a segunda string: Alici
strings iguais!
strings iguais!
strings iguais!
strings iguais!
strings diferentes
Process returned 0 (0x0) execution time : 6.302 s
Press any key to continue.

8. Faça um programa que conte o numero de 1's que aparecem em um string.
Exemplo: "0011001" -> 3:

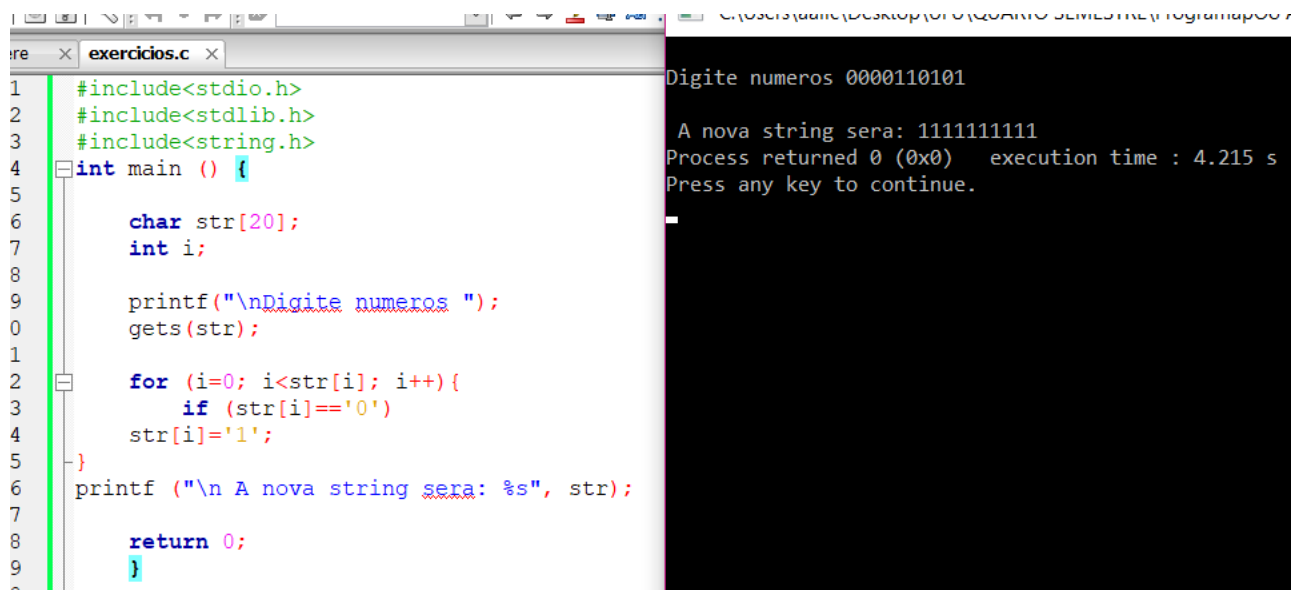


The screenshot shows a C program in a text editor and its execution in a terminal. The program, named 'exercicios.c', includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. It defines a `main` function that declares a character array `str` of size 20 and an integer `cont` initialized to 0. It prompts the user to enter numbers, reads the input into `str`, and then iterates through the string. For each character, if it is '1', it increments `cont`. After the loop, it checks if `cont` is 0 and prints a message accordingly, or prints the count. The terminal shows the input '34980138', the output 'Tem 1 numeros '1'', and the execution time of 35.486 seconds.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main () {
6     char str[20];
7     int i, cont=0;
8
9     printf("\nDigite numeros ");
10    gets(str);
11
12    for (i=0; i<str[i]; i++){
13        if (str[i]=='1')
14            cont= cont+1; //cont++; cont=cont+1;
15    }
16
17    if (cont==0){
18        printf ("\n Nao ha numero '1'!!");
19    }
20    else
21        printf ("\n Tem %d numeros '1'", cont);
22
23    return 0;
24 }
```

Process returned 0 (0x0) execution time : 35.486 s
Press any key to continue.

9. Escreva um programa que substitui as ocorrencias de um caractere '0' em uma string por outro caractere '1':

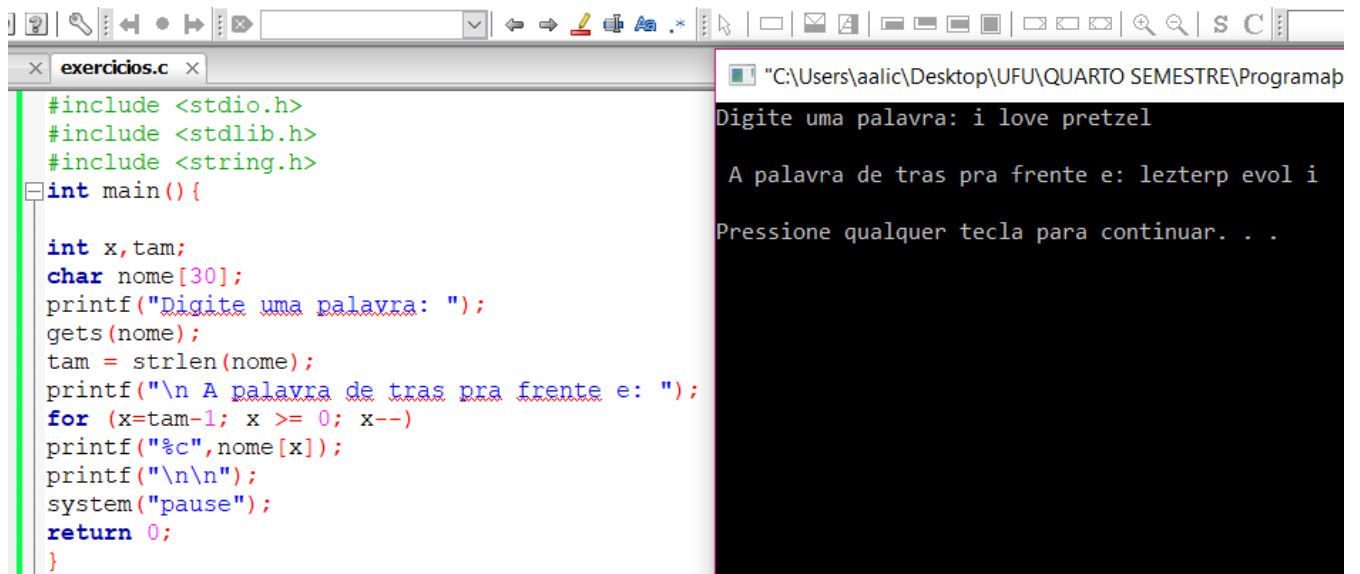


The screenshot shows a C program in a text editor and its execution in a terminal. The program, named 'exercicios.c', includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. It defines a `main` function that declares a character array `str` of size 20 and an integer `i`. It prompts the user to enter numbers, reads the input into `str`, and then iterates through the string. For each character, if it is '0', it replaces it with '1'. After the loop, it prints the new string. The terminal shows the input '0000110101', the output 'A nova string sera: 1111111111', and the execution time of 4.215 seconds.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main () {
6     char str[20];
7     int i;
8
9     printf("\nDigite numeros ");
10    gets(str);
11
12    for (i=0; i<str[i]; i++){
13        if (str[i]=='0')
14            str[i]='1';
15    }
16
17    printf ("\n A nova string sera: %s", str);
18
19    return 0;
20 }
```

Process returned 0 (0x0) execution time : 4.215 s
Press any key to continue.

10. Faça um programa que receba uma palavra e a imprima de tras-para-frente:



The image shows a code editor window titled 'exercicios.c' and a terminal window showing the execution of the program. The code in the editor is as follows:

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main() {
    int x, tam;
    char nome[30];
    printf("Digite uma palavra: ");
    gets(nome);
    tam = strlen(nome);
    printf("\n A palavra de tras pra frente e: ");
    for (x=tam-1; x >= 0; x--)
        printf("%c", nome[x]);
    printf("\n\n");
    system("pause");
    return 0;
}
```

The terminal window shows the following output:

```
Digite uma palavra: i love pretzel

A palavra de tras pra frente e: lezterp evol i

Pressione qualquer tecla para continuar. . .
```