

TUGAS PRAKTIKUM KONSEP PEMROGRAMAN

JILID 11 part 2



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POLITEKNIK ELEKTRONIKA NEGERI SURABAYA

Praktikum 7 (2/2)

STRING

String Handling -> built in functions

1. Ulangilah soal nomor 2, 3 & 4 pada modul prakt String 1 dengan menggunakan fungsifungsi standard (built-in functions).

Jawab :

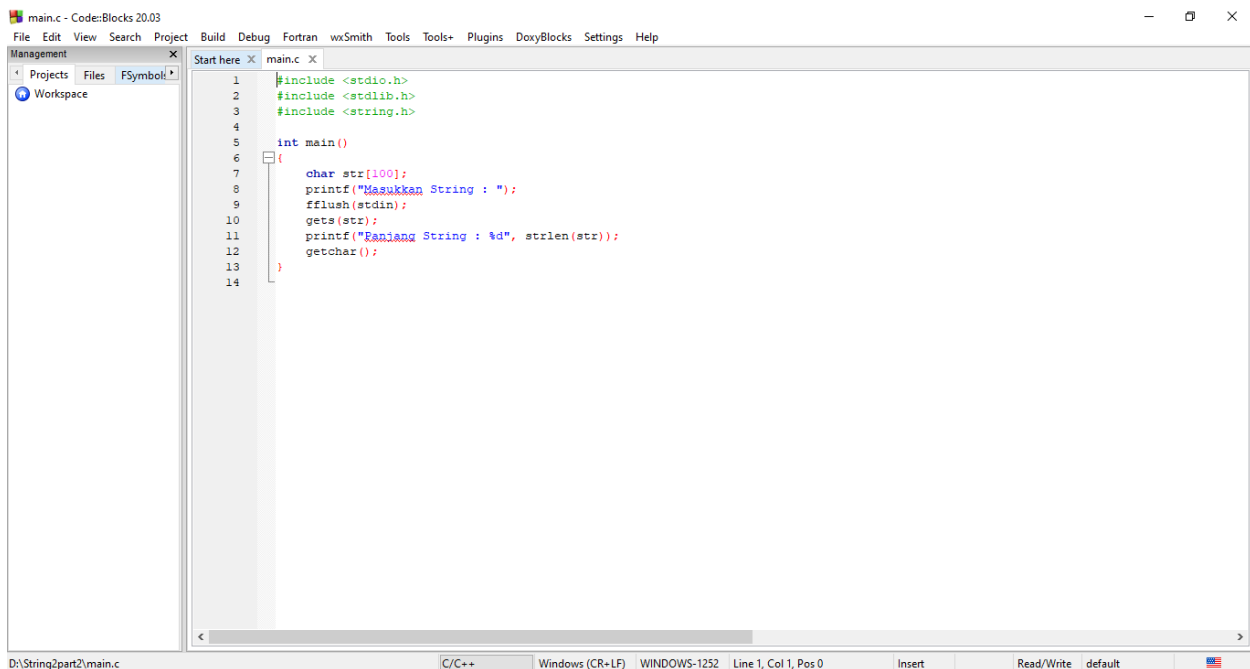
a) #include <stdio.h>

#include <stdlib.h>

#include <string.h>

```
int main()
{
    char str[100];
    printf("Masukkan String : ");
    fflush(stdin);
    gets(str);
    printf("Panjang String : %d", strlen(str));
    getchar();
}
```

Listing Program :

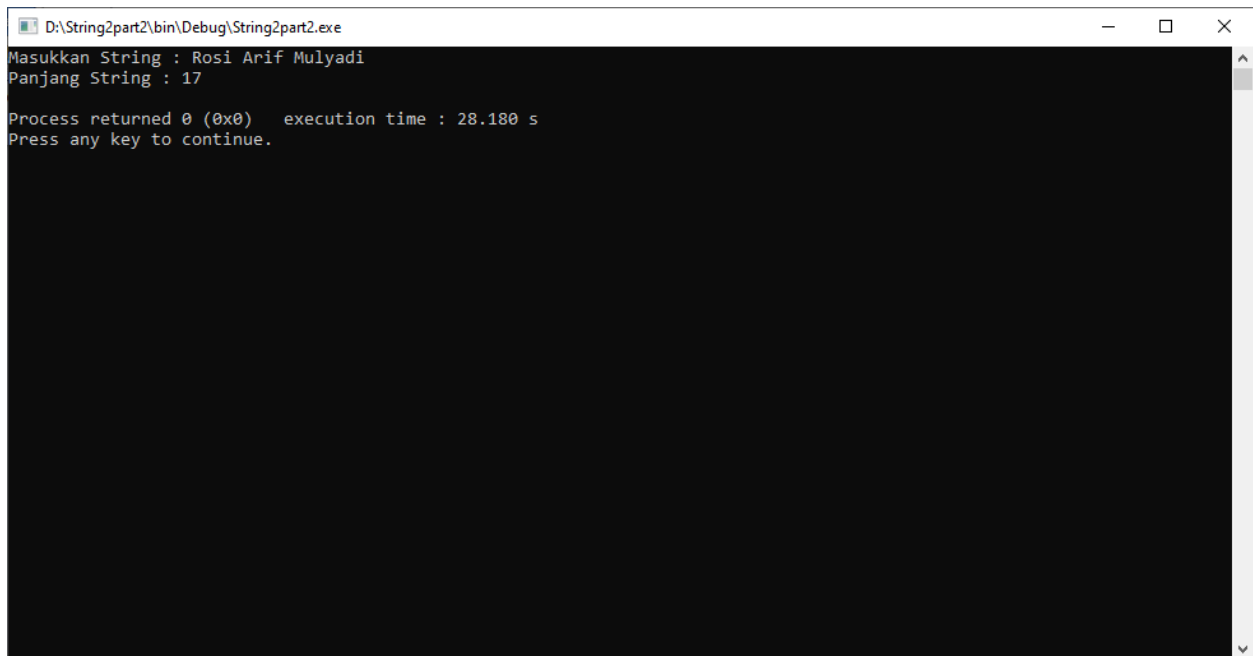


The screenshot shows the Code::Blocks IDE interface. The main editor window displays a C program with the following code:

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main()
6 {
7     char str[100];
8     printf("Masukkan String : ");
9     fflush(stdin);
10    gets(str);
11    printf("Panjang String : %d", strlen(str));
12    getchar();
13 }
14
```

The IDE's status bar at the bottom indicates the file path is D:\String2part2\main.c, the compiler is C/C++, and the current line is 1, column 1, position 0.

Output :



```
D:\String2part2\bin\Debug\String2part2.exe
Masukkan String : Rosi Arif Mulyadi
Panjang String : 17

Process returned 0 (0x0)   execution time : 28.180 s
Press any key to continue.
```

b) #include <stdio.h>

#include <stdlib.h>

#include <string.h>

int main()

{

 char str[100];

 printf("Masukkan String : ");

 fflush(stdin);

 gets(str);

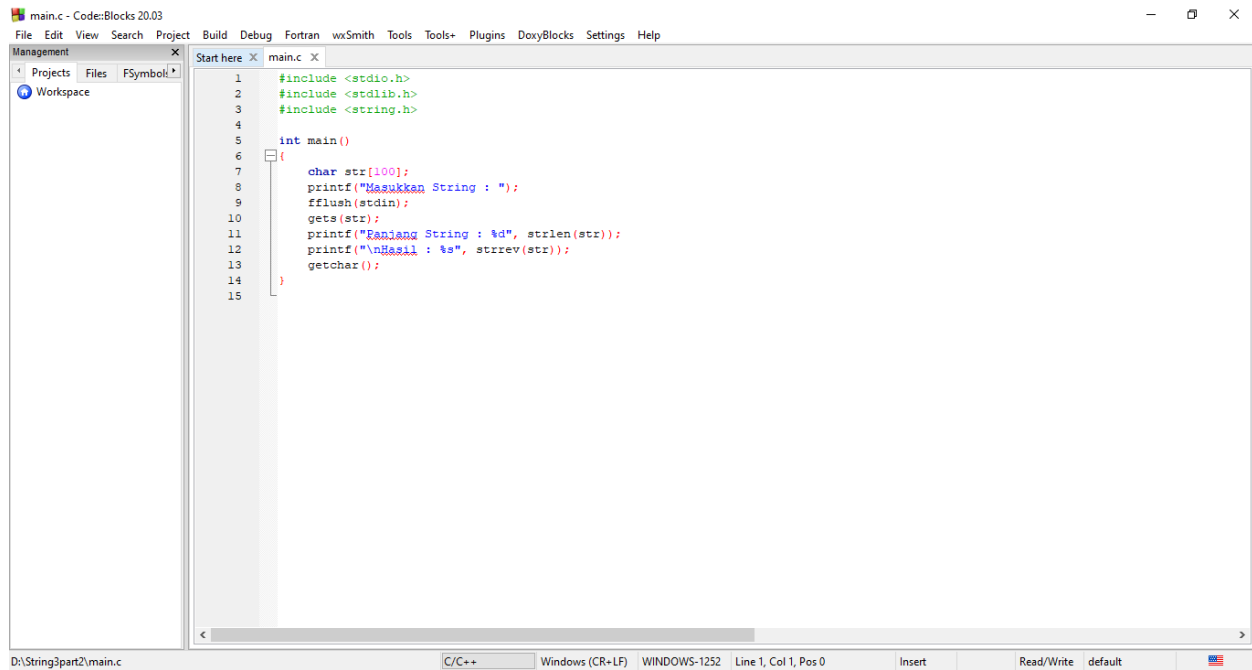
 printf("Panjang String : %d", strlen(str));

 printf("Hasil : %s", strrev(str));

 getchar();

}

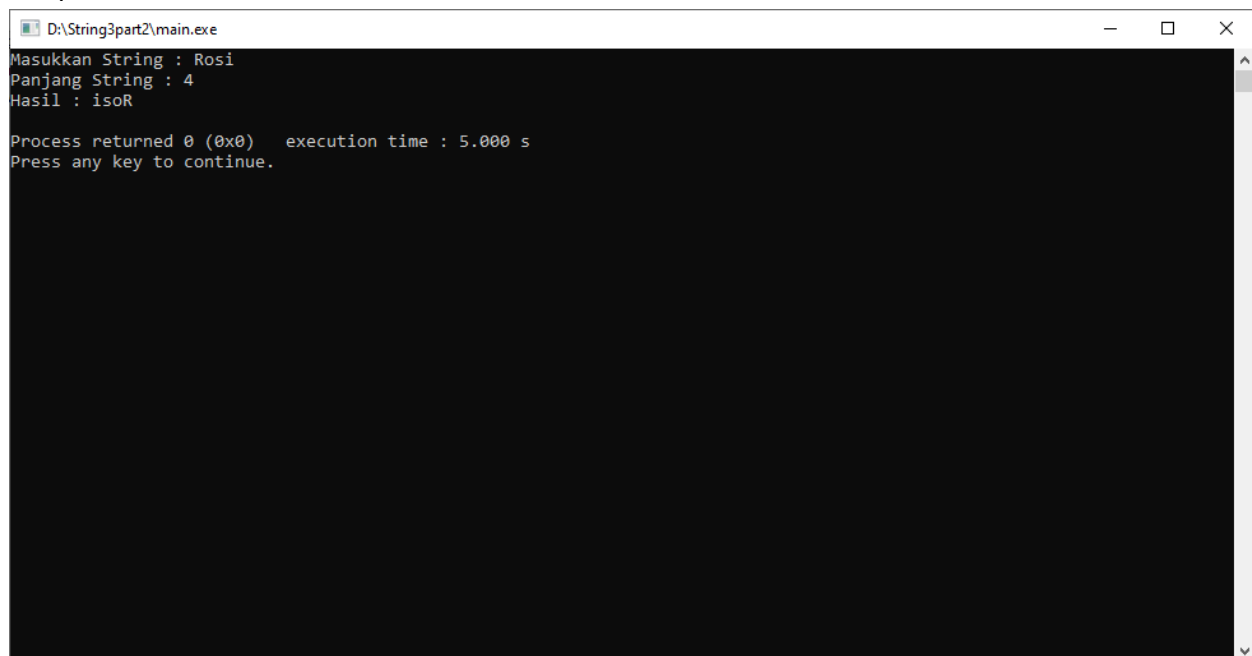
Listing Program :



The screenshot shows the Code::Blocks 20.03 IDE with a C program in a file named `main.c`. The program includes `<stdio.h>`, `<stdlib.h>`, and `<string.h>`. It defines a `main` function that prompts the user to enter a string, calculates its length, and prints the reversed string using `strrev`. The status bar at the bottom indicates the file is located at `D:\String3part2\main.c` and the cursor is at line 1, column 1.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 int main()
6 {
7     char str[100];
8     printf("Masukkan String : ");
9     fflush(stdin);
10    gets(str);
11    printf("Panjang String : %d", strlen(str));
12    printf("\nHasil : %s", strrev(str));
13    getchar();
14 }
15
```

Output :



The screenshot shows a Windows command prompt window titled `D:\String3part2\main.exe`. It displays the output of the program: the user entered "Rosi", the length is 4, and the reversed string is "isoR". The window also shows the process return code (0) and execution time (5.000 s).

```
D:\String3part2\main.exe
Masukkan String : Rosi
Panjang String : 4
Hasil : isoR

Process returned 0 (0x0)   execution time : 5.000 s
Press any key to continue.
```

c) `#include <stdio.h>`

`#include <stdlib.h>`

`int main()`

`{`

`char Asal[50]="", Tujuan[50]="";`

```

printf("Masukkan String : ");
fgets(Tujuan, sizeof Tujuan, stdin);
strcpy(Asal, Tujuan);
printf("Masukkan String Asal : %s\n", Asal);
printf("Masukkan String Tujuan : %s\n", Tujuan);
getchar();
}

```

Listing Program :

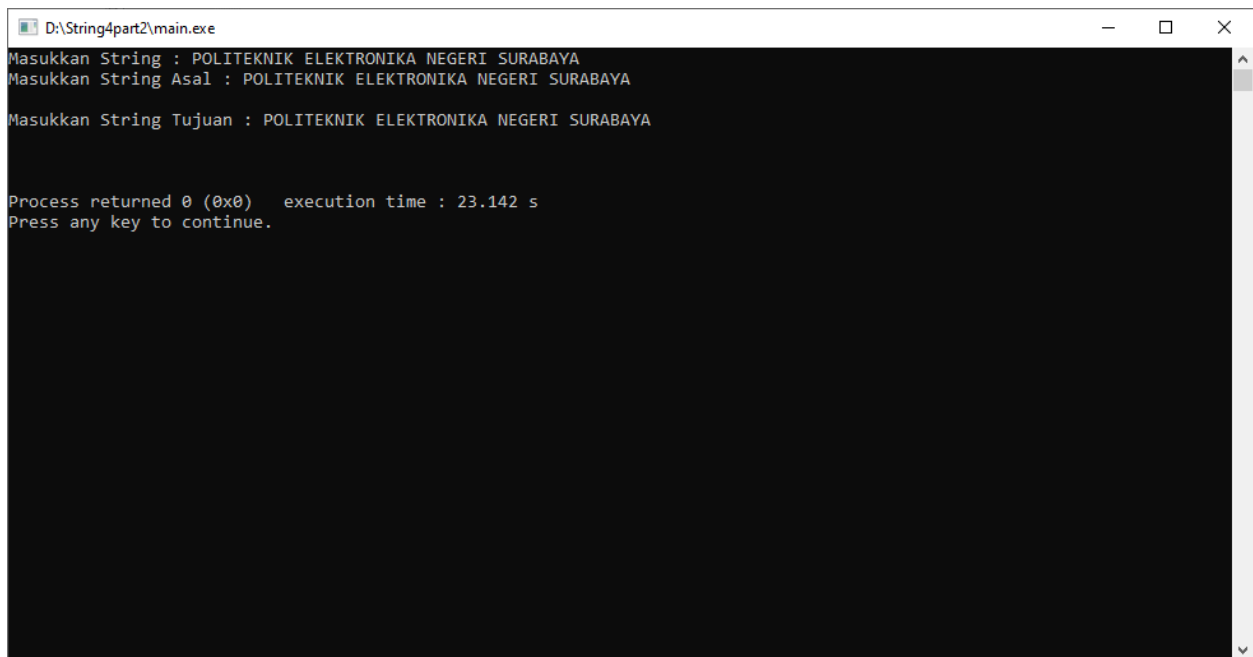
```

1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      char Asal[50]="", Tujuan[50]="";
7      printf("Masukkan String : ");
8      fgets(Tujuan, sizeof Tujuan, stdin);
9      strcpy(Asal, Tujuan);
10     printf("Masukkan String Asal : %s\n", Asal);
11     printf("Masukkan String Tujuan : %s\n", Tujuan);
12     getchar();
13 }
14

```

D:\String4part2\main.c | C/C++ | Windows (CR+LF) | WINDOWS-1252 | Line 7, Col 29, Pos 124 | Insert | Modified | Read/Write | default

Output :



```
D:\String4part2\main.exe
Masukkan String : POLITEKNIK ELEKTRONIKA NEGERI SURABAYA
Masukkan String Asal : POLITEKNIK ELEKTRONIKA NEGERI SURABAYA
Masukkan String Tujuan : POLITEKNIK ELEKTRONIKA NEGERI SURABAYA

Process returned 0 (0x0) execution time : 23.142 s
Press any key to continue.
```

2. a. Definisikanlah sebuah fungsi untuk membandingkan dua buah string yang menjadi parameternya secara CASE SENSITIVE (misalnya : bandingstr1())
- b. Pada fungsi main() terimalah input 2 buah string yang akan dibandingkan.. Selanjutnya panggil fungsi bandingstr1() untuk membandingkan kedua string tsb dan tampilkan hasilnya di main().

Jawab :

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

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

```
int bandingstr1();
```

```
char kal1[255], kal2[255];
```

```
int main()
```

```
{
```

```
    int hasil;
```

```
    puts("Membandingkan 2 Kalimat (CASE SENSITIVE)\n");
```

```
    printf("Masukkan kalimat 1 : ");
```

```
    gets(kal1);
```

```
    printf("Masukkan kalimat 2 : ");
```

```
    gets(kal2);
```

```
    hasil = bandingstr1();
```

```
    if(hasil==0)
```

```

        printf("\nKedua kalimat sama");
    else
        printf("\nKedua kalimat tidak sama");
    return 0;
}

int bandingstr1()
{
    int i, sama = 0;
    for(i = 0; i < strlen(kal1) || i < strlen(kal2); i++)
    {
        if(kal1[i] != kal2[i])
        {
            sama = 1;

            break;
        }
        i++;
    }
    return sama;
}

```

Listing Program :

The screenshot shows a C code editor with a project named 'String7'. The code is as follows:

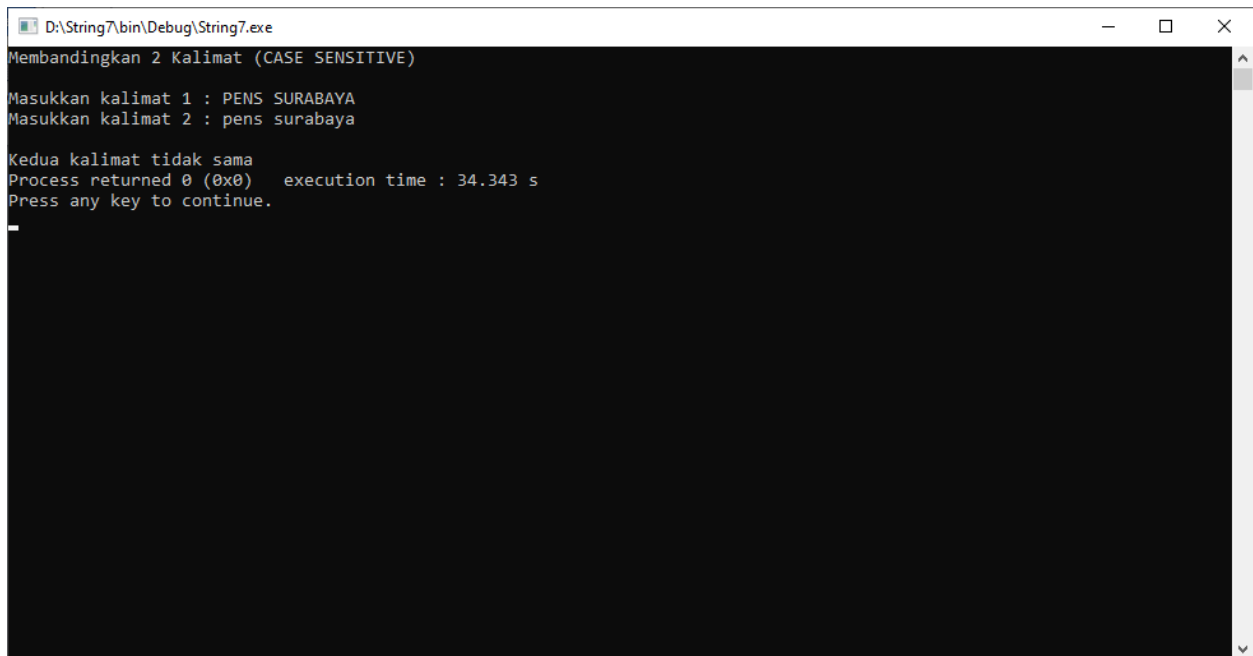
```

1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int bandingstr1();
5  char kal1[255], kal2[255];
6
7  int main()
8  {
9      int hasil;
10     puts("Membandingkan 2 Kalimat (CASE SENSITIVE)\n");
11     printf("Masukkan kalimat 1 : ");
12     gets(kal1);
13     printf("Masukkan kalimat 2 : ");
14     gets(kal2);
15     hasil = bandingstr1();
16     if(hasil==0)
17         printf("\nKedua kalimat sama");
18     else
19         printf("\nKedua kalimat tidak sama");
20     return 0;
21 }
22
23 int bandingstr1()
24 {
25     int i, sama = 0;
26     for(i = 0; i < strlen(kal1) || i < strlen(kal2); i++)
27     {
28         if(kal1[i] != kal2[i])
29         {
30             sama = 1;
31
32             break;
33         }
34         i++;
35     }
36     return sama;
37 }
38

```

The status bar at the bottom indicates the file path is 'D:\String7\main.c', the language is 'C/C++', and the current position is 'Line 35, Col 6, Pos 683'.

Output :



```
D:\String7\bin\Debug\String7.exe
Membandingkan 2 Kalimat (CASE SENSITIVE)
Masukkan kalimat 1 : PENS SURABAYA
Masukkan kalimat 2 : pens surabaya
Kedua kalimat tidak sama
Process returned 0 (0x0) execution time : 34.343 s
Press any key to continue.
```

3. a. Definiskanlah sebuah fungsi untuk membandingkan dua buah string yang menjadi parameternya secara NON CASE SENSITIVE (misalnya : bandingstr2())
- b. Pada fungsi main() terimalah input 2 buah string yang akan dibandingkan.. Selanjutnya panggil fungsi bandingstr2() untuk membandingkan kedua string tsb dan tampilkan hasilnya di main().

Ket : lihat algoritma Fungsi Banding – NON CASE SENSITIVE

Jawab :

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

```
char kal1[255], kal2[255];
int bandingstr2();
int main()
{
    int hasil;
    puts("Membandingkan 2 Kalimat (NON CASE SENSITIVE)\n");
    printf("Masukkan kalimat 1 : ");
    gets(kal1);
    printf("Masukkan kalimat 2 : ");
    gets(kal2);
    hasil = bandingstr2();
```



```

    if(hasil==0)
        printf("\nKedua kalimat sama");
    else
        printf("\nKedua kalimat tidak sama");
    return 0;
}
int bandingstr2()
{
    int i, sama = 0;

    for(i = 0; i < strlen(kal1) || i < strlen(kal2); i++)
    {
        if(kal1[i] > kal2[i])
        {
            if(kal1[i] != kal2[i] + 32)
            {
                sama = 1;
                break;
            }
        }
        else if(kal1[i] < kal2[i])
        {
            if(kal1[i] != kal2[i] - 32)
            {
                sama = -1;
                break;
            }
        }
    }
    return sama;
}

```

Listing Program :

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 char kali[255], kal2[255];
5 int bandingkan2();
6 int main()
7 {
8     int hasil;
9     printf("Membandingkan 2 Kalimat (NON CASE SENSITIVE)\n");
10    printf("Masukkan kalimat 1 : ");
11    gets(kali);
12    printf("Masukkan kalimat 2 : ");
13    gets(kal2);
14    hasil = bandingkan2();
15    if(hasil==0)
16        printf("Kedua kalimat sama");
17    else
18        printf("Kedua kalimat tidak sama");
19    return 0;
20 }
21
22 int bandingkan2()
23 {
24     int i, sama = 0;
25
26     for(i = 0; i < strlen(kali) || i < strlen(kal2); i++)
27     {
28         if(kali[i] > kal2[i])
29         {
30             sama = 1;
31             break;
32         }
33         else if(kali[i] < kal2[i])
34         {
35             sama = -1;
36             break;
37         }
38     }
39
40     return sama;
41 }
```

Output :

```
D:\String8\bin\Debug\String8.exe
Membandingkan 2 Kalimat (NON CASE SENSITIVE)

Masukkan kalimat 1 : PENS SURABAYA
Masukkan kalimat 2 : pens surabaya

Kedua kalimat sama
Process returned 0 (0x0)   execution time : 12.922 s
Press any key to continue.
```

4. Lakukan percobaan untuk membandingkan 2 buah string dengan menggunakan fungsi strcmp() dan strcmpi(). Analisislah dan berikan kesimpulan tentang perbedaan dan contoh aplikasi untuk keduanya.

Jawab :

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

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

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

```
int main()
```

```
{
```

```
    int i;
```

```
    char str1[20], str2[20];
```

```
    printf("Kata 1 : ");
```

```
    gets(str1);
```

```
    printf("Kata 2 : ");
```

```
    gets(str2);
```

```
    printf("strcmp antara %s dengan %s adalah %d\n", str1, str2, strcmp(str1, str2));
```

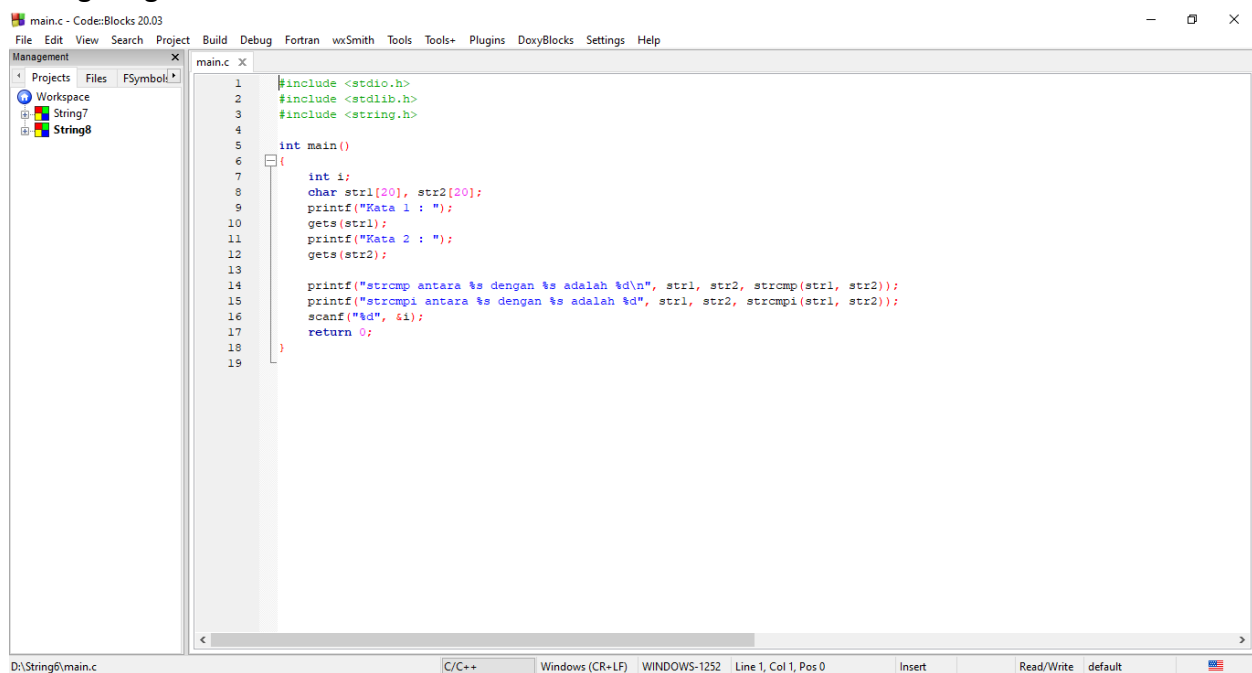
```
    printf("strncmpi antara %s dengan %s adalah %d", str1, str2, strncmpi(str1, str2));
```

```
    scanf("%d", &i);
```

```
    return 0;
```

```
}
```

Listing Program :

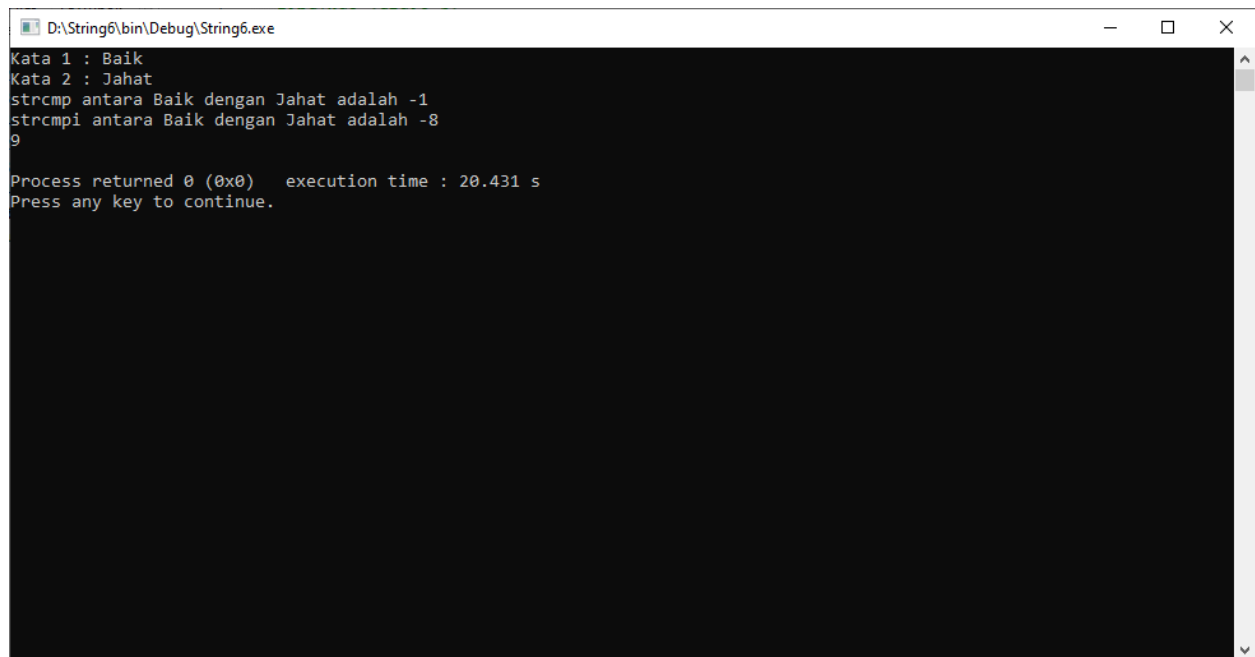


The screenshot shows the Code::Blocks IDE interface. The title bar reads 'main.c - Code::Blocks 20.03'. The menu bar includes 'File', 'Edit', 'View', 'Search', 'Project', 'Build', 'Debug', 'Fortran', 'wxSmith', 'Tools', 'Tools+', 'Plugins', 'DoxyBlocks', 'Settings', and 'Help'. The 'Management' panel on the left shows a project named 'String8' with files 'String7' and 'String8'. The main editor window displays the following C code:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4
5  int main()
6  {
7      int i;
8      char str1[20], str2[20];
9      printf("Kata 1 : ");
10     gets(str1);
11     printf("Kata 2 : ");
12     gets(str2);
13
14     printf("strcmp antara %s dengan %s adalah %d\n", str1, str2, strcmp(str1, str2));
15     printf("strncmpi antara %s dengan %s adalah %d", str1, str2, strncmpi(str1, str2));
16     scanf("%d", &i);
17     return 0;
18 }
19
```

The status bar at the bottom indicates the file path 'D:\String8\main.c', the compiler 'C/C++', the encoding 'Windows (CR+LF)', the window title 'WINDOWS-1252', and the cursor position 'Line 1, Col 1, Pos 0'. It also shows 'Insert' mode and 'Read/Write default' permissions.

Output :



```
D:\String6\bin\Debug\String6.exe
Kata 1 : Baik
Kata 2 : Jahat
strcmp antara Baik dengan Jahat adalah -1
strcmpi antara Baik dengan Jahat adalah -8
9

Process returned 0 (0x0)   execution time : 20.431 s
Press any key to continue.
```