#include <stdio.h>

// Prototypes for the user defined functions

int str\_length(char[]);

int str\_compare(char[], char[]);

void str\_concat(char[], char[]);

int main()

{

// Declare the variables

char str[50];

char str1[50], str2[50];

char str\_des[100], str\_src[50];

int length, comp\_res;

// Accept the string from the user to find the length

printf("\nEnter a string :");

scanf("%s", str);

// Invoke the function to find the length of the string

length = str\_length(str);

// Print the length of the string

printf("The length of %s is %d\n", str, length);

// Accept two strings to compare

printf("\nEnter two strings for string compare :");

scanf("%s%s", str1, str2);

// Invoke string compare function to compare the str1 and str2 strings

comp\_res = str\_compare(str1, str2);

if (comp\_res < 0)

{

printf("String \"%s\" is less than string \"%s\"\n", str1, str2);

}

else if (comp\_res == 0)

{

printf("String \"%s\" is same as string \"%s\"\n", str1, str2);

}

else

{

printf("String \"%s\" is greater than string \"%s\"\n", str1, str2);

}

// Accept two strings for string concatenation

printf("\nEnter two strings for string concatenation :");

scanf("%s%s", str\_des, str\_src);

str\_concat(str\_des, str\_src);

printf("The string after concatenation is \"%s\"\n", str\_des);

return 1;

}

int str\_length(char s[])

{

int i;

for (i = 0; s[i] != '\0'; i++)

;

return i;

}

int str\_compare(char s1[], char s2[])

{

int i, j;

for (i = 0, j = 0; (s1[i] != '\0' && s2[j] != '\0'); i++, j++)

{

if (s1[i] != s2[j])

{

return (s1[i] - s2[j]);

}

}

if (s1[i] == '\0' && s2[j] == '\0')

{

return 0;

}

else if (s1[i] == '\0' || s2[i] == '\0')

{

return (s1[i] - s2[i]);

}

}

void str\_concat(char s1[], char s2[])

{

int i, j;

for (i = 0; s1[i] != '\0'; i++)

;

for (j = 0; s2[j] != '\0'; i++, j++)

{

s1[i] = s2[j];

}

s1[i] = '\0';

}