//Write a program to create user defined string function

//(strlen, strcmp, strcpy, strncpy, strcat, strstr) and make a menu driven

//program for the functions and add re-enter string and exit in the menu option.

#include<stdio.h>

int my\_str\_len(char \*str1){

int len=0;

for(;\*str1!='\0';str1++)

len++;

return len;

}

int my\_str\_cmp(char \*str1,char \*str2){

for(;\*str1==\*str2;str1++,str2++)

if(\*str1=='\0')

return 0;

if(\*str1>\*str2)

return 1;

else

return -1;

}

char \*my\_str\_cpy(char \*str1,char \*str2){

char \*org\_str1 = str1;

for(;\*str2!='\0';str1++,str2++)

\*str1=\*str2;

\*str1='\0';

return org\_str1;

}

char \*my\_str\_ncpy(char \*str1,char \*str2,int n){

char \*org\_str1=str1;

for(;n>0&&\*str2!='\0';str1++,str2++,n--)

\*str1=\*str2;

if(n>0)

\*str1='\0';

return org\_str1;

}

char \*my\_str\_cat(char \*str1,char \*str2){

char \*org\_str1=str1;

while(\*str1!='\0')

str1++;

for(;\*str2!='\0';\*str1++,\*str2++)

\*str1=\*str2;

\*str1='\0';

return org\_str1;

}

char \*my\_str\_str(char \*str1,char \*str2){

while(\*str1!='\0'){

char \*st1=str1;

char \*st2=str2;

while(\*st2!='\0'&&\*st1==\*st2){

st1++;

st2++;

}

if(\*st2=='\0')

return str1;

str1++;

}

return NULL;

}

void user\_input(char \*s1,char \*s2){

fflush(stdin);

printf("Enter the first string: ");

gets(s1);

printf("Enter the second string: ");

gets(s2);

}

void menu(){

printf("Menu:-\n");

printf("1. Print the length of string1 and string2.\n");

printf("2. Compare string1 with string2.\n");

printf("3. Copy string2 to string1.\n");

printf("4. Copy number of characters of string2 to string1.\n");

printf("5. Concatenate string1 and string2.\n");

printf("6. Find string within string1.\n");

printf("7. Re-enter strings to the array.\n");

printf("8. Quit.\n");

}

int main(){

char string1[50],string2[20],checkstr[20];

int choice,n=0;

user\_input(string1,string2);

do{

menu();

printf("Enter your choice: ");

scanf("%d",&choice);

switch (choice){

case 1:

printf("Length of \"%s\" is: %d\n",string1,my\_str\_len(string1));

printf("Length of \"%s\" is: %d\n",string2,my\_str\_len(string2));

break;

case 2:

printf("Comparing \"%s\" with \"%s\".....\n",string1,string2);

if(my\_str\_cmp(string1,string2)==0)

printf("String 1:\"%s\" and string 2:\"%s\" are equal\n",string1,string2);

else if(my\_str\_cmp(string1,string2)==1)

printf("String 1:\"%s\"is not equal and greater than string 2:\"%s\"\n",string1,string2);

else

printf("String 1:\"%s\" is not equal and less than string 2:\"%s\"\n",string1,string2)

break;

case 3:

printf("Coping string 2:\"%s\" to string 1.....\n",string2);

my\_str\_cpy(string1,string2);

printf("String 1: %s\nString 2: %s\n",string1,string2);

break;

case 4:

printf("Enter the n characters: ");

scanf("%d",&n);

printf("Coping first %d characters from string 2:\"%s\" to string”

“1:\"%s\".....\n",n,string2,string1);

my\_str\_ncpy(string1,string2,n);

printf("String 1: %s\nString 2: %s\n",string1,string2);

break;

case 5:

printf("Concatinating string 1:\"%s\" with string 2:\"%s\".....\n",string1,string2);

my\_str\_cat(string1,string2);

printf("String 1: %s\nString 2: %s\n",string1,string2);

break;

case 6:

printf("Enter a string that you want to find within string 1:\"%s\": ",string1);

fflush(stdin);

gets(checkstr);

printf("Finding \"%s\" within string 1:\"%s\".....\n",checkstr,string1);

printf("%s\n",my\_str\_str(string1,checkstr));

break;

case 7:

user\_input(string1,string2);

break;

case 8:

printf("Exiting the program !");

break;

default:

printf("Your input is invalid! Please try again!\n");

}

}while(choice!=8);

printf("\n\t\t\t\t\tThank You \_/\\\_");

getch();

return 0;

}