

chapter-08

programming Exercise

8.1 write a program which reads your name from the keyboard and output a list of ASCII codes, which represent your name.

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

```
#include <conio.h>
```

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

```
int main () {
```

```
int k,i,l;
```

```
char dinner[100];
```

```
printf("Enter a string: \n");
```

```
gets(dinner);
```

```
l = strlen(dinner);
```

```
printf("the ASCII values of string \n");
```

```
for (i=0; i<l; i++) {
```

```
k = dinner[i];
```

```
printf("%d", k); }
```

```
return 0; }
```

8.2 write a program to do the following:

```
#include <stdio.h>
#include <conio.h>
void main ( ) {
    char S1 [10];
    char S2 [10] = "Atiqur";
    int n;
    printf ("Who is the inventor of C?");
    printf ("\n Answer is ");
    scanf ("%s", &S1);
    n = strcmp (S1, S2);
    if (n != 0)
        printf ("try again");
    else
        printf ("Good");
    return 0; }
```

8.3 Write a program which will read a text and count all occurrences of a particular word.

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

```

void main() {
    const char * str;
    const char c;
    int num = 0;
    int i;
    const end = strlen(str);
    for (i = 0; i < end; i++) {
        if (str[i] == c) {
            ++num;
        }
    }
    return 0;
}

```

8.3 write a program which will read a string and rewrite it in alphabetical order.

```

#include <stdio.h>
#include <string.h>
#include <conio.h>

void main() {
    char a[30], temp;
    int n = 0, i, j;
    printf("Enter the string");
    while (a[n] != '\0') {
        n++;
    }
}

```



```

for (i=0; i<n; i++) {
    for (j=0; j<n-i-1; j++) {
        if (a[j] > a[j+1]) {
            temp = a[j];
            a[j] = a[j+1];
            a[j+1] = temp;
        }
    }
    printf("The string in alphabetical order\n");
    for (i=0; i<n; i++) {
        printf("%c", a[i]);
    }
    return 0;
}

```

8.5 write a program to replace a particular word by another word in a given string.

```

#include <stdio.h>
#include <conio.h>
int strlen (char str[50]) {
    int len=0;
    while (str[len]!='\0')
        len++;
    return len;
}

```

```

void strcat (char str1[50], char str2[50]) {
    int i=0; len=0;
    while (str1[len] != '\0')
        len++;
    while (str2[i] != '\0') {
        str1[len] = str2[i];
        i++;
        len++;
    }
    str1[len] = '\0';
}

```

```

void main () {
    char str1[50], str2[50], str3[50], temp[50];
    int len, len2, len3, i, j, match, k;
    printf("\n\n\t Enter a SENTENCE ");
    gets(str1);
    len1 = strlen(str1);
    printf("\n\n Enter a string to delete: ");
    gets(str2);
    len2 = strlen(str2);
    printf("Enter a string to insert");
    gets(str3);
    len3 = strlen(str3);
    for (i=0; i <= len; i++) {
        match = 1;

```

```
for (j=0; j<=len; j++) {  
    if (str2[j] != str1[i+j]) {
```

```
        match=0;
```

```
        break; }  
if (match) {
```

```
    for (j=0; j<=len3; j++)
```

```
        str1[i+j] = str3[j];
```

```
    str1[i+j] = '0';
```

```
    strcat (str1, temp);
```

```
    len1 = len1 + len2 + len3;
```

```
    i = i + j; } }  
printf ("m\n n\t\t OUTPUT is");
```

```
puts (str1);  
return 0;  
}
```


18.6 Write a program that reads a string from the keyboard and determine whether the string is a palindrome or not.

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

```
#include <conio.h>
```

```
Void main () {
```

```
int pelin (char []);
```

```
int flag;
```

```
char str[30];
```

```
printf ("***** PELINDROME -STRING ***** \n\n");
```

```
printf ("Enter string");
```

```
scanf ("%s", str);
```

```
if (pelin (str))
```

```
printf ("In STRING IS PELINDROME");
```

```
else
```

```
printf ("In STRING IS NOT PELINDROME"); }
```

```
int pelin (char str []) {
```

```
int flag = 0, i, j;
```

```
char rev[30];
```

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

```
rev[i] = str[i];
```

```
i--;
```

```
for (j=0; i >= 0; j++, i--) {
```

```
if (rev[j] != str[i]) {
```

```

flag=0;
return(flag);}}
flag=1;
return(flag);}

```

[8.7] Write a program that reads the cost of an item in the form .RRRRR and converts the value to a string of words the express the numerical value in words.

```

#include <stdio.h>
#include <string.h>
#include <conio.h>
void main () {
    char int [27][12] = {"one", "two", "three", "four", "five", "six", "seven",
        "eight", "nine", "ten", "eleven", "twelve", "thirteen", "fourteen", "fifteen",
        "sixteen", "seventeen", "eighteen", "nineteen", "twenty", "thirty", "fourty",
        "fifty", "sixty", "seventy", "eighty", "ninty"};
    char Sthou[20] = "", Shund[20] = "", Sra2[20] = "",
        result[100] = "";
    int thou=0, hund=0, ten=0, temp=0, val1, val2, num, rem,
        c=0;
    printf ("***Amount in words ***\n\n");
    printf ("Enter any value (upto 4 digits):");
}

```



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

```
while (num > 0) {
```

```
    rem = num % 10;
```

```
    c++;
```

```
    if (c <= 2)
```

```
        temp = temp * 10 + rem;
```

```
    else if (c == 3)
```

```
        hund = rem;
```

```
    else if (c == 4)
```

```
        thou = rem;
```

```
    num = num / 10;
```

```
    while (temp > 0) {
```

```
        rem = temp % 10;
```

```
        ten = ten * 10 + rem;
```

```
        temp = temp / 10;
```

```
        if (thou > 0) {
```

```
            strcpy(sthou, int [thou-1]);
```

```
            strcat(sthou, "thousand");
```

```
            strcat(result, sthou);
```

```
        } if (hund > 0) {
```

```

strcpy (Shund, int [hund-1]);
strcat (Shund, "hundred");
strcat (result, Shund); }
if (ten > 0) {
if (ten > 20) {
val 1 = ten / 10;
val 2 = ten % 10; }
if (val 1 > 0) {
strcpy (sval1, int [val1-1]);
strcat (result, sval1); }
if (val 2 > 0) {
strcpy (sval2, int [val2-1]);
strcat (result, sval2); } }
printf ("\n Amount in word ");
printf ("%s", result);
return 0; }

```

8.8 Develop a program that will read and store the details of students.

```

#include <stdio.h>
#include <conio.h>
#define MAX 50
void main () {

```

```
char Stu-Name [MAX][MAX] = {" "};
```

```
char Temp [MAX] = " ";
```

```
int Roll-NO [MAX], marks [MAX], n, i, In [MAX], Roll-NO1 [MAX];
```

```
marks [MAX]
```

```
int Temp1, Temp2;
```

```
int j;
```

```
printf ("How many Students Name want to enter \n");
```

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

```
printf ("Enter Roll & Name & total marks \n");
```

```
for (i=0; i<n; i++) {
```

```
scanf ("%d", &Roll-NO[i]);
```

```
scanf ("%s", &Stu-Name[i]);
```

```
scanf ("%d", &marks[i]); }
```

```
printf ("Roll NO Name marks \n");
```

```
for (i=0; i<n; i++) {
```

```
printf ("%d %s %d \n", Roll-NO[i], Stu-Name, marks[i]); }
```

```
for (i=0; i<n; i++) {
```

```
for (j=0; j<n-i-1; j++) {
```

```
if (strcmp (Stu-Name [j], Stu-Name [j+1]) > 0) {
```

```
strcpy (Temp, Stu-Name [j]);
```

```
strcpy (Stu-Name [j], Stu-Name [j+1]);
```



```
strcpy (Stu-Name [J+1], Temp);
```

```
Temp 1 = Roll NO [J];
```

```
Roll-NO [J] = Roll-NO [J+1];
```

```
Roll-NO [J+1] = Temp 1;
```

```
Temp 2 = marks [J];
```

```
marks [J] = marks [J+1];
```

```
marks [J+1] = Temp 2; } }
```

```
printf ("\n According to Student Names \n");
```

```
printf ("Roll NO Name marks \n");
```

```
for (i=0; i<n; i++) {
```

```
printf ("%d %s %d \n", Roll-NO[i], Stu-Name[i], marks[i]);
```

```
for (i=0; i<n; i++) {
```

```
{ for (j=0; j<n-i-1; j++) {
```

```
if (Roll-NO[j] > Roll-NO[j+1]) {
```

```
strcpy (Temp, Stu-Name [J+1]);
```

```
strcpy [Stu-Name [J], Stu-Name [J+1]);
```

```
strcpy [Stu-Name [J+1], Temp];
```

```
Temp1 = Roll-NO [J];
```

```
Roll-NO [J] = Roll-NO [J+1];
```

```
Roll-NO [J+1] = Temp 1;
```

```

Temp 2 = marks [j];
marks [j] = marks [j+1];
marks [j+1] = Temp 2; } } }
printf ("\n According to marks: \n");
printf ("Roll NO Name marks \n");
for (i=0; i<n; i++) {
printf ("%d %s %d \n", Roll-NO [i], Stu-Name [i], marks[i]);
for (i=0; i<n; i++) {
for (j=0; j<n-i-1; j++) {
if (marks [j] < marks [j+1]) {
strcpy (Temp, Stu-Name [j]);
strcpy (Stu-Name [j], Stu-Name [j+1]);
strcpy (Stu-Name [j+1], Temp);
Temp 1 = Roll-NO [i];
Roll-NO [j] = Roll-NO [j+1];
Roll-NO [j+1] = Temp 1;
Temp 2 = marks [j];
marks [j] = marks [j+1];
marks [j+1] = Temp 2; } } }
printf ("\n According to Roll NO: \n");
printf ("Roll NO Name marks \n");
for (i=0; i<n; i++) {
printf ("%d %s %d \n", Roll-NO [i], Stu-Name [i], marks[i]);
return 0;

```