**Date:07-05-2021**

**1)swap all the even and odd characters in String(i/p:abcd o/p:badc i/p:abc o/p:bac)**

#include<stdio.h>

#include<string.h>

void swap(char \*a,char \*b);

int main()

{

char str[50];

printf("Enter the string :");

scanf("%s",str);

int len = strlen(str);

for(int i=1;i<len;i=i+2){

swap(str+i,str+i-1);

}

printf("%s",str);

}

void swap(char\* a,char\* b)

{

char temp;

temp=\*a;

\*a=\*b;

\*b=temp;

}

**2)convert roman letters to integers(i/p:IV o/p:4)**

#include<stdio.h>

#include<string.h>

int main()

{

char rom[50];

printf("Enter the roman number :");

scanf("%s",rom);

printf("%s",rom);

if(rom == "X")

printf("\n10");

else if(rom[2] == 'I' && rom[1] == 'I' && rom[0] == 'I')

printf("\n3");

else if(rom[1] == 'I' && rom[0] == 'I')

printf("\n2");

else if(rom[0] == 'I' && rom[1] == 'V')

printf("\n4");

else if(rom[3] == 'I' && rom[2] == 'I' && rom[1] == 'I' && rom[0] == 'V')

printf("\n8");

else if(rom[2] == 'I' && rom[1] == 'I' && rom[0] == 'V')

printf("\n7");

else if(rom[1] == 'I' && rom[0] == 'V')

printf("\n6");

else if(rom[0] == 'V')

printf("\n5");

else if(rom[0] == 'I' && rom[1] == 'X')

printf("\n9");

else if(rom[0] == 'I')

printf("\n1");

else{

printf("\nEnter a number between 0 and 10");

**3)find the difference between 2 timings**

**(1:10 and 2:30) o/p:80 minutes(1:20)**

#include<stdio.h>

#include<string.h>

int min(char x[]);

int main()

{

int stt=0,ent=0;

char s[10],e[10];

printf("Enter start time like this 12:00 =");

scanf("%s",s);

printf("%s",s);

printf("\nEnter end time like this 12:00 =");

scanf("%s",e);

stt = min(s);

ent = min(e);

int time=ent-stt;

printf("\n%d",time);

int hr;

hr=0;

while(time >= 60){

time=time-60;

hr++;

}

printf("(%d:%d)",hr,time);

}

int min(char\* x)

{

int hr1=(int)x[0]-48;

int hr2=(int)x[1]-48;

int mi1=(int)x[3]-48;

int mi2=(int)x[4]-48;

int hr=0,mi=0;

hr = (hr1\*10)+hr2;

mi = (mi1\*10)+mi2;

int t=(hr\*60)+mi;

return t;

}

**4)Find the factorial of no using recursion**

#include<stdio.h>

#include<string.h>

int fac(int a);

int main()

{

int inp=0;

printf("Enter the number :");

scanf("%d",&inp);

int ans=fac(inp);

printf("%d",ans);

return 0;

}

int fac(int a)

{

if(a == 1){

return 1;

}

else{

return a\*fac(a-1);}

}

**5)print the no of appearance of the character in string**

**o/p:w-1 i-1 n-2 e-1 r-1**

#include <stdio.h>

#include<string.h>

int main() {

char a[100],b[50];

int c[50];

int n=0;

printf("Enter the string : ");

scanf("%s",a);

for(int i=0;i<strlen(a);i++){

int x=0;

for(int j=0;j<strlen(b);j++){

if(b[j] == a[i]){

x++;

}

}

if(x==0)

{

b[n]=a[i];

n++;

}

}

for(int i=0;i<strlen(b);i++){

int count=0;

for(int j=0;j<strlen(a);j++){

if(b[i]==a[j]){

count++;

}

}

printf("\n%c occurs %d time",b[i],count);

}

return 0;

}