**NAME:ROHAN NYATI**

**SAP ID:500075940**

**ROLL NO. : R177219148**

**BATCH-5(AI&ML)**

**Practical-3**

#include <stdio.h>

#include <string.h>

#include <stdlib.h>

void display(char msg[] , char rem[])

{

int l1 = strlen(msg) ;

int l2 = strlen(rem) ;

int i,j = 0 ;

char Data[20] ;

for ( i = 0; i < l1 ; i++)

{

Data[i] = msg[i] ;

}

for (i = l1 ; i < l1 + l2 ; i++)

{

Data[i] = rem[j] ;

j++ ;

}

printf("\n\nReminder: %s", rem);

int l3 = strlen(Data) ;

printf("\nDATA : ");

for ( i = 0; i < l3 ; i++)

{

if (Data[i] == '0' || Data[i] == '1')

{

printf("%c", Data[i]);

}

}

printf("\n\n");

}

void Div(char msg[] , const char\* newmsg , char key[], int len1, int len2)

{

char temp1[30], temp2[100], rem[30], temp3[30];

strcpy(temp3, key);

int i,j;

for ( i = 0; i < len2; i++)

temp1[i] = newmsg[i];

for (i = 0; i < len1; i++)

{

temp2[i] = temp1[0];

if (temp2[i] == '0')

for ( j = 0; j < len2; j++)

key[j] = '0';

else

for ( j = 0; j < len2; j++)

key[j] = temp3[j];

for ( j = len2 - 1; j > 0; j--)

{

if (temp1[j] == key[j])

rem[j - 1] = '0';

else

rem[j - 1] = '1';

}

rem[len2 - 1] = newmsg[i + len2];

strcpy(temp1, rem);

}

strcpy(rem, temp1);

display(msg , rem) ;

}

const char \*Append(char msg[], int len1, int len2)

{

int i;

for ( i = 0; i < len2 - 1; i++)

{

msg[len1 + i] = '0';

}

return msg;

}

int main()

{

char msg[50], pnm[25];

char temp[50] ;

printf("\nenter msg : ");

gets(msg);

strcpy(temp , msg) ;

printf("\nenter key : ");

gets(pnm);

int len1 = strlen(msg);

int len2 = strlen(pnm);

printf("\n\n\nentered msg : %s", msg);

const char \*newmsg = Append(msg, len1, len2);

printf("\nentered key : %s", pnm);

printf("\nUpdated msg : %s", newmsg);

Div(temp , newmsg, pnm, len1, len2);

return 0;

}

