

PROGRAM 2

Design, develop and implement a Program in C for the following operations on Strings

a. Read a main String (STR), a Pattern String (PAT) and a Replace String (REP)

b. Perform Pattern Matching Operation:

Find and Replace all occurrences of PAT in STR with REP if PAT exists in STR.

Report suitable messages in case PAT does not exist in STR

Support the program with functions for each of the above operations. Don't use Built-in functions

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

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

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

```
//DECLARATION
```

```
char str[100], pat[50], rep[50], ans[100];
```

```
int i,j,c,m,k,flag=0;
```

```
void stringmatch()
```

```
{
```

```
    i=m=c=j=0;
```

```
    while(str[c]!='\0')
```

```
    {
```

```
        if(str[m]==pat[i])
```

```
        {
```

```
            i++;m++;
```

```
            if(pat[i]!='\0')
```

```
            {
```

```
                flag=1;
```

```
                for(k=0;rep[k]!='\0';k++,j++)
```

```
                    ans[j]=rep[k];
```

```
                i=0;
```

```
                c=m;
```

```
            }
```

```
        }
```

```
    else
```

```
    {
```

```
        ans[j]=str[c];
```

```
        j++;
```

```
        c++;
```

```
        m=c;
```

```
        i=0;
```

```
    }
```

```
}
```

```
    ans[j]='\0';
```

```
}
```

```
void main()
{
    printf("\nEnter main string\n");
    gets(str);
    printf("\nEnter pattern string\n");
    gets(pat);
    printf("\nEnter replace string\n");
    gets(rep); // read input from user for all 3 strings
    stringmatch();
    if(flag==1)
        printf("\nresultant string is %s",ans);
    else
        printf("\n Pattern string Not found\n");
}
```

OUTPUT 1

```
Enter main string
good morning

Enter pattern string
morning

Enter replace string
evening

resultant string is good evening
```

NOT FOUND OUTPUT

Enter main string

Have a good day

Enter pattern string

nice

Enter replace string

time

Pattern string Not found