Program :

#include <stdio.h>

#include <string.h>

void naivePatternMatching(char \*text, char \*pattern)

{

    int textLength = strlen(text);

    int patternLength = strlen(pattern);

    int i, j,count=0;

    for (i = 0; i <= textLength - patternLength; i++)

     {

        for (j = 0; j < patternLength; j++) {

            if (text[i + j] != pattern[j])

                break;

        }

        if (j == patternLength)

          {  printf("Pattern found at index %d\n", i+1);

             count=count+1;

          }

     }

     printf("Total number of instances : %d ",count);

}

int main()

{

    char text[100];

    char pattern[100];

    printf("Enter the text: ");

    fgets(text, sizeof(text), stdin);

    text[strcspn(text, "\n")] = '\0';

    printf("Enter the pattern: ");

    fgets(pattern, sizeof(pattern), stdin);

    pattern[strcspn(pattern, "\n")] = '\0';

    naivePatternMatching(text, pattern);

    return 0;

}

Output :-

PS C:\Users\HP\Desktop\coding\C> cd "c:\Users\HP\Desktop\coding\C\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }

Enter the text: ABCDEFABCDEFABCABCDEF

Enter the pattern: DEF

Pattern found at index 4

Pattern found at index 10

Pattern found at index 19

Total number of instances : 3

PS C:\Users\HP\Desktop\coding\C>