Experiment No. 12

Program: To implement the Native string-matching algorithms and analyze its complexity.

Code:

// C program for Naive Pattern Searching algorithm

#include <stdio.h>

#include <string.h>

void search(char\* pat, char\* txt)

{

int M = strlen(pat);

int N = strlen(txt);

/\* A loop to slide pat[] one by one \*/

for (int i = 0; i <= N - M; i++) {

int j;

/\* For current index i, check for pattern match \*/

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

if (txt[i + j] != pat[j])

break;

if (j

== M) // if pat[0...M-1] = txt[i, i+1, ...i+M-1]

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

}

}

// Driver's code

int main()

{

char txt[] = "AABAACAADAABAAABAA";

char pat[] = "AABA";

// Function call

search(pat, txt);

return 0;

}

Output:

