**Code for KMP (Knutt-Morris-Pratt):**

class Main {

void KMPSearch(String pat, String txt)

{

int M = pat.length();

int N = txt.length();

int lps[] = new int[M];

int j = 0; // index for pat[]

computeLPSArray(pat, M, lps);

int i = 0; // index for txt[]

while ((N - i) >= (M - j)) {

if (pat.charAt(j) == txt.charAt(i)) {

j++;

i++;

}

if (j == M) {

System.out.println("Found pattern " + pat + " at index " + (i - j));

j = lps[j - 1];

}

else if (i < N

&& pat.charAt(j) != txt.charAt(i)) {

if (j != 0)

j = lps[j - 1];

else

i = i + 1;

}

}

}

void computeLPSArray(String pat, int M, int lps[])

{

int len = 0;

int i = 1;

lps[0] = 0;

while (i < M) {

if (pat.charAt(i) == pat.charAt(len)) {

len++;

lps[i] = len;

i++;

}

else // (pat[i] != pat[len])

{

if (len != 0) {

len = lps[len - 1];

}

else // if (len == 0)

{

lps[i] = len;

i++;

}

}

}

}

public static void main(String args[])

{

String txt = "ABABDABACDABABCABAB";

String pat = "ABABCABAB";

System.out.println("Text String : "+txt);

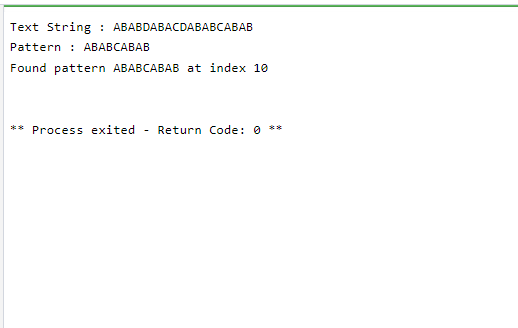
System.out.println("Pattern : "+pat);

new Main().KMPSearch(pat, txt);

}

}

**Output:**

****