Practical No: 12

Naive Pattern Searching algorithm

Code:

```c
#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);

        }

}

int main()

{

        char txt[] = "MAITREEPIMPLESANSKRUTIPARNIKABHAKTI";

        char pat[] = "AABA";

        // Function call

        search(pat, txt);

        return 0;
```

}

OutPut:

```
Output

/tmp/KaRyY8gNFB.o
Pattern found at index 0
Pattern found at index 9
Pattern found at index 13


=== Code Execution Successful ===
```