

## LAB ASSIGNMENT 6

Given a base string and a pattern, check whether the pattern has occurred in the base string or NOT. if occurred, print the index position of the base string from where the pattern is found

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#include <stdio.h>

#include <string.h>

int match(char [], char []);

int main() {
    char a[100], b[100];
    int position;

    printf("Enter string: ");
    gets(a);

    printf("Enter string pattern to find: ");
    gets(b);

    position = match(a, b);

    if (position != -1) {
        printf("Found at location: %d\n", position + 1);
    }
}
```

```

else {
    printf("Not found.\n");
}

return 0;
}

int match(char text[], char pattern[]) {
    int c, d, e, text_length, pattern_length, position = -1;

    text_length = strlen(text);
    pattern_length = strlen(pattern);

    if (pattern_length > text_length) {
        return -1;
    }

    for (c = 0; c <= text_length - pattern_length; c++) {
        position = e = c;

        for (d = 0; d < pattern_length; d++) {
            if (pattern[d] == text[e]) {
                e++;
            }
        }
    }
}

```

```

    else {
        break;
    }
}

if (d == pattern_length) {
    return position;
}
}

return -1;
}

```

main.c	Run	Output
<pre> 1  #include &lt;stdio.h&gt; 2  #include &lt;string.h&gt; 3  int match(char [], char []); 4 5  int main() { 6      char a[100], b[100]; 7      int position; 8 9      printf("Enter string: "); 10     gets(a); 11 12     printf("Enter string pattern to find: "); 13     gets(b); 14 15     position = match(a, b); 16 17     if (position != -1) { 18         printf("Found at location: %d\n", position + 1); 19     } </pre>		<pre> /tmp/2n6fZdz5Eu.o Enter string: beepboopbeep Enter string pattern to find: bee Found at location: 1 </pre>