Regular Expression Matching

Program:

```c
#include <stdio.h>

#include <stdbool.h>

#include <string.h>


bool isMatch(char *s, char *p) {
    if (*p == '\0') {
        return *s == '\0';
    }

    bool firstMatch = (*s != '\0') && (*s == *p || *p == '.');

    if (*(p + 1) == '*') {
        return (isMatch(s, p + 2)) || (firstMatch && isMatch(s + 1, p));
    } else {
        return firstMatch && isMatch(s + 1, p + 1);
    }
}

int main() {
    char s1[] = "aa";
    char p1[] = "a";
    char s2[] = "aa";
    char p2[] = "a*";
    char s3[] = "ab";
    char p3[] = ".*";
    char s4[] = "aab";
    char p4[] = "c*a*b";
```

```c
    printf("Is \"%s\" matched by \"%s\"? %s\n", s1, p1, isMatch(s1, p1) ? "true" : "false");

    printf("Is \"%s\" matched by \"%s\"? %s\n", s2, p2, isMatch(s2, p2) ? "true" : "false");

    printf("Is \"%s\" matched by \"%s\"? %s\n", s3, p3, isMatch(s3, p3) ? "true" : "false");

    printf("Is \"%s\" matched by \"%s\"? %s\n", s4, p4, isMatch(s4, p4) ? "true" : "false");


    return 0;
}
```