

Week 1:- repeated substring pattern

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Leet code:-

```
bool repeatedSubstringPattern(char *s) {
    int n = strlen(s);
    for (int i = 1; i <= n/2; i++) {
        if (n % i == 0) {
            char substring[i+1];
            strcpy(substring, s, i);
            substring[i] = '\0';
            int repeats = n/i;
            char repeatedstring[n+1];
            repeatedstring[0] = '\0';
            for (int j = 0; j < repeats; j++) {
                strcat(repeatedstring, substring);
            }
            if (strcmp(repeatedstring, s) == 0) {
                return true;
            }
        }
    }
}
```

Output:-

Case 1

Input:- s = "abab"

Output:- true.

Input:- s = "aba"

Output:- false

Input:- s = "abcabcabc"

Output:- true.