# Problem Challenge 3

## Smallest Window containing Substring (hard) #

Given a string and a pattern, find the **smallest substring** in the given string which has **all the characters of the given pattern**.

**Example 1:**

```
Input: String="aabdec", Pattern="abc"
Output: "abdec"
Explanation: The smallest substring having all characters of the pat
tern is "abdec"
```
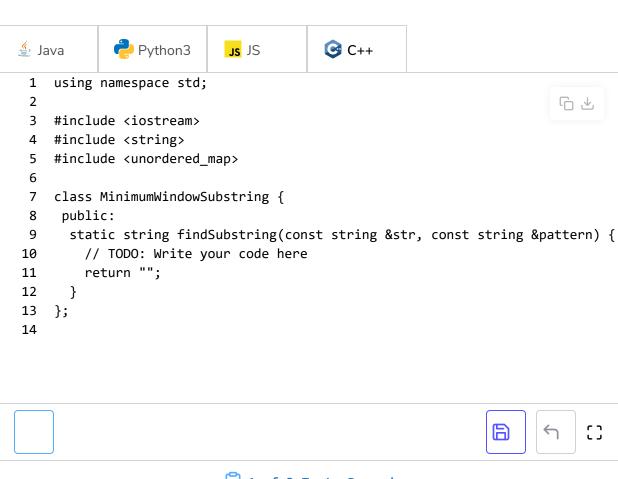
**Example 2:**

```
Input: String="abdabca", Pattern="abc"
Output: "abc"
Explanation: The smallest substring having all characters of the pat
tern is "abc".
```

**Example 3:**

```
Input: String="adcad", Pattern="abc"
Output: ""
Explanation: No substring in the given string has all characters o
f the pattern.
```

## Try it yourself #

Try solving this question here:

```cpp
1   using namespace std;
2
3   #include <iostream>
4   #include <string>
5   #include <unordered_map>
6
7   class MinimumWindowSubstring {
8    public:
9     static string findSubstring(const string &str, const string &pattern) {
10      // TODO: Write your code here
11      return "";
12    }
13  };
14
```

📋 1 of 3 Tests Passed

| Result | Input | Expected Output | Actual Output | Reason |
|--------|-------|-----------------|---------------|--------|
| ✗ | findSubstring(aabdec, abc) | abdec | | Incorrect Output |
| ✗ | findSubstring(abdabca, abc) | abc | | Incorrect Output |
| ✓ | findSubstring(adcad, abc) | | | Succeeded |

3.392s