

Smallest window in a string containing all the characters of another string

Medium Accuracy: 42.59% Submissions: 25360 Points: 4

Given two strings **S** and **P**. Find the smallest window in the **S** consisting of all the characters of **P**.

Example 1:

Input:

`S = "timetopractice"`

`P = "toc"`

Output:

`toprac`

Explanation: "toprac" is the smallest substring in which "toc" can be found.

Example 2:

Input:

`S = "zoomlazapzo"`

`P = "oza"`

Output:

`apzo`

Explanation: "apzo" is the smallest substring in which "oza" can be found.

Your Task:

You don't need to read input or print anything. Your task is to complete the function **smallestWindow()** which takes two string **S** and **P** as input paramters and returns the smallest window in string **S** having all the characters of the string **P**. In case there are multiple such windows of same length, return the one with the least starting index. Return "-1" in case there is no such window present.

Expected Time Complexity: $O(|S|)$

Expected Auxiliary Space: $O(1)$

Constraints:

$$1 \leq |S|, |P| \leq 10^5$$

Company Tags



[○ Amazon](#) [○ Google](#) [○ MakeMyTrip](#) [○ Streamoid Technologies](#) [○ Microsoft](#) [○ Media.net](#)

Topic Tags



[○ Hash](#) [○ Sliding-window](#) [○ Strings](#) [○ Dynamic Programming](#)

Related Courses



[○ Must Do Interview Preparation](#) [○ DSA-Self Paced with Doubt Assistance](#) [○ Data Structures and Algorithms](#)
[○ Amazon SDE Test Series](#) [○ Placement 100](#) [○ Complete Interview Preparation](#)
[○ Complete Interview Preparation With Doubt Assistance](#) [○ Wipro ENTH Preparation](#) [○ Microsoft SDE Test Series](#)
[○ Competitive Programming - Live](#) [○ Live Classes on Data Structures & Algorithms - USA](#)
[○ Geeks Classes - Live Session](#)

Related Interview Experiences



[○ Makemytrip interview experience](#)
[○ Amazon interview experience set 315](#)
[○ Streamoid technologies interview experience set 1 for freshers](#)
[○ Makemytrip interview experience set 3](#)
[○ Makemytrip interview experience set 2 campus](#)