SlidingWindow_Note

October 1, 2022

[ ]:
```python
def allNum(userString: str):
    userString = str(input())
    numbers = [1,2,3,4,5,6,7,8,9]
    stack = []
    for i in userString:
        if i in numbers:
            stack.append(i)
            if stack == numbers:
                print("True")
            else:
                print("False")
allNum("123456789")
```

[ ]:
```python
def SlidingWindow(arr:list[int], k:int)-> list[int]:
    #sum of first subarray/add to result
    curr_array = sum(arr[:k])
    result = [curr_array]
    #looping throught the rest of the array add the next valu e in the list and␣
 ↪remove first value
    for i in range(1, len(arr)-k+1):
        curr_array = curr_array - arr[i-1]
        curr_array = curr_array + arr[i+k-1]
        result.append(curr_array)
    return result
```

[ ]:
```python
def DynamicSlidingWindow(arr:list[int], k:int) -> int:
    #It acts as an unbounded upper value for comparison, in this case will␣
 ↪remedy abrstaction cases
    min_length = float('inf')

    #initialize start,end,sum values
    start = 0
    end = 0
    current_Sum = 0

    #array size of 1 will not work/ exteneds sliding windwow
    while end < len(arr):
```

```
        current_Sum = current_Sum + arr[end]
        end = end + 1

        while start <end and current_Sum >=k:
            current_Sum = current_Sum - arr[start]
            start = start + 1
            min_length = min(min_length, end-start+1)
    return min_length
```